

TECHNICAL SERVICE BULLETIN INDEX

January, 1967 thru December, 1969

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GENERAL

FACILITIES, EQUIPMENT, AND TOOLS

Equipment

DRUM STORAGE - MOTOR OIL

(Shop)

Attention is directed to the hazards associated with the common practice of storing drums of oil in outside yard space where they are exposed to the elements. If placed in an unprotected upright position, water or moisture will collect on the top of the drum and will be sucked into the drum by changes in temperature, thereby contaminating the contents.

No matter how tightly the bungs are closed, it is impossible to prevent moisture from being drawn into the drum. The drum and contents warm up during the day and overnight cooling causes contraction which draws the moisture through the bung.

If yard storage is necessary for drummed oil, you are cautioned to follow one of the following alternatives to avoid water contamination.

1. Place drums on sides.
2. Cover drums, to prevent collection of water or moisture if placed in an upright position.
3. Tilt drums to prevent collection of water or moisture particularly in the bung area.

(TSB 59 - 2/10/67 - Article 992)

TWIN POST REPAIR STAND

(All Car and Truck Lines)

Twin post repair stand (T64L-6001-G) availability transferred from Special Service Tool line to Rotunda Equipment under part number LRE-1730-A.

(TSB 60 - 2/24/67 - Article 1000)

NEW EQUIPMENT ITEMS

New equipment items made available through the Rotunda Equipment Program are discontinued from the Special Service Tool line.

(TSB 70 - 6/23/67 - Article 1103)

OWNERCARD IMPRINTER REPLACEMENT ROLLERS

(All Models)

Replacement rollers available beginning March 1, 1968 for Ownercard Imprinter T66S-802-B.

(TSB 85 - 2/9/68 - Article 1277)

SERVICE ROLLERS FOR OWNERCARD IMPRINTER

(All Models)

Some dealers are improperly continuing to order replacement rollers for Ownercard Imprinters directly from the manufacturer. Service rollers are no longer available from the manufacturer. As announced in TSB No. 85 dated February 9, 1968, Article No. 1277, rollers are available under part number T68S-802-BA from Ford National Parts Depot on Inactive Parts Order Form No. 419-L.

(TSB 91 - 5/3/68 - Article 1385)

Tools

TOOL TIP - OIL SEAL GARTER SPRING RETENTION

(All Vehicles)

Use a plastic or hand rubber mallet instead of a steel hammer with oil seal installing tools to prevent garter spring "jump off".

(TSB 86 - 2/23/68 - Article 1301)

Special Service Tools

MODIFICATION SPECIAL SERVICE TOOL T65P-3000-D CASTER CAMBER ADJUSTER

(1967 Thunderbird)

Subject tool must be modified as shown for use on 1967 Thunderbird.

(TSB 58 - 1/27/67 - Article 979)

SPECIAL SERVICE TOOLS T67P-3D739-A - PIVOT PIN REMOVER AND SERVICE PART T67P-3D739-B PULLER SCREW

(All 1967 Vehicles Equipped With Dual-Action Tilt Away Steering Wheels)

Proper use of Service Tool T67P-3D739-A, Pivot Pin Remover is re-emphasized. A service part T67P-3D739-B, Puller Screw only, is available from N.P.D. for replacing broken screws of basic tool T67P-3D739-A.

(TSB 59 - 2/10/67 - Article 995)

SPECIAL SERVICE TOOL T65P-3000-G (D)

Modification to J-bolt tips on tool T65P-3000-G (D) for 67-68 Thunderbird alignment.

(TSB 67 - 5/5/67 - Article 1069)

RELEASE SPECIAL SERVICE TOOLS

(Car and Truck Engines)

This is to clarify the correct tool numbers to be used when ordering valve micrometers used for measuring valve cap clearance.

There are two different tools available; one for car and one for truck.

Special Service Tool TOOL-6513-CEB is used on car engines with 11/32 and 3/8 valve stem tips. Special Service Tool TOOL-6513-CED is used on truck engines with 7/16 and 13/32 valve stem tips.

The tools accurately measure free valve cap clearance in or out of the head. The tools are shipped complete in wooden storage box.

(TSB 81 - 12/8/67 - Article 1225)

IMPORTED VEHICLE TOOLS

(Imported Vehicles)

When ordering special service tools for imported Ford it is requested, to prevent return of your unfilled order, the Ford assigned part number be used instead of the foreign supplier (Churchill) number.

A Service Tool Catalog especially for Imported Vehicles is now available. It contains the Ford part number, with cross referenced Churchill number, tool name, description, application and line drawing of the tool.

This catalog may be obtained by requesting Special Service Tools Catalog, Form GS-6, November, 1967, through Service Publications, Helm, Inc., 2550 E. Grand Blvd., Detroit, Michigan 48211.

(TSB 90 - 4/19/68 - Article 1364)

CRIMPING PLIERS - SOLDERLESS WIRE END

(All)

New \$20.00 tool to properly cut, strip electrical wire and crimp solderless end fittings now available on parts order form from National Parts Depot. Tool number is T67S-17018-A.

(TSB 92 - 5/17/68 - Article 1398)

CORTINA SERVICE TOOLS

(Imported Vehicles)

Revised tool requirements and service procedures for Imported Vehicles.

(TSB 92 - 5/17/68 - Article 1397)

OWNERCARD IMPRINTER ADJUSTMENT

(All Dealers)

Adjust your ownercard imprinter to improved printing on claim forms or return for rebuilt unit. See page 8 of Section 7.1 of the Warranty and Policy Manual. Clear imprint provides speedier processing.

PARTS: Ownercard Imprinter T66S-802-B.

PRODUCTION CORRECTION: None.

WARRANTY STATUS: INFORMATION ONLY

(TSB 120 - 8/1/69 - Article 1890)

NEW ORDERING PROCEDURE FOR SPECIAL SERVICE TOOLS

(All Special Service Tools - All Models)

Ford special tools are no longer available from Autolite-Ford National Parts Depot. All special service tools should be ordered from Owatonna Tools, Inc., Owatonna, Minnesota 55060, Attn: Ford Order Desk.

(TSB 124 - 10/10/69 - Article 1953)

NEW SPECIAL SERVICE TOOL REQUIRED FOR CHECKING REVISED 1970 CONVERTER HUB TURBINE

(1970 Vehicles With C-4 Transmission)

Use Special Service Tool T70P-7902-A when checking the 1970 C-4 transmission turbine and stator end play or stator one way clutch torque.

(TSB 127 - 11/21/69 - Article 1998)

WARRANTY AND POLICY

CAR MAINTENANCE LABOR TIME STANDARDS

(1969 Cortina)

Utilize revised maintenance labor time

standards.

PARTS: None.

PRODUCTION CORRECTION: None.

WARRANTY STATUS: INFORMATION
Operation: Car Maintenance Section of Service Labor Time Standards Books.
Time: Revise as shown below.

Recommended maintenance labor time standards for the 1969 Cortina as shown on page M-2 in the Car Section of the Service Labor Time Standards Book are revised as follows:

Oper. No.	Mileage Interval	Hours
MA-1	1,000	1.6
MA-6	6,000	2.2
MA-12	12,000	2.2
MA-18	18,000	2.1
MA-24	24,000	2.2
MA-30	30,000	2.9
MA-36	36,000	2.2
MA-42	42,000	2.1
MA-48	48,000	2.2

(TSB 120 - 8/1/69 - Article 1891)

DEALERSHIP CODING OF FIELD CORRECTIONS PUBLISHED IN TECHNICAL SERVICE BULLETINS

(All Articles Listing Corrections that are Reimbursable under Warranty)

The purpose of this article is to announce a new feature which has been incorporated in this Bulletin and will be continued in all future publications. Under this new procedure a "Dealer Coding" statement will be listed following the "Warranty Status," "Operation," and "Time" information. This dealer coding statement will provide dealers with the basic part number and recommended code number to be entered on warranty claims listing the corrections published in the Bulletins. The coding statement will be listed as follows:

DLR. CODING: Basic Part No. Code No.:

The "Basic Part No." listed will be the number of the part against which the code should be assigned. In those cases where this part is not actually being replaced (for example, when a labor-only operation is being performed), the dealership should list the "Basic Part Number" in the part number section of the claim under the column titled "Basic." The "Code Number" listed will be the number that should be listed on the claim in the "Defect Code" column.

By following this procedure all dealers will be able to quickly determine and assign the correct basic part numbers and corresponding code to published field corrections listed on their warranty claims.

(TSB 120 - 8/1/69 - Article 1892)

ACCESSORIES

REMOTE CONTROL MIRROR CABLE FAILURE

(All Car Lines)

Reports from the field indicate that disengagement of the remote control mirror cable can occur when mirror glass adjustment is attempted by forcing the mirror head if the mirror is frozen within the mirror head assembly. Corrective action has been taken in production by crimping the cable in the actuator assembly. Customer complaints of mirror failure attributed to this problem can be corrected by removing the actuator assembly, reinstalling the cable and crimping the retaining tabs.

(TSB 61 - 3/10/67 - Article 1003)

LOOSE INSIDE REAR VIEW MIRROR

(1967-68 All Car Lines with Windshield Mounting)

Customer complaints of loose mirrors or failure of the mirror to hold its adjust-

ment are usually attributed to insufficient torque on the two mirror arm retaining screws.

This problem was partially resolved by revising the material of the mirror arm screws to permit tightening the screws to the specified torque of 17-25 in. lbs. without stripping or breaking the screws. This change became effective on vehicles built in November.

Customer complaint vehicles in the field can be corrected by replacing the existing mirror arm retaining screws with the improved screw, Part Number 382605-S9 and tightening to the specified torque of 17-25 inch pounds.

(TSB 84 - 1/26/68 - Article 1260)

INSTALLATION OF BONDED INSIDE REAR VIEW MIRROR BUTTON ON WINDSHIELD GLASS

(All 1967-68 Car Lines except 1967 Mustang)

This article provides the dimensional locations of the bonded inside rear mirror button on all affected 1967-68 car lines and also an improved method of bonding the mirror button to the windshield which replaces the previously recommended epoxy service repair procedure. This improved bonding method permits almost immediate mirror button adhesion to the windshield and eliminates curing time previously required to obtain maximum bond.

(TSB 97 - 8/30/68 - Article 1470)

WINDNOISE - NON-ADJUSTABLE ROOF LUGGAGE RACK

(1966-67 Ford, Fairlane and Falcon)

Customer complaints of windnoise or, in some cases, rear axle-type noise may be caused by open seams in the lateral cross bars of the non-adjustable station wagon luggage rack. The lateral cross bars should be tested for open seams by plugging the ends of the bars and filling with water. When open seams in the cross bar are encountered the cross bar should be replaced with a new part. The replacement cross bar (or original bar if no open seams are found) should be filled with a vibration dampening material prior to installation.

(TSB 99 - 9/27/68 - Article 1495)

FRONT SEAT HEADREST REMOVAL

All Passenger Car Lines so Equipped

Removing the front seat headrest from some vehicles will require the insertion of a 12-inch piece of thin flat stock into the guide sleeve at the front side of the post to disengage the headrest post from the mounting bracket.

To remove the guide sleeve, it may also be necessary to trip the guide sleeve locking tab with a piece of wire.

(TSB 105 - 12/20/68 - Article 1603)

MISLOCATED DELUXE ROOF LUGGAGE RACK ATTACHMENT HOLES

(1969 Ford - Station Wagons - Model 71 - So. Equipped)

The roof luggage rack side rail and support assembly attachment holes may be mislocated slightly, resulting in difficult installation of the roof luggage rack to the roof panel on some 1969 Ford station wagons.

The assembly plants were made aware of the hole mislocations and initiated appropriate corrective action approximately October 18, 1968.

Dealers installing deluxe roof luggage racks should verify that the attaching holes are properly located and perform the installation as outlined in the main article.

(TSB 109 - 2/14/69 - Article 1664)

LUGGAGE RACK WINDNOISE

(1969 Ford Station Wagons - Deluxe (Adjustable) Luggage Rack)

1. Install adjustable cross rail with trail-

ing edge (sharp edge) pointing rearward.

2. Position adjustable cross rail 15"-24" forward of the rear air deflector whenever the luggage rack is not being used for carrying loads.

3. Additional information will be published at a later date covering vehicles which do not respond to this correction.

PARTS: None.

(TSB 110 - 2/28/69 - Article 1675)

LICENSE PLATE RETENTION

(All Cars and Truck - 1969 Models)

When installing "dealer special" license plate frames, check the length of the screw to assure that it extends two or more threads beyond the nylon retaining nut within the substitute a 1/4-14 screw long enough to compensate for the additional thickness of the license plate frame being installed.

(TSB 111 - 3/14/69 - Article 1701)

NEW "D"-SHAPED BATTERY CARRIER STEP - W SERIES TRUCKS

(W-WT Series Trucks with [2] 12-Volt and [4] 6-Volt Battery Carriers)

A "D"-shaped step to replace the straight tube open type step for the subject battery carriers can be installed as a direct service replacement using the following parts.

PARTS:

Part No.	Name	Class	Avail.
CBH2-9120041-B	Step Assy. - Body Side L.H. (4) 6-Volt Battery Box	CQ	OK
C6T2-9120041-C	Step Assy. - Body Side L.H. (2) 12-Volt Battery Box	CQ	OK

PRODUCTION CORRECTION: 11-15-68.

(TSB 112 - 4/4/69 - Article 1741)

INSTALLATION OF RELAY TO PROVIDE ELECTRICAL FEED FOR HIGH CURRENT DRAW ACCESSORIES

(All Car Lines - 1968-69)

When installing high current draw electrical accessories such as two-way radios, sirens, etc., the battery feed should be obtained directly from the battery post of the starter relay, or through an accessory relay activated by the ignition switch. Accessory relay installation is illustrated and described in the main article.

Qty	Part No.	Name	Class	Avail.
1	CBV-V-14677-B	Relay - Window Regulator Safety	B	OK
2	4214057	#815 x 5 Hex Head Sheet Metal Screw	S	OK
2	34937-37	#8 External Tooth Lock Washer	S	OK
1	BBA-14294-H	3/8 Stud Spacer Terminal	A	OK
1	BBA-14484-A	Bolt Connector	A	OK
OR	BBA-14294-C	#12 Stud Spacer Terminal	A	OK
1	CSA2-14294-B	Stud Terminal	B	OK
If Req'd	CSOZ-14296-A	Buss Bar Assy. - Electrical Feed	C	OK
As Req'd	BBA-14296-A	#12 Gage Bulk Wire	B	OK
As Req'd	BBA-14296-C	#16 Gage Bulk Wire	A	OK

(TSB 113 - 4/18/69 - Article 1749)

ROOF LUGGAGE RACK - STANCHION TO ROOF FIT

(Ford - 1969 Model - Station Wagons So Equipped)

If difficulty is encountered achieving good stanchion to roof fits during luggage rack installation:

1. Check to ensure that each of the stanchion attaching well nuts is fully seated in the roof panel. The shoulder of the well nut should be contacting the rubber stanchion pad all around.

2. Remove the bright cover plate from the inside well of the affected stanchion, loosen the stanchion-to-side rail attaching screws and reposition the stanchion as required. Then retighten the screws and reinstall the cover plate.

(TSB 113 - 4/18/69 - Article 1750)

CAMPER SPECIAL WIRING HARNESS

(1968-1969 Truck F-100-250-350 (RPO))

The Special Wiring Harness for camper lighting is currently being supplied to the customer as a separate item located in the glove box.

PARTS: None.

WARRANTY STATUS:
INFORMATION ONLY

(TSB 113 - 4/18/69 - Article 1760)

REVISION TO ARTICLE NO. 1751, TECHNICAL SERVICE BULLETIN NO. 113, REMOTE MIRROR CONTROL CABLE

(Ford - 1969 - All Ventless Glass Models)

Some 1969 Ford ventless glass model vehicles may exhibit restricted remote control mirror adjustments. In the event this is encountered, the following corrective action can be performed:

1. Remove door trim panel and watershed per Shop Manual, Group 18, Page 1.
2. Compare control cable routing with routing shown on Figure 22 and reroute as required.
3. If clip or retainer is missing, install appropriate part(s) per Figure 22.
4. If retainer is bent and can be repaired, remove and rework per Figure 23.
5. Reinstall the watershed and door trim panel.

PARTS:

Replacement Part	Description	Qty.	Code
C9A-17B721-A	Retainer	1	B
359573-S100	#8-15 x 5/8" Screw	1	S
382031-S100	Nylon Clip	1	S
359719-S7	#8-32 x 3/4" Screw	1	S

PRODUCTION CORRECTION: October 30, 1968.

WARRANTY STATUS: REIMBURSABLE
Operation: SP-17696-A-69
Time: 0.5 Hr.

(TSB 115 - 5/16/69 - Article 1803)

PULLEY BELT GUARD AND SPLASH SHIELD LOOSENS - W SERIES TRUCKS

(W-WT-1000-D Trucks - 1968-69 with 8V-71 Detroit Diesel Engines)

If the rear mounted alternator pulley and belt guard assembly and/or engine alternator splash shield support welds loosen, it becomes necessary to gas or arc weld the brackets and steel screen. Reference Figure 5 for the addition of support welds to the steel screen.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: SP-10381-A-69
Time: 1.3 Hrs.

DLR. CODING: 10381-61

(TSB 119 - 7/18/69 - Article 1877)

DELUXE ROOF LUGGAGE CARRIER INSTALLATION

(1970 Ford - Fairlane)

Windnoise may be encountered on the 1970 Ford and Fairlane deluxe luggage carrier if the cross rails are improperly installed. During installation the cross rails must be installed with the large diameter facing forward. The Fairlane front rail must be fastened in the forward tapped holes in the side rail assembly and the Ford front rail must be fastened in the rearward tapped holes as shown in Figure 1.

WARRANTY STATUS:
INFORMATION ONLY

(TSB 128 - 12/5/69 - Article 2011)

PRODUCT PROBLEMS

Parts Return

WARRANTY PARTS REPLACEMENT

(All 1968 Cars and Trucks)

You are required to return immediately 100 per cent of all 1968 car and truck warranty parts replaced through October 13, 1967. (See Article for complete instructions).

(TSB 75 - 9/8/67 - Article 1153)

WARRANTY PARTS RETURN PROCEDURES FOR WINDSHIELDS REPLACED UNDER WARRANTY

(All Vehicle Lines)

When windshield replacement is required under warranty it is requested that the origin and/or location of the defect be marked on the glass prior to glass removal. Also, in the case of failures due to metal contact in the area of the break (e.g., gash molding, exterior moulding, clips, etc.), that the point of contact be marked on the windshield. Any additional information that would assist us in identifying the cause of failure (such as extremely cold temperature change, failure following initial defroster operation, etc.) would also be appreciated.

(TSB 80 - 11/24/67 - Article 1212)

IMPROPER DIAGNOSIS AND UNNECESSARY REPLACEMENT OF WARRANTY PARTS

To avoid costly debits and obtain greater customer satisfaction through correct diagnosis and repair procedures, we have outlined a few recent problem areas indicated by field returns received at the Warranty Parts Return Center.

- Starter Relays - Very high non-defective rate indicating improper diagnosis which may result in customer complaint because the actual defect has not been corrected. In past model years, this part was a significant problem; however, for 1968 model all known manufacturing problems have been corrected.

- Automatic Transmission Main Control Valve Body - Not properly cleaned, reassembled incorrectly. All main control valve body repairs should be performed using a carefully marked lay out board or paper so that proper assembly is assured.

- Air Conditioning Compressor - Analysis reveals compressor replacements for blown head gaskets and/or seal leaks which are repairable and effectively diagnosed following the procedure outlined in the shop manual. Also, compressors replaced as noisy normally meet factory specifications, indicating improper belt tension, loose mounting bolts or pulley and/or excessive reon charge.

- Power Window Motors - Complete assemblies are replaced when only the drive gear is defective. Refer to TSB #59, Article #993 dated February 10, 1967, listing the applicable repair kits.

In addition to these items, debits for the return of wrong parts may be avoided by listing the claim number and vehicle production date on the part replacement package or a 718 Tag. When the 700 FD Recall Tag is received, match the production date and claim number listed on the recall tag with the information listed on the replacement box or tag and the correct production part will always be returned.

(TSB 87 - 3/8/68 - Article 1313)

IMPROPER WARRANTY DIAGNOSIS AND REPAIR

A daily review at the Warranty Parts Return Center has shown the same parts are consistently misdiagnosed by some dealers.

We are calling this list of parts to your attention so that you might review diagnostic procedures on these specific parts in order to reduce the number of improper repairs. Enclosed article comments on the following parts:

- A/C Compressors
- A/C Expansion Valves
- All Gauges
- Alternator Rectifiers
- Alternator Regulators
- Antennas and Speakers
- Automatic Transmission Main Control
- Flashers
- Fuel Pumps
- Ignition Coils
- Power Steering Hoses
- Shock Absorbers
- Starter Relays
- Stereo Motors
- Turn Signal Switches
- Windshield Wiper Motors

(TSB 94 - 6/21/68 - Article 1443)

Problem Reporting

SPECIAL CORTINA BULLETIN

(1966-1968 Cortinas - All Models)

This Technical Service Bulletin has been prepared to advise you of Cortina field repair procedures that have been developed. The items covered in this publication include recently developed field repairs as well as previously released publications. The articles covered in the Technical Service Bulletin include the following:

New Articles

- Premium Fuel Usage (1966-1968 Cortina)

- Rear Axle Noise Correction.

- Disc Brake Squeal

- Front Shock Absorber Leakage (1967 Cortina)

- Correction to Bulletin No. 100, Article No. 1508 (All Cortina)

- Proper Alignment of Front Suspension Top Mount Cranked Retainers (All Cortinas)

- Back-up Lite Switch Failure and Replacement

- Squeaking Steering Linkage

Previously Released Articles

- 1967 Cortina Cars with 1968 Engines and Other 1968 Components (All Cortinas)

- Insufficient Door Striker Plate Adjustment (1967 Cortina Model "C")

- Door Lock Remote Control Rod Retention (1967 Cortina, All Models).

- Luggage Compartment Lock Malfunction (1967 Cortina).

- Floor Carpet Damage (1968 Cortina, All Models).

- Headlining Sag (1967-1968 Cortina)

- Glove Box Door Adjustment (Cortina 1967-1968)

- Fuel Leaking from Fuel Filler Cap Causing Stained Paint and Loss of Fuel (Cortina 1967-1968)

- Crankcase Emission Control Valve (fully closed ventilation system) 1967 Cortina.

- Clutch Pressure Plate Degreasing (All Cortinas Equipped with Manual Transmissions).

- Gearbox Extension Housing Bearing (All Cortinas).

- Intermittent or Inoperative Instrument Panel Lights (All 1967-1968 Cortinas).

- Battery Cable Chafing on Battery Tray Edge (1967 Cortina).

- Imported Vehicle Tools (Imported Vehicles).

- Cortina Timing Pulley (All 1968)

- Cortina Protective Wax Removal - Pre-delivery (All Cortina)

- Engine Date Code Locations (Cortina)

- Engine Knock on Acceleration - Transmission Flex Plate to Crankshaft Retaining Bolt Torque (1967-1968 Cortina with Automatic Transmissions)

- Tachometer Diagnosis (1967-1968 GT Cortinas)

- Front Hub and Brake Disc Assembly (All Cortinas)

- Noisy and/or Erratic Speedometer Operation (1967-1968 Cortinas)

- Speedometer Diagnosis Guide (All Cortinas)

- Rear Brake Adjustment (All Cortinas)

• Turn Signal Indicator Switch (All Corinas)

Refer to the main article which outlines specific instructions for performing field service repairs on the above items.

(TSB 107 - 1/24/69 - Article 1639)

VEHICLE OPERATION

ENGINE OVERHEATING

(All Cars and Trucks With Automatic Transmissions and Air Conditioning)

Engine overheating may be reduced when idling 15 minutes or longer with the air conditioning operating, if the automatic transmission selector is in Park instead of Drive position.

PARTS: None.

PRODUCTION CORRECTION: None.

WARRANTY STATUS: INFORMATION ONLY

(TSB 124 - 10/10/69 - Article 1954)

Performance and Economy

1969 MUSTANG "E" FEATURES AND SPECIFICATIONS

(1969 Mustang - Model 63D (2-Dr. Fastback))

The 1969 Mustang "E" - Model 63D is being released to help provide greater fuel economy through changes to the engine, cooling system, transmission and rear axle.

The Article describes the unique features and lists the specifications of the above mentioned vehicle.

(TSB 109 - 2/14/69 - Article 1666)

Fuels

ENGINE FUEL REQUIREMENTS

(All 1969 Models)

Confusion over engine fuel requirements may result when comparing the vehicle owner manual recommendations with the 1969 Shop Manual, vehicle identification, engine code section. The shop manual does not specifically indicate all the engines that require premium fuel. Future service publications will clearly specify engine fuel requirements. Following are fuel requirements by engine:

Code	Type	Fuel
U	6 cyl. 170 C.I.D. (1V)	Regular
D	6 cyl. 200 C.I.D. (1V)	Regular
2	6 cyl. 200 C.I.D. (1V)	Regular
L	6 cyl. 250 C.I.D. (1V)	Regular
3	6 cyl. 250 C.I.D. (1V)	Regular
V	6 cyl. 240 C.I.D. (1V)	Regular
5	6 cyl. 240 C.I.D. (1V)	Regular
B	6 cyl. 240 C.I.D. (1V)	Regular
E	6 cyl. 240 C.I.D. (2V)	Regular
F	8 cyl. 302 C.I.D. (2V)	Regular
6	8 cyl. 302 C.I.D. (2V)	Regular
D	8 cyl. 302 C.I.D. (2V)	Regular
H	8 cyl. 351 C.I.D. (2V)	Regular
M	8 cyl. 351 C.I.D. (4V)	Premium
Y	8 cyl. 390 C.I.D. (2V)	Premium
X	8 cyl. 390 C.I.D. (2V)	Premium
S	8 cyl. 390 C.I.D. (4V)	Premium
W	8 cyl. 427 C.I.D. (4V)	Premium
Q	8 cyl. 428 C.I.D. (4V) CJ	Premium
R	8 cyl. 428 C.I.D. (4V) CJ	Premium
P	8 cyl. 428 C.I.D. (4V) Police	Premium
K	8 cyl. 429 C.I.D. (2V)	Premium
N	8 cyl. 429 C.I.D. (4V)	Premium
A	8 cyl. 460 C.I.D. (4V)	Premium

(TSB 102 - 11/15/68 - Article 1541)

POWER LOSS DURING HIGH ALTITUDE OPERATION

(1968-69 F-100/250 With 360/390 CID Engine)

Change the fuel pump and relocate the fuel filter. Install a new needle and seat assembly and bowl cover gasket in the carburetor.

PARTS:

Part Number	Part Name	Class	Avail.
DDPZ-9564-A	Inlet Needle and Seat	A	OK
CGAZ-9350-B	Fuel Pump	A	OK
B7T-9155-A	Inline Fuel Filter	B	OK
CBTZ-9561-A	Carburetor Bowl Gasket	WG	OK

PRODUCTION CORRECTION: None.
WARRANTY STATUS: Reimbursable within the provisions of the Warranty and Policy Manual.

Operation: SP-9350-A-69

Time: 1.2 Hrs.

DLR. CODING: Basic Part No. 9350 - Code No. 04

(TSB 127 - 11/21/69 - Article 2008)

Starting

NO CRANK COMPLAINTS ON 429 C.I.D. EQUIPPED UNITS

(1968 and 1969 Thunderbirds and 1969 Fords)

Some late 1968 Thunderbird and early 1969 Ford or Thunderbird units containing a 429 C.I.D. engine may have a "no crank" problem. Starters (C8VF-1101-A) built prior to June 28, 1968, did not have insulated leads between the field and buss bar. Cases have been found with these leads shorted against the starter frame resulting in a "no crank" complaint. This problem was corrected in starter production June 28, 1968.

"No crank" complaints should first be checked for battery specific gravity and tight electrical connections. Testing and checking procedures are outlined in the appropriate section of the shop manual. If the tests show the field to be grounded the following procedure is to be followed:

1. Remove the starter assembly from the vehicle.
2. Remove the starter solenoid, cover band and brush plate.
3. Use a screw driver and carefully remove the contour of the field strap as shown in Figure 8.
4. Re-assemble the starter and connect to a 12-volt battery to check its operation prior to re-installation.

(TSB 101 - 11/1/68 - Article 1522)

HARD HOT START - 240 CID WITH THERMACTOR

(1968 Cars, Trucks & 1969 Econoline)

THIS ARTICLE SUPERSEDES AND CANCELS ARTICLE 1616.

To minimize the problem, install a fuel inlet needle seat screen, a thicker carburetor spacer, a new exhaust control valve, thermo-timing spring and an idle compensator in the PCV hose.

Production Correction: July, 1968.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual

Oper. SP-9510-A-69 - Hard Hot Start Correction

Time: 1968 Car & F100 1.2 Hrs.

1969 Econoline 1.3 Hrs.

PARTS:

Quantity	Part Number	Name	Class	Availability
1	C4AZ-9F525-A	Fuel Inlet Screen	C	OK
1	C8AZ-9447-C	Carburetor Spacer Gasket	C	OK
1	C5TZ-9467-A	Exhaust Control Valve Spring	C	OK
1	C4AZ-9B532-A	Idle Compensator Assembly	C	OK
2	97329-535	Hose Clamp	BS	OK
1	379753-S	Tee Fitting	BS	OK

Cold Weather Operation

DIESEL COLD STARTING

AID - 363 DORSET DIESEL
(1969B-C-F and N-6000 and 7000 Trucks)

OPERATING INSTRUCTIONS

An optional Thermostat System is available for the Ford Dorset 363 diesel engine. The system is designed for use along with the excess fuel device to aid in cold starts at ambient temperatures of 32° F and below.

(TSB 112 - 4/4/69 - Article 1722)

Noise, Vibration, and

Harshness

RIDE COMPLAINTS - W SERIES

(All W Series)

The following Technical Service Bulletins should be applied to handling ride complaints. If added improvements are required, your District Service Office should be contacted for further assistance.

Bulletin No. Article No. Subject

87	1322	Floor reinforcement at upper latch mounts
88	1340	Cab locking mechanism adjustment
95	1446	Upper cab pivot pin bracket
96	1446	New front spring shackle assembly

PARTS: See individual articles.

Production Correction: Job 1, 1969.

(TSB 110 - 2/28/69 - Article 1677)

NVH - ENGINE MOUNTS - TIP-IN MOAN CORRECTION

(Ford - Sedans and Station Wagons - 1968)

Vehicles produced prior to March 1, 69 were equipped with a butyl rubber engine rear mount that can be subject to a "tip-in moan" noise when the accelerator pedal is lightly depressed at speeds in the intermediate range (30 to 50 MPH).

Replacement of this engine mount with a new natural rubber replacement mount will correct the condition. When replacing mounts the following part number replacement usage should be followed.

Engine	Transmission	Part No.	Class	Avail.
302, 240	C4, 3-speed	C9AZ-6068-G	C	5/20/69
302, 240, 351	FMX	C9AZ-6068-F	C	5/20/69
390, 429	C6, FMX	C9AZ-6068-H	B	5/20/69
390, 429	3-speed, 4-speed	C9AZ-6068-E	A	5/20/69

NOTE: On Ford vehicles equipped with 302-2V engines and C-4 automatic transmissions, replace the rear engine mount before any of the changes are made as outlined in SSI No. 73, dated December 6, 1968.

PRODUCTION CORRECTION: March 1, 1969

WARRANTY STATUS: REIMBURSABLE

Operation: 6068-A

Time: 0.4 Hr.

(TSB 118 - 6/27/69 - Article 1841)

(TSB 110 - 2/28/69 - Article 1676)

Fumes and Odors

DUST OR AIR ENTRY INTO 1969 ECONOLINE

(1969 Econolines)

Apply a bead of caulking cord around the

edge of the fuel filler housing where it contacts the body.

PARTS: None.

PRODUCTION CORRECTION: 11-2-68.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: SP-9034-B-69

Time: 0.5 Hr.

(TSB 113 - 4/18/69 - Article 1766)

CHASSIS/DRIVE LINE

BRAKES

Brake General Service

DUAL CYLINDER BRAKE BLEEDER AND ADAPTER CAP

(Ford Models with Dual Master Cylinder)

A new improved brake system bleeder tank and an adapter cap for the Ford dual master cylinder are now available through the Rotunda Equipment Program.

(TSB 61 - 3/10/67 - Article 1005)

BRAKE PEDAL BOUNCE OR RATTLE

(1967 F, B, 500-750 and F, B-6000-7000 Trucks)

When diagnosing field complaints of objectionable brake pedal bounce and/or rattle on the above vehicles, it is suggested that the brake pedal retracting spring be inspected for correct parts usage and installation.

The pedal bounce and rattle is an annoyance type of complaint and does not affect the operation of the system.

The complete article outlines the correct part and how it may be identified.

(TSB 62 - 3/24/67 - Article 1020)

PREMATURE WEAR OF FRONT BRAKE LINING

(1966 Econolines)

To resolve field complaints of premature wear of front brake lining on Econoline vehicles used in city deliver or severe stop and go service, the brake lining material and the brake options have been revised.

The complete article outlines the recent changes and the part numbers of the service lining that may be used on prior model vehicles when complaints are received.

(TSB 68 - 5/19/67 - Article 1089)

BRAKE DUAL MASTER CYLINDER - SECONDARY PISTON ASSEMBLY REMOVAL

(1967 All Car Lines)

The approved method for removing the secondary piston from the dual master cylinder housing is to use a Snap-On Flexible "Grip-It", (Part No. 715-FF) or equivalent tool.

NOTE: When using the tool, use care to avoid scratching or otherwise marking the wall of the master cylinder piston bore.

(TSB 77 - 10/13/67 - Article 1178)

PREMATURE REAR BRAKE LINING WEAR CORRECTION

(All 1965-1967 Ford Station Wagon Models)

Some 1965-1967 Ford station wagons have experienced premature wear of rear

brake linings due to heat build-up under certain extremes of usage. Beginning with 1968 models, flared rear drums are used as standard equipment, which improves heat dissipation. On a customer complaint basis of premature rear lining wear, flared rear brake drums (Part No. C3A2-1126-B) can be incorporated. Linings and other brake components should be inspected and corrected, if necessary, in connection with such work.

Do not confuse this type of rear brake lining wear with the extreme heat evidenced as a result of operating abuse of the vehicle brakes or due to driving with the parking brake applied.

NOTE: Before installing the flared drums, inspect the rear brake assemblies for proper component installation and alignment. The parking brake cables must also be free and operating properly.

(TSB 85 - 2/9/68 - Article 1281)

INCREASED BRAKE PEDAL EFFORT ON UNITS WITH POWER BRAKE

(All with 6 Cylinder Engines and Power Brake)

Complaints of somewhat greater pedal effort at high mileages may be due to carbon build-up in the inlet fitting at the carburetor base. (See article.) When the emission system is serviced (12,000 mile intervals) the brake booster fitting should be cleaned. This can best be done by probing the inlet nipple with a flexible wire or a stiff bottle brush.

(TSB 87 - 3/8/68 - Article 1309)

REAR BRAKE ADJUSTMENT

(All Corinas)

Customer complaints of excessive brake pedal travel or low brake pedal may be caused by the customer not regularly using the handbrake. As self-adjusting rear brakes are adjusted when the handbrake is applied, it is important that the handbrake is used regularly.

On vehicles with automatic transmissions, there is a tendency for owners to use the transmission Park position instead of the handbrake. This means the rear brakes self-adjusters will not be allowed to operate.

All Sales and Service personnel should advise owners of the need to regularly use the handbrake to be sure the self-adjusters are actuated to preclude a possible condition of excessive brake pedal travel or low brake pedal.

(TSB 97 - 8/30/68 - Article 1462)

VIBRATION DURING BRAKING

(1968 Fairlane, Falcon and Mustang Passenger Cars Equipped with Drum Brakes)

Undesirable vibrations felt in the steering wheel and through the floor pan during braking may be encountered on some 1968 Fairlane, Falcon and Mustang passenger cars equipped with manual drum brakes. The condition may be due to brake drum distortion caused by uneven wheel-to-drum contact surface of the wheel.

Both the standard and stylized wheels were redesigned for 1968 vehicles and, until

November, 1967, both wheel styles incorporated a 360° drum contact ring on the wheel. If the flatness of this ring was not within specified limits, it could cause brake drum distortion. In November, the standard wheels only were revised to improve the mounting surface by utilizing five (5) 13/16" pads at the stud holes rather than the 360° contact ring. These improved wheels were not completely satisfactory in eliminating the condition.

To gain further improvements in this area, the improved standard wheels were again revised on March 10, 1968 to incorporate five (5) 1-1/8" pads at each stud hole. This modification was incorporated on stylized wheels as of April 1, 1968. Units built after these dates have these improvements.

A field correction consists of installing a shim on each wheel stud between the wheel and the drum on the 360° contact wheels, machining the drums, if necessary, and as a last resort, replacing the wheels.

The part numbers of all parts and the procedures pertaining to this field correction are included in the main article.

(TSB 97 - 8/30/68 - Article 1469)

BRAKE PEDAL FREE HEIGHT SPECIFICATION

(Ford, Mercury and Meteor)

Line two under PEDAL FREE HEIGHT - A of Figure 1 on page 02-01-02 of the 1969 Passenger Car Shop Manual should read 6.78-5.99 instead of 6.18-5.99. Please correct your manuals accordingly.

(TSB 107 - 1/24/69 - Article 1629)

MASTER CYLINDER REPLACEMENT WITHIN THE WARRANTY PERIOD

(All Car Lines)

When a repair is necessary on the master cylinder, it is now mandatory that the cylinder be replaced as a unit instead of overhauling the cylinder with a service repair kit.

This will only be in effect within the vehicle warranty period.

(TSB 107 - 1/24/69 - Article 1631)

APPLICATION OF 1969 POWER BRAKE ACCESSORY KIT

(1969 F-100/F-250 (4 x 2))

A new accessory power brake kit, part number C9TZ 2A091-A, has been released for dealer installation on 1969 F-100 and F-250 (4x2) trucks. The new kit contains two master cylinder primary pistons so as to accommodate both early production trucks and units built after January 5, 1969, which may incorporate an alternate sourced master cylinder assembly. Instructions included in the kit indicate the proper identification of piston usage. Incorrect primary piston usage will result in activation of the brake warning light on the first brake pedal application. To assure correct parts availability for all 1969 trucks, kit C9TZ 2A091-A should be employed. Dealer stock of kit C8TZ 2A091-A should be used only for application on 1967 and 1968 model units. The parts catalogue is being revised to reflect this usage. Meanwhile, please note your parts catalogue accordingly.

PARTS: Noted above.

(TSB 116 - 5/30/69 - Article 1807)

BRAKES - REPAIR PROCEDURE

(Bronco, F100/250 & E100/300 [Less than 1,500 miles] 1969)

Contaminants such as oil, grease or paint, may lead to uneven braking. Examine linings for such foreign substances. See main article.

PARTS:

Part Number	Part Name	Class	Availability
M14J-647-D	Lacquer Thinner	A	OK
DL60-647-A	Enamel Reducer	A	OK
C5AZ-19A501-C	Parts Cleaner	B	OK
B7A-19521-A	Spot Remover	A	OK
C6AZ-19579-B	Carburetor Cleaner	A	OK

NOTE: Because of the possible toxicity of these solvents, extreme care in their use must be observed.

WARRANTY STATUS: Reimbursable within the Provisions of the Warranty & Policy Manual.

Operation: SP-2001-E-69 (Clean Brake Shoes and Drums)

Time: F100/250 (4x4), Bronco, Both front 1.1 Hrs. Both rear 1.0 Hrs., all 1.7 Hrs.

Time: F100, Econoline (except Spicer Rear Axle) both front 1.1 Hrs., both rear 1.0 Hrs., All 1.6 Hrs.

Time: F250/350, Econoline (with Spicer Rear Axle) both front 1.1 Hrs., both rear 1.6 Hrs., All 2.2 Hrs.

Operation: SP-2001-G-69 (Replace brake shoes)

Time: Both front 0.3 Hrs., both rear 0.5 Hrs., all 0.7 Hrs.

(TSB 118 - 6/27/69 - Article 1842)

NEW FRONT WHEEL BEARINGS

(All 1970 Passenger Cars)

New front wheel bearings are used on all 1970 passenger cars and must not be interchanged with previous models.

The adjustment procedure remains the same as for prior model bearings.

(TSB 127 - 11/21/69 - Article 1999)

HYDRAULIC BRAKE SYSTEM BLEEDING - ALTERNATE METHOD

(All "C" Series with Hydraulic Brakes - 1957-1970 Models)

When hydraulic brake system bleeding is required, such as after brake reline, cylinder overhaul, etc., this alternate method may be used in place of the method outlined in the truck shop manual.

PARTS:

Part Number	Part Name	Source
73620	Adapter	Bendix Brake Distributor
73621	Adapter	Bendix Brake Distributor

WARRANTY STATUS: INFORMATION ONLY

(TSB 130 - 12/19/69 - Article 2033)

Disc Brakes

DISC BRAKE-SQUEAL CORRECTION

(All With Floating Caliper Disc Brakes - 1968-69)

Install noise arrester plate at each end of the outer brake shoes.

PARTS:

Part Number	Part Name	Class	Availability
C9AZ-28A28-B	Noise Arrester Plate	A	6/30/69

PRODUCTION CORRECTION: June 23, 1969

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: SP-2001-F-69
Time: 1.2 Hr.

(TSB 118 - 6/27/69 - Article 1844)

SPINDLE MOUNTED INDICATOR ADAPTER

(All Car Lines)

Simple, inexpensive, dealership fabricated indicator mounting adapter for checking rotor face and stud runout.

(TSB 80 - 11/24/67 - Article 1214)

SERVICING FLOATING CALIPER DISC BRAKES

(1968 - All Models So Equipped)

Field reports have been received regarding a tapered brake pad lining wear condition on some 1968 passenger cars equipped with floating caliper disc brakes.

Taper of the brake pad linings during their service life is an inherent characteristic of the floating caliper disc brake. Maximum taper of the brake linings may be as much as eighth of an inch difference from the leading to the trailing edge during the service life of the linings. Replacement of linings is required when 1/32 inch of brake lining remains at the narrow end of the taper. The 1968 model disc brakes do not have the "worn lining sound feature" incorporated in the 1967 disc brake design.

Premature brake lining wear is usually caused by improper braking practices such as "riding" the brake pedal. However, for positive diagnosis the complete article lists related brake system components which should be checked in any case of suspected unusual brake lining wear characteristics.

(TSB 88 - 3/22/68 - Article 1323)

FRONT HUB AND BRAKE DISC ASSEMBLY

(All Cortina Models)

In some instances, front wheel shimmy on braking and brake pedal fluctuation can be attributed to excessive disc runout. It is essential, therefore, that when replacing hubs or discs, the parts are correctly reassembled and to assist in this, marks are etched on both the disc and hub at the points of maximum runout (checked in opposite directions). These marks are etched on the dish face of the disc and on the outside diameter of the seal housing of the hub. When reassembling, the marks must be aligned with each other as near as possible.

(TSB 94 - 6/21/68 - Article 1431)

BRAKE ROTOR REFINISHING SPECIFICATIONS

(All 1968 and 1969 Passenger Cars Equipped with Front Disc Brakes)

This article supersedes the 1968 Shop Manual procedure for refinishing disc brake rotors.

A ball and gauge bar are required to measure wear on the rotor inner braking surface and to determine the maximum stock removal limit when brake rotors require refinishing. The ball and gauge bar kit is available through Rotunda Equipment (Part No. RE-70163).

See the complete article for an illustration and complete gauging and refinishing procedure.

(TSB 94 - 6/21/68 - Article 1432)

DISC BRAKE SQUEAL NOISE CORRECTION

(All 1968 and 1969 Passenger Car Lines - All Units Equipped with Front Disc Brakes)

Field reports received indicate that a brake squeal noise has been noted on some 1968 and 1969 passenger cars equipped with floating caliper front disc brakes. The squeal occurs during light deceleration from 20 to 0 miles per hour with the brakes applied.

We have been advised a production and service correction is being developed. The correction consists of metal clips to be installed on the ends of the outboard shoes. These clips will eliminate the need for the insulation material currently bonded to the back of the outboard shoe. Also, the chamfer on each end of the outboard linings will be eliminated.

See the main article however, for a procedure to be used to correct the squeal noise until the production correction is available.

(TSB 104 - 12/13/68 - Article 1586)

DISC BRAKE ROTOR - SERVICE REPLACEMENT

(1969 Ford and Thunderbird Cars Equipped with Disc Brakes)

Some early production 1969 Ford and Thunderbird cars equipped with disc brakes were built with two piece hub and rotor assemblies. These assemblies have separately cast hubs and rotors that are assembled and machined. The service stock of disc brake rotors supplied for 1969 Ford and Thunderbird cars are "Unicast" (hub and rotors are a single casting).

The Unicast front disc brake rotors are completely interchangeable with the two piece hub and rotor assemblies. When service replacement of front disc brake rotors is required, only the Unicast hub and rotor assemblies will be available from depot stock.

(TSB 104 - 12/13/68 - Article 1591)

IMPROVED BRAKE PARTS

1968 Ford and Thunderbird Cars Equipped with Disc Brakes

Vehicles with front disc brakes subject to heavy usage requiring frequent starting and stopping, such as police vehicles and taxicabs, may experience shorter than desired brake life. Improved brake components have been released for use in such vehicles. (See the main article for application and part numbers.)

The new brake components may be installed on vehicles up to 12,000 miles at no cost to the owners; however, in doing so, care must be taken not to honor any claims based by operator abuse.

(TSB 105 - 12/20/68 - Article 1602)

DISC BRAKE SHOE AND LINING ASSEMBLY REPLACEMENT

1968 and 1969 - All Car Lines With Disc Brakes

Some difficulty has been experienced by dealers when service replacement of disc brake shoe and lining assemblies is required for 1968 and 1969 passenger cars. This is due to the necessity of completely retracting the floating caliper disc brake pistons prior to installation of the new shoe and lining, and caliper assemblies on the rotors.

Revised service procedures have been developed which supersede the service procedures outlined in the 1968 and 1969 Shop Manuals.

See the complete article for the proper service procedures and instructions on fabricating an inexpensive piston retracting tool.

(TSB 105 - 12/20/68 - Article 1604)

NEW DISC BRAKE LINING KIT - C9AZ-2001-C

(1968/69 Ford, Thunderbird - All Models)

New Disc Brake Lining Kit C9AZ-2001-C is released to service all applications formerly covered by kit number C9AZ2001-B which has been discontinued due to non-availability.

PARTS:

Part Number	Kit	Class	Availability
C9AZ-2001-C	Front Brake Shoe and Lining	A	6/13/69

PRODUCTION CORRECTION: All assembly plants by Job 1, 1970.

WARRANTY STATUS: 1968 - Reimbursable within the guidelines set forth in T.S.B. No. 105, Article No. 1602, 1969 - Reimbursable within the provisions of the Warranty and Policy Manual.

(TSB 118 - 6/27/69 - Article 1843)

FRONT WHEEL HUB BOLT REPLACEMENT

(All Vehicles Equipped With Disc Brakes)

When more than one hub bolt replacement is necessary on vehicles equipped with the two piece design rotor, the complete rotor and hub assembly must be replaced.

Hub bolts may be replaced as necessary on vehicles equipped with the unicast design rotor.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

(TSB 125 - 10/24/69 - Article 1972)

Drum Brakes

PREMATURE BRAKE DRUM WEAR AND/OR NOISE DURING BRAKE APPLICATION

(All 1965 through 1968 F100-350)

This article corrects and supersedes Article 1293, Bulletin 86, dated 2/23/68.

A new lining material is being used in 1968 units which minimizes drum wear and/or eliminates noise. It is available in service stock for past model vehicles. Refer to the article for vehicle application.

(TSB 92 - 5/17/68 - Article 1395)

IMPROVED BRAKE LINING

(Medium and Heavy Trucks Equipped with 15" x 3" Front and 15" x 6" or 15" x 7" Rear Hydraulic Brakes)

The Company now has available for medium and heavy trucks equipped with 15 x 3 front and 15 x 6 or 15 x 7 rear hydraulic brakes, as a replacement item, new brake linings with improved wearing characteristics. These linings were also incorporated on 1968 models.

See complete article for part numbers.

(TSB 94 - 6/21/68 - Article 1430)

BRAKE DRUM MACHINING, CAM-GRINDING AND REPLACEMENT OF BRAKE LININGS

(All Car Lines, All Models)

Some brake warranty claims have been received stating brake drums are being machined because of contamination (oil, grease, brake fluid, etc.). This is not a recommended or authorized repair. Contaminated drums are to be cleaned with the appropriate solvent. Warranty claims for machining contaminated brake drums will be rejected.

Many warranty claims also list an operation to cam-grind, to arc-grind or to use a "Brake-Dokter" to grind linings to fit the brake drums. Ford original equipment brake linings and genuine Ford replacement linings are pre-ground and require no further grinding even though the brake drums have been turned. Therefore, lining grinding operations will not be reimbursable and warranty claims will no longer be honored for this operation.

The practice of replacing brake linings to correct brake roughness (e.g. shudder and vibration when the brakes are applied) is not recommended and warranty claims for this repair also will be denied.

(TSB 97 - 8/30/68 - Article 1472)

NEW FRONT BRAKE DRUMS

(1963-69 Medium and Heavy Trucks Equipped with 14 x 2 1/2 Inch Front Brakes and Disc Wheels)

Improved brake life and reduced tendencies for brake squeal have been effected with the use of new brake drums incorporating a wider anti-squeal band and increased thickness which were introduced in production approximately September 10, 1968.

The new drums are serviced under the same part numbers as the previously used drums and apply to all 1963-69 trucks with 14 x 2 1/2 front brakes and disc wheels.

See complete article for service part numbers.

(TSB 106 - 1/10/69 - Article 1621)

BRAKES - REPAIR PROCEDURE

(1970 Maverick - Less Than 1500 Miles)

Contamination such as grease may lead to uneven braking. Examine all lining for such foreign substance using the procedures given in the main article.

PARTS:

Part Number	Part Name	Quan.	Class	Avail.
C4DZ2001-A	Brake Shoe and Lining	1	B	OK

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: 2001-A (Front Only)

Time: 1.0 Hr.

(TSB 119 - 7/18/69 - Article 1868)

Power Brake Boosters—Car

POWER BRAKE BOOSTER PUSH ROD ADJUSTMENTS

(1968 Passenger Cars - All Car Lines)

This article supersedes the 1968 Shop Manual procedure for checking and adjusting the power brake booster push rod. The push rods are adjusted to the specified length at the suppliers, therefore, further adjustment at the dealership should not be required. If a check of the push rod adjustment is felt necessary, however, the push rod length may be verified with a push rod length gauge and measured with the engine running to apply vacuum to the booster.

See the complete article for illustrations and correct adjustment procedure.

(TSB 87 - 3/8/68 - Article 1311)

POWER BRAKE BOOSTER - PEDAL EFFORT CONTROL

(Fairlane, Falcon, Mustang - 1967-69 Equipped With Midland-Ross Power Brake Booster)

Install green color coded lever and reaction ring.

Parting:

Part Number	Part Name	Class	Avail.
C7AZ-2B154-A	Lever and Reaction Ring Assy	C	OK

PRODUCTION CORRECTION: February 10, 1969

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: Mustang - SP-2005-D-69

Falcon Fairlane - SP-2005-B-69

Time: Mustang - 1.0 hr.

Falcon & Fairlane - 0.3 hr.

(TSB 116 - 3/30/69 - Article 1808)

Vacuum Hydraulic Brakes

NEW VACUUM SUPPLY FITTINGS

(All 500-1000 Series Trucks Equipped with Hydraulic Brakes and Vacuum Boosters)

A new ferruled tie fitting to provide a more secure attachment of the booster vacuum supply hose at the manifold has been incorporated in the 1968 model. The new fitting also incorporates an additional inlet for a distributor vacuum advance hose.

See complete article for current and past model application.

(TSB 94 - 6/21/68 - Article 1438)

BRAKE BOOSTER AIR INTAKE HOSE

(1968 B-600-750 with Frame Mounted Brake Booster)

Effective June, 1968, the routing of the brake booster air intake hose was changed to carry the hose inside the frame. Should it be necessary to replace this hose for any reason, on vehicles built before June, 1968, the new routing should be utilized.

Parts requirements and a diagram showing the revised routing are contained in the main article.

(TSB 103 - 11/29/68 - Article 1567)

Air Brakes

— Air Trailer Brakes

NEW AIR BRAKE COMPRESSOR BRACKET AND SUPPORT BRACE KITS

(1964-1967 330, 361 and 391 CID Truck Engines Equipped with 7.25 or 12.0 Cu. Ft. Air Brake Compressors)

To minimize complaints of air brake compressor mounting bracket and attaching bolt failures due to inherent compressor cylinder head bracket and intake manifold support brace kits are available on a complaint basis. This article contains the kit part numbers, and service procedures for both the 7.25 and 12.0 cu. ft. compressors.

This Technical Service Bulletin supersedes Technical Service Bulletin #824 dated July 1, 1966.

(TSB 75 - 9/8/67 - Article 1152)

AUTOMATIC MOISTURE EJECTION VALVES

(N1000 and NT 850-950D)

Automatic moisture ejection valves have been released as standard equipment on "N" Series highway tractors with air brakes. These valves became effective in February 1968, and are a product improvement to enhance the sale of these vehicles to fleets that elect not to drain reservoir tanks daily.

See complete article for parts involved.

(TSB 96 - 8/2/68 - Article 1451)

NEW BRAKE SHOE RETRACTING SPRING

(All 1968 and Past Model Heavy and Extra Heavy Trucks with 16-1/2 x 6 and 16-1/2 x 7 Eaton "S" Cam Brakes)

A new brake shoe retracting spring has been released for the above vehicles to improve product durability.

The new spring which is fabricated from oil tempered spring steel and is shot peened, became effective in production in March 1968.

The spring is serviced under part number C8T2-2296-A, is color coded black and has a current and past model application.

(TSB 97 - 8/30/68 - Article 1467)

AIR COMPRESSOR OIL LEAKS

(1964-67 Medium, Heavy and Extra Heavy Trucks with 330, 361 and 391 CID Engines and Air Brakes)

To preclude oil leaks from the air compressor crankcase vent on the above vehicles, the oil return line to the engine has been revised. This change became effective with the 1968 model and a kit has been released for prior model vehicles where customers wish to update their vehicles.

See complete article for part number and installation.

(TSB 99 - 9/27/68 - Article 1494)

IMPROVED FRONT AND REAR BRAKE ASSEMBLIES

(600-1000 Series Trucks with Bendix Wedge Air Brakes)

Effective in May, 1968, the supplier changed the automatic adjusting and actuating mechanisms on the above subject brakes to improve brake durability.

In addition, all service repair kits were revised based on production action to include the latest parts.

See complete article for the parts and assembly procedures.

(TSB 107 - 1/24/69 - Article 1634)

AIR BRAKE SYSTEM - AUTOMATIC MOISTURE EJECTION VALVE

(W & W 1000 [1966:1969])

An automatic moisture ejection valve for these vehicles is now available. Customers that prefer the automatic system rather than perform the daily maintenance requirement can install the new valves on their past

model W trucks. Remove existing air reservoir drain cocks and install one valve in each reservoir tank. Do not install a valve in the dual section protected reservoir.

PARTS:

Required Part No.	Name	Class	Avail-ability
2 C8HZ-2A-131-A	Valve	C	OK

Production Correction March 3, 1969.

(TSB 110 - 2/28/69 - Article 1679)

STOP LAMP SWITCH IMPROVEMENT

(Medium, Heavy and Extra-Heavy Trucks with Air Brakes - 1969 and Past Model)

A new improved stop lamp switch has become available and can also be used on past model trucks.

PARTS:

Part Number	Part Name	Depot	Avail.
C9TZ 13480 A	Stop Lamp Switch	A	OK

PRODUCTION CORRECTION: Approximately 12-1-68.

(TSB 116 - 5/30/69 - Article 1813)

AIR COMPRESSOR MOUNTING BRACKET LOOSENING

(F-B-6000-7000 and F-T-8000 with Caterpillar Diesel Engines - 1968-69 Models)

A new air compressor mounting bracket and support with machined mounting surfaces has been made available for all F, B and T Series with Caterpillar Diesel Engines. The new bracket provides improved installation surfaces eliminating mounting bolt looseness.

PARTS:

Part No.	Part Name	Class	Qty.	Avail.
C8TZ-2A881-C	Support	C	1	OK
C8TZ-2882-F	Bracket	C	1	OK

PRODUCTION CORRECTION: July 21, 1969.

WARRANTY STATUS: INFORMATION

(TSB 130 - 12/19/69 - Article 2034)

Parking Brakes and Linkage

PARKING BRAKE CONTROL VALVE LOCATION

1967-69 B-600-750 and Model 84 F-600-750 With Air Brakes and Spring Operated Parking Brakes

Engineering action has been initiated to relocate the parking brake control valve on the subject vehicles in order to improve driver accessibility.

Customer requests for improved accessibility on units built prior to production incorporation of a revised position for the parking brake valve can be accomplished by moving the valve from under the left side of the instrument panel to under the right side of the instrument cluster retainer.

See complete article for instructions relative to relocation of valve and parts involved.

(TSB 105 - 12/20/68 - Article 1609)

PARKING BRAKE LEVER

1965-68 "C" Series Trucks

Effective September, 1968, the parking brake lever on the above subject vehicles was revised to incorporate a rivet and spacer between the two support bars.

This change was made to add additional support to the bars and to reduce the possibility of the bars deforming when the parking brake lever is used as a grab handle to gain access to the cab.

See complete article for parts and figure showing service correction.

(TSB 105 - 12/20/68 - Article 1612)

PARKING BRAKE LEVER WITH LOCKING MECHANISM

(1969 and Prior Model Econoline)

A parking brake lever (C8UZ-2A711-C, Class C Part) providing a locking mechanism in the applied position was effective in production approximately July, 1968. Previous models may be equipped with the new assembly where a customer desires a more positive engagement than provided by the earlier design. The main article contains the installation procedure and operating instructions.

(TSB 108 - 1/31/69 - Article 1648)

PARKING BRAKE EQUALIZER ROD RE-POSITIONED

(1970 Maverick)

The parking brake linkage illustration shown on page 55 of the Maverick owners manual has been revised. However, the adjustment procedures remain the same as described in the owners manual. For the correct equalizer rod position, refer to Figure 1.

(TSB 114 - 5/2/69 - Article 1771)

PARKING BRAKE - UPPER CABLE RUBBER SLEEVE TO PULLEY INSTALLATION

(1970 Maverick)

Incorrect installation of the upper cable rubber sleeve to pulley will result in an interference condition with the parking brake cable causing increased application effort.

PARTS: None.

WARRANTY STATUS: Reimbursable with-in the provisions of the Warranty & Policy Manual.

Operation: SP-2780-A-70
Time: 0.3 Hr.

(TSB 119 - 7/18/69 - Article 1869)

SUSPENSION, WHEELS, AND TIRES

Suspension, Wheels, and Tires General Service

STEERING AND SUSPENSION SPECIFICATIONS

(1970 Maverick)

This article lists the steering linkage and front and rear suspension torque specifications for the 1970 Maverick. It is suggested that these torque limits be inserted both in the 1969 Car Shop Manual, pages 03-13-04, 05 and 07 and the 1970 Car Preliminary Shop Manual (Maverick), page 20-020

(TSB 114 - 5/2/69 - Article 1772)

WHEEL BALANCE WEIGHTS

(All Cars and Trucks)

Wheel Balance Weights now available from parts depots.

(TSB 57 - 1/6/67 - Article 973)

WHEEL BEARING LUBRICANT

(1967 F100-350 and B500-600)

Effective Job #1, 1967, the front and rear wheel bearings on the above listed trucks was changed from a sodium based grease (yellow) Part No. C1AZ-19585-A to a lithium based grease Part No. C1AZ-19590-B, C or D (blue-black). These lubricants cannot be mixed. Article covers procedure for packing wheel bearings.

(TSB 64 - 4/7/67 - Article 1040)

TYPOGRAPHICAL ERROR IN 1967 FORD-MERCURY SHOP MANUAL

The last sentence of paragraph 4 BENCH TEST on page 3-16 should read, "If action is not now smooth and uniform, install a new shock absorber".

(TSB 64 - 4/7/67 - Article 1047)

VIBRATION AND/OR SHAKE CAUSED BY TIRES

(All 1967 Model Passenger Vehicles)

Reports received from the field indicate that tires are a major cause contributing to customer complaints of "vibration" and/or "shake". This article refers only to "vibration" complaints caused by excessive tire runout or non-uniformity in sidewalls which are generally noted as being encountered under highway-driving conditions. The tire diagnosis check, as outlined in this article, provides a method for determining if tires are causing the "vibration" complaint.

(TSB 72 - 7/28/67 - Article 1129)

AUTOMATIC LEVEL CONTROL SYSTEM TEST GAUGE

(1968 Ford)

A new test gauge is available from NPD to check the automatic pneumatic level control system.

(TSB 77 - 10/13/67 - Article 1167)

TIRE CONTACT WITH FENDER APRON - RUBBER MUD GUARD ATTACHMENT

(1968 Ford - All Models with 8.45 x 15 Tires)

Recent field reports indicate that the optional 8.45 x 15 tires (standard on station wagons) may contact the fender apron rubber mud guard attachment during a full turn. This results in an objectionable rubbing sound that can be eliminated by loosening the inboard attaching bolt and prying the fender apron rearward. Similar actions are being taken to eliminate this potential noise problem in production.

(TSB 78 - 11/3/67 - Article 1195)

REAR WHEEL SEAL AND WEAR SLEEVES

(All Medium, Heavy and Extra Heavy Trucks Built After December 18, 1968)

Effective December 18, 1968 all medium, heavy and extra heavy trucks have a new synthetic inner wheel seal assembly and wear sleeve. See main article for replacement parts and repair details.

(TSB 92 - 5/17/68 - Article 1393)

DIFFICULT ACCESS TO REAR INNER DUAL TIRE AIR VALVE

(1967-68 F & P 350/400 with Dual Rear Wheels)

A valve extension and lock nut kit is available in service stock to improve accessibility to the rear inner dual tire valve stem. (Part Number: C7Z-1705-A, Class "C"). The article contains full installation instructions.

(TSB 93 - 5/31/68 - Article 1414)

FIELD REPLACEMENT OF STYLIZED STEEL WHEELS

(1968 Mustang and Fairlane)

Field reports indicate that the new 12-slotted stylized steel wheels (chrome, silver argent, and reflective argent) are being replaced on 1968 Mustangs and Fairlanes because of small manufacturing cracks in the wheel hub hole flange.

These small cracks in the wheel hub hole flange are the result of a manufacturing draw operation and will not spread or, in any way, affect wheel life. Wheels exhibiting these small manufacturing cracks are NOT to be replaced in the field.

(TSB 94 - 6/21/68 - Article 1427)

NEW TORQUE ARMS

(All Tandem Trucks with Hendrickson Suspensions)

To provide increased durability and reduced maintenance, new torque arms are available for all tandem trucks with Hendrickson Suspension. For part numbers refer to the article.

(TSB 99 - 9/27/68 - Article 1500)

VISUAL APPEARANCE OF "DOG TRACKING"

(1965 Through 1969 F-100 4 x 2')

A visual appearance of "dog tracking" (Vehicle moving in a sideward fashion) on the subject units, is caused by the front tread width being approximately four (4) inches wider than the rear tread. This results in each rear tire tracking about two (2) inches inside the front tire.

When driving behind one of these vehicles and sighting down one side, the front wheel outboard of the rear wheel gives an optical impression of vehicle sideward travel, with respect to the road.

The difference in tread width and/or the visual appearance have no effect on vehicle handling or tire life. It is suggested that should a customer bring this condition to your attention, he be informed of the normal vehicle attitude front to rear.

(TSB 101 - 11/1/68 - Article 1533)

PICK-UP BOX TILT OR VEHICLE LEAN

(1968 F100/250 4 x 2)

Customer complaints of a cab to pick-up box tilt or objectionable vehicle attitude lean can be corrected by shimming the front coil spring as described in the main article. Shims were added in production approximately August 1968.

(TSB 106 - 1/10/69 - Article 1618)

VEHICLE LEAN

(1968 and Post Models F-B-N 500-750)

To assist in diagnosing complaints on vehicle side to side lean refer to the article. Lean is measured from the ground to the end of the bumper. A difference of one inch or less is normal and no attempt to change the unit should be attempted.

(TSB 99 - 9/27/68 - Article 1499)

VEHICLE LEAN

(All 1968 Heavy and Extra Heavy Trucks with Gas or Diesel Engines)

All measurements to determine lean should be made between the bumper end and the ground. The maximum allowable differential between the left and right side of the vehicle is one inch. Correction should not be attempted on units with less than one inch lean. To correct vehicle lean, refer to the article.

(TSB 108 - 1/31/69 - Article 1643)

FRONT END LEAN TO RIGHT

(1969 E 300 Bus)

Front end lean to the right can be corrected on a customer complaint basis by using the procedure in the main article.

(TSB 108 - 1/31/69 - Article 1647)

VEHICLE SHAKE CAUSED BY WATER IN TIRE AND WHEEL ASSEMBLIES

(All Car Lines and Light Truck)

Severe vehicle shake, encountered at vehicle speeds in excess of 40 mph while traveling over uneven road surfaces, may be caused by water in one or more of the wheel and tire assemblies. Water can enter tires stored outdoors and inadequately protected from the elements. Water in tires may be difficult to detect, even though there may be as much as a quart per tire. If the above road test conditions are encountered and the balancing results are inconsistent, suspect water. Under these conditions and prior to switching or exchanging tire and wheel assemblies, the tire must be broken loose from the rim and the inside inspected for the presence of water.

PARTS: None.

(TSB 112 - 4/4/69 - Article 1724)

WHEELS - VIBRATION DURING BRAKE APPLICATION

(All 1968/69 Fairlane, Mustang and Falcon With 10-Inch Drum Brakes)

1. Remove the wheel and drum assemblies which are determined to be causing vibration. Turn drums to obtain roundness as outlined in Section 2 of the 1969 Shop Manual.

2. Reinstall the turned drums and the wheels and road test to determine whether or not the vibration has been eliminated.

3. If the vibration is still objectionable after the road test, replace the wheels with the new service replacement wheels outlined in the chart.

NOTE: DO NOT USE IMPACT WRENCH TO TIGHTEN LUG NUTS AS 70-115 FT. LBS. TORQUE MUST BE CONTROLLED.

Each of the new wheels will have two (2) daubs of yellow paint on the wheel inner hat section. BECAUSE OF THE LIMITED SUPPLY, USE OF THESE WHEELS SHOULD BE LIMITED TO APPLICATIONS WHERE VIBRATIONS HAVE BEEN ISOLATED TO THE WHEELS. Wheels were reclassified from "A" to "CG" classification.

New P & A Number	Part Name	Size	Type	Class
C90Z-1007-E	Wheel Standard	14 x 5.0	Standard	CG
C90Z-1007-D	Wheel Standard	14 x 5.5	Standard	CG
C92Z-1007-F	Wheel Standard	14 x 6.0	Standard	CG
C90Z-1007-A	Wheel Stylized	14 x 6.0	Argent	CG
C90Z-1007-B	Wheel Stylized	14 x 6.0	Chrome	CG
C90Z-1007-C	Wheel Stylized	14 x 6.0	Reflective	CG

PRODUCTION CORRECTION: 3/15/69. WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Basic Operation: SP-1126-A-69
Wheel Vibration - Road Test (Maximum Allowance) 0.3 Hr.
Combination Operations: SP-1126-A1-69
Turn both front brake drums 1.1 Hrs.
SP-1126-A2-69
Turn both rear brake drums 0.7 Hrs.
SP-1126-A3-69
Replace one wheel 0.5 Hrs.
SP-1126-A4-69
Paint one wheel when required .0.5 Hrs.

(TSB 113 - 4/18/69 - Article 1753)

HUB CAP RETENTION

(F & P 250/350 - 1968-69)

Remove all hub caps and grind the rolled inner edge of the cap at two opposite spots to match the two retaining bosses on the wheel. Remove metal from the inner rolled edge to a point approximately one third of the total edge (Figure 2) and approximately 1/4" long.

PRODUCTION CORRECTION: 6-2-69. WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.
Operation: SP-1130-A-69
Time: 0.9 Hr.

(TSB 114 - 5/2/69 - Article 1773)

TWIN I-BEAM ALIGNMENT CHECKING PROCEDURE

(PHOTO CAPTIONS WERE REVERSED DURING PRINTING) CORRECTION TO TSB NO. 114, ARTICLE 1787,

MAY 2, 1969

(This procedure replaces TSB No. 114, Article 1787 which is cancelled and not to be used)

(Econoline 1969 and F-100/350 1965-69)

"BLOCKS" NO LONGER NECESSARY

Wheel alignment specifications and the method of checking caster, camber and toe-in for Twin I-Beam vehicles have been changed. The current method of using spacer blocks to establish a ride height is no longer

necessary. Alignment checks are now made with the vehicle at normal operation height and attitude. The only qualification is for the vehicle frame to be level - across the front side to side - when checking caster or camber. Check for toe-in with vehicle as equipped.

PARTS: None.
PRODUCTION CORRECTION: None.
WARRANTY STATUS:
NON-REIMBURSABLE

(TSB 117 - 6/13/69 - Article 1824)

ALTERNATE TOE-IN CHECKING PROCEDURE TO TSB NO. 117, ARTICLE 1824, DATED JUNE 13, 1969

(1965-1970 F-100/350, 1969-1970 F-100/300 Trucks)

The following front wheel toe-in checking procedure is suggested as an alternate method to TSB No. 1824.

PARTS: None.
WARRANTY STATUS:
INFORMATION ONLY

(TSB 126 - 11/7/69 - Article 1986)

FRONT WHEEL ALIGNMENT SPECIFICATIONS

(1966-1968 500-1000 Series Trucks)

The alignment specifications for 500-1000 Series trucks are as follows and supersede all previous publications.

PARTS: None.
PRODUCTION CORRECTION: None.
WARRANTY STATUS:
NON-REIMBURSABLE

(TSB 118 - 6/27/69 - Article 1845)

NEW 16 INCH WHEEL (CORRECTION OF WHEEL LOCK RING PART NUMBER) - THIS ARTICLE SUPERSEDES AND CANCELS TSB 103, ARTICLE 1552 DATED NOVEMBER 29, 1968

(1968-69 F-250/350, F-250/350 4 x 4 and P-350/400)

A new wheel was incorporated into production and made available for service.

These wheels use the existing lock ring Part Number C8TZ-1099-A.

PARTS:

Wheel Part Number	Model	Vendor Number
C9TZ-1007-A	F-250, F & P-350 (Single Rear Wheel) (Up to 8,000 GVW)	87510
C9TZ-1007-B	F & P-350/400 (Dual Rear Wheel) (Up to 10,000 GVW)	87500

PRODUCTION CORRECTION: 9-1-68. DLR, CODING: 1007-01

(TSB 119 - 7/18/69 - Article 1870)

SPARE WHEEL MOUNTING

(F-100/350 - P-350-400 Trucks With Under Frame Spare Wheel Carrier - 1969-70)

For shipping purposes only, a flat washer is installed on the spare wheel carrier eye bolt as shown in Figure 1. This flat washer must be removed before the vehicle is delivered, so that the customer can remove the spare wheel assembly by simply turning the eye bolt 90 degrees.

WARRANTY STATUS:
NON-REIMBURSABLE

(TSB 121 - 8/15/69 - Article 1914)

LIGHT TRUCK WHEEL AND TIRE RUN-OUT SPECIFICATIONS

(All Light Truck)

Check wheel and tire run-out using procedure outlined in article.

(TSB 121 - 8/15/69 - Article 1915)

WHEEL COVER NOISE

(Maverick - 1970)

Wheel cover contact with the front wheel bearing dust cap can cause a squeak, rattle or clicking noise. The noise can be eliminated as follows:

1. Remove the front wheel cover and clean any dirt or grease from the inner center surface at area of the dust cap contact.

2. Cut two strips of $\frac{3}{4}$ " wide electrical insulating tape $1\frac{1}{2}$ " long and place side by side on the inner center surface which has been cleaned. This prevents metal to metal contact with the bearing dust cap when installed.

(TSB 122 - 9/5/69 - Article 1934)

FRONT HUB CAP INTERFERENCE WITH BEARING DUST CAP

(1970 Ford Passenger Cars With 15 x 5.00 Wheels and Drum Brakes)

Remove the radio static collector from the bearing dust cap and flatten center area of the cap as shown on Figure 2. Do not flatten cap while installed on the vehicle.

Make sure that the static collector can be properly positioned into cap after the repair is made to the cap.

PRODUCTION CORRECTION: October 13, 1969.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty and Policy Manual.

Operation: SP-1131-A-70

Time: 0.2 Hr. - Both Sides

DLR. CODING: Basic Part No. 1130 - Code No. 41

(TSB 127 - 11/21/69 - Article 2000)

FRONT WHEEL HUB BOLT REPLACEMENT - SUPERSEDES T.S.B. NO. 125, ARTICLE NO. 1972

(All Passenger Cars With Disc Brakes)

When more than one hub bolt replacement is necessary on vehicles equipped with the two piece design rotor, the complete rotor and hub assembly must be replaced.

Hub bolts may be replaced as necessary on vehicles equipped with the unicast rotor.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty and Policy Manual.

Operation: SP-1107-A-69

Time: Fairlane, Mustang, Falcon - 0.4 Hr.

Ford, Thunderbird - 0.5 Hr.

DLR. CODING: Basic Part No. 1107 - Code No. 01

(TSB 127 - 11/21/69 - Article 2001)

RADIAL PLY TIRE TREAD WEAR PATTERN

(1970 Thunderbird Equipped with Radial Ply Tires)

Some customers of 1970 Thunderbird cars equipped with Goodrich radial ply tires may be concerned about an apparently rapid but even wear of the outer and inner tread shoulders. Should this condition be questioned, the customer must be informed that this wear pattern is characteristic of this radial ply tire and does not decrease expected tread life of the tire. Tire air pressure should not be increased greater than that specified on the tire pressure decal. How-

ever, if abnormal wear conditions, such as, cupping, feathering, etc., are noted, the normal check and adjust procedure of the Diagnostic Manual should be followed to correct.

WARRANTY STATUS: INFORMATION ONLY - NON-REIMBURSABLE

(TSB 128 - 12/5/69 - Article 2012)

Suspension and Springs

- Front

FRONT SPRING REAR BRACKET

(1967 F-B-500-750)

The problem of front spring brackets loosening has been encountered on some 1967 trucks. The loosening of these brackets can be identified by steering sway coupled with a "clunking" noise in the front end. This article describes the field correction that will affectively correct this problem.

(TSB 76 - 9/29/67 - Article 1165)

FRONT SPRING BRACKET INSULATOR

(1966-67 F, B, N-500-750 Trucks with 5000-7000 Pound Front Axle)

A problem of the front spring bracket insulator working out of its fixed position, when vehicles are operated off the road or under conditions where front springs are temporarily without a load (rebound), has been encountered on the models shown.

The complete article outlines production and service correction.

(TSB 78 - 11/3/67 - Article 1185)

NEW FRONT SPRING SHACKLE ASSEMBLY

(All 1961-68 F, T, N, W, NT and WT Trucks with 4" Wide Front Springs)

A new improved front spring shackle has been released for the above models to improve spring shackle durability.

The new shackle which became effective in production approximately March 4, 1968 incorporates a thicker link, increased thickness and larger diameter pin head, and wider serrations on the shackle pin. In addition the pin hardness and surface finish has been changed.

See complete article for parts and installation instructions.

(TSB 96 - 8/2/68 - Article 1446)

FRONT SPRING SEAT INSTALLATION

(1968 Bronco and 1969 Econoline)

Due to tolerance stack up conditions, it is possible for a gap to exist between the front spring lower seat (5A307) and the radius arm (3A360) on the E-300; and between the spring seat (5A307) and the spring seat support (5B306) on the E-100 and E-200. This can occur on either, or both sides of the subject vehicles, and no attempt should be made to correct this condition, regardless of whether or not one side has no gap showing.

(TSB 96 - 8/2/68 - Article 1452)

CORTINA WHEEL SHIMMY CORRECTION

(1967 & 1968 Model "C" Cortinas)

Wheel shimmy or small rotational movement of the steering wheel may be encountered on some 1967 and 1968 model "C" Cortinas. This condition is usually noted at

speeds between 40 and 50 mph.

The steps to be followed which will bring customer complaint units to an acceptable level are outlined in the main article.

(TSB 100 - 10/18/68 - Article 1508)

FRONT SUSPENSION - TOP MOUNT "WIND-UP" (REVISES TSB 1639-6)

(CORTINA - 1968-69)

From our review of Model "C" Cortinas built since August, 1967, we have noted instances where the suspension leg top mounting nuts have been tightened with the wheels in other than straight ahead position causing a "wind-up" condition in the top suspension mountings.

PARTS: None.

WARRANTY STATUS: REIMBURSABLE

Operation: SP-301-A-69

Time: 0.3 Hr.

(TSB 111 - 3/14/69 - Article 1702)

FRONT SPRING SHACKLES WORN OR SEIZED

(All F-N 800-1000, T-NT 800-950, W-WT 1000-D)

To repair, replace the shackle with the improved parts. Ream the bushings to 1.003-1.005 inches for increased lube area.

PARTS:

Part No.	Name	Class	Avail.
B7TZ-5304-J	Shackle Kit	A	OK

PRODUCTION CORRECTION: 2-24-69.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

(TSB 112 - 4/4/69 - Article 1725)

FRONT SUSPENSION - UPPER ARM INNER SHAFT BUSHING SQUEAK

(Thunderbird, Falcon, Maverick, Mustang, Fairlane - All Models - 1965 thru Present)

Lubricate bushings using the upper arm lube kit as outlined in the complete article.

PARTS: None.

PRODUCTION CORRECTION: None.

WARRANTY STATUS: Reimbursable under the provisions of the Warranty & Policy Manual.

Operation: SP-3068-A-69

Time: 0.6 Hr. (All Bushings)

DLR. CODING: Basic No. 3068 - Code No. 78.

(TSB 123 - 9/26/69 - Article 1945)

VEHICLE LEAN DIAGNOSIS AND CORRECTION PROCEDURE

(1969-70 F-100/350)

This article outlines the most common reasons for vehicle lean and provides recommended corrective procedures.

WARRANTY STATUS: INFORMATION ONLY

(TSB 124 - 10/10/69 - Article 1955)

NEW FRONT SPRING PIN

(All W-WT-1000-D)

To improve the lubrication acceptance of the front spring pin, install the new pin. The new pin can be identified by $1\frac{1}{2}$ inch long x $1\frac{1}{32}$ inch deep grease flat at the lube outlet hole.

PARTS:

Part Number	Part Name	Class	Avail.
DDHZ-5780-A	Pin-Spring	CQ	9-26-69

PRODUCTION CORRECTION: 9-15-69.

WARRANTY STATUS: Reimbursable with in the provisions of the Warranty & Policy Manual.

Operation: SP-5780-A-69

Time: One Spring - 0.6 Hr.; Both Springs - 0.9 Hr.

DLR. CODING: Basic Part No. 5780 - Code No. 41

(TSB 125 - 10/24/69 - Article 1973)

FRONT SUSPENSION ASSEMBLY - REMOVAL AND INSTALL

(1967, 1968, 1969 Cortina)

Revise existing procedure to conform with new procedure of removing and installing front suspension assembly. New procedure is consistent with service labor time standard effective September 19, 1969.

PARTS: None.

PRODUCTION CORRECTION: Not applicable.

WARRANTY STATUS:

INFORMATION ONLY

Operation: 5431-A

Time: As shown in Service Labor Time Standards Book, effective September 19, 1969.

(TSB 125 - 10/24/69 - Article 1974)

Suspension and Springs

- Rear

REAR SPRING ALIGNMENT

(1966½ W 1000D Trucks built prior to 10/24/66)

On a customer complaint basis of rear spring misalignment install a 5/16" steel spacer between the spring hanger brackets and the frame. Locally fabricate these spacers and refer to the article for the dimension.

(TSB 68 - 5/19/67 - Article 1092)

FLEX-O-MATIC REAR SUSPENSION SHACKLE ADJUSTMENT

(1968 F-100/250 with Flex-O-Matic Suspension)

Vehicles which exhibit abnormally high rear ride height may have improperly assembled rear suspension systems. To insure optimum rear suspension performance, the following procedure should be used:

1. With the vehicle empty, torque rear spring/axle "U" bolts to specifications.
2. Loosen rear shackle and spring eye nuts and bolts.
3. Clamp compensator to spring main leaf.
4. Secure rear spring eye to shackle, shackle to compensator, and compensator to spring bracket nuts and bolts.
5. Remove clamp.

(TSB 82 - 12/15/67 - Article 1241)

REAR SPRING SHACKLE ASSEMBLY

(F-250 4 x 4; F-350 - 1968-69)

PARTS:

Part Number	Part Name	Class	Avail.
C7TZ-5776-A	Spring Shackle	B	OK

PRODUCTION CORRECTION: May, 1969.

(TSB 120 - 8/1/69 - Article 1894)

REAR SPRING SHACKLE INVERTS

(Falcon, Fairlane, Station Wagons and Ranchero - 1968 through 1969)

Shock absorber kit C9OZ-18125-F (with shock absorber C9DF-18080-H) is released to restrict the rear spring shackle travel. Install parts as outlined below:

1. Return the rear shackle to its normal position.

2. Remove both rear shock absorbers.

3. Install two shock absorbers found in kit No. C9OZ-18125-F (kits must contain shock absorber C9DF-18080-H which has ½" shorter travel and will restrict the rear spring shackle). Kits built prior to February 10, 1969 have a longer shock absorber C8DF-18080-G and will not restrict the shackle. (This kit can also be used on 1965 through 1967 vehicles.)

PARTS:

Qty.	Part Name	Part No.	Class	Avail.
1	Shock Absorber Kit	C9OZ-18125-F	A	9-19-69

PRODUCTION CORRECTION: February 10, 1969.

WARRANTY STATUS: Reimbursable under the provisions of the Warranty & Policy Manual.

Operation: 18125-A

Time: Use time for "both" for appropriate car line, body style and model year as shown in service labor time standards book.

DLR. CODING: Basic No. 18125 - Code No. 38.

(TSB 123 - 9/26/69 - Article 1946)

1968-69 REAR LEAF SPRING - BOTTOM LEAF ASKEW - THIS CANCELS AND SUPERSEDES TSB NO. 100, ARTICLE 1507, OCTOBER 18, 1968

(1968-69 F-100/250 and F-100 [4 x 4])

Replace rear spring "U" bolt mounting plate which has been re-designed to reduce the clearance between the "U" bolts and the spring assembly. The location of the "U" bolts with the new mounting plate reduces the possibility of the bottom leaf being askew.

NOTE: The "U" bolts are to be torqued as follows:

DOTZ-5796-A - All - 100-120 ft. lbs.
DOTZ-5796-B - F-100 - 110-160 ft. lbs.
DOTZ-5796-B - F-250 - 100-120 ft. lbs.

PARTS:

Part Number	Usage	Class	Avail.
DOTZ-5796-A	F-100 without Aux. spring & F-100 (4x4)	C	OK
DOTZ-5796-B	F-100 with Aux. spring & F-250	C	OK

PRODUCTION CORRECTION: September, 1969.

WARRANTY STATUS: Reimbursable with in the provisions of the Warranty & Policy Manual.

Operation: SP-5796-A-69

Time: One Side: 0.9 Hr.

Both Sides: 1.6 Hrs.

DLR. CODING: Basic Part No. 5796 - Code No. 36

(TSB 127 - 11/21/69 - Article 2002)

AUTOMATIC LOAD LEVELER TUBING HANGING BELOW FRAME

(1968-1969-1970 Ford with Load Leveling System)

Load leveling tubing that has dropped below the frame side rail can be repositioned as follows:

Drill four (4) .280 Dia. holes, equally spaced approximately 18 inches apart in the underbody immediately above the snap-on clip locations.

Install four (4) No. 377695-S100 wrap around clips on the tubing and secure to underbody (see Figure 2) with No. 381877 (5/16 - 18 - ¾") self-tapping screws.

PARTS:

Qty.	Part No.	Part Name	Class
4	377695-S100	Clip	C
4	381877-S2	Self Tapping Screw	C

PRODUCTION CORRECTION: None.

WARRANTY STATUS: Reimbursable with in the provisions of the Warranty & Policy Manual.

Operation: SP-5666-A-70

Time: 0.4 Hr.

DLR. CODING: Basic Part No. 5A714 - Code No. 63

(TSB 128 - 12/5/69 - Article 2013)

Shock Absorbers

NEW FRONT SHOCK ABSORBERS

(1966½ "W" Series Trucks)

Shock absorber bracket stud failures, on vehicles produced prior to vehicle serial #A-12001, with resultant complaints of rough ride and front end bounce characteristics, can be corrected by installing the 1967 shocks and associated brackets on both the right and left hand sides of the front axle. The new parts incorporate larger diameter studs and shock eyes.

(TSB 63 - 3/31/67 - Article 1033)

FRONT SHOCK ABSORBER LOWER MOUNTING BOLT BENDS

(All 1966-68 C & CT Series with 7,000 through 15,000 Pound Front Axle and 175 Inch Wheelbase C850 with Center Point Steering. Does Not Apply to C800-850 and C8000 with Center Point Steering.)

Install a new shock absorber kit. The kit contains a one-half inch longer shock absorber, lower mounting stud and spacer.

PARTS:	Class	Required	Availability
B8QZ18124-A Kit	C	2 Per Vehicle	OK

Production Correction: September 23, 1968.

WARRANTY STATUS: Reimbursable with in the provisions of the Warranty & Policy Manual

Oper: 18124-A

Time: Per the Service Labor Time Standards Manual

(TSB 110 - 2/28/69 - Article 1680)

FRONT SHOCK ABSORBER UPPER BRACKET LOOSENS

(1967-69 F-8500-750 Series with Bolted Brackets)

Remove the existing bolt and drill out bracket and frame to one-half inch hole and install ½-13 x 2 inch long grade 8 bolt and torque retaining nut. Torque to 75-105 foot pounds.

PARTS:

Part No.	Name	Class	Avail.
380788-S2	½-13 x 2 inch long bolt	S	OK

WARRANTY STATUS: Reimbursable with in the provisions of the Warranty & Policy Manual.

Operation: SP-18124-A-69

Time: 0.9 Hr.

(TSB 112 - 4/4/69 - Article 1726)

FRONT END "CLUNK-LIKE" NOISE

(Econoline - 1969)

Check shock absorber(s) first by disconnecting and test driving. If noise is no longer present, install a replacement shock, C8UZ-18124-B, Class A part. The part number stamped on the correct shock absorber is C9UA-18045-A.

PARTS:

Part Number	Part Name	Qty.	Class	Avail.
C8UZ-18124-B	Shock Absorber	As Req'd.	A	OK

PRODUCTION CORRECTION: March, 1969

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: 18124-A

Time: One Shock Absorber - 0.5 Hr.
Both Shock Absorbers - 0.7 Hr.

(TSB 117 - 6/13/69 - Article 1825)

SHOCK ABSORBER LOWER BRACKET PIN SLACK

(W & WT-1000-D 1967-68)

Replace the lower shock bracket and add a weld between the pin and the bracket prior to installation of replacement parts.

PRODUCTION CORRECTION: September, 1968

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: SP-18124-B-69

Time: One Side 0.7 Hr.
Both Sides 1.3 Hrs.

(TSB 118 - 6/27/69 - Article 1846)

REPLACEMENT OF STANDARD FRONT SHOCK ABSORBERS

(1968/69 F-100/250 Trucks With Standard Shock Absorbers)

When replacement of the standard front shock absorber is required, install shock absorber (DOTZ-18124-A) which is a Class "A" part.

PARTS:

Part Number	Part Name	Avail.	Class
DOTZ-18124-A	Shock Absorber	OK	A

PRODUCTION CORRECTION: December 1, 1969.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty and Policy Manual.

Operation: 18124-A

Time: One 0.4 Hr.
Both: 0.5 Hr.

DLR. CODING: Basic Part No. 18124 - Code No. 30

(TSB 127 - 11/21/69 - Article 2003)

Frames

NUMBER 3 CROSSMEMBER END GUSSETS

(All 1964-68 T and NT Tandem Trucks)

A new, heavier crossmember, manufactured by Midland Frame Division of Midland Ross Corp., is now available for use in applications where extra severe usage has resulted in end gusset failures of the No. 3 crossmember. For details, refer to the complete article.

(TSB 108 - 1/31/69 - Article 1645)

REAR TIE-DOWN BRACKET SEPARATION FROM FRAME

(1969 Ford Station Wagon)

Vehicles with the rear shipping tie-down brackets pulled and separated from the frame can be corrected using the following procedure:

1. Straighten frame at damaged area and align tie-down bracket.
2. Fish plate the damaged area with 1/8"

plating and weld securely.

3. Paint frame and plate as necessary.

NOTE RIGHT SIDE: Lower tailpipe if interference exists during repair.

PARTS: None

PRODUCTION CORRECTION: 4/25/69.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: SP-5005-A-69

Time: One Side 0.6 Hr.
Both Sides 0.9 Hr.

(TSB 120 - 8/1/69 - Article 1895)

REAR CROSSMEMBER DIE CRACKS

(W Series with One Piece Rear Crossmember)

Fabricate four gussets per Figure 3 and weld gussets per Figure 4.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: SP-5035-A-69

Time: 4.8 Hrs.
DLR. CODING: 5035-01

(TSB 120 - 8/1/69 - Article 1896)

FRAME ALIGNMENT CHECKING PROCEDURE - "DOG TRACKING COMPLAINTS"

(F-100/250 Model Trucks - 1968-1970)

PARTS: None

PRODUCTION CORRECTION: N.A.

WARRANTY STATUS: INFORMATION ONLY

Operation: None.

Time: None.

DLR. CODING: None.

(TSB 124 - 10/10/69 - Article 1956)

STEERING

Steering General Service

REVISED FRONT AXLE THRUST BEARINGS

(1966 F, B, C, N, and H Series Trucks with 5000, 5500, 6000, 7000 or 9000 Lb. Front Axles)

The front axle thrust bearing on the above models was revised approximately June 1, 1966 from a phenolic friction type of bearing to a roller bearing design. This revision was made to reduce steering effort and to improve existing returnability characteristics. Vehicle control is not affected.

When steering effort or slow returnability complaints are received on vehicles produced prior to June 1966 the roller thrust bearings may be installed.

See complete article for part numbers of service kits that include the roller bearing design front axle thrust bearings.

(TSB 57 - 1/6/67 - Article 979)

MODIFICATION SPECIAL SERVICE TOOL T65P-3000-D CASTER CAMBER ADJUSTER

(1967 Thunderbird)

Subject tool must be modified as shown for use on 1967 Thunderbird.

(TSB 58 - 1/27/67 - Article 979)

SPECIAL SERVICE TOOL T65P-3000-G (D)

Modification to J-bolt tips on tool T65P-3000-G (D) for 67-68 Thunderbird alignment.

(TSB 67 - 5/5/67 - Article 1069)

INSUFFICIENT LUBRICANT IN MANUAL AND POWER ASSIST STEERING GEARS

(Econoline, F-100, 250, 350 Truck (4 x 2))

The article outlines the proper procedure for checking the steering gear lubricant level.

(TSB 69 - 6/2/67 - Article 1099)

STEERING EFFORT

(1967 F, B and N 500-750 with Manual Steering)

Reports have been received advising that high steering effort condition has been encountered on some 1967 trucks built prior to May, 1967.

Investigation has disclosed that this condition may be caused by one or all of the following:

1. Spindle pin lubrication.
2. Drag link and tie rod ends with rotational friction limits on the high side of specification.

See complete article for inspection procedure.

(TSB 78 - 11/3/67 - Article 1198)

STEERING GEAR PRELOAD SETTINGS

(1967 500-1000 Series Trucks)

When making a steering gear preload adjustment on a 500-1000 Series Truck equipped with a Gemmar Steering Gear, use the chart shown in the TSB article instead of that on Page 3-91 of the 1967 Ford Truck Shop Manual.

(TSB 79 - 11/17/67 - Article 1202)

ENERGY ABSORBING STEERING COLUMN MISALIGNMENT

(All 1968 Passenger Cars)

Customer complaints of high shift efforts and/or a harsh or "tacky" feeling through the steering wheel may be caused by improper alignment of the steering column and shaft. This condition may be corrected using the procedure and illustrations outlined in the complete article.

(TSB 79 - 11/17/67 - Article 1210)

ENERGY ABSORBING STEERING COLUMN MISALIGNMENT - ADDITION TO ARTICLE #1210, TSB #79 DATED NOVEMBER 17, 1967

(All 1968 Passenger Cars)

The warranty status, operation numbers and times should be supplied to Article No. 1210 in Bulletin No. 79, as outlined in the complete article.

(TSB 80 - 11/24/67 - Article 1222)

ENERGY ABSORBING STEERING COLUMN MISALIGNMENT - ADDITION TO ARTICLE #1210, T.S.B. NO. 79, DATED NOVEMBER 17, 1967 AND ARTICLE #1222, T.S.B. NO. 80, DATED NOVEMBER 24, 1967

(All 1968 Passenger Cars)

The Warranty Status "Reimbursable" should be added to Article No. 1222 in Bulletin No. 80.

(TSB 81 - 12/8/67 - Article 1232)

CORRECTION TO 1968 FORD TRUCK SERVICE SPECIFICATIONS BOOKLET AND 1968 BRONCO - 1969 ECONOLINE SHOP MANUAL

(1968 Bronco, 1969 Econoline)

The copy under "Steering, Gear and Column Torque (Ft-lbs)", Line 5, Page 3-17 (Specifications Booklet) and Line 5, Page 3-39 (Shop Manual), reads:

Steering Wheel Attaching Nut

Econoline - All	Bronco
25-35 Ⓛ	35-55 Ⓛ

Change these lines to read:

Steering Wheel Attaching Nut

Econoline - All	Bronco
35-45 Ⓛ	35-45 Ⓛ

(TSB 91 - 5/3/68 - Article 1386)

CORRECTION TO 1968 FORD AND MERCURY SHOP MANUAL AND 1968 FORD CAR SERVICE SPECIFICATIONS BOOKLET

(1968 Ford and Mercury)

The copy under "Steering Gear Torque Limits (Ft-lbs)", Line 3, Page 3-75 (Shop Manual), reads:

Ball return guide clamp screw 18-42

The copy under "Steering Gear Torque Limits (Ft-lbs)", Line 3, Page 3-15 (Specifications Booklet), reads:

Ball Return Guide Clamp Screw (Lbs-in)	Power Strg.	42-60	18-42	18-42	8-12
	Manual Strg.	18-42	42-60		

Change this line to read:

Ball Return Guide Clamp Screw (Lbs-in)	Power Strg.	42-60 (Slot Hd - 2 Screws)	18-42	18-42	3-6 (Ft-lb)
	Manual Strg.	60-120 (Hex Hd - 1 Screw)	42-60		

CORRECTION TO 1968 COUGAR, FAIRLANE, FALCON, MONTEGO, AND MUSTANG SHOP MANUAL

(1968 Cougar, Fairlane, Falcon, Montego and Mustang)

The last two sentences of the **CASTER** and **CAMBER** text on page 3-3 in subject Shop Manual now read:

"The maximum difference between both front wheel caster (**camber** in **CAMBER** text) angles should not exceed 1/2". However, a difference of not more than 1/4 degree is preferred."

Change these sentences to read:

"The maximum difference between the front wheel caster (**camber** in **CAMBER** text) angles should not exceed 1 degree. However, a difference of not more than 1/2 degree is preferred."

The specification under "Maximum Variation Between Wheels", Page 3-1, 1968 Ford Car Service Specifications and Page 3-55, 1968 Cougar, Fairlane, Falcon, Montego, Mustang Shop Manual should also be changed from 1/2° to 1°.

(TSB 96 - 8/2/68 - Article 1449)

NEW SPINDLE PIN AND BUSHINGS KIT

(1966-69 Extra Heavy Trucks With Rockwell FF-903 12,000 lb. Front Axle)

Install new spindle pin and bushing kit that includes lubrication fitting in upper cap as opposed to spindle to provide improved lubrication and reduced galling.

PARTS:

Part Number	Part Name	Class	Avail.
C9T2 3111 C	Kit - Spindle Pin and Bushing	B	6 30 69

PRODUCTION CORRECTION: Approx. 3-15-69

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: 3105 and 3105-A

(TSB 116 - 5/30/69 - Article 1809)

Manual Steering

MANUAL STEERING GEAR - TEMPORARY SUBSTITUTION

(1969 F & B-500-750 Trucks W/Gas Engines and 5000-7000 Lb. Front Axle, F-7000 Trucks W/Cat Engines and 7000 Lb. Front Axle)

A new manual steering gear is being substituted on subject vehicles due to a supplier strike. The article details torque limits, adjustments, lubrication, disassembly and assembly procedures for servicing the gear.

PARTS: Included in the article.

PRODUCTION: Approx. 1/24/69.

(TSB 114 - 5/2/69 - Article 1774)

Change this line to read:

Ball return guide clamp screw 18-42 (In-lb)

42-60 3-6

42-60 (In-lb) 3-6 (Ft-lb)
 (Slot Hd - 2 Screws)
 60-120 (In-lb)
 Hex Hd - 1 Screw

(TSB 92 - 5/17/68 - Article 1400)

Power Steering

POWER STEERING PUMP FAILURES

(1965-66-67 F and T Series Trucks with 12,000, 15,000 or 18,000 Pound Front Axles)

Increased steering effort occurs with a loss of power steering assist, which results from steering pump failure. The pump failure is seizure of the pump rotor due to the heat build-up which occurs when the pump is operated at relief pressure for an extended time period.

The complete article outlines a field correction to correct pump failure complaints.

(TSB 59 - 2/10/67 - Article 991)

"TACKY" STEERING

(1965/1967 Ford and Thunderbird, equipped with Ford design integral power steering gear)

Customers will occasionally complain of a light tackiness in the steering which they may encounter after prolonged periods of driving at speeds in excess of 60 MPH. When attempting to correct complaints of this nature, first check for proper steering column alignment and for proper steering gear mesh loads. If the difficulty persists, the steering gear should be disassembled. If visual inspection of the disassembled gear fails to disclose any probable cause for the tackiness, the power steering input shaft and control assembly (3D517) should be replaced. Under no circumstances should the steering gear assembly be replaced for a complaint of this nature.

(TSB 63 - 3/31/67 - Article 1028)

POWER STEERING CONTROL VALVE AND POWER CYLINDER DIAGNOSIS

(Fairlane, Falcon and Mustang Equipped with Power Steering)

This article furnishes you comprehensive information for diagnosis of power steering complaints. Problem symptoms and related corrections are contained in the full article.

(TSB 63 - 3/31/67 - Article 1038)

POWER STEERING PUMP LEAKS TRACEABLE TO IMPROPER REMOVAL OF POWER STEERING HOSES

(All 1965/1967 Ford Division Car Lines Equipped with the Ford-Thompson Design Power Steering Pump)

One of the commonest sources of power steering pump leaks is the inlet tube to reservoir solder joint. Evidence indicates that a percentage of these leaks are caused during service to the power steering pump due to pulling or twisting of the power steering hose without properly loosening the hose clamp. When removing the hose from the inlet tube, the hose clamp must be loosened sufficiently to permit removal of the hose without undue strain and distortion of the pump inlet tube.

(TSB 67 - 5/5/67 - Article 1058)

FRONT SUSPENSION - STABILIZER BAR INSULATORS - LOOSE OR MIS-ALIGNED

(Falcon & Fairlane)

Remove extruded bar insulators and replace with flanged insulators as outlined in the main article.

Model	Vehicle Line	Engine CID	Stabilizer to Suspension Lower Arm Insulator Part No.	Class	Qty	Avail. Date
Sedan	Falcon	302	C702-5493-C	C	2	5-1-69
Sedan Hardtop Convertible	Fairlane	6 Cyl. & 302	351 & 380	C	2	5-1-69
Station Wagon	Falcon Fairlane	302 All	C902-5493-A	C	2	6-1-69

PRODUCTION CORRECTION: May 1, 1969.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: SP-5493-A-69

Time: 0.6 Hr.

(TSB 117 - 6/13/69 - Article 1826)

STEERING GEAR ASSEMBLY - REVISED RATIO

(Cortina - All Models - 1968-1969)

Refer to the detailed procedure portion for instructions in removing 16.4:1 ratio steering gear and replacing with gear having a 19.2:1 ratio.

PRODUCTION CORRECTION: Approx. March 15, 1969.

WARRANTY STATUS: Reimbursable under the provisions of the Warranty & Policy Manual.

Operation: 3504-A

Time: Use applicable Labor Time Standard.

DLR. CODING: Basic No. 3K500 - Code No. 38.

(TSB 123 - 9/26/69 - Article 1947)

PARTS:

Qty.	Part Name	Part Number	Description	Class
1	Steering Assembly	698B3K500FB	Manual floorchange transmission	C
1	Steering Assembly	698B3K500DB	Automatic transmission	C
1	Steering Wheel (if required)	698B-3K686-EAFA (Black) 698B-3K686-EAGK (Blue) 698B-3K686-EAGU (Bechnut) 698B-3K686-EAHP (Cherry)		C C C C

NOISY POWER STEERING PUMP (FORD-BUILT)

(All Car Lines Equipped with the Ford-Built Power Steering Pump)

In some instances, complaints of noisy power steering pumps have been caused by insufficient torque on the attaching screws which attach the internal, stamped steel housing to the front plate. This problem is believed to be confined to the Ford-built pump which can be identified by a blue reservoir and the letter "F" stamped on the identification tag, and built prior to November 1, 1966.

When correcting complaints of noisy Ford-built power steering pumps, the following procedure should be followed:

1. Remove the power steering pump and reservoir as outlined in Group 3 of the appropriate Shop Manual.
2. Check the torque of the four (4) stamped housing to front plate attaching screws. The torque must be 28-32 ft.-lbs. If one or more of the attaching screws are below torque specification, tighten to specification and proceed to step 3. If all of the attaching screws are found to be properly torqued, then the complaint has other causes and the pump should be replaced.

3. Install the reservoir and power steering pump as outlined in Group 3 of the appropriate Shop Manual.

(TSB 67 - 5/5/67 - Article 1060)

LOSS OF TORQUE ON STEERING GEAR MOUNTING BRACKET BOLTS

(1966-67 N-850-1000 and NT-851-950 Gas and Diesel)

New vehicle pre-delivery reports have been received advising that the steering gear mounting bracket bolts will not maintain torque resulting in the bracket loosening at the frame attachment point.

This problem is due to an over torque of the original bolts causing the bolts to stretch and was resolved in production in November 1966 by changing the grade of the bolt.

When complaints are received on vehicles built through November 1966, replace the existing bolts with those shown below and torque the new bolts to 65-79 foot pounds.

Part Number	Required	Application
357451-S	4	N-850-1000, NT-850-950 Gas Engine
357452-S	4	N-1000-D & NT-850-950-D Diesel Engine

(TSB 67 - 5/5/67 - Article 1066)

POWER STEERING LEAKS AT INLETS AND OUTLET PORTS OF THE FORD INTEGRAL GEAR (XR50) (AII)

Field complaints in some cases have indicated that power steering fluid leaks at the inlet and/or outlet ports of the Ford integral steering gear still persist after normal torque applications. In these cases, the port seats were found to be at fault. This condition can be corrected by inserting an "O" ring in the seat and then applying the normal torque. In no case should the gear be replaced without first applying this correction. The "O" rings are a class "S" item and the part number and application is as follows:

INLET PORT - 87006-S94
OUTLET PORT - 87010-S94

In order to insure proper installation, all

"O" rings must be coated with Vaseline petroleum jelly prior to installation.

(TSB 88 - 3/22/68 - Article 1324)

POWER STEERING PUMP PULLEY

(All "W" Series Trucks with Caterpillar 673 and 674 Engines and Cummins NH and V-8 Series of Engines Built Prior to December 4, 1967)

On "W" series trucks with the Caterpillar 673 and 674 and Cummins NH and V-8 engines, the power steering pump pulley may develop axial end play under a tolerance stack-up condition. On a complaint basis only, replace the pulley with a new pulley, part number C6TZ-3A733-B, Class "C" part.

(TSB 99 - 9/27/68 - Article 1498)

CORRECTION TO 1968 TRUCK SHOP MANUAL, VOLUME I, ASSEMBLY OF VICKERS POWER STEERING PUMP

(All Vickers Power Steering Pumps)

Assembly Step No. 6 outlined on pages 3-79 of the subject manual reads "Install the vanes with their radius edge toward the center of the rotor". This step should read "install the vanes with their radius edge away from the center of the rotor."

(TSB 103 - 11/29/68 - Article 1544)

POWER STEERING COOLER INSTALLATION

(1968 Fairlanes and Mustangs Equipped with 427 or 428 CID Cobra Jet Engines and Power Steering Built Prior to June 29, 1968)

Instructions for installation of a power steering fluid cooler are provided in the article.

PARTS:

C80Z-3D746-A	Cooler Assembly	Class C
C7AZ-3A005-A	Return Hose	Class A
378459-S2	Screw	Class S

Production Correction: June 29, 1968.

WARRANTY STATUS: REIMBURSABLE
Oper. SF-3746-A
Time: 0.7 Hr.

(TSB 110 - 2/28/69 - Article 1681)

POWER STEERING PUMP GEAR DIAGNOSIS

(All 1965 Through Present Ford Design Power Steering Pumps)

The procedure as outlined in the detailed procedure should be used to check the power steering pump and to assist in localizing the difficulty to the pump, the power assist control valve, or the integral steering gear assembly.

PARTS:

Locknut Part No.	Thickness (Nominally)	Torque Spec.
270580-S8	.33	25-35 lb. ft.
371782-S8	.45	35-45 lb. ft.

(TSB 113 - 4/18/69 - Article 1754)

POWER STEERING CONTROL VALVE SLEEVE LUBRICATION

(All 1969 and Past Model 500-1000 Series Trucks With Linkage Type Power Steering)

Lubrication of this sleeve is a normal maintenance item at each 4,000 miles. Failure to lubricate the sleeve could result in a rust build-up on the sleeve. If this condition is encountered disassemble control valve actuating sleeve and lubricate with specified chassis grease (refer to Volume One, Page 3-58, Figure 13, of 1968 Truck Shop Manual).

(TSB 113 - 4/18/69 - Article 1755)

POWER STEERING - HOSE ROUTING

(1969 Ford With V8 Engines and Power Steering)

Subsequent to servicing components on the left side of the engine compartment, be sure that the power steering hoses are returned and strapped in their normal position prior to starting and operating the engine. Failure to do this could result in the hoses contacting the exhaust manifold and possible burning of the hoses. See Figure 7.

PARTS: None.

PRODUCTION CORRECTION: None.
WARRANTY STATUS: NONE

(TSB 117 - 6/13/69 - Article 1827)

POWER STEERING - PUMP RETURN HOSE ROUTING

(All 1969 Vehicles With Power Steering)

The power steering pump reservoir must have the correct return tube angle to provide proper flow of power steering fluid. Refer to Figure 8 for the correct application of pump reservoirs by car line. Proper routing of power steering hoses is also necessary for efficient operation and should be carefully checked after servicing operations to be sure they have not been mispositioned.

PARTS: None.

PRODUCTION CORRECTION: None.
WARRANTY STATUS: NONE

(TSB 117 - 6/13/69 - Article 1828)

POWER STEERING PUMP & GEAR DIAGNOSIS

(All 1965 Through Present Ford Design Power Steering Pumps and Gears)

The procedure as outlined below should be used to check the power steering pump and to assist in localizing the difficulty to the pump, the power assist control valve, or the integral steering gear assembly.

PARTS:

Locknut Part No.	Thickness (Nominally)	Torque Spec.
370580-S8	.33	25-35 lb. ft.
371782-S8	.45	35-45 lb. ft.

(TSB 117 - 6/13/69 - Article 1829)

POWER STEERING PUMP DURABILITY IMPROVEMENT

(1968/69 Fairlane, Mustang, Falcon with 302, 351, 390, 427 and 428 Cobra Jet Engines, 3.25, 3.50, 3.91, or 4.30:1 Axle Ratios and Built Prior to October 10, 1968)

New power steering pump pulleys have been released for application on vehicles above. See the chart for proper part number identification.

PARTS:

Vehicle	Engine	Accessories	Pulley Part No.	Pulley Identification	Depot Class	Belt Part No.	Depot Class
Falcon Fairlane, & Mustang	302 & 351	Without air-conditioning and with single belt alternator	C7AZ-3A733-A	7AA	B	C60Z-8620-A	B
Fairlane & Mustang	302 & 351	Without air-conditioning and with dual belt alternator	C90Z-3A733-B	80B	C	C9MY-8620-A	A
Fairlane & Mustang	390, 427, & 428	Without air-conditioning and with single belt alternator	C90Z-3A733-B	80B	C	C57Z-8620-D	A
Falcon Fairlane, & Mustang	302 & 351	With air-conditioning and single belt alternator	C5AZ-3A733-F	AF	A	C90Z-8620-D	A

(TSB 110 - 2/28/69 - Article 1682)

STEERING GEAR LUBRICANT LEVEL

(W-1000-D & WT-1000-D With Power Steering 1966-1969)

The lubricant capacity for subject vehicle is 2.6 pints. To facilitate filling of the housing, install elbow and filler plug in upper gear housing.

1. Remove pipe plug from steering gear upper housing.
2. Install street elbow in hole with opening vertical.
3. Fill gear to new level.
4. Install pipe plug in street elbow.

PARTS:

Part Number	Name	Class	Availability
3350 x 6 Weatherhead	Street Elbow 3/8 Male Thread and 3/8 Female Thread	Not Serv.	Weatherhead or Local Hardware

PRODUCTION CORRECTION: Approximately 12-1-68.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: Install elbow in upper steering gear fill opening SP-3504-D-69
Time: 0.3 Hr.

(TSB 118 - 6/27/69 - Article 1847)

POWER STEERING - PRESSURE HOSE ROUTING STABILIZER BAR

(1969 Mustang with 302/351 CID Engines)

Proper routing of the power steering hose includes adequate clearance between the pressure hose and the stabilizer bar. The vehicle must be raised on a hoist to check this clearance. The metal tubing portion of the hose at the pump connection end must also be free of any kinks or severe bends.

If the clearance with the stabilizer is less than .75" and/or the metal tubing portion of the hose is kinked, the hose may be replaced with a C9Z2-3A719-A hose assembly.

PARTS:

Part Number	Part Name	Quan.	Class
C9Z2-3A719-A	Hose Assembly	1	A

Production Correction: Vehicles built after October 10, 1968, are equipped with the new pulley.

WARRANTY STATUS: Reimbursable under provisions of the Warranty & Policy Manual

Oper: 3-3696-A on Page 3-7 (Car Section) of 1969 Service Labor Time Standards Book.

Time: As applicable to affected car line (with & without air conditioning).

3/8 holes for the mounting of power steering pump bracketry. When cylinder heads are replaced in service, on vehicles prior to 1970, the service engine cylinder head could have the 7/16 tapped holes. The procedure listed in the main article should then be used to modify the power steering pump mounting bracketry.

PARTS: None.

PRODUCTION CORRECTION: None.

WARRANTY STATUS:

INFORMATION ONLY

(TSB 121 - 8/15/69 - Article 1916)

POWER STEERING - PUMP OUTLET FITTING LEAK

(All Vehicles With F-T Pump - 1965 Thru 1969 - All Vehicles With F-T Pump Having 5/8 O.D. Fitting - 1970)

Tube seat No. 384092-S is released to repair fluid leakage at the pump outlet fitting. Insert the tube seat Part No. 384092-S between the pump outlet fitting and the hose connector and retorque to specifications. If the leak still persists the pump assembly must be removed from the vehicle and repaired.

PARTS:

Qty.	Part No.	Part Name	Class	Avail.
1	384092-S	Tube Seat	S	10-3-69

PRODUCTION CORRECTION: None.

WARRANTY STATUS:

INFORMATION ONLY

(TSB 124 - 10/10/69 - Article 1957)

POWER STEERING - PUMP WHISTLE NOISE

(All 1970 Passenger Vehicles and Trucks So Equipped)

A whistle noise occurs, in some pumps, when the steering wheel is turned and held at either stop and the pump is forced to relieve hydraulic pressure. This noise is not harmful in any function of the pump and no attempt should be made to repair or replace.

PARTS: None.

PRODUCTION CORRECTION: None.

WARRANTY STATUS:

INFORMATION ONLY

(TSB 130 - 12/19/69 - Article 2035)

Steering Columns

LIMITED CLEARANCE - SHIFT LEVER TO STEERING WHEEL

(1968 Ford and Fairlane Equipped with Column Mounted Standard Transmission)

Some 1968 Ford and Fairlane vehicles with standard transmissions built before November 10, 1967, reportedly may have a condition of limited clearance between the steering wheel and shift lever in first and reverse gear positions. On a customer complaint basis only, this condition may be corrected by replacing the shift lever with a new lever, part number CBAZ-7210-K.

(TSB 84 - 1/26/68 - Article 1264)

STEERING COLUMN AND FLEXIBLE COUPLING INSTALLATION

(1967-68 F-100-350 Model Trucks)

Field reports indicate that some 1967-1968 Light truck steering columns and/or flexible couplings may be misaligned which while not affecting steering control could cause an undesirable "play" in the steering wheel as a result of the premature wear of mating parts. If this condition is encountered, the unit should be checked as outlined in the article.

(TSB 89 - 4/6/68 - Article 1351)

PRODUCTION CORRECTION: 1-13-69.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: 3-3719-A

Time: 0.6 Hr.

(TSB 119 - 7/18/69 - Article 1871)

POWER STEERING - NOISY POWER STEERING PUMP

(All 1965 through Present - Ford Design Power Steering Pumps)

Remove pump from vehicle only if necessary to repair as outlined in complete article.

PARTS:

Part Number	Part Name	Quan.	Class	Avail.
C9AZ-3A760-A	Gasket	1 Pkg.	A	OK

PRODUCTION CORRECTION: April 22, 1969.

WARRANTY STATUS: Noted in article.

(TSB 120 - 8/1/69 - Article 1897)

NEW POWER STEERING PUMP

(All "W" Series with 8V-71 Engines)

Install a new power steering pump and a remote mounted reservoir, with increased oil capacity has been released for installation on the subject vehicles.

PARTS:

Part Number	Part Name	Class	Avail.
C9HZ-3A635-A	Kit	CG	8/29/69

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: SP-3531-A-69

Time: 5.7 Hrs.

DLR. CODING: 3-3696-A-41

(TSB 120 - 8/1/69 - Article 1898)

POWER STEERING - MODIFICATION OF POWER STEERING PUMP MOUNTING BRACKETRY

(For Service Replacement Engine Cylinder Heads - 1965 Thru 1969 Vehicles With 260, 289, 302 or 351 CID Engines and Power Steering)

1970 vehicles will have an engine cylinder head with 7/16-14 tapped holes instead of

REPLACEMENT OF DELUXE SPORTS STEERING WHEELS

(All 1967 Mustang, Fairlane and Ford "7 Litre" Vehicles So Equipped)

Effective June 10, 1968, the 1967 deluxe sports steering wheel (3 metal spokes) applied to 1967 Mustang, Fairlane and Ford "7 Litre" vehicles is serviced only as a complete wheel and horn ring assembly. Previously, this steering wheel less horn ring was available as a separate service part.

In the event a subject steering wheel requires replacement, it will be necessary to order the complete steering wheel and horn ring assembly. Part numbers are:

Ford	C7AZ-3600-U — Part Class "C"
Mustang, Fairlane	C7OZ-3600-AJ — Part Class "C"

Caution should be used in removing the steering wheel. Never use a knock-off type steering wheel puller or strike the steering shaft with a hammer. Striking the puller or shaft will damage the column bearings. Use special service tool number 3600-AA and follow the procedure as outlined in the 1967 Shop Manual.

When installing the steering wheel, torque the nut to 25-35 ft. lbs. and apply two (2) drops of "Loctite" sealer, part number C3AZ-19554-A — Class "B" item.

(TSB 94 — 6/21/68 — Article 1429)

STEERING SHAFT RATTLE OR NOISE

(All Passenger Car Lines with Collapsible Columns)

A noise or rattle in the steering shaft may be due to a shearing of the plastic injection molded shear pins which retain the upper half of the steering shaft to the lower half thus allowing relative movement between the two halves. This possibility should be considered in diagnosing any complaints of this nature. Should this condition be found, the entire steering shaft should be replaced following the procedure outlined in the complete article. **CAUTION NOTE:** Under no circumstance should an attempt be made to correct or eliminate looseness or rattles by welding or shimming the upper or lower steering shafts or by any other unauthorized correction, as the collapsibility and safety feature of the shaft and column will be seriously impaired.

NOTE: This condition will not impair the safety or function of the energy absorbing column.

(TSB 101 — 11/1/68 — Article 1514)

STEERING COLUMN UPPER BEARING RETAINING SCREWS

(1967-68 F-B-500-750 Series Trucks)

Loose screws in the upper bearing retainer will permit slight up and down motion of the steering wheel. On a complaint basis only replace the screws with a screw 382394-S100 and install clip C1TF-13377AP over the screws.

(TSB 103 — 11/29/68 — Article 1545)

CLICK NOISE EMANATING FROM THE STEERING GEAR

(1967-68 F100/250 4 x 4 Trucks Built Prior 1/2/68; 1966-68 U-100 Broncos Built Prior 1/2/68)

Complaints of "click or clunk" noise emanating from the steering gear may be corrected by installing a heavy gage spring in the steering gear shaft coupling joint assembly.

See complete article for part numbers and spring replacement procedures.

(TSB 106 — 1/10/69 — Article 1620)

STEERING UNIVERSAL JOINT NOISE — UPPER SHAFT

(1968-1969 N850-1000 and NT-850-950 Trucks Built after February, 1968)

Inspect the joint assembly for the presence of the spring and ball socket and install parts if they are missing. See Pages 3-59, Volume One, Figure 16 of the 1968 Truck Shop Manual for exploded view of the constant velocity joint.

PARTS:

Required	Part No.	Name	Class	Avail.
1	C8HZ-3C669-A	Spring	CQ	OK
1	C8HZ-3C619-A	Socket	CQ	OK

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Oper: 3504-A

Time: Per the Service Labor Time Standards Manual

(TSB 110 — 2/28/69 — Article 1683)

STEERING COLUMN SHIFT TUBE — TEARING AT WINDOW OPENING

(1968 Ford and Fairlane with Three-Speed Manual Transmission Built Prior to May 1, 1968)

Replace shift tube as outlined in appropriate 1968 Shop Manual.

PARTS:

Part No.	Name	Class	Qty.	Avail.
C8AZ-7212-S	Tube Assy. — Trans. Gear Shift	C	1	1-20-69

PRODUCTION CORRECTION: 5-1-68.

WARRANTY STATUS: REIMBURSABLE
Operation: 7212-A in 1969 Service Labor Time Standards Book.
Time: 1.3 Hrs. (Ford)
1.4 Hrs. (Fairlane)

(TSB 112 — 4/4/69 — Article 1727)

STEERING COLUMN — SHAFT RATTLE

(All Car Lines — 1968-1969 [Except Cortina])

Install insulator clips in lieu of replacing shaft assembly. This TSB procedure SUPERSEDES TSB Issue No. 101, Article No. 1514, dated November 11, 1968, which stated REPLACE the steering shaft.

PARTS:

Qty.	Part No.	Name	Class	Avail.
2	C9AZ-3E629-B	Insulator Clip	CG	3-28-69

PRODUCTION CORRECTION: 11-1-68.

WARRANTY STATUS: REIMBURSABLE
Operation: SP-3524 (See Time Table)

Operation	Time Table Vehicle	Column Fixed	Tilt wheel
SP-3524-A-68	Ford, Fairlane, Falcon	1.2 Hrs.	
1968	B-68 Ford	1.4 Hrs.	1.4 Hrs.
	C-68 Thunder bird	1.6 Hrs.	1.8 Hrs.
	D-68 Mustang	0.7 Hr.	
	E-68 Mustang		1.4 Hrs.
	A-69 Fairlane & Falcon — Std. Trans.	1.3 Hrs.	
	B-69 Fairlane & Falcon — Auto Trans.	1.1 Hrs.	
	C-69 Thunder bird		1.8 Hrs.
1969	D-69 Thunder bird	1.3 Hrs.	
	E-69 Ford	1.3 Hrs.	
	F-69 Ford		1.5 Hrs.
	G-69 Mustang	1.1 Hrs.	
	H-69 Mustang		1.4 Hrs.

(TSB 112 — 4/4/69 — Article 1728)

PIN RETENTION — AUTOMATIC TRANSMISSION SELECTOR ARM

(Economy With Automatic Transmission — 1969)

Install worm gear clamp by pulling off spring 7B113, re-installing pin 01A-7337 and with selector in "park" position, install worm gear clamp 376241-S (B7A-8287-A), as illustrated in Figures 10, 11 and 12.

PARTS:

Part Number	Part Name	Qty.	Class	Avail.
01A-7337	Pin	1	B	OK
B7A-8287-A	Clamp	1	A	OK

PRODUCTION CORRECTION: July, 1969.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.
Operation: SP-7302-A-69
Time: 0.3 Hr.

(TSB 117 — 6/13/69 — Article 1830)

NEW STEERING COLUMN WITH BALL BEARING LOWER BUSHING

(1966-69 W & WT 1000 Trucks)

The new parts outlined below can be installed on prior units.

PARTS:

Part Number	Part Name	Class	Avail.
C9HZ-3A526-A	Steering Shaft	CQ	OK
C7TZ-3520-A	Spring	CQ	OK
C8HZ-3518-A	Shield	CQ	OK
C9HZ-3509-A	Tube	CQ	7-11-69
371681-S8	Washer	S	OK

PRODUCTION CORRECTION: 5-2-69.
WARRANTY STATUS: Reimbursable within the provisions of Warranty & Policy Manual.
Operation: SP-3509-A-69
Time: 1.4 Hrs.
DLR. CODING: 3509-41

(TSB 119 — 7/18/69 — Article 1872)

Steering Linkage

STEERING DRAG LINK INSTALLATION

(1967 F & B 500-750 with 5000-7000 Lb. Front Axles and Power or Manual Steering)

The steering drag link on 1967, F & B 500-750 vehicle with power or manual steering can be installed in a reversed position, end for end. To help prevent this possibility the word "Axle" is stamped on all drag links to designate the end that is to be attached to the front axle steering arm.

When diagnosing steering complaints, it is suggested that the drag link installation be checked.

(TSB 58 - 1/27/67 - Article 984)

LUBRICATION DRAG LINKS AND TIE ROD ENDS

(1967 F, B, N 500-750 with 5000-7000 Pound Front Axles)

The drag link and tie rod assemblies are lubricated during assembly and do not require any further lubrication. The installation of grease fittings, and the possible application of non-compatible greases, effects the durability and shortens the life of the part. This additional lubrication would not reduce steering effort or improve returnability.

(TSB 74 - 8/25/67 - Article 1142)

CORRECT POSITIONING OF THE "TIE ROD" CLAMP ASSEMBLY - FRONT AXLE SPINDLE CONNECTING TUBE

(1966 thru 1968 Model Broncos)

Please note whenever the front axle spindle connecting tube (tie rod) clamp on the subject vehicle is loosened or removed, it must be reinstalled in the forward facing position with the bolt head up ($90^\circ \pm 15^\circ$). If the clamp is installed otherwise, the maximum turning angles will be reduced, due to an interference condition between the clamps and the spindle, or the stabilizer.

The illustration in the referenced shop manual shows the correct installation position. However, the script does not include any reference to the correct position.

(TSB 92 - 5/17/68 - Article 1403)

ECONOLINE STEERING LINKAGE PARTS IDENTIFICATION

(1969 Econolines E100-200-300)

To clarify the Ford-Autolite Parts Book and to assist the Dealer Parts Manager in ordering the correct steering linkage components for 1969 E100/200 and E300 Econolines, the service part numbers and the means of properly identifying these parts is outlined in the main article.

(TSB 98 - 9/13/68 - Article 1486)

DRAG LINK AND TIE ROD END REPLACEMENT SEAL

(1967-68 F, B, N-500-750 With 5000-7000 Pound Capacity Front Axles)

A new weather resistant tie rod end and drag link dust seal has been released for service C7Z-3332-G.

(TSB 99 - 9/27/68 - Article 1496)

IMPROVED TURNING RADIUS

1969 F H B 600-750 Vehicles With 6000 or 7000 Pound Front Axle and Power Steering

To improve the turning radius of 1969 F & B 600-750 vehicles with 6000 or 7000 pound front axles and power steering, the drag link and pitman arm have been revised. This change became effective in production approximately September 1, 1968 and may be applied to 1967 or 1968 models equipped with 6000-7000 lb. front axles and power

steering, upon customer request.

See complete article for part numbers and other pertinent data.

(TSB 105 - 12/20/68 - Article 1601)

IMPROVED STEERING EFFORT

1968 N & NT-850-1000 with 7000-9000 Lb. Front Axles & Manual Steering, 12,000 Pound Center Point and 7000-15,000 Pound Power Steered Axles

A new pitman arm, C3TZ-3590-D, was incorporated in production on July 29, 1968. This new arm incorporates additional machining in the ball stud to drag link attaching area resulting in less friction and overall lower steering effort.

(TSB 105 - 12/20/68 - Article 1610)

REAR AXLE

Axle General Service

CORRECTION TO EATON AXLE BOLT TORQUE SPECIFICATIONS

(1967 Trucks Equipped With Eaton Axles)

Illus. E1642-A identifying the bolt grades for Eaton Axles was inadvertently omitted from page 4-139 of the 1967 Ford Truck Shop Manual.

When servicing the subject axles, use Illus. E1642-A in conjunction with the shop manual torque specifications to make certain that the various bolts are tightened to their proper torque.

(TSB 68 - 5/19/67 - Article 1083)

IMPROVED DRIVE AXLE LUBE

(1967 Econoline, Bronco, Light and Medium Trucks)

The presently specified hypoid lubricant for all 1967 and prior model front and rear conventional and locking drive axles on the subject vehicles is ESW-M2C-105-A (P & A #C6AZ-19580-D) except for the Econoline Ford built locking axle which uses ESW-M2C-104-A (P & A #C6AZ-19580-C), CIAA-19B546-A additive (4 oz.) is not to be used on any truck axle since it reduces the score characteristics of the specified lubricant.

Mixing of the old and new type lubricants is not permissible.

(TSB 70 - 6/23/67 - Article 1107)

VISUAL CHARACTERISTICS OF REAR AXLE HYPOID LUBRICANTS

(1967 - All Ford Manufactured Rear Axles)

Two new rear axle hypoid lubricants are used in production on 1967 Ford manufactured rear axles and are specified for all service usage.

These lubricants will vary in color from a yellowish-green when new, to a beige or gray, as mileage increases, and have flow characteristics of engine oil.

Axle lubricants previously used were black in color. These lubricants are no longer used in production or service.

When axle lubricant is checked and found to be a yellowish-green, beige or gray in color, it should not be replaced with a lubricant black in color.

(TSB 70 - 6/23/67 - Article 1108)

CORRECTION TO T.S.B. ARTICLE NO. 1108

(TSB 74 - 8/25/67 - Article 1108)

CORRECTION TO T.S.B. ARTICLE NO. 1108 VISUAL CHARACTERISTICS OF REAR AXLE

HYPOID LUBRICANTS

(1967 - All Ford Manufactured Rear Axles)

(TSB 77 - 10/13/67 - Article 1173)

REAR AXLE NOISE COMPLAINTS

(1966 & 1967 Mustang 200-1V with Automatic Transmission and 289-2V or 4V with Automatic or Standard Transmission)

Numerous cases of rear axle noise have been reported on 1966 Mustangs and a few early built 1967 models. Investigation of complaint units has revealed the use of a "tube-in-tube" driveshaft assembly in place of the cardboard lined driveshaft will dampen axle noise to an acceptable level, in most cases.

Installation of the "tube-in-tube" driveshaft (C7Z-4602-F, Class B) to dampen rear axle noise must be made prior to any axle overhaul and on a customer complaint basis only.

Should axle noise persist to an unacceptable level after installation of a "tube-in-tube" driveshaft, then it may be necessary to make an axle repair to correct the problem.

(TSB 74 - 8/25/67 - Article 1138)

REAR AXLE NOISE COMPLAINTS

(1967 Falcon Passenger Car 200-1V with Automatic Transmission and 289-2V with Automatic or Standard Transmission)

Reports from the field indicate a problem of rear axle noise on some 1967 Falcon passenger cars. Investigation of complaint units has revealed the use of a "tube-in-tube" driveshaft assembly in place of the cardboard lined driveshaft will dampen axle noise to an acceptable level, in most cases.

Installation of the "tube-in-tube" driveshaft (C7DZ-4602-D, Class C) to dampen rear axle noise must be made prior to any axle overhaul and on a customer complaint basis only. Should axle noise persist to an unacceptable level after installation of a "tube-in-tube" driveshaft, then it may be necessary to make an axle repair to correct the problem.

(TSB 74 - 8/25/67 - Article 1140)

(4 x 4) CRACKED FRONT AXLE HOUSINGS

(1967 F250 (4 x 4) 3500 Lb. Front Axle Assembly Serial Numbers Before B12001)

On a customer complaint basis, regarding cracked 3500 lb. front axle housings caused by an axle to bumper contact on the subject vehicles built prior to serial number B12001, correct by installing new front spring assemblies, C7TZ-5310-V, which have approximately one (1) inch increased ride clearance compared to the production installed C7TZ-5310-K spring assembly.

Refer to article for information regarding spring replacements without cracked axle housings.

(TSB 74 - 8/25/67 - Article 1141)

LUBRICANT LEAKAGE FROM THE REAR AXLE VENT

(1965-1967 Ford and 1967 Thunderbird)

Lubricant leakage at the rear axle vent, and looseness of the vent itself has been encountered on some vehicles in the field. Investigation has revealed that this problem can be corrected in the field by properly installing a new axle vent (4022) using "Loctite" sealing compound to insure against further leakage. Refer to the complete article for the recommended procedure and proper positioning of the vent in the axle housing.

(TSB 74 - 8/25/67 - Article 1147)

REAR AXLE HOUSING ALIGNMENT CHECKING PROCEDURE

(1965, 66, 67, 68 Fords Equipped with Demountable Carrier, 1967, 68 Thunderbirds Equipped with Demountable Carrier)

Investigation of rear axle housings returned under warranty as being "out of alignment" has revealed that many of these housings were within Engineering design specifications and were needlessly replaced. Recognizing information with regard to the inspection of housings may not have been adequate, a procedure to check rear axle housing alignment has been developed for field applications. The method requires only an eight foot tape measure and a lift to raise the vehicle. The specifications for the demountable carrier housing and the method for checking the rear axle housing alignment are outlined in the accompanying article.

(TSB 87 - 3/8/68 - Article 1304)

REAR AXLE NOISE COMPLAINTS

(1967/68 Fords Equipped with Light Duty Axle 8-1/2" 2.80:1 Ratio (Applications Ford 240-1V, 289-2V, 302-2V with C-4 Automatic Transmission)

Investigation of rear axle noise in the subject vehicles equipped with the 8-1/2" integral axle and 2.80:1 ratio, axle Model WER-C, has revealed that in many cases the use of a tube-in-tube driveshaft in place of inertia disc driveshafts will dampen axle noise to an acceptable level.

The driveshaft released for this application may be incorporated in either fleet or non-fleet usage.

CBAZ-4602-F

Tube-in-Tube Ford 1967/68
2 Lt. Blue 240-1V, 289-2V, 302-2V
1 Pink C-4 Automatic
1 Dk. Green (Drilled) 8-1/2" Axle 2.80:1 Ratio
62.86 (U.S.A. & Canada)

Installation of the tube-in-tube driveshaft to dampen rear axle noise should be made prior to any axle overhaul and on a Customer Complaint Basis Only.

(TSB 87 - 3/8/68 - Article 1316)

PINION NUT

(Cortina)

During rear axle overhaul procedures involving the replacement of the pinion nut, the following point should be observed regarding the type of nut to use.

Inspect the threaded end of the pinion shaft:

The earlier type has a milled slot along its length and either one of the following two nuts can be used.

1. Self locking nut, Part No. 114274-ES
2. Plain nut, Part No. 117698-ES, which must be staked to the shaft by punching part of the nut into the milled slot after the nut has been tightened to the correct torque.

The current type has no milled slot and only one type of nut can be used.

1. Self locking nut, Part No. 114274-ES
NOTE: Although self locking nuts of this kind can be used for up to six applications, if there is any doubt as to the condition or locking properties of a particular nut then a new nut should be fitted.

Refer to the Cortina shop manual for complete rear axle repair operations.

(TSB 88 - 3/22/68 - Article 1325)

FORD BUILT REAR AXLES - LUBRICANT CAPACITIES AND SPECIFICATIONS

(1967-1969 Econoline, 1967-1968 Broncos, and F-100 Light Trucks)

To assure adequate pinion bearing lubrication, the production fill level of ESW-M2C-105-A lubricant on Ford manufactured rear axles has been revised. In most instances, the lubricant is above the fill plug. To check these axles, back the plug out slowly. If seepage occurs, turn the plug back in immediately to avoid drainage. In addition, the following lubricant specification also applies to all 1967 truck units having the filler hole located in the carrier.

The specified lubricant fill on the above models with Ford manufactured rear axles was changed on February 12, 1968. See article for new lubricant capacities.

(TSB 88 - 3/22/68 - Article 1338)

REAR AXLE NOISE TRANSMITTAL

(1967 Mustang Vehicles Equipped with the GT or Optional Handling Package (Excluding the Competition Handling Package), and Built Prior to January 1, 1967)

Should customers complain of axle noise in the above described vehicles, replace the original (70 durometer) rear spring front eye bushings with the softer (55 durometer) bushings before attempting other repairs. The 55 durometer bushings may be obtained in a kit, C602-5630-B, Class B, or separately under C4D-5781-C, Class B, and should dampen the transmittal of rear axle noise. Re-evaluate the unit for rear axle noises; if the noise persists, follow prior published procedures.

(TSB 96 - 8/2/68 - Article 1453)

REAR AXLE WHEEL BEARING ADJUSTER NUT

(1969 and Prior 250 Through 1000 Series Trucks)

Paragraph 17, page 4-14 of the 1968 Truck Shop Manual should read:

"With the bearing rollers firmly seated, back off the adjusting nut 1/4 of a turn, and then install the lock washer."

Backing off 1/4 of a turn instead of 3/8 of a turn will allow the specified .001 to .010 inch end play described in paragraph 18.

(TSB 103 - 11/29/68 - Article 1550)

REAR AXLE SHAFT ATTACHMENT

(1969 F250/350, E300, P350/400 and P350/4000)

A "lock" type bolt replaces the stud nut, lock washer and tapered dowel (Figure 20, 1968 Truck Shop Manual, Group 4, Page 4-14) used to attach the axle shaft to the rear hub and drum assemblies.

Pending publication of the 1969 Truck Shop Manual showing the new method of axle shaft attachment, the main article should be utilized to facilitate service procedure.

(TSB 103 - 11/29/68 - Article 1576)

REAR AXLE - WARRANTY PLATE CODES

(Maverick - 1970)

Some misunderstanding may arise when determining the type of rear axle used in the Maverick. Currently three non-locking type axles are available. These are designated by letters or numbers as shown below. On page 01-000, column two, of the 1970 Maverick Preliminary Shop Manual, the last sentence under VEHICLE DATA should be corrected to read "numbers or letters for regular axles."

REAR AXLE RATIO CODES

CODE		AXLE RATIOS
Non-Lock	Lock	
S		2.83
C		3.08
8		3.20

(TSB 114 - 5/2/69 - Article 1770)

REAR WHEEL INNER SEAL AND WEAR SLEEVE INSTALLATION

(500-1000 Series Trucks - 1968-1969)

The full floating axle without an outer seal is now the only design used in medium and heavy trucks. The design of the inner seal has been changed and it is essential that this seal be installed with the use of a draw bar type of tool such as T68T-1176-A and appropriate attachments.

Do not apply heat to the axle pinhead

wear sleeve to help installation. Use the proper tools.

(TSB 115 - 5/16/69 - Article 1788)

REAR AXLE LUBRICANT LEVELS

(7 1/4" Ring Gear - Falcon, Mustang and Maverick - 1969/1970)

The rear axle lubricant levels in the subject vehicles have been revised affecting the pre-delivery, 6000 mile check and the service refill capacity specifications published for the 1969 and 1970 model years.

Engine Size	Ratio	Pre-Delivery & 6000 Mile Check	*Service Refill Capacity
170, 200	All	1/4" below bottom of filler hole	2.5

* Approximate refill capacity - actual lubricant requirements are determined by filling to bottom of filler hole.

(TSB 117 - 6/13/69 - Article 1831)

FRONT TIRE WEAR DUE TO BENT AXLE HOUSING

(F-100/250 4 x 4 and Bronco 1968-69)

Perform front axle alignment checking procedure outlined in the main article.

WARRANTY STATUS: Reimbursable under the provisions of the *SP-3001-C-69* *Warranty & Policy Manual*.

Operation: SP-3001-C-69
Time: 1.6 Hrs.

(TSB 118 - 6/27/69 - Article 1848)

DANA REAR AXLE HOUSING ALIGNMENT CHECKING PROCEDURE

(F-100/350, P-350/400, P-3500/4000 and E-300 - 1965-1970)

If rear axle housing misalignment is suspected, perform the checking procedure outlined in the article.

WARRANTY STATUS: INFORMATION ONLY

(TSB 127 - 11/21/69 - Article 2004)

FORD REAR AXLE HOUSING ALIGNMENT CHECKING PROCEDURE

(F-100, E-100/200, Bronco - 1969-70)

If rear axle housing misalignment is suspected, perform the checking procedure outlined in the article.

WARRANTY STATUS: INFORMATION ONLY

(TSB 127 - 11/21/69 - Article 2005)

Integral Axle Carrier - Car and Light Truck

REAR AXLE VENT LUBRICANT LOSS

(1969 Ford Vehicles with the WER, 8-1/2" Diameter Ring Gear, Non-Removable Carrier Axle)

Rear axle lubricant may be siphoned through the rear axle vent tube into the frame cross member on some WER, non-removable carrier axle assemblies in 1969 Ford vehicles. The following procedure will reduce the possibility of lubricant loss through the vent:

1. Disconnect the vent hose from the vent.
2. Remove the vent from the carrier casting.
3. Saw off a portion of the vent just below the first thread as illustrated in the main article.
4. Remove all burrs and chips from the vent.
5. Reinstall the vent in the carrier casting and torque to 5-20 lb. ft.
6. Connect the hose to the vent.
7. Check the lubricant level, and if additional lubricant is required, fill to proper specifications.

(TSB 104 - 12/13/68 - Article 1584)

Separate Axle Carrier — Car and Light Truck

REAR AXLE "CLICK" NOISE PROBLEM CORRECTION

(1967 Ford, Thunderbird, Fairlane,
Mustang, F-100 Truck, Econoline
and Bronco)

Field reports have indicated that some 1967 vehicles equipped with 8-3/4", 9" and 9-3/8" diameter gear rear axle assemblies produce a "clicking" sound. The click noise is most pronounced during torque reversal of the drivetrain when shifting the transmission from NEUTRAL to DRIVE or REVERSE. Investigation has revealed that the click noise emanates from the mating surfaces of the drive pinion universal joint flange and the front pinion bearing inner race.

The problem can be corrected with the installation of the phosphate-coated drive pinion oil slinger, Part No. C3A2-4670-A, between the aforementioned mating surfaces. See the complete article for further instructions.

(TSB 76 - 9/29/67 - Article 1159)

Cortina Axle

REAR AXLE PINION AND DIFFERENTIAL BEARING PRE-LOADS

(*68 Cortina*)

As a result of development work carried out on rear axles, changes have been made to the pinion bearing pre-load figures and the differential carrier spread specifications:

This article updates the 1968 Cortina Supplementary Workshop Manual, Section 14A-7. The specification is now:

Pinion Bearing Pre-Load: 20-26 lb. in. including oil seal drag; 13-19 lb. in. without oil seal drag.

Differential Carrier Spread: 0.008 to 0.010 in.

The above new specifications apply when fitting new bearings to "1968 Cortina". When rebuilding differential assemblies with the original bearings, the pre-loads should be set to one-half the above figures.

The new pre-loads were introduced into production on January 31, 1968 and axles built to these specifications are identified by a white paint spot on the pinion end. When fitting a new or repaired differential unit it is important to wipe the axle casing clean and ensure that no silicones or lube is present.

It is essential that the new rebuilt axle is carefully run in to ensure trouble free life.

(TSB 90 - 4/19/68 - Article 1367)

REAR AXLE NOISE (FEDERAL CORTINA)

If adjustment of rear axle ring gear and pinion does not eliminate or reduce rear axle noise, replace the complete carrier and differential assembly with an improved assembly.

The improved assembly is identified by a year and month code etched on the circumference of the ring gear beginning with 8J.

PARTS: Carrier (Rear Axle) and Differential Assembly Part No. 118E-4200A (except GT).

Carrier (Rear Axle) and Differential Assembly Part No. 118E-4200B (GT only).

PRODUCTION CORRECTION: 10/1/68.

WARRANTY STATUS: REIMBURSABLE

Operation: 4200-A

Time: 1.4 Hrs.

(TSB 113 - 4/18/69 - Article 1756)

Locking Axles — Car and Light Truck

FIELD CORRECTION FOR LIMITED SLIP CLUTCH

PLATE CHATTER

(All Ford Built Axles With Limited
Slip Differential)

When encountering complaints of limited slip clutch plate chatter, it is recommended that the vehicle be driven in fairly tight circles, 5 circles clockwise and 5 circles counterclockwise, to allow the lubricant to work in between the clutch plates. If the chattering still exists, the following correction should be attempted prior to clutch plate replacement.

Siphon the lubricant from the axle. Refill with known Limited Slip Lubricant ESW-M2C104-A (C6A2-19580-C), and road test the vehicle. If the chattering still exists, the vehicle should be driven approximately 25-50 miles, at which time the chattering should disappear. If this does not correct the problem, only then should the clutch plates be replaced.

The differential carrier must be disassembled, cleaned, and new friction plates installed. The axle housing must be cleaned and flushed. NOTE: New friction plates must be soaked for ¼ hour in C6A2-19580-C (ESW-M2C104-A) lubricant.

After refilling the axle with Ford approved lubricant, drive the vehicle in fairly tight circles clockwise and counterclockwise. If chattering still exists, the vehicle should be driven an additional 25-50 miles. The chattering should disappear as soon as the new lubricant works in between the clutch plates.

(TSB 88 - 3/22/68 - Article 1329)

NEW DESIGN 4-PINION TORQUE SENSITIVE LOCKING DIFFERENTIAL (OPTIONAL EQUIPMENT)

(1968-1/2 Mustang, Cougar, Fairlane
and Montejo equipped with 390 CID,
427 CID or 428 CID Engines)

A new design 4-pinion torque sensitive locking differential rear axle assembly is released as optional equipment for the subject vehicles.

This article covers description, operation, disassembly and assembly, and specifications for the unit.

(TSB 91 - 5/3/68 - Article 1368)

LIMITED SLIP AND TRACTION-LOK REAR AXLE DESCRIPTION

(All - So Equipped)

A brief description to distinguish between the types of locking differentials merchandized is as follows:

LIMITED SLIP

The most familiar design is the seven clutch plate, Belleville spring and constant load type. The seven clutches consist of four steel and three friction plates. This locker has been referred to under the names of Limited Slip, Equi-Lock, Directed Power and Power Transfer differentials in service publications. All publications issued from this office will refer to this design locker as "Limited Slip."

TRACTION-LOK

The new design is the nine clutch, pre-loaded spring and variable load type. The nine clutches are composed of four steel, four friction and one composite plate. This locker has appeared under the name of "Traction-Lok" and "Torque-Sensitive" in service publications. The name of "Torque-Sensitive", seen in early service publications, was an engineering term used during design and development stages of the "Traction-Lok." The name "Traction-Lok" was not established until after the differential was released and service information published. Subsequent information has and will use the trade name "Traction-Lok" exclusively.

(TSB 102 - 11/15/68 - Article 1537)

Single Speed Axle — Truck

DANA DESIGN REAR AXLE ALIGNMENT CHECKING PROCEDURE

(1965-1969 F100-350, P-350-400,
P-3500-4000 and E300)

In an attempt to satisfy customer complaints of objectionable rear tire wear,

the axle housing is apparently being replaced. Many of these axle housing assemblies are within design specifications but have been erroneously diagnosed as being bent.

The main article describes the procedure for checking rear axle alignment to determine if a complaint of abnormal rear tire wear is actually the result of a "bent" rear axle housing.

(TSB 95 - 7/12/68 - Article 1456)

DANA POWER LOK AXLE TRUCK COMPLAINTS

(1967-68 F-100, 250 & 350, F-100 &
250 4 x 4; P-350, 3500, 400 and
4000 U-100 and 1969 E-300)

Driving front and/or rear axle chatter complaints on the subject vehicles equipped with Dana Power-Lok differentials can be corrected by adding friction modifier, EST-M2C118-A (C8A2-19B546-A), D. A. Stuart Oil Company No. FM-333, to the axle lubricant. Under no condition should ESW-M2C58-A (C1AA-19B546-A) be used.

Listed are the axle applications and the amount of C8A2-19B546-A required. (Supplied in 4 ounce container.)

Dana Power-Lok Equipped	Quantity C8A2-19B546-A amount of container
All Rear	4 oz. (entire amount of container)
All Front	2 oz. (½ amount of container)

NOTE: Under no circumstances should this additive C8A2-19B546-A be added to the Ford Equi-Lok or Trac-Lok differentials currently used in the F-100 and Passenger Car.

(TSB 107 - 1/24/69 - Article 1627)

LEAKING REAR WHEEL SEALS AND/OR OVERHEATING REAR BRAKES

(All Medium, Heavy and Extra-Heavy
Trucks)

Check inner wheel bearings for correct clearance from .001 to .002 inches between the bearing inner diameter and the axle housing outer diameter. Replace bearing if clearance is incorrect.

**WARRANTY STATUS: Reimbursable with-
in the provisions of the Warranty & Policy
Manual.**

Operation: SP-1177-A-69

Time: One Wheel 1.3 Hrs.

Both Wheels 2.2 Hrs.

(TSB 115 - 5/16/69 - Article 1789)

Tandem Axle — Truck

NEW TORQUE ARMS

(All Tandem Trucks with Hendrick-
son Suspensions)

To provide increased durability and reduced maintenance, new torque arms are available for all tandem trucks with Hendrickson Suspension. For part numbers refer to the article.

(TSB 99 - 9/27/68 - Article 1500)

REAR AXLE LUBRICANT LEAKAGE

(1968-69 Extra Heavy Trucks with
Eaton 42CP Tandem Axles — This
Article Cancels and Supersedes
Article 1640)

When a new wheel bearing seal and wear sleeve does not correct the leak, seal the inner wheel bearing spacer to axle housing with Permatex No. 2 as follows:

1. Remove the wear sleeve (wiper) from the rear wheel inner bearing spacer.
2. Using a propane torch, heat the rear axle inner bearing spacer until it can be moved outward approximately 2 inches.
3. Apply Permatex to the inside of the spacer and re-install the spacer using suitable driver, such as a 3½-inch I.D. pipe.
4. Remove all excess Permatex.
5. Install a new seal and wear sleeve kit

(C8HJ-1175-B) as outlined on 04-01-14 and 15 of the 1969 Truck Shop Manual.
PARTS:

Part No.	Name	Class	Avail.
C8HJ-1175-B	Seal Kit	BQ	OK

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: 1240-A

Time: Per the Service Labor Time Standards Manual.

(TSB 112 - 4/4/69 - Article 1729)

CLUTCH MANUAL TRANSMISSION, AND DRIVE LINE

Transmission General Service

NEW PROCESS TRANSMISSION AND WARNER T18 HARD SHIFT, HIGH EFFORT AND INSTRUMENT CLUSTER INTERFERENCE

(1966, 1967 F-100-250, 350)

Complaints of stiffness or binding in the neutral crossover position or when shifting to second or third can be caused by inadequate lubrication of the shift lever spherical seat and trunnion grooves and/or improper position of the shift lever knob. (See article.)

(TSB 61 - 3/10/67 - Article 1007)

MAIN AND AUXILIARY TRANSMISSION INPUT OR OUTPUT SHAFT NUT TORQUES

(Medium, Heavy and Extra Heavy Trucks)

Transmission gear jumpout, noise problems, and premature wear problems may be the result of loosening of the companion flange nut on the output shaft.

New torque specifications have been released for the flange nut on all transmissions to preclude loss of torque and possibility of nut backing off the output shaft. These new torque specifications supersede all previously published specifications in shop manuals, specification booklets, etc.

It is essential that your existing manuals be corrected to agree with these new specifications and that the appropriate torques be applied to all involved service repair operations.

(TSB 63 - 3/31/67 - Article 1032)

DIAGNOSIS OF HARD SHIFT AND GEAR RATTLE COMPLAINTS AND RECOMMENDED SHIFT POINTS IN M.P.H.

(1966-1967 Model F-100 - F-350 Trucks Equipped with New Process Gear or Warner 4-Speed Transmissions)

Recommended road speed shift points in M.P.H. and a general diagnosis procedure for resolving hard shift and gear rattle complaints are discussed in the article.

(TSB 71 - 7/14/67 - Article 1116)

MANUAL TRANSMISSION HARD SHIFT CAUSED BY IMPROPER CLUTCH OPERATION

(1968 F-100-250-350 4 x 2 and F-100-250 4 x 4 1967 F-100-250 4 x 2)

Complaints of hard shift or high shift effort or gear clash on 1967 and 1968 Light trucks can be caused by improper clutch adjustment. The clutch should be adjusted following the procedure in the 1967 Ford Truck Shop Manual, page 5-18. Set the top of pedal to floor distance to 7-3/8 to 7-3/4 inches on 1968 units and 6-5/8 to 6-7/8 inches on 1967

units as indicated in the article.

(TSB 86 - 2/23/68 - Article 1288)

GEARBOX EXTENSION HOUSING BEARING

(Corona - In Line and "V" Engine)

In service, when a gearbox extension housing bearing is being replaced, it must be fitted with the oil lubrication scroll starting at the bottom, on the vertical center line of the gearbox extension housing, when viewed from the rear of the housing. This then positions the split in the bearing at approximately 35° to the vertical center line.

It is important that the bearing is positioned in this manner so that correct lubrication of the bearing is obtained.

(TSB 88 - 3/22/68 - Article 1330)

TRANSMISSION SHIFT LINKAGE ADJUSTMENT - ALL C SERIES TRUCKS

(All 1969 and Post C Model Trucks)

Revised procedure for adjusting C Series truck transmission shift linkage to assure proper clearance with instrument panel is detailed in the main article.

(TSB 102 - 11/15/68 - Article 1540)

TRANSMISSION IDENTIFICATION TAG

(Ford Design Three and Four Speed Manual Transmissions and C4, C6, M3 and FM3 Automatic Transmissions)

The model number suffix on the identification tag identifies running transmission changes and should always be used when ordering parts or making technical inquiries. Example: Basic Model PEA-A-revised - PEA-A1.

(TSB 110 - 2/28/69 - Article 1678)

MANUAL TRANSMISSION - FORD DESIGNED MAINSHAFT BEARINGS

(All Car Lines, Light Truck, Econoline and Bronco So Equipped)

For warranty repairs, use only approved sources for mainshaft bearings identified as follows:

Source	Identification on Outer Race
FORD Precision Products	FoMoCo or FPP
Federal Bearing Co.	Federal
SKF Industries (Canada)	S.K.F.
Fafnir Bearing Co.	Fafnir

(TSB 110 - 2/28/69 - Article 1684)

MANUAL TRANSMISSION SHIFT FORK ROLL PIN REMOVAL

(All Trucks Equipped With 435 New Process Transmissions)

When disassembling the transmission shift cover, the roll pins in the first and second speed shift fork should be removed correctly to prevent serious damage to the cover. A special fabricated screw extractor must be used. The roll pins should never be removed by driving them out with a drift.

To remove the roll pins, the fabricated screw extractor (see Figure 4) should be entered into the pin by tapping lightly on the handle while at the same time turning it slowly counterclockwise. When the screw extractor grips the roll pin, pull lightly and continue turning counterclockwise until the pin is removed.

(TSB 114 - 5/2/69 - Article 1775)

HARD FIRST OR REVERSE SHIFT

(1969 C Series Trucks With Clark 280 Series Transmissions)

Lubricate the first reverse shift finger shaft.

1. Remove the first and reverse shift finger assembly from the transmission rear cross shaft housing.

2. Remove any corrosion.

3. Remove and discard the rubber "O" ring from the first reverse finger assembly and do not replace when reassembling.

4. Coat parts with MIC53-A grease and reinstall.

PRODUCTION CORRECTION: April 17, 1969.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: 7222-A

Time: 0.9 Hr.

(TSB 115 - 5/16/69 - Article 1790)

DIFFICULT SHIFTING

(1969 E100/300)

Increase bushing bores in gearshift tube bracket and replace bushing.

PARTS:

Part Number	Part Name	Qty.	Class	Avail.
C8UZ-7335-A	Bushing	1	C	OK

PRODUCTION CORRECTION: None to date.

WARRANTY STATUS: REIMBURSABLE

Operation: SP-7335-A-69

Time: 1.5 Hrs.

(TSB 115 - 5/16/69 - Article 1791)

TRANSMISSION REAR CROSS SHAFT REMOTE CONTROL LEVER GROOVE PIN LOOSENING

(W Series Truck 1966 1/2-1969)

Replace pin with a 5/16 18 x 2 inch long grade 8 bolt and a 5/16-18 grade 8 prevailing torque lock nut and torque to 14-18 foot pounds.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: SP-7000-B-69

Time: 0.4 Hr.

(TSB 118 - 6/27/69 - Article 1849)

REVISED TRANSMISSION LUBRICANT CAPACITIES

(1969-70 Heavy & Extra-Heavy Trucks with Spicer 5000 Series Transmissions)

Some late 1969 or early 1970 model Heavy trucks will be produced with Spicer 5000 Series transmissions that have eight bolt PTO openings instead of the regular six bolt PTO opening. The lubricant capacity of these transmissions is 15 pints.

PARTS: None.
WARRANTY STATUS: INFORMATION ONLY

(TSB 119 - 7/18/69 - Article 1873)

SHIFT LINKAGE PLASTIC GROMMETS

(All Passenger Car Transmissions)

Standard and automatic transmission linkage systems make use of oil impregnated plastic grommets to connect various rods or levers. Information regarding a tool and its use for grommet removal/installation is found in the transmission sections of the 1970 Shop Manual.

Any time a grommet type connection is changed, the oil impregnated grommet should be REPLACED, not reused. Strict adherence to this procedure is necessary to assure satisfactory retention of the connecting links and overall system operation.

WARRANTY STATUS: INFORMATION ONLY

(TSB 128 - 12/5/69 - Article 2014)

Clutch

CLUTCH RELEASE EQUALIZER BRACKET-BALL STUD FAILURES

(1966 and post Model F-B-500-75 Trucks with 240, 300, 330, 361, and 391 C.I.D. Engines)

Failure of the clutch equalizer ball stud resulting in an inoperative clutch mechanism, may be corrected by usage of the 1967 design equalizer pivots and associated components.

(TSB 58 - 1/27/67 - Article 1981)

CLUTCH MASTER CYLINDER PUSH RODS - THIS ARTICLE SUPERSEDES AND CANCELS T.S.B. ARTICLE #974

(1965-66 P350-500 Trucks)

Broken clutch master cylinder push rod resulting in an inoperative clutch, can be corrected by repositioning the clutch master cylinder and installing a revised push rod.

(TSB 64 - 4/7/67 - Article 1045)

10 INCH DIAMETER CLUTCH

(1967 F-100-250 (4 x 2) with 240 CID Engines and 3 Speed Transmission)

Approximately 3,800 1967 F-100-250 (4 x 2) units equipped with the 240 CID engine and three speed transmission were built with a 10 inch diameter clutch assembly. Like units produced after September 30, 1966 are equipped with 11 inch diameter clutches. Vehicles equipped with the 10 inch clutch use 1967 Econoline service parts which are:

C5T2-7550-B Disc Assembly
C5T2-7563-B Pressure Plate Assembly

(TSB 69 - 6/2/67 - Article 1094)

CLUTCH SHUDDER IN REVERSE

(1965-1967 F-100-250 Trucks Equipped with 352 CID Engines and 3 Speed Transmission)

The article outlines procedures for diagnosing and correcting clutch shudder on the subject vehicles.

(TSB 71 - 7/14/67 - Article 1113)

CLUTCH PRESSURE PLATE DEGREASING

(All Cortinas Equipped With Manual Transmissions)

New and reconditioned clutch assemblies supplied in service are coated with a preservative grease. When fitting one of these clutches, it is only necessary to degrease the pressure plate surface by wiping it clean with a cloth dipped in cleaning solvent or other similar solvent. The clutch pressure plate as an assembly MUST NOT BE DEGREASED BY COMPLETE IMMERSION in a degreasing solution as this will remove the special lubricant from the clutch finger pivots, cover plate windows or diaphragm fulcrum rings.

(TSB 88 - 3/22/68 - Article 1327)

MANUAL TRANSMISSION CLUTCH ADJUSTMENT

(1968-69 F-100/250/350)

The clutch pedal "free travel" at the release rod bullet has been revised to .200 inch. The main article sets forth the procedure as to how to correctly adjust clutch "free travel".

The pedal height dimension and the "free travel" check are pre-delivery items.

(TSB 103 - 11/29/68 - Article 1555)

FLYWHEEL RING GEAR INSTALLATION

(Caterpillar V8 Diesel Engines with 14" Single Plate Clutch F-B-C-6000, 7000, F-C-T-8000)

The flywheel ring gear and flywheel used with the 14 inch single plate clutch incorporate 12 (3/8" - 16) tapped holes in the ring gear and 12 (3/8" diameter clearance holes in the flywheel for the pressure plate

attaching bolts. Whenever the ring gear is replaced, the tapped holes in the ring gear and the clearance holes in the flywheel must be in correct alignment. Pilot studs or bolts installed in the ring gear may be used for alignment.

The article includes a sketch illustrating flywheel-ring gear alignment.

(TSB 107 - 1/24/69 - Article 1637)

IMPROVED COBRA JET CLUTCH PRESSURE PLATE

(1969/1968 Fairlane and Mustang Vehicles with Four-Speed Transmission and 428-CJ Engine)

An improved nodular iron Cobra Jet clutch pressure plate, Part Number C9AZ-7563-E, Class V, has been released for service and supersedes all previous part numbers for the above applications.

(TSB 109 - 2/14/69 - Article 1661)

CLUTCH DISC AND INTERMEDIATE PLATE INSTALLATION - 13 & 14 INCH TWO PLATE CLUTCH

(1968-69 F-C-7000, F-C-T-8000 with Caterpillar V-8 Diesel Engines)

Improper installation of the clutch will cause hard shifting or clutch slipping on vehicles with Caterpillar V-8 Diesel engines. Figure 2 shows correct installation.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: SP-7003-A-69 - Transmission Remove & Install.

F & T Series - Clark Transmission - 3.5 Hrs.

Spicer Transmission - 5.6 Hrs.

C Series - Clark Transmission - 2.2 Hrs.

SP-7003-B-69 - Clutch Disc & Plate - Replace.

F & T Series - With Spicer Transmission - 0.5 Hr.

C Series - With Clark Transmission - 1.6 Hrs.

DLR. CODING: 7550-79

(TSB 119 - 7/18/69 - Article 1874)

CLUTCH - NOISE DUE TO EQUALIZER BAR CONTACTS STEERING GEAR HOUSING

(1969 Ford with 302 CID Engine, Standard Transmission and Saginaw Power Steering Gear Model SPA-N)

Remove Saginaw steering gear and install Ford integral gear as outlined in the main article.

PARTS:

Part Number	Part Name	Quan.	Class
C9AZ-3C511-E	Index Bracket	1	C
C7AZ-3A674-ARM	Power Steering Pump Assy.	1	B
C9AZ-3A719-D	Power Steering Pressure Hose	1	B
C9AZ-3504-A	Power Steering Gear Assy.	1	A
C6AZ-3A525-B	Flex Coupling	1	B
C8AZ-3A610-A	Hose Clip	1	C

PRODUCTION CORRECTION: 1-8-69. WARRANTY STATUS:

INFORMATION ONLY

(TSB 120 - 8/1/69 - Article 1900)

AUTOMATIC TRANSMISSION UNABLE TO SHIFT OUT OF REVERSE

(1970 Mavericks Equipped with Automatic Transmission and Built from July 21, 1969 Thru August 9, 1969)

If a problem of "unable to shift out of reverse" is encountered, it can be caused by the clear plastic manual control lock lever installed on the end of the transmission manual lever shaft becoming mispositioned on the shaft, such that the lever binds on a transmission case boss.

If the plastic lever is found to be causing the problem, it should be cut off as shown in

Figure 1, using a pair of diagonal cutter pliers. The plastic lever has no functional use once the transmission is assembled into the vehicles and the linkage adjusted in the assembly plant.

PARTS: None.

PRODUCTION CORRECTION: August 9, 1969.

WARRANTY STATUS:

INFORMATION ONLY

(TSB 122 - 9/5/69 - Article 1935)

CLUTCH PEDAL VIBRATION

(1970 Maverick)

Replace clutch housing and clutch release bearing.

PARTS:

Number	Name	Class	Avail.
C7ZZ-6392-B	Clutch Housing	C	OK
C7ZZ-7548-A	Clutch Release Bearing	A	OK

PRODUCTION CORRECTION: June 4, 1969.

WARRANTY STATUS: REIMBURSABLE

Operation: 7003A and 7003-A5

Time: 1.3 Hrs.

DLR. CODING: Basic Part No. 6392 - Code No. 67

(TSB 126 - 11/7/69 - Article 1982)

CLUTCH HOUSING - REMOVE AND INSTALL

(Fairlane, Montego 429 C.I.D. 8 Cylinder 4-Speed Standard Transmission)

Revise existing procedure to conform with new procedure of removing and installing clutch housing. New procedure is consistent with service labor time standard effective September 19, 1969.

PARTS: None.

PRODUCTION CORRECTION:

WARRANTY STATUS:

INFORMATION ONLY

Operation: 7003-A-3

Time: As shown in Service Labor Time Standards Book effective September 19, 1969.

(TSB 127 - 11/21/69 - Article 2006)

Driveshaft

CORRECTING DRIVELINE VIBRATION IN THE VEHICLE

(All 1967 Passenger Cars)

Reports from the field indicate a problem of driveline oriented vibration on some passenger cars. Investigation has revealed that driveline vibration problems, in some instances, can be reduced and/or eliminated by using Whiteite (screw type) hose clamps to balance the driveshaft in the vehicle. The procedure outlined in the complete article has been developed for balancing the driveshaft in the vehicle.

(TSB 72 - 7/28/67 - Article 1127)

REAR AXLE NOISE COMPLAINTS

(1966 & 1967 Mustang 200-1V with Automatic Transmission and 289-2V or 4V with Automatic or Standard Transmission)

Numerous cases of rear axle noise have been reported on 1966 Mustangs and a few early built 1967 models. Investigation of complaint units has revealed the use of a "tube-in-tube" driveshaft assembly in place of the cardboard lined driveshaft will dampen axle noise to an acceptable level, in most cases. Installation of the "tube-in-tube" driveshaft (C7ZZ-4602-F, Class B) to dampen rear axle noise must be made prior to any axle overhaul and on a customer complaint basis only.

Should axle noise persist to an unacceptable level after installation of a "tube-in-tube" driveshaft, then it may be necessary to make an axle repair to correct the problem.

(TSB 74 - 8/25/67 - Article 1138)

REAR AXLE NOISE COMPLAINTS

(1967 Falcon Passenger Car 200-1V with Automatic Transmission and 289-2V with Automatic or Standard Transmission)

Reports from the field indicate a problem of rear axle noise on some 1967 Falcon passenger cars. Investigation of complaint units has revealed the use of a "tube-in-tube" driveshaft assembly in place of the cardboard lined driveshaft will dampen axle noise to an acceptable level, in most cases.

Installation of the "tube-in-tube" driveshaft (C7DZ-4602-D, Class C) to dampen rear axle noise must be made prior to any axle overhaul and on a customer complaint basis only. Should axle noise persist to an unacceptable level after installation of a "tube-in-tube" driveshaft, then it may be necessary to make an axle repair to correct the problem.

(TSB 74 - 8/25/67 - Article 1140)

1968 DRIVELINE U-JOINT USAGE

(1968 - All Light Trucks)

During 1968, two universal joints are being used. These are:

1. A 6,000 mile lubeable universal joint with a zerk grease fitting.
2. A lifetime lubricated universal joint which never needs lubrication. This joint has no grease fitting.
3. Some units were produced with a lubeable joint at one end and lifetime lubricated joint at the other. These units are acceptable and should not be modified to make all U-joints the same.

For lubrication procedure for relubeable (zerk fitted) universal joints, see article.

(TSB 86 - 2/23/68 - Article 1285)

DRIVELINE "CLUNK" OR "SNAP"

(1965-1968 F-100-F-350, P-350-P-500, P-3500-P-5000, E-100-E-300)

Most complaints of driveline "clunk" or "snap" can be corrected by assuring that the driveshaft slip yoke is properly lubricated. See article for procedure. (See also, "Driveline Click", Bulletin #76, article #1159, dated September 29, 1967.)

(TSB 86 - 2/23/68 - Article 1302)

SHUDDER AT 15-20 MPH UNDER MODERATE TO HEAVY ACCELERATION

(1967-68 F100-F250 with Automatic Transmission and 8 Cylinder Engine 131 Wheelbase)

Complaints of shudder from 15-20 mph under medium to heavy acceleration on the above models can be corrected by shimming the driveline as outlined in the Article. All units built after April 15, 1968 have the correction installed.

(TSB 91 - 5/3/68 - Article 1370)

NEW INTERMEDIATE SHAFT COMPANION YOKE - 1968 & PAST MODEL

(F, B, N 500-750 Series Trucks Equipped with Cleveland Steel Products Three Piece Driveshafts)

To improve product durability, a new intermediate shaft companion yoke incorporating bearing retaining tabs for better attachment of the yoke to the universal joint is available for service.

(TSB 91 - 5/3/68 - Article 1388)

DRIVESHAFT AND COUPLING SHAFT ASSEMBLIES

(1968 Models F100/350, F100/250 4 x 4, E100/300, P350/400, P3500/4000 Trucks)

Vehicles produced between May 1, 1968 and July 1, 1968 may be produced with coupling shafts and/or driveshaft assemblies having a mix of non-greaseable (sealed) (filled with long-life lubricant) and greaseable (zerk fitting) universal joint assemblies.

The above intermixing of greaseable (zerk

fittings) and non-greaseable (sealed) assemblies will not affect the operation of the vehicle.

The field is reminded that non-greaseable (sealed) universal joint assemblies do not require periodic lubrication and are "factory filled" with long-life lubricant, and that coupling shaft assemblies and/or driveshaft assemblies with greaseable (zerk fitting) universal joints should be lubricated with ESA-MIC75-B grease.

(TSB 96 - 8/2/68 - Article 1447)

DRIVELINE VIBRATION (REAR DRIVESHAFT ONLY)

(1968 & '69 F-100 4 x 4)

Driveline vibration above 40 mph attributed to the rear driveshaft can be corrected by installing a new design, larger diameter rear driveshaft assembly. The main article describes the applications to be used in the event customer complaints are encountered.

(TSB 107 - 1/24/69 - Article 1638)

DRIVELINE "CLUNK" OR THUD AFTER VEHICLE IS MOVING

(F-100/250 and Econoline - 1968-69)

Clean slip spline (male and female) and lubricate with MIC75-B grease. This noise is not to be confused with automatic transmission engagement. The Neutral to Drive or Neutral to Reverse engagement noise of tolerance take-up is considered normal and cannot be removed.

PARTS:

Part Number	Part Name	Class	Avail.
C1AZ-19590-B	Ford Chassis Lube (Cartridge)	A	OK
C1AZ-19590-D	Ford Chassis Lube (25# Pail)	A	OK
C1AZ-19590-C	Ford Chassis Lube (12# Drum)	V	OK

PRODUCTION CORRECTION: September, 1969.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: SP-4602-A-69

Time: 1.0 Hr.

DLR. CODING: 4602 - 56

(TSB 124 - 10/10/69 - Article 1958)

NEW INTERMEDIATE DRIVE SHAFT

(1969-1970 B-700 Equipped With 330 CID Engine and NP 435 Transmission)

A new larger diameter (four inch) intermediate shaft has been released for 1970 model B-700 vehicles to replace the intermediate shaft formerly used. If shaft bending is encountered on 1969 models, the new shaft can be installed.

PARTS:

Description	Number	Class	Avail.
Retainer Strap	376914-S	C	OK

PRODUCTION CORRECTION: Job No. 1, 1970.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty and Policy Manual.

Operation: 4602-A

Time: 0.7 Hr.

DLR. CODING: Basic Number 4817 - Defect Code 02

(TSB 126 - 11/7/69 - Article 1983)

3 Speed Transmission

SECOND GEAR JUMP-OUT (WARNER) - 3 SPEED OVERDRIVE TRANSMISSIONS

(1965-1966 Model F-100 Trucks)

Problems of 2nd gear jump-out during sustained downgrade operation, resulting in the inconvenience of having to re-

engage the transmission, can be corrected by installing a revised 2nd speed/3rd speed synchronizer #CSA2-7124-B.

(TSB 58 - 1/27/67 - Article 983)

FLOATING COUNTERSHAFT DESIGN THREE SPEED MANUAL TRANSMISSION (MODELS RAN-S1, T1 & Y)

(1967 Falcon, Fairlane and Mustang with Six Cylinder Engines Only)

Reports from the field indicate that some dealer personnel have replaced transmission countershafts and cases due to excessive clearance at both ends of the countershaft. The clearance between the countershaft O.D. and the case countershaft bore I.D., .020" at the front end and .010" at the rear, is not excessive but is a design requirement and was released to reduce gear rattle complaints in light vehicles with 170 and 200 C.I.D. engines. Do not replace a countershaft and/or case in these transmissions for countershaft to case clearance within the above specifications.

(TSB 72 - 7/28/67 - Article 1135)

THREE SPEED MANUAL TRANSMISSION FLOATING COUNTER SHAFT (CLUSTER) DESIGN CLEARANCE SPECIFICATIONS

(1967/1970 Fairlane, Falcon, Mustang and Maverick Models with Six Cylinder Engines and Three Speed Transmission Models - RAN-S1, T1, Y, AL, AM, AN, AW, AW1, AV, AV1, AX, AZ, BA, BA1, BB, BB1, BC and BC1)

Do not replace a countershaft and/or case for countershaft (cluster) to case clearance.

Review of service investigation reports and claims indicate that some dealer personnel are replacing transmission countershafts (cluster) and cases due to excessive clearance at both ends of the countershaft.

If the clearance between the countershaft O.D. and the case countershaft bore I.D. is .020" at the front end and .010" at the rear, it is not excessive. This clearance is a design requirement and was released to reduce gear rattle complaints in light vehicles with 170, 200 and 250 C.I.D. engines.

WARRANTY STATUS: NON-REIMBURSABLE - INFORMATION ONLY

(TSB 128 - 12/5/69 - Article 2015)

4 Speed Transmission

SHIFT LINKAGE ADJUSTMENT PROCEDURE - 1969 FOUR SPEED FLOOR AND CONSOLE MOUNTED SHIFT LINKAGE

(All 1969 Passenger Cars with Four-Speed Shift Linkage)

The 1969 four-speed transmission shift linkage requires a more precise adjustment than previous models. The new adjustment procedure is described and illustrated in the main article and must be followed to obtain correct shift adjustment on the 1969 four-speed transmission.

The 1969 model kit specified for the 1969 four-speed shift linkage will fit similar applications on prior years; however, older four-speed adjusting tools will not fit the 1969 model.

(TSB 103 - 11/29/68 - Article 1574)

GEAR SHIFT CONTROL ASSEMBLY FOUR-SPEED TRANSMISSION

(All 1969 Passenger Cars with Four-Speed Shift Linkage)

Should the four-speed gear shift control assembly exhibit problems which cannot be corrected by a linkage adjustment, it is not to be repaired, but replaced with a complete new 7400 control assembly. The proper shift linkage adjustment is described in T.S.B. No. 103, Article 1574, dated November 29, 1968.

(TSB 109 - 2/14/69 - Article 1658)

FOUR-SPEED MANUAL TRANSMISSION OUTPUT SHAFT REMOVAL

(1964/1969 Ford, Fairlane, Mustang, and Falcon Vehicles)

Care must be exercised in removing four-speed manual transmission output shaft assemblies or fracture damage to the 3-4 synchronizer snap ring groove shoulder and the second gear snap ring shoulder can result. Do not strike or hammer the pilot diameter of the output shaft to drive the gear train from the case or to disassemble the gear train from the output shaft.

(TSB 109 - 2/14/69 - Article 1659)

FOUR SPEED TRANSMISSION - HIGH SHIFTING EFFORTS

(1970 Fairlane (Torino) with Four Speed Manual Transmission)

When diagnosing high shift efforts, in addition to inspection and adjustment of linkage, check the lower boot assembly for proper installation. Refer to Figure 3.

WARRANTY STATUS:
INFORMATION ONLY

(TSB 128 - 12/5/69 - Article 2016)

3 Speed Truck Transmission

PRODUCT IMPROVEMENT - NEW MAGNETIC DONUT FOR WARNER GEAR TRANSMISSIONS

(1968 Light Trucks with Warner Transmissions)

To increase bearing life and reduce bearing failures caused by contaminated (metal particles) transmission lubricant a magnetic donut will be permanently affixed to the inside bottom of the Transmission case. This magnetic donut is not removable. During Transmission tear down it is only necessary to wipe off any accumulation of metal particles before reassembling the transmission.

The donut will be installed on various models of Warner Transmissions starting in early May, and will be standard in all Warner Transmissions on 1969 models.

(TSB 91 - 5/3/68 - Article 1384)

4 and 5 Speed

Truck Transmission

EXCESSIVE NOISE - ALL GEARS

(1967 F-100-250 with Warner T-18 4 Speed Transmissions)

Investigations have revealed that excessive transmission noise can be caused by a "grounding out" condition that can exist between the attaching screws for the shift lever boot assembly and the weather pad plate on some units with the Warner 4 speed transmission.

All units with complaints of excessive transmission noise should be checked before teardown, as outlined in the article, to assure that there is no interference.

(TSB 75 - 9/8/67 - Article 1156)

HIGH SHIFT EFFORTS AND NOISE - ALL 5 SPEED TRANSMISSIONS (SPICER, FULLER, CLARK, NEW PROCESS)

(All Trucks Equipped with all 5 Speed Transmissions - Spicer, Fuller, Clark, New Process)

Field visitations have revealed that many transmission complaints such as high shifting efforts and noise are attributed to poor preventative maintenance as related to transmission lubricant and "C" series shift linkage. Refer to the article for the recommended practice.

(TSB 85 - 2/9/68 - Article 1273)

4 SPEED TRANSMISSION NOISE DIAGNOSIS

(All Trucks with 4 Speed Transmissions)

The following information is contained in the article.

1. Noise Definitions.
2. Road Test and Probable Defect Area.

3. Acceptable Transmission Gear Tooth Patterns.

(TSB 86 - 2/23/68 - Article 1299)

OUTPUT SHAFT YOKE REVISION - NEW PROCESS GEAR 4-SPEED

(1967-68 F100/350, and F100/250 4 x 4 Model Trucks)

The New Process gear 4-Speed Transmission output shaft and output shaft yoke have been revised, and interchangeability is affected. Output Shaft CSTZ-7061-E (NPG 963774) is interchangeable with CTZ7-7061-C (NPG 97478) however the correct yoke must be installed.

Output shafts CSTZ-7061-E (NPG 96374) requires the full length splined yoke and CTZ7-7061-C (NPG 97478) requires the counterbored end yoke.

Yoke CSTZ-7089-B is available with full length spline and counterbore. When ordering this part, be sure to state which type of part is required. Yoke CTZ7-7089-C (NPG 97479) is available with counterbored ends only.

(TSB 97 - 8/30/68 - Article 1461)

4 SPEED TRANSMISSION OPERATING (SHIFTING) INSTRUCTIONS

(All Trucks equipped with 4 Speed transmissions)

Hard shifting complaints in some cases may be the result of improper transmission shifting and/or operating practices. The main article describes the recommended instructions for use by the field to assist in improving such operating practices.

(TSR 99 - 9/27/68 - Article 1487)

NEW COUNTERSHAFT REAR BEARING CAP - CLARK 280 SERIES TRANSMISSION

(All 1968 Medium and Heavy Trucks Equipped with Clark 280 Series Transmission)

To preclude lubricant leakage complaints on early production Clark 280 series transmission, a new improved countershaft rear bearing cap is available for service.

See main article for details.

(TSB 102 - 11/15/68 - Article 1542)

REVERSE IDLER GEAR REVISION - NEW PROCESS GEAR 4-SPEED TRANSMISSION

(1969 Model F100-F350, F-100-F-250 4 x 4, P-3500-P5000 Trucks)

A new reverse idler gear assembly (NPG No. 95979) incorporating a steel-backed bronze bushing was incorporated in 1969 production.

Steel-backed bronze bushings will not be available for service. If replacement is required, part number C8Z7-7145-A which incorporates needle bearings should be used for service on these trucks with New Process Gear 4 Speed Transmission.

(TSB 103 - 11/29/68 - Article 1547)

OUTPUT SHAFT YOKE REVISION - WARNER 4-SPEED TRANSMISSION

(1965/1969 F100/350 and P3500-4000 and 5000)

The Warner 4 Speed Transmission output shaft yoke has been revised and interchangeability is affected. Output shaft CSTZ-7061-C (T18-2A) is interchangeable with C8Z7-7061-A (T18-2F) and C8Z7-7061-J (T18-2H). However, the correct yoke must be installed.

The counterbored yoke C5T2-7089-B may be used with any of the three output shafts, but the full length spline yoke C5T2-7089-B may only be used with output shaft CSTZ-7061-C (T18-2A). When ordering, be sure to state whether the full length spline or the counterbored yoke is required.

(TSB 103 - 11/29/68 - Article 1548)

4 SPEED (T18) TRANSMISSION SHIFT FORKS

(1967-1968 F100-F350, P-3500, P-5000 Trucks)

When diagnosing complaints of hard or

malfunctioning of transmission shifting pattern on vehicles equipped with a Warner 4 speed transmission, it is suggested that the shift fork attachment to the shift rails be checked for loosening or breaking of the lock screw causing a malfunctioning shift fork.

(TSB 103 - 11/29/68 - Article 1554)

NEW TRANSMISSION REVERSE IDLER GEAR

(1969-70 8-500-700, C-500-700, F-500-700 and N-500-700 Trucks With NP 435 4-Speed Transmission)

To correct loss of needle bearings in the reverse idler gear resulting from severe overload and thrust loads, a new transmission reverse idler gear became effective in production. The new gear incorporates a larger section, a snap ring and center retained caged needle bearing assembly with increased diameter rollers.

PARTS:

Part Number	Part Name	Class	Avail.
D0TZ-7141-A	Reverse Idler Gear and Bearing Assembly	B	OK

PRODUCTION CORRECTION: Approx. June, 1969 (Trans. Date Code 5-21-69 & Later).

WARRANTY STATUS:
INFORMATION ONLY

(TSB 126 - 11/7/69 - Article 1984)

8, 10, and 12 Speed Truck Transmission

AIR SHIFT TRANSMISSION - RELOCATION OF AIR SUPPLY LINE

(1968 and prior "N" series trucks with R-96, RT-910 and 8725 transmissions)

Complaints of slow or inoperative shifting into 6th gear may be caused by corrosion and freezing of the slave shift valve due to excessive moisture in the air supply. The article outlines a procedure to relocate the transmission air shift supply line to the top of the dry tank to provide drier air and prevent freezing of slave shift valve.

(TSB 57 - 1/6/67 - Article 978)

FRONT BEARING COVER FULLER RT-510 TRANSMISSION

(1968 C-7000, F-C-T-8000, F-A-C-1000, F-N-C-T-CT-NT-850 950 Trucks)

Some of the subject trucks were assembled with an incorrect front bearing cover. Fuller part number 15647. This cover is too long allowing the forward end of the cover to contact the rear side of the clutch disc, resulting in a dragging clutch. See main article for repair details.

(TSB 98 - 9/13/68 - Article 1480)

TRANSMISSION JUMPS OUT OF FIFTH OR TENTH GEAR

(1966-1968 Extra Heavy Trucks Equipped with Fuller RT-910 Transmissions)

Gear jumpout occurring in the fifth and tenth speed ranges has been reported on extra heavy trucks equipped with the Fuller RT-910 transmissions. This problem is usually associated with vehicles exhibiting high mileages and is related to normal wear of the transmission components.

To improve transmission durability and to overcome the gear jump out tendencies, the supplier incorporated the following changes effective September, 1968.

- New input shaft bearing to main drive gear spacer
 - New shift rail poppet springs
- The complete article outlines new parts, serial numbers of transmissions which incorporate latest revisions, and a sketch showing assembly of spacer.

(TSB 106 - 1/10/69 - Article 1623)

TRANSMISSION JUMPS OUT OF FOURTH OR FIFTH GEAR

(1967-68 Heavy Duty Trucks with Spicer 5000 or 6000 Series Transmissions)

Install new synchronizer which includes hopping guard and new output shaft.

PARTS:

Part No.	Name	Application	Class	Avail.
C9TZ-7124-A	Synchronizer 4th & 5th	5000 Series (Gas)	A	OK
C9TZ-7124-B	Synchronizer 4th & 5th	5852 Series	C	OK
C9TZ-7124-C	Synchronizer 4th & 5th	6000 Series	B	OK
C9TZ-7061-C	Output Shaft	All 5000 Series	B	3-28-69
C9TZ-7061-D	Output Shaft	All 6000 Series	B	OK

(TSB 112 - 4/4/69 - Article 1730)

TRANSMISSION AIR LINE JUNCTION BLOCK - ADDITIONAL SUPPORT

(F, N, T and W Series With Spicer 12 Speed Transmission)

Fabricate a bracket to support the air junction block and bolt to the transmission cover. For fabrication and installation details, see Figure 2.

PRODUCTION CORRECTION: March 1, 1969.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: SP-7000-A-69

Time: 0.6 Hr.

(TSB 118 - 6/27/69 - Article 1850)

SHIFT LINKAGE WEAR AND LOST MOTION

(1966-69 W & WT-1000 Trucks)

To increase durability of the transmission shift linkage and reduce lost motion, a new transmission cross shaft housing, remote shift lever and higher capacity U joints become effective in production.

Part Number	Part Name	Class	Qty.	Avail.
C9HZ-7A134-A	U Joint - Front All	BQ	1	OK
C9HZ-7A170-A	U Joint - Rear Cummins Eng. Only	CQ	1	OK
C9HZ-7A170-B	U Joint - Rear Detroit Diesel Only	CQ	1	OK
C8HZ-7B102-A	Housing	CQ	1	OK
C8HZ-7A081-C	Shift Lever	CQ	1	OK

PRODUCTION CORRECTION: Housing and Remote Shift Lever - 5-1-69; U Joints - 8-5-69.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: SP-7170-A-69 - Replace U Joints and Shift Arm.

Time: 1.6 Hrs.

DLR. CODING: Basic Part 7170 - Defect Code 30.

(TSB 124 - 10/10/69 - Article 1959)

Auxiliary Transmission, Transfer Case, Power Take Off

NEW AUXILIARY TRANSMISSION CASE ASSEMBLY - SPICER 7041

(Heavy and Extra Heavy Trucks with Spicer 7041 Transmission)

Countershaft rear bearing failures of the new 7041 auxiliary transmission can be prevented by improved lubricant supply to the bearing area.

(TSB 58 - 1/27/67 - Article 987)

PRODUCTION CORRECTION: 10-1-68.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: 7003-A and 7003-A-2

Time: Per Service Labor Time Standards Book

4 SPEED TRANSMISSION AND 4 WHEEL DRIVE TRANSFER CASE LUBRICATION

(1968-1969 F100/360, F100/250 4 x 4, P350/500, P3500/5000 and U100)

SAE 50 engine oil is used for the initial fill and refilling of 4 speed transmissions and 4 x 4 transfer cases. If cold weather transmission and/or transfer case hard shifting is encountered, the S.A.E. 50 engine oil should be drained and "Winter type" S.A.E. 30 engine oil added. The customer should change the lighter weight S.A.E. 30 engine oil back to S.A.E. 50 weight when the ambient temperature is above 30° above zero.

(TSB 103 - 11/29/68 - Article 1546)

AUXILIARY TRANSMISSION LOW GEAR BUSHING SEIZURES

(All Tandem Trucks with Spicer Model 7041 Auxiliary Transmissions - 1963-69 Models)

A new caged needle bearing for the low speed gear on Spicer 7041 Auxiliary Transmissions has been incorporated in production. The new part replaces the bronze bushing formerly used for production and service and was released to improve the transmission durability under severe operating conditions.

PARTS:

Part No.	Part Name	Class	Qty.	Avail.
C3TZ-7A078-B	Bearing	B	1	Approx. 2-15-70

PRODUCTION CORRECTION: Approximately 11-17-69.

WARRANTY STATUS: INFORMATION

(TSB 130 - 12/19/69 - Article 2036)

AUTOMATIC TRANSMISSIONS

Automatic Transmission General Service

TORQUE SPECIFICATIONS

(1967 Cougar, Fairlane, Falcon, Mercury Intermediate and Mustang Cars with Automatic Transmission)

Automatic Transmission torque specification error in 1967 Cougar, Fairlane, Falcon, Mercury Intermediate and Mustang Shop Manual.

(TSB 68 - 5/19/67 - Article 1087)

NEW DESIGN NEUTRAL SWITCH REPLACEMENT

(1967 Thunderbird - June Built)

A new design neutral switch identified by its crescent shape and a white paint daub, was installed on 100 early June built 1967 Thunderbirds. In the event customer complaints of neutral switch malfunction are encountered replace the switch and actuator lever with the conventional parts, C7SZ-7A247-B neutral switch and C7AZ-7B097-B actuating lever, as outlined in the 1967 Ford Thunderbird Shop Manual, Page 7-26. When replacing the switch, remove the short piece of 1/4" rubber hose and the nylon reducer from the emergency brake release vacuum line so that the line can be attached to the replacement switch.

(TSB 72 - 7/18/67 - Article 1128)

AUTOMATIC TRANSMISSION FAILURES RELATED TO TRANSMISSION OIL COOLER FAILURES

(All Passenger Cars So Equipped)

A review of field information and returned components indicates some correlation between failures of the automatic transmission radiator oil cooler and transmission failures. In many cases, a reported cooler failure is followed in several weeks by a transmission failure. It is believed that such transmission failures are caused by:

1. The loss of transmission fluid resulting in damage to the friction elements, which may not result in an immediate transmission malfunction at the time of cooler repair.

2. Contamination of the automatic transmission with water or ethylene glycol. Less than 1/10 of 1% contamination of the transmission fluid by water can cause rapid fluid deterioration. Water in lesser amounts, if in high temperature area, such as the converter can be converted to steam, forcing fluid out the filler or breather tube or past seals. Any contamination of the transmission fluid by ethylene glycol is intolerable.

For these reasons, whenever a transmission cooler failure occurs the transmission must be inspected to determine if contamination or damage has occurred, before placing the vehicle back in service. Refer to the complete article for proper inspection procedures.

(TSB 74 - 8/25/67 - Article 1139)

USE OF AUTOMATIC TRANSMISSION FLUID MEETING FORD MOTOR COMPANY SPECIFICATION M-2C33-F

(All Automatic Transmissions)

The list of suppliers who have been approved as sources for the revised automatic transmission fluid, M-2C33-F, that meet Ford Motor Company specifications is included in the subject Technical Service Bulletin article.

Ford Motor automatic transmission specification M-2C33-F replaces all previous specification fluids as of Job 1, 1968.

(TSB 75 - 9/8/67 - Article 1157)

USE OF AUTOMATIC TRANSMISSION FLUID MEETING FORD MOTOR COMPANY SPECIFICATION M-2C33-F

(All Automatic Transmissions)

The updated list of suppliers who have been approved as sources for the revised automatic transmission fluid, M-2C33-F, that meet Ford Motor Company specifications is included in the subject Technical Service Bulletin article.

Ford Motor Company automatic transmission specification M-2C33-F replaces all previous specification fluids as of Job 1, 1968.

(TSB 86 - 2/23/68 - Article 1298)

AUTOMATIC TRANSMISSION FLUID SPECIFICATIONS

(All Corlines, Light Trucks and Econolines)

To prevent the possibility of early Ford automatic transmission malfunction, it is essential that transmission fluid meeting Ford specification M-2C33-F be used at all times. In keeping with the company's objective of producing a vehicle which is as free of regular maintenance service as possible, a "Lifetime Fill" automatic transmission fluid was established. Therefore, use of any fluid which does not meet Ford Specification M-2C33-F, even for a makeup, can result in soft or slipping shift that will cause band and clutch deterioration. In addition, use of any fluid that does not meet Ford Specification M-2C33-F may materially affect the life of the transmission through rapid formation of varnish and sludge within the transmission.

(TSB 97 - 8/30/68 - Article 1463)

OIL COOLER LINE RESTRICTION RESULTING IN AUTOMATIC TRANS- MISSION FAILURE

(All Cor and Truck Lines with Automatic Transmissions)

Transmission cooler lines must be flushed and checked for proper flow whenever indications of transmission over-heating such as blackened or blued thrust washers, bushings or journals are present.

(TSB 97 - 8/30/68 - Article 1465)

AUTOMATIC TRANSMISSIONS - FLUID LEVEL CHECKING PROCEDURE

(All Cor & Truck with Automatic Transmission)

Current instructions covering automatic transmission fluid level checking procedures indicate that the fluid should be brought to the "full" mark on the dipstick when the transmission is at normal operating temperatures. Because of the tolerance allowed for filling at the plants and because of temperature variations which might be encountered during filling or subsequent dealer checks, the specified fluid level (to the full mark) can result in a number of units having fluid added at the pre-delivery check, when in fact, the fluid level is adequate for proper transmission function and durability.

For these reasons, the service fluid level checking procedure is revised, effective immediately, to specify that if the fluid level is between the "add" and "full" mark at normal operating temperature no fluid need be added.

(TSB 98 - 9/13/68 - Article 1477)

AUTOMATIC TRANSMISSION BAND ADJUSTMENT SCHEDULE REVISION

(1969 Passenger Cars Except Police, Taxi and Vehicles with 427-4V and 428-4V Cobra Jet Engines)

The automatic transmission band adjustment period for passenger cars in normal service has been changed to 12,000 miles. This does not include Police, Taxi or vehicles equipped with a 427-4V or a 428-4V Cobra Jet engine. The band adjustment intervals remain unchanged for these vehicles. Customers should be advised when they return for the 12,000 mile inspection of this change.

(TSB 101 - 11/1/68 - Article 1518)

CONVERTER CLEANING/ ONE PLUG DRAIN

All Vehicles Equipped with XPL, XP3, and FMX Automatic Transmission Units with only One Converter Assembly Drain Plug

Beginning August 15, 1968, as a running change, one converter drain plug is being deleted from all converter assemblies. Converters with only one drain plug can be cleaned on the Owantanna Converter Cleaner, Model 60081, without the use of an additional drain plug. However, the Rotunda Converter Cleaner, Model LRE60058, requires two drain holes for adequate cleaning solvent flow. The one drain plug converter can be cleaned on this Rotunda Converter

Cleaner Model by providing a small hole 180 degrees from the drain plug and later sealed with a 3/16" closed end pop rivet. The heavy duty hand pop riveter, the 3/16 steel closed end pop rivets and a No. 11 drill may be obtained in a Rotunda Kit No. LRE27687. Refer to the main article for modification instructions which must be followed to the letter to avoid balancing and leakage complications.

(TSB 105 - 12/20/68 - Article 1605)

CORRECTION TO BULLETIN NO. 105, ARTICLE 1605, DECEMBER 20, 1968 - ONE VERTER CLEANING-ON PLUG DRAIN

(All Vehicles with XPL, XP3 and FMX Automatic Transmission Units with Only One Converter Assembly Drain Plug)

The referenced article is amended to permit the use of alternate rivet which has an aluminum mandrel and is easier to set with the recommended rivet gun. The preferable 3/16" closed end rivet (USM No. AD-64-AH) may be obtained in a package of 100 under the Rotunda No. LRE27688.

In addition, the referenced main article lists erroneously LRE-27686 as the part number for the pop riveter kit. The correct hand pop riveter kit number is Rotunda LRE-27687.

(TSB 109 - 2/14/69 - Article 1660)

MANUAL LINKAGE - CHECKING AND ADJUST- ING PROCEDURES

All 1969 Models with Automatic Transmission Assemblies

The main article describes manual linkage checking and adjusting procedures which should be performed at vehicle pre-delivery or whenever an automatic transmission assembly exhibits erratic or slipping shifting problems.

(TSB 105 - 12/20/68 - Article 1606)

COLUMN MOUNTED NEUTRAL SWITCH SUBSTITUTION

(1969 Ford, Fairlane and Falcon)

Some 1969 vehicles with column mounted neutral switches may have a 1968 type "B" switch, due to a stock float. Such switches do not incorporate the exterior reset button feature found on the 1969 switch.

Adjustment of the type "B" switch requires that the 1968 adjustment procedure be followed as outlined in the complete article.

(TSB 109 - 2/14/69 - Article 1668)

DIFFICULT SHIFTING

(1969 E100/300)

* Increase bushing bores in gearshift tube bracket and replace bushing.

PARTS:

Part Number	Part Name	Qty.	Class	Avail.
C8U2-7335-A	Bushing	1	C	OK

PRODUCTION CORRECTION: None to date.

WARRANTY STATUS: REIMBURSABLE
Operation: SP-7335-A-69
Time: 1.5 Hrs.

(TSB 115 - 5/16/69 - Article 1791)

PIN RETENTION - AUTO- MATIC TRANSMISSION SELECTOR ARM

(Econoline With Automatic Transmission - 1969)

Install worm gear clamp by pulling off spring 7B113, re-installing pin 01A-7337 and with selector in "park" position, install worm gear clamp 376241-S (B7A-8287-A), as illustrated in Figures 10, 11 and 12.

PARTS:

Part Number	Part Name	Qty.	Class	Avail.
01A-7337	Pin	1	B	OK
B7A-8287-A	Clamp	1	A	OK

PRODUCTION CORRECTION: July, 1969.

WARRANTY STATUS: Reimbursable with in the provisions of the Warranty & Policy Manual.
Operation: SP-7302-A-69
Time: 0.3 Hr.

(TSB 117 - 6/13/69 - Article 1830)

TRANSMISSION CONTROL SELECTOR LEVER & SOCKET

(F100/350; P350/500 - 1968-1969)

Use as replacement parts in the described vehicle.

PARTS:

Part Number	Part Name	Class	Avail.
305093	Pin (F Series)	S	OK
C8T2-7228-A	Socket (F Series)	A	OK
C8T2-7210-F	Lever Assembly (F Series)	A	OK
C8T2-7210-D	Lever Assembly (Parlet)	C	OK
C8T2-7A216-B	Insert (XR50 Steering Column Only)	CG	OK
C7T2-7A216-A	Insert (Other than XR50 Steering Column)	CG	OK

WARRANTY STATUS: Reimbursable with in the provisions of the Warranty & Policy Manual.

Operation: SP-7228-A-69
Time: 0.7 Hr.

(TSB 120 - 8/1/69 - Article 1901)

SHIFT LINKAGE PLASTIC GROMMETS

(All Passenger Car Transmissions)

Standard and automatic transmission linkage systems make use of oil impregnated plastic grommets to connect various rods or levers. Information regarding a tool and its use for grommet removal/installation is found in the transmission sections of the 1970 Shop Manual.

Any time a grommet type connection is changed, the oil impregnated grommet should be REPLACED, not reused. Strict adherence to this procedure is necessary to assure satisfactory retention of the connecting links and overall system operation.

WARRANTY STATUS:
INFORMATION ONLY

(TSB 128 - 12/5/69 - Article 2014)

FMX Automatic Transmission

NEW FRONT CLUTCH SUN GEAR ASSEMBLY WITH "TEFLON" SEALS

(1967 Ford 289-2V with FX Automatic Transmission, Model PHA)

Beginning approximately June 1, 1967 (transmission production), new front clutch sun gear seals of "teflon" material are being installed in the 1967 FX transmission. Because installation of the new seals would require special service tools and careful techniques, the teflon seals will not be released as loose service parts. Teflon seals which must be removed from the gear can be cut out with a sharp knife and replaced with the appropriate cast iron seal ring. However, a new front clutch sun gear assembly factory-equipped with teflon seals in the 3, 4, 5 and 6 positions is released for service on subject models.

This new front clutch sun gear assembly with "teflon" seals (C3AZ-7A399-D) is serviced as a Class A item.

NOTE: Teflon seal material is extremely

durable in service; therefore, when overhauling subject transmissions the teflon seals should not be replaced with cast iron ring unless an examination of the seals shows them to be worn or damaged.
(TSB 72 - 7/28/67 - Article 1132)

REAR CLUTCH PISTON ASSEMBLY INSTALLATION FMX THREE SPEED AUTOMATIC TRANSMISSION

(1968 Ford Equipped with FMX Automatic Transmission)

Reports have been received of difficulty in assembling the rear clutch piston into the cylinder on 1968 FMX model transmissions; this is due to the lip seals "hanging-up" on the spline undercuts and snap ring groove.

Two methods of installing the rear clutch piston assembly are -

- Use of shim stock, employed as guides for insertion of the piston assembly into the clutch drum, and
- the use of a fabricated tool to simplify piston installation.

For complete details, refer to the main article.

(TSB 83 - 12/29/67 - Article 1254)

SEAL - FRONT CLUTCH SUN GEAR OIL - REAR MX-FX THREE SPEED AUTOMATIC TRANSMISSION

(1967 Fords Equipped with MX, or FX Automatic Transmissions)

Customers have complained of slippage on the 2-3 shift with both 1967 FX and MX automatic transmissions. It has been determined that in some instances teflon rings used in the #5 and #6 positions (rear of shaft) on the front clutch sun gear in 1967 models may wear into the output shaft aluminum sleeve. The problem is most likely to occur in vehicles having a high percentage of driving time in low gear.

To facilitate repairs of this type of failure, the aluminum sleeve formerly released for Authorized Reconditioners only, is released for Dealer use.

For correct installation procedures refer to the complete article.

(TSB 84 - 1/26/68 - Article 1266)

DISLODGED TRANSMISSION FILTER ASSEMBLY, FMX AUTOMATIC TRANSMISSION MODELS PHA-B, C

(1968 Ford with 302 CID Engine Built Prior to February 1, 1968)

When customers complain of slipping or dragged-out shifts, or "abnormal noise", the transmission filter position should be checked to make sure it is correctly installed on the regulator.

Refer to the main article for a checking procedure on 1968 Ford units with 302 CID Engine and FMX Automatic Transmission Models PHA-B, C, built prior to February 1, 1968.

(TSB 85 - 2/9/68 - Article 1270)

FRONT PUMP CHECK VALVE (CORRECTION TO 1968 FORD-MERCURY SHOP MANUAL)

(1968 Ford with FMX-MX Automatic Transmission)

The transmission front pump check valve and spring, formerly located in the regulator assembly, were removed from the transmission effective Job 1, 1968. Since the rear pump has been removed, these parts are no longer required. See the article for further instructions.

(TSB 85 - 2/9/68 - Article 1272)

ERRATIC OR NO TRANSMISSION SHIFTS DUE TO GOVERNOR VALVE HANG-UP

(1968 Fords Equipped with FMX 3-Speed Automatic Transmissions)

Customer complaints of erratic shifts or failure to shift have occasionally been traced

to governor body contamination. The contaminating particles have been identified as metal chips remaining after the governor feed passages were drilled in the transmission output shaft.

Appropriate action has been instituted at the manufacturing plant effective March 8, 1968 to insure against recurrence of governor feed passage restriction.

The field correction involves output shaft removal and cleaning. The proper procedure is detailed in the accompanying article.

(TSB 91 - 5/3/68 - Article 1381)

REAR BAND WEAR

(1968 Fords Equipped with FMX Automatic Transmissions)

Customer complaints of "no low" or "no reverse" gear have been caused by rear band friction element wear. The premature wear of the rear band is caused by a malfunction of either the rear servo lockout valve and/or the rear servo modulator valve (Note: The rear servo modulator valve is not mentioned in the 1968 Ford Shop Manual).

Production changes corrected this problem on March 25, 1968 at the manufacturing plant.

The service fix for this problem requires careful inspection of the valve body and/or valve body replacement. Consult the accompanying article for complete details.

(TSB 93 - 5/31/68 - Article 1405)

FMX INTERNAL REAR BAND ADJUSTMENT PROCEDURES

1969 Fairlane and Mustang Vehicles with 351 CID Engines and FMX Automatic Transmission Assemblies

A new piloted rear servo accumulator piston and inner rear band adjusting stop were introduced into production October 21, 1968, on the 351 CID FMX automatic transmission assemblies for 1969 Fairlane and Mustang vehicles. The piloted piston and stop must be used together and are available in service as a transmission rear band piston and stop kit C9ZZ-7E216-B, Class C.

Refer to the main article for internal rear band adjustment instructions concerning both the piloted and flat accumulator piston assemblies.

(TSB 105 - 12/20/68 - Article 1613)

AUTOMATIC TRANSMISSION REAR BAND ADJUSTMENT REVID

(1968 Ford-Metator With FMX Automatic Transmission)

The rear band adjusting screw floor pan access hole has been eliminated on the subject vehicles. Consequently, the rear band adjustment procedures described in the 1969 Shop Manual can no longer be used. To adjust the band, use Tool T65P-77370-A shown in Figure 5.

(TSB 115 - 5/16/69 - Article 1792)

FMX AUTOMATIC TRANSMISSION 2-3 COLD CUTOFFS

(Ford, Fairlane and Mustang With 351-2V and 4V Engines - 1969 Model: PHB-C Through and Including L1)

Install a new lighter intermediate servo release spring to contain the incidence and severity of cold 2-3 cutoffs problem which is a momentary free engine at the 2-3 shift.

Number	Name	Class	Avail.
C9AZ-7A003-B	Spring-Front Band	C	8/1/69
	Servo Piston Return		

PRODUCTION CORRECTION: July, 1969.
WARRANTY STATUS: REIMBURSABLE
Operation: 7-719-A and 7-7191-A-7
Time: 0.7 Hr. (7-7191-A)
0.6 Hr. (7-7191-A-7)
DLR. CODING: Basic Part No. 7A003 - Code No. 09

(TSB 121 - 8/15/69 - Article 1917)

C4 Automatic Transmission

EXCESSIVE ENGINE SPEEDUP DURING THE 3-2 KICKDOWN SHIFT AND/OR SOFT AND DELAYED 1-2 UPSHIFTS - C4 TRANSMISSION

(All 1967 Falcon, Fairlane and Mustang Units Equipped with the C4 Automatic Transmission)

In the event of customer complaints of excessive engine speedup during the 3-2 kickdown shift and/or soft and delayed 1-2 upshifts on C4 automatic transmission equipped 1967 Falcon, Fairlane and Mustang cars built with transmission date codes prior to April 10, 1967, the following procedure should be used.

Check transmission fluid level and intermediate band adjustment. Check transmission pressure to be sure that they are within specification. If the problem persists, the main control valve should be removed and reworked by removing and discarding the intermediate servo accumulator valve spring. This spring is the small spring illustrated on Fig. 72, Page 7-44 of the 1967 Light Car Shop Manual. The spring is shown in the illustration between the 3-2 control valve and the accumulator valve at the left side of the illustration.

(TSB 67 - 5/5/67 - Article 1064)

REVISED CASE ASSEMBLY AND FRONT PUMP TO CASE GASKET

(1966 and 1967 Model C4 Automatic Transmission)

A new asbestos material front pump to case gasket has been installed in C4 automatic transmissions since approximately June 1, 1966. Because of the improved sealing qualities of the asbestos gasket as compared to the previous metal gasket, the front pump assembly large O.D. seal was no longer required and was deleted. In addition, the No. 88 drain back hole in the case assembly has also been removed. Refer to the complete article for a sketch showing the location of the drain back hole. This hole was required to allow oil, that may have leaked by the metal type pump to case gasket, to drain back into the sump. Deletion of the front pump O.D. seal and the case drain back hole became effective in C4 transmission production approximately December 15, 1966.

When servicing C4 automatic transmissions that have case assemblies with no drain back hole, the asbestos material front pump to case gasket (CAZ-7A136-C, Class A) must be used and the pump assembly large O.D. seal should be removed. However, if the case assembly has a drain back hole, the pump assembly O.D. seal must be used in conjunction with either the new asbestos gasket or the metal type pump to case gasket.

(TSB 72 - 7/28/67 - Article 1134)

AUTOMATIC TRANSMISSION FILLER TUBE HOLE PLUG

(C4 and C6 Automatic Transmissions Used in 1969 Thunderbird, Lincoln, Mark III, Mustang and Cougar Vehicles Produced at Wisconsin or Dearborn Assembly Plants)

Effective Job No. 1, 1969, the C4 and C6 automatic transmissions on the subject vehicles have a shipping plug installed before shipment to the assembly plant. When the filler tube is installed at the assembly plant, the nylon shipping plug is forced part way into the transmission oil pan. This plug does

not affect transmission operation.

Whenever the oil pan is removed from the transmission, the nylon plug may be discarded.

(TSB 108 - 1/31/69 - Article 1646)

AUTOMATIC TRANSMISSION VACUUM DIAPHRAGM - NON-ADJUSTABLE

(1969 Ford with C4 Automatic Transmission [Model PE-A-M1] and 302 CID Engine)

There were approximately 10,000 C4 automatic transmissions built between January 13, 1969 and February 1, 1969 using a specially designed non-adjustable vacuum diaphragm assembly, identified with a white stripe. Use of this special non-adjustable diaphragm will not affect the transmission function or shift points in any way, and therefore, should not be replaced unless there is failure or rupture of the diaphragm.

PARTS: For service, replace with adjustable vacuum diaphragm C4AZ-7A377-B.

(TSB 110 - 2/28/69 - Article 1685)

TRANSMISSION - KICKDOWN LINKAGE - "BUZZING" NOISE OR ERRATIC SHIFTS

(Mustang and Falcon - 1969)

Units with six cylinder engines and automatic transmission exhibiting "buzzing" noise or erratic shifts can be corrected as follows:

1. Remove the kickdown control rod.
2. Install a new spring retainer bracket per detailed procedure.
3. Install a new kickdown control rod assembly.
4. Install a new kickdown return spring.
5. Check transmission for kickdown - adjust if necessary.

PARTS

Part Number	Description	Class	Avail.
C9ZZ-7B146-A	Return Spring	B	OK
C9ZZ-7C176-A	Spring Retainer Bkt. (170-200)	B	OK
C9ZZ-7B176-B	Spring Retainer Bkt. (250)	B	OK
C9ZZ-7A187-E	Kickdown Control Rod Assy.	B	OK

WARRANTY STATUS: Reimbursable within provisions of Warranty & Policy Manual. Operation: SP-7187-A-69 Time: 0.3 Hrs.

(TSB 116 - 5/30/69 - Article 1810)

TRANSMISSION - KICKDOWN LINKAGE - BUZZING NOISE OR ERRATIC SHIFTS - SUPERSEDES ARTICLE 1876, TSB NO. 119

(Mustang and Falcon - 1969)

Units with six cylinder engines and automatic transmission exhibiting "buzzing" noise or erratic shifts can be corrected as follows:

1. Remove the kickdown control rod.
2. Install a new spring retainer bracket per detailed procedure.
3. Install a new kickdown control rod assembly.
4. Install a new kickdown return spring.
5. Check transmission for kickdown - adjust if necessary.

PARTS:

Part Number	Part Name	Class	Avail.
C9ZZ-7B146-A	Return Spring	C	OK
C9ZZ-7C176-A	Spring Retainer Bkt. (170-200)	C	OK
C9ZZ-7C176-B	Spring Retainer Bkt. (250)	C	OK
C9ZZ-7A187-E	Kickdown-Control Rod Assy.	C	OK

WARRANTY STATUS: Reimbursable within provisions of Warranty & Policy Manual. Operation: SP-7187-A-69 Time: 0.3 Hr.

(TSB 120 - 8/1/69 - Article 1902)

C4 AUTOMATIC TRANSMISSION ERRATIC SHIFTING

(1969 Fairlane, Mustang and 1970 Mavericks With Six Cylinder Engines)

Check the automatic transmission vacuum tube and diaphragm for foreign material which would restrict vacuum and result in erratic shifting. If foreign material is found, replace the vacuum tube with the listed part and replace also the vacuum diaphragm if found inoperative after cleaning.

PARTS:

Number	Name	Class	Avail.
DOZZ-7B095-A	Vacuum Tube	CG	OK

PRODUCTION CORRECTION: July, 1969. **WARRANTY STATUS:** REIMBURSABLE Operation: SP-7095-A-70 Time: 0.4 Hr. DLR. CODING: Basic Part No. 7B095 - Code No. 55

(TSB 126 - 11/7/69 - Article 1985)

DELAYED REVERSE ENGAGEMENT OR ERRATIC KICK-DOWNS

(All 1970 C-4 Automatic Transmissions Except Falcon)

Problems of delayed reverse engagement or erratic downshifts may be caused by the retainer located between the downshift valve spring and the low servo modulator valve being installed incorrectly and/or dropping out of position. Remove the main control assembly and check the position of the retainer as shown in Figure 4. Retainer mislocation would allow the downshift valve spring to act on the low servo modulator valve creating shifting problems. If the retainer is mispositioned, install it per 1970 Shop Manual, Page 17-02-23.

PRODUCTION CORRECTION: November 5, 1969.

WARRANTY STATUS: REIMBURSABLE Operation: SP-7336-A-70 Time: 1.2 Hrs. DLR. CODING: Basic Part No. 7E336 - Code No. 59

(TSB 127 - 11/21/69 - Article 2007)

C4 AUTOMATIC TRANSMISSION - MAIN CONTROL REMOVAL

(All 1970 Vehicles So Equipped Except Falcon)

The following will supplement the 1970 Shop Manuals:

1. The manual lever must be shifted all the way forward to the "P" position.
2. Remove the two bolts that attach the detent spring to the valve body and case.
3. Remove the remaining valve body case attaching bolts.

4. Hold the manual valve to keep it from sliding out of the valve body to prevent bending or damage to it.

CAUTION: Service replacement main control assemblies may have a manual valve retaining clip bolted to the valve body. This clip must be removed and discarded prior to installation of the main control assembly.

WARRANTY STATUS: INFORMATION ONLY

(TSB 128 - 12/5/69 - Article 2017)

C4 AUTOMATIC TRANSMISSION - MANUAL VALVE RETAINING RING

(All 1970 Vehicles So Equipped - Except Falcon)

A True-Arc retaining ring is installed on all manual valves to hold the valve while in transit as of October 1, 1969, replacing the previously bolted on clip. The True-Arc retainer has no effect on the operation of the valve. When cleaning the main control, remove the True-Arc ring before sliding the manual valve from its bore and discard. This True-Arc ring is located behind the second spool of the valve as shown in Figure 4.

PRODUCTION CHANGE: October 1, 1969. **WARRANTY STATUS:** INFORMATION ONLY

(TSB 128 - 12/5/69 - Article 2018)

C4 AUTOMATIC TRANSMISSION ERRATIC SHIFTING

(1969 Fairlane, Mustang and 1970 Mavericks with Six Cylinder Engines)

Check the automatic transmission vacuum tube and diaphragm for fuel which would restrict vacuum and result in erratic shifting. If fuel is found, replace the vacuum tube with the listed part which has a larger loop to prevent fuel entering the vacuum line and also replace the vacuum diaphragm if found inoperative after cleaning.

PARTS:

Number	Name	Class	Avail.
DOZZ-7B095-A	Vacuum Tube	CG	OK

PRODUCTION CORRECTION: July, 1969. **WARRANTY STATUS:** REIMBURSABLE Operation: SP-7095-A-70 Time: 0.4 Hr. DLR. CODING: Basic Part No. 7B095 - Code No. 55

(TSB 128 - 12/5/69 - Article 2019)

C6 Automatic Transmission

REVISED CONVERTER ASSEMBLY END PLAY

(1966 and 1967 C6 Automatic Transmission)

To decrease thrust loads on crankshafts in engines accompanied by C6 automatic transmissions, the converter and clearance specification was reduced effective Job #1, 1966. This reduction in end clearance also applies to the specification established for checking converter assemblies to determine if they are serviceable. The wear limit specification which has now been established for the C6 model converters is .030" as compared to the previously published .060" and this specification should be used for determining the serviceability of all C6 model converters, with respect to end play.

(TSB 72 - 7/28/67 - Article 1133)

**THIS ARTICLE SUPERSEDES
TSB ARTICLE NO. 1408
MAIN CONTROL 3-2 TIMING
VALVE AND PLUG**

(All 1967 & 1968 C-6 Automatic Transmissions)

Several instances have been found in which the 3-2 shift timing valve plug has been peened by impacting against the retainer, preventing removal of the plug and 3-2 shift timing valve as specified in steps 18 and 19 of the control valve disassembly procedure, 1967, 1968 Shop Manuals. This condition will not affect transmission operation and is not cause for replacement of the main control. The 3-2 shift timing valve is non-functional and its position does NOT affect control operation.

Removal of the plug, 3-2 shift timing valve, and spring is not required when cleaning the main control assembly.

(TSB 95 - 7/12/68 - Article 1447)

**C6 AUTOMATIC TRANS-
MISSION CONVERTER
STATOR SUPPORT ASSEM-
BLY CHECK BALL SEALING.
THIS ARTICLE SUPERSEDES
AND MODIFIES TSB #87,
ARTICLE 1305 DATED
MARCH 8, 1968.**

(All 1967-68 Units Equipped with C6 Automatic Transmission)

The synthetic check ball located in the C6 stator support high clutch circuit is subject to deterioration problems under severe high temperature operating conditions. Therefore, the check ball and cage assembly was replaced in production with a sealing type cup plug May 1, 1968. And, to provide for the function of the removed check valve on Police, Cobra Jet and G.T. models which require immediate high clutch release during high 3-1 kick-down shifts, a new high clutch piston was implemented into production June 17, 1968.

Whenever a C6 transmission built prior to May 1, 1968, is disassembled or the stator support is replaced, the stator support to be installed should be inspected for the presence of the high clutch circuit check ball assembly. If equipped with the check ball, the high clutch hole should be sealed by installing cup-plug 378261-S on top of the check ball assembly. The cup-plug should be pressed in flush with the rear surface of the stator support. If stator support is already equipped with a blind cup-plug, no further action is necessary.

Additional modification is required on Police, Cobra Jet and G.T. models by replacing the high clutch piston assembly with new part C8AZ-7A262-C, Class B, to provide 3-1 high speed kickdown protection (check ball function) for the high clutch.

(TSB 101 - 11/1/68 - Article 1515)

**C6 INTERMEDIATE SERVO
LEVER SHAFT HOLE
SEALING**

(All 1969 Vehicles with C6 Automatic Transmission Assemblies)

Some 1969 C6 automatic transmission assemblies may leak fluid at the intermediate servo apply lever shaft hole located in the lower left side and front end of the transmis-

sion case assembly. This fluid leakage problem may be attributed to case porosity in the servo apply lever shaft hole and may occur at the cup plug sealing point.

Leakage problems in this area can be stopped by installing a second and larger cup plug, standard part 373813-S (.636-.632" O.D.) into the shaft hole counter bore. The additional cup plug should be installed flush with the face of the counter bore.

Leakage problems from this area could be mistaken for a front pump and/or converter fluid loss problem; therefore, prior to front pump or converter removal, inspect intermediate servo apply lever shaft hole for evidence of leakage and use the suggested sealing repair.

(TSB 105 - 12/20/68 - Article 1611)

**PART NUMBER CORRECTION
ON ARTICLE 1611, BULLETIN
#105, DATED DECEMBER 20,
1968 - C-6 INTERMEDIATE
SERVO LEVER SHAFT HOLE
SEALING**

(All 1969 Vehicles with C-6 Automatic Transmission Assemblies)

Cup plug, Part No. 373813-S has been discontinued in P&A stock. When ordering a cup plug for sealing the transmission case assembly, use Part No. 358961-S. Please correct Article 1611 accordingly.

(TSB 109 - 2/14/69 - Article 1656)

**C6 AUTOMATIC TRANSMIS-
SION - OVERRUNNING (ONE-
WAY) CLUTCH FAILURE**

(All 1969-1967 Vehicles So Equipped Except Cobra Jet)

A new race and case, which provide positive force feed lubrication to the overrunning (one-way) clutch rollers, has been released to reduce one-way clutch failures. Cobra Jet automatic transmissions have a similar force feed design. The following instructions identify the force feed feature and indicate steps to update early, C6 automatic transmissions, should it be necessary to use the latest bushing and race.

1. Check the one-way clutch mounting boss at the inside rear face of case to determine if a lube hole is provided (see Figure 00).
2. If lube exists in pocket "A" (Figure 00) in case, no further action is required.
3. If not, drill 1/8" hole in pocket "A" using the instructions packaged with the parts listed. Drill the center of pocket "A" as shown.
4. Drill until hole intersects the lateral cooler return hole, but do not exceed 1-1/8" deep.

**CAUTION: DO NOT DRILL THROUGH
BLOCK OF CASE.**

5. Clean out all chips, check with air pressure and install race.

NOTE: If new race is installed without lube hole, an overrunning (one-way) clutch failure will occur.

PARTS:

Number	Name	Class	Avail.
C7AZ-7A089-B	Bushing Overrunning Clutch	A	OK
C9AZ-7D171-A	Race Overrunning Clutch Inner	A	OK

**PRODUCTION CORRECTION: April, 1969.
WARRANTY STATUS:
INFORMATION ONLY**

(TSB 128 - 12/5/69 - Article 2020)

**Transmatic
Automatic Transmission**

**CORRECTION FOR
COMPLAINTS OF HIGH
SHIFT POINTS**

(All Model "C" Cortinas Built Prior To July, 1968 and Equipped With 1600 cc Engines and Automatic Transmissions)

Customers may complain of an objectionably high 2-3 shift point on units with automatic transmission. The 2-3 shift occurs at speeds of 38-40 mph at normal or medium throttle. Because of the adverse customer reaction the shift cam design (EA) used on 1967 models built prior to August, 1967, was incorporated into production beginning July 22, 1968.

Service correction for the high shift condition can be achieved through installation of the E Cam, Part No. E 614G2 and the kickdown cable, Part No. 3016E-7A482-B. For the proper installation procedure of the E Cam and kickdown cable, including cable adjustment, refer to your 1968 Cortina shop manual, Section 7B-8 through 7B-13.

(TSB 100 - 10/18/68 - Article 1506)

**KICKDOWN LINKAGE -
PROPER CLEVIS CLIPS**

(Mustang - Six Cylinder w/Automatic Transmission - 1969)

The proper rod end clevis clip for above vehicles must be a "left hand" clip. The part number is B7A-9826-A. Use of a "right hand" clip requires rotating the trunnion 180° to an inboard position in which position the trunnion pin is subject to being caught in the carburetor return spring. See Figure 3 for more detailed information.

PARTS:

Part Number	Part Name	Class	Avail.
B7A-9826-A	Clip, rod end clevis left hand	B	6/11/69

**WARRANTY STATUS:
INFORMATION**

(TSB 119 - 7/18/69 - Article 1875)

ENGINE

EXHAUST SYSTEMS

**AIR INTAKE AND EXHAUST
STACK FAILURES**

(1966½ and 1967 "W" Series Trucks)

Broken or cracked exhaust stack support brackets result in excessive stack vibration and shake and eventually ex-

haust leakage at joints. Service repair procedures are outlined in the article.
(TSB - 3/24/67 - Article 1017)

**LEFT-HAND SIDE EXHAUST
MANIFOLD TO CYLINDER
BLOCK INTERFERENCE**

(1968 Ford Cor and Thunderbird Engines 390 and 428 CID)

In early manufacturing of 1968 vehicles, it was determined that a build-up of manufacturing tolerances has

caused an interference problem on the left hand side of the engine between the exhaust manifold and the block. This condition does not exist in 1968 Mustang or 1968 Fairlane passenger cars because they utilize completely different exhaust manifolds.

A new left bank exhaust manifold has been released which overcomes this interference problem by extending the outlet necks out further than the old manifold. This can be identified by casting number C8AE-9431-B on the side

of the runner.

In order to maintain production of 1968 engines while awaiting the new manifolds, manufacturing has made a production change which consists of using two (2) exhaust manifold gasket heat shields to provide sufficient manifold to cylinder block clearance.

When reinstalling left side exhaust manifold on engines utilizing the double gaskets, it is mandatory that two new gaskets be replaced to insure that there is no interference between the block and the exhaust manifold and that there will be no exhaust gas leaks.

(TSB 77 - 10/13/67 - Article 1169)

EXHAUST BACKFIRE UPON DECELERATION

1968 Mustang Vehicles Built Prior to September 7, 1967 and Equipped With The 200 CID Engine and Manual Transmission - Thermoctor)

Customers may complain of exhaust backfire caused from an air by-pass valve vacuum sensing hose improperly routed to the bottom connection of the distributor vacuum control valve in the water outlet elbow. The proper routing of the intake manifold vacuum line is to use a "TEE" connecting the air by-pass valve and the upper connection of the distributor vacuum control valve as illustrated in the main article which also lists the required parts for problem correction.

(TSB 77 - 10/13/67 - Article 1176)

FLATTENED TAILPIPES

(1968 Fairlones)

Customers are complaining of exhaust outlet pipe assemblies on 1968 Fairlane passenger cars being flattened and damaged during rail or convoy shipment. The pipes are being reported to be crushed and damaged in the area behind the kick-up where the pipes extend outward under the frame side rail and over the rear spring on the subject vehicles.

Exhaust outlet pipes for 1968 Fairlane passenger cars equipped with single or dual exhaust systems are manufactured with flat sections on both top and bottom areas of the pipes to provide clearance within design limitations at the frame side rails and rear springs under full jounce and rebound conditions.

Tailpipes evidencing this flattened condition are not defective and **must not be replaced.**

(TSB 89 - 4/6/68 - Article 1345)

EXHAUST OUTLET PIPES - FLATTENED AREAS

(Fairlane - 1969)

Reviews of returned parts indicate erroneous replacement of exhaust outlet pipes because the pipes were believed to have been damaged in transit. There are flattened areas in the tailpipes just behind the frame kick-up where the tailpipes extend outward under the frame side rail and over the rear spring. See Figure 3. ALL FAIRLANE MODELS EXCEPT COBRA JETS AND STATION WAGONS WHETHER EQUIPPED WITH SINGLE OR DUAL EXHAUST SYSTEMS HAVE OUTLET PIPES MANUFACTURED WITH FLAT SECTIONS BOTH TOP AND BOTTOM TO PROVIDE CLEARANCE DURING FULL JOUNCE OR REBOUND CONDITIONS.

WARRANTY STATUS: INFORMATION

(TSB 118 - 6/27/69 - Article 1853)

NEW CLAMP - AIR CLEANER SUPPORT BRACE TO EXHAUST PIPE

(1968 W & WT-1000-D Series Truck)

To increase exhaust system durability and preclude the possibility of exhaust pipe clamp metal fatigue, a new clamp incorporating heavier metal construction is suggested for replacement on a complaint basis. The article includes the part number and a sketch outlining installation details.

(TSB 99 - 9/27/68 - Article 1492)

NEW SUPER DUTY EXHAUST PIPE - MUFFLER INLET

(All Super Duty Equipped Vehicles)

Service stock of the new designed exhaust inlet pipe is now available. This new design pipe does not have a new part number, but it can be identified by the flange which was changed from cast iron to a steel stamped flange.

(TSB 103 - 11/29/68 - Article 1559)

EXHAUST SYSTEM - 429 CID NOISE CORRECTION (SSI NO. 78)

(Ford 1969)

SSI No. 78 is in error. It is necessary to separately order the exhaust outlet or tail pipe.

PARTS: None.
PRODUCTION CORRECTION:
WARRANTY STATUS: INFORMATION

(TSB 118 - 6/27/69 - Article 1851)

REVISED MUFFLER TO INLET PIPE ATTACHING BRACKET

(1968 W-1000-D and WT-1000-D Series Trucks)

To improve product durability, Engineering has released a revised air cleaner intake tube assembly, incorporating a new lower muffler attaching bracket.

The new bracket has a 1/4 inch longer locating tab to insure proper clamping of the lower muffler flange to the inlet pipe.

The article contains part numbers for both the sleeper and non-sleeper cab, 5 1/2" and 6" diameter air cleaner intake tube.

(TSB 92 - 5/17/68 - Article 1404)

EXHAUST SYSTEM - 390-2V NOISE-EXTENSION OF SSI NO. 74

(Ford 1969)

SSI No. 74 was originally limited to Engines built prior to October 9, 1969. It has since come to our attention that 21,000 engines with a restricted intake manifold gasket were built in mid-January. Because of these additional units it will be necessary to extend the policies of SSI No. 74. Therefore, claims to Account No. R-35 for 390-2V Exhaust Noise Correction must include the engine build date on units built in mid-January.

WARRANTY STATUS: Reimbursable in accordance with SSI No. 74.
Operation: SP-5260-A-69 (0.2 Hr.) or 9424-A (2.5 Hrs.)

(TSB 118 - 6/27/69 - Article 1852)

ENGINES

Engine General Service -

OIL CONSUMPTION DIAGNOSIS PROCEDURE

(1965, 1966, and 1967 Light Trucks with 352 CID Engine)

Procedures for verification and diagnosis of oil consumption are detailed in the article.

(TSB 60 - 2/24/67 - Article 997)

REAR CRANKSHAFT SEALS

(1952-1966 215, 223, 239, 256, 262, 272, 292, 330, 332 (Car), 352, 361, 390, 391, 406, 410, 427, 428 Passenger Car and Truck Engines)

Because of customer complaints relative to excessive oil leakage at the crankshaft rear main bearing seal, two new seals have been developed.

The B2AZ-6701-A seal is for use on past model engines and the B8AZ-

6701-A seal is for use on all subject engines currently in production and all subject engines presently under warranty.

The main article outlines installation procedure, parts data and engine applications. Installation of these seals can be accomplished without removal of the crankshaft.

(TSB 64 - 4/7/67 - Article 1046)

CORRECTION TO BULLETIN NO. 67, ARTICLE NO. 1061 REAR CRANKSHAFT SEAL

(1952-1967 215, 223, 239, 256, 262, 272, 292, 330, 332 (Car), 352, 361, 390, 391, 406, 410, 427, 428 Passenger Car and Truck Engines)

The 1967 engines should be included in this article regarding rear crankshaft seal replacement as noted in Bulletin No. 64, Article 1046.

In addition, the time study operation should be 6675-A and 6675-A5. The previous articles incorrectly stated that operation 6675-AB be utilized.

(TSB 69 - 6/2/67 - Article 1095)

PISTON SLAP AND THE RELEASE OF THE 289/240 CID MIDDLE GRADE SERVICE PISTON

(All 1966-67 Models with 289 CID and 240 CID Engines, passenger cars and trucks)

Customers may complain of a light knocking noise, sometimes described as piston slap. Piston slap usually decreases in intensity as the engine approaches normal operating temperature, and is caused by excessive clearance between the wall of the cylinder bore and the skirt of the piston.

To correct the problem, pistons must be select-fitted to the cylinder bore. The middle grade service piston under the classification "MC" and part number C4GY-6108-D has been released to fill the gap between the current service piston and the .010" oversized piston.

This release will insure a complete assortment of pistons for the select-fitting procedure.

If the problem does not decrease in intensity as the engine temperature increases, do not attempt to correct problem by select-fitting pistons.

(TSB 65 - 4/21/67 - Article 1048)

CORRECTION TO BULLETIN NO. 65, ARTICLE 1048, PUBLISHED APRIL 21, 1967, CONCERNING PISTON SLAP AND THE RELEASE OF THE 289/240 CID MIDDLE GRADE PISTON

(All 1966-1967 Models with 289 CID and 240 CID Engines - Passenger Cars and Trucks)

The original article states "the middle (blue) grade service piston, part number C4GY-6108-D was released to fill the gap between current standard service piston (red) and the .010" oversized piston". The designation .010" oversized piston is in error and should read .003" oversized piston.

(TSB 68 - 5/19/67 - Article 1080)

HYDRAULIC TAPPET ADJUSTMENT

(All Car and Truck Models Equipped With 240, 300, or 289 CID Engines)

Customers may complain of a "clicking" noise diagnosed as a noisy tappet. Before replacing any noisy tappets, it is recommended that the valve clearance be adjusted according to the procedures outlined in Section 8 of the 1967 Shop Manuals. When a hydraulic tappet is found to be improperly adjusted, also check the adjusting nut torque which should be within 4.5-15 foot-pounds. If the proper torque is not obtained, replace the adjusting nut.

(TSB 65 - 4/21/67 - Article 1052)

CYLINDER BORE DIAMETER MAXIMUM TAPER SPECIFICATION

(All 1967 Car and Truck Engines)

The cylinder bore diameter maximum taper specification of 0.010 inch shown on page 8-14 of the 1967 Ford Truck Service Specifications booklet is incorrect. It should read 0.001 inch.

This same specification was omitted from the 1967 Ford Car Service Specifications booklet and should be noted therein.

(TSB 65 - 4/21/67 - Article 1056)

CORRECTION TO BULLETIN NO. 64, ARTICLE 1046 - REAR CRANKSHAFT SEAL

The incorrect time study operation and allowed time has been applied to the article regarding rear crankshaft seal replacements.

Refer to operations 6675-A and 6675-AB in the April 24 edition of the time schedule for the proper time for rear crankshaft seal replacement and R/R of the oil pan.

As of May 15, 1967, warranty claims using the rope type seal will be denied.

(TSB 67 - 5/5/67 - Article 1061)

INTAKE MANIFOLD INSTALLATION PROCEDURE

(All 221, 260, 289, 330, 332, 352, 361, 390, 391, 406, 410, 427 and 428 (including Police Interceptor) C.I.D. Passenger Car and Truck Engines)

Recent investigation of intake manifold-to-cylinder head gasket sealing problems indicates that the retaining bolts should be retorqued after the engine has reached normal operating temperatures.

It is therefore mandatory, when installing new intake manifold-to-cylinder head gaskets, that a re-torque operation be performed after the engine temperatures have been stabilized.

(TSB 67 - 5/5/67 - Article 1073)

OIL CONSUMPTION

(All Eight Cylinder Passenger and Truck Engines - All 289, 330, 352, 301, 390, 391, 410, 427, and 428 CID)

Investigation of complaints of excessive oil consumption on the subject series engines indicate a possible cause of the problem to be insufficient torque on the intake manifold to cylinder head attaching bolts. Before conducting any diagnosis or oil consumption tests to verify oil consumption complaint, tighten the intake manifold bolts to the proper torque specification.

If the minimum torque of any bolt is below 25 ft. lbs., tighten all bolts in the proper sequence to the published torque specifications for all 8-cylinder engines except 289 CID. On 289 CID engines, if the minimum torque is below 15 ft. lbs., tighten to published specifications.

After all intake manifold bolts have been properly tightened, check for engine oil leaks, make any necessary oil leakage corrections, and proceed with oil consumption verification.

(TSB 68 - 5/19/67 - Article 1079)

HYDRAULIC TAPPET DIAGNOSTIC PROCEDURE

(All Truck and Corlines)

When customers complain of a clicking or ticking noise which sounds similar to a collapsed or defective hydraulic tappet, verify and identify the noise and its source by using the Hydraulic Tappet Diagnostic Procedure in the main article.

(TSB 75 - 9/8/67 - Article 1151)

AMENDMENT TO TSB NO. 75, ARTICLE 1151, HYDRAULIC TAPPET DIAGNOSTIC PROCEDURE

(All Truck and Corlines Currently Under Warranty)

The previous article did not discuss hydraulic tappet "morning sickness" and should be amended to include the following paragraph:

Hydraulic tappets holding a valve open during extended shut-down periods (overnight) may leak down and be noisy (clatter) for a short period (less than 30 seconds) following cold engine start-up. This condition, commonly referred to as "morning sickness", is not detrimental to engine operation and is not considered an objectionable noise.

It must be emphasized that the Hydraulic Tappet Diagnostic Procedure must be followed in determining the cause of clicking noise, sounding similar to a collapsed tappet. If cause of the noise is determined to be a tappet, the tappet should be replaced. Do not clean or test the tappet to be replaced and do not clean or test the remaining tappets.

(TSB 78 - 11/3/67 - Article 1190)

ENGINE SPECIFICATIONS

(1968 Passenger Cars)

Some engine specifications were omitted from the 1968 Ford Car Specification Book and the 1968 Ford-Mercury and the 1968 Cougar-Fairlane-Falcon, Montego and Mustang Shop Manuals. Also, some specifications were changed. Refer to the article for the applicable specification change.

(TSB 78 - 12/15/67 - Article 1236)

ENGINE OIL FILL

(All 1969 Econoline and Club Wagon)

To minimize the possibility of engine oil backing up into the carburetor air cleaner when rapidly filling the crankcase, the following precaution should be observed.

Remove the oil level indicator (Dip stick) from the tube to allow entrapped air in the crankcase to escape.

The above precaution should be complied with particularly when adding two (2) or more quarts of oil at one time.

(TSB 93 - 5/31/68 - Article 1406)

ENGINE COMPRESSION CHECK

(All Cars and Trucks)

Revised procedure for checking engine compression pressures.

(TSB 93 - 5/31/68 - Article 1417)

DISPLACED AND/OR LEAKING OIL GALLERY DRIVE (CUP) PLUGS - ALL ENGINES SO EQUIPPED

(All Car and Truck Vehicles)

Customers may complain of low oil pressure at idle, a condition traced to dislodged oil gallery drive (cup) plugs. It is recommended the counterbored hole be inspected for damage or burrs. After the orifice has been inspected, flare the cup end of the replacement plug .005" to .010" more to insure proper retention. To expand the plug, insert a ball pen hammer or a ball bearing which is slightly larger than the inner diameter of the plug and tap lightly until the plug is enlarged. Coat the sealing edge of the plug with Permatex No. 2 and drive the plug with the flat end of a pin punch until the trailing edge is just below the chamfer at the outer edge of the hole. Vented or jiggle pin plugs must be installed with tubular or stepped type driving tools to avoid damaging the pin valve action.

The Foundry recently reworked its patterns to provide additional height to the oil gallery bosses and the Engine Plant began machining deeper oil gallery plug holes with an improved lead in chamfer to allow the installation of a longer cup plug. These changes, effective May 20, 1968 in engine production, will better insure against improperly installed cup plugs.

(TSB 94 - 6/21/68 - Article 1423)

ENGINE KNOCK ON ACCELERATION - TRANS- MISSION FLEXPLATE TO CRANKSHAFT RETAINING BOLT TORQUE

(Corvair Model "C" Units with Automatic Transmission)

Customer complaints of an objectionable

"engine knock" on acceleration may be encountered on Corvair Model "C" units equipped with an automatic transmission and built prior to approximately May 1, 1968. If this knock complaint is confined to the rear of the engine, it may be caused by inadequate transmission flexplate to crankshaft retaining bolt torque.

Subject units produced after approximately June, 1967 are equipped with a corrective steel spacer rather than a die-cast aluminum spacer between the transmission flexplate and crankshaft. In addition, units built after approximately May 1, 1968 are equipped with a revised transmission flexplate retaining bolt to allow a higher bolt torque specification and insure problem correction.

The main article contains necessary information to update a problem unit built prior to May 1, 1968 to the latest corrective design level and avoid repetitive problem occurrence.

(TSB 94 - 6/21/68 - Article 1426)

TUNE UP SPECIFICATIONS FOR LIQUID PETROLEUM FUELED 330 HD, 361 AND 534 CID ENGINES

(1966-68 D.S.O. Truck Engines)

See article for tune-up specifications for the D.S.O. liquid petroleum gas fueled engine. THESE SPECIFICATIONS ARE FOR FORD INSTALLED UNITS ONLY. For after-market installations refer to the particular conversion kit manufacturer.

(TSB 94 - 6/21/68 - Article 1444)

REVISED METHOD OF MARKING ENGINE OIL LEVEL INDICATORS

(All Passenger and Truck Engines - Ford Motor Company Standard)

A new method of marking engine oil level indicators has been devised and will be incorporated into all oil level indicators as soon as possible.

The 1969 Passenger and Light Truck engines will be the first engines to incorporate the new indicators sometime during 1969. The new indicators incorporate revised parameters for oil level requirements.

The new method of marking oil level indicators (dipsticks) will be incorporated by revision only, without a part number change to the indicator assembly, as soon as manufacturing equipment can be changed over.

(TSB 99 - 2/27/68 - Article 1497)

IMPROPERLY TORQUED ENGINE MOUNTS

(1968 Fairlane and Mustang with 8-Cylinder Engine)

A "clunk" type noise in the engine compartment and/or an improper functioning of the clutch, or transmission shift linkage may be the result of loosened insulator-to-engine attaching bolts.

When diagnosing customer complaints of this nature it is essential to check engine mount bolt torque. The proper torque is 24-50 lb. ft. If the bolt to not meet this specification, they must be retorqued before proceeding to further diagnostic procedures.

(TSB 101 - 11/1/68 - Article 1520)

IMPROVED INTAKE TO CYLINDER HEAD GASKETS AND END SEALS

(All Truck and Passenger Vehicles Equipped with 330, 360, 361, 390, 427 and 428 CID Engines)

Improved intake manifold to cylinder head gaskets, colored a dull red, are made of a new compound providing improved sealability and will minimize the possibility of oil consumption and/or leakage. An interlocking design at the four corners of the gaskets and end seals will reduce the probability of mispositioning the end seals during intake manifold installation.

Police and Cobra Jet 428 CID engines utilize a restricted exhaust orifice in the intake manifold to cylinder head gasket. This restriction reduces heat in the intake manifold area, thereby increasing valve life and

Autolite Part Number	Class	Identification Imprinted in Gasket	Engine Application
C8AZ-9441-B*	B	C8AE-9439-G	360/390 Truck 428 Police & C.J.
C8AZ-9441-A**	A	C8AE-9439-C	390, 427 and 428 CID Passenger
C8TZ-9441-A	A	C8TE-9439-B	330, 361, 391 CID Truck
C8AZ-9A424-A	A	Rear Seal	All above
C8AZ-9A425-A	A	Front Seal	All above

* Kit including seals C6AZ-9433-D, Class A ** Kit including seals C3AZ-9433-G, Class A

oil consumption protection during high speed driving conditions.

Part numbers, application and identification are listed below:
(TSB 103 - 11/29/68 - Article 1558)

VACUUM LEAKS BETWEEN CARBURETOR AND SPACER

(All 1968 and 1969 Eight Cylinder Engines with Aluminum Spacers)

Customer complaints of rough engine idle or an under the hood whistling noise are often diagnosed as vacuum leaks between the carburetor and aluminum spacer under the carburetor. Many times the corrective action consists of adding a second gasket. This fix is **not effective and should not be used.**

The proper method of correcting the problem is to replace or repair the offending spacer. However, it must be verified, prior to disassembly, that in fact the cause of the complaint is an imperfect seal at the carburetor to spacer or spacer to manifold surfaces. These procedures are detailed in the main article.

(TSB 109 - 2/14/69 - Article 1673)

WORN CYLINDER HEAD VALVE GUIDES

(All)

Ream affected guides and install oversize stem valves. Valves with oversize stem diameters of 0.003, 0.015, and 0.030 inch are available for service. If gages are not available, valve guide wear beyond repairable dimensions can be determined by inserting a 0.030" oversize stem valve into the guide in question.

PARTS: None.

WARRANTY STATUS: REIMBURSABLE
Operation: See Repair Time Standards Manual.

(TSB 112 - 4/4/69 - Article 1731)

ENGINE - BOSS 302 - SPECIFICATIONS REVISED

(Mustang Boss 302)

The following specifications supersede those published in Technical Service Bulletin No. 115, Article No. 1793, and are to be used when servicing the 302 Boss engine.

Exhaust Valve Head Diameter	Piston Diameter Ⓞ			Piston To Cylinder Bore Clearance	Piston Pin to Piston Clearance
	Coded Red	Coded Blue	0.003 Oversize		
1.7075	3.9968	3.9980	3.9992	0.0034	0.0006 Ⓞ
1.7125	3.9974	3.9986	0.9998	0.0042	0.0008

Ⓞ Measured at the piston pin bore centerline at 90 degrees to the pin bore.
Ⓞ Wear Limit 0.0012

(TSB 121 - 8/15/69 - Article 1919)

ACCELERATOR LINKAGE - REWORK OF RETRACTION SPRINGS

(All Models)

Under no circumstances are original equipment return springs to be reworked in the field.

Bending of the extension wires supplied with the Autolite universal return spring is necessary and permissible at installation.

PARTS: None.

WARRANTY STATUS: INFORMATION

(TSB 121 - 8/15/69 - Article 1921)

ENGINE REAR OIL LEAK DIAGNOSIS AND REPAIR PROCEDURE

(330, 352, 360, 361, 390 and 428 CID Car and Truck Engines)

Perform Check Procedure.

(TSB 124 - 10/10/69 - Article 1960)

ENGINE DETONATION AND/OR PRE-IGNITION

(All Engines)

Because of the damage that will result from prolonged periods of detonation or pre-ignition it is important the cause be located and corrected immediately. A list of items that will influence the tendency to detonate appears in the body of the main article.

WARRANTY STATUS: INFORMATION ONLY

(TSB 126 - 11/7/69 - Article 1987)

Engine Emission Control Systems

FAIRLANES BUILT WITH 302 OR 351 CID ENGINES, A/C AND NO PVS VALVE

(1969 Early Built Fairlanes)

Some Fairlanes built between August 19, 1968, and September 9, 1968, having a 302 or 351 CID engine and A/C were built without a PVS valve. Should a customer complain of overheating, a check should be made for the presence of the PVS valve. If it is missing, the PVS valve should be installed. A procedure is outlined, complete with vacuum system diagrams.

(TSB 103 - 11/29/68 - Article 1553)

ENGINE EMISSION CONTROL SYSTEMS - HOSE RETENTION

(170, 200 and 250 CID Engines - 1969)

The proper hose clamp required for positive retention of the crankcase ventilation hose at the carburetor space is BPA-18572A. The tangs must be indexed outward to approximately 8 o'clock. If an adjustable worm screw type clamp is used, index the head upward and to the outboard side.

CAUTION: Regardless of the clamp used, maintain sufficient clearance around the ac-

celerator pump linkage.

PARTS:

Name	Number	Class	Avail.
Spring Tension Clamp	BPA-18572-A	A	OK

PRODUCTION CORRECTION: April 1, 1969.

WARRANTY STATUS: REIMBURSABLE

Operation: SP-18572-A-69

Time: 0.3 Hr.

D.L.R. CODING: Basic Part No. 6853 - Defect Code 39

(TSB 121 - 8/15/69 - Article 1918)

Engine - 6 cylinder - 144, 170, 200, 250

CYLINDER HEAD VALVE GUIDE WEAR

(1965-1967 Passenger and Truck Vehicles Equipped with 170-200 CID Engines Built Prior to February 23, 1967)

Customers may complain of a clicking noise traced to valve guide wear. To minimize valve guide wear and to improve lubrication, the number one valve rocker shaft support, the valve rocker arm cover assembly and six valve rocker arm shaft support bolts should be replaced. See the main article for part numbers.

(TSB 78 - 11/3/67 - Article 1196)

ENGINE HARSHNESS - 170 AND 200 CID 6-CYLINDER ENGINE WITH AUTOMATIC TRANSMISSION

(1966 thru 1968 Falcon, Fairlane and Mustang Vehicles So Equipped)

Customer complaints have been received concerning rough engine idle and/or engine vibrations being transmitted into the passenger compartment.

This article outlines the procedure to be used to correct the roughness condition on a customer complaint basis.

(TSB 93 - 5/31/68 - Article 1410)

ENGINE - SPARK KNOCK ON MIDRANGE LIGHT ACCELERATION

(Mustang, Fairlane w/250 CID and Automatic Transmission - 1969)

1. Check the initial spark advance, correct to 6° BTDC.
2. Verify the complaint - an engine noise resembling spark knock can be heard under light acceleration between 50 and 70 mph or during transmission upshift during W.O.T. at the same speeds.
3. Remove the plug in the end of the distributor diaphragm assembly and add a .060 inch shim to the C90F-12127-U (early built) or a .040 inch shim to the C90F-12127-V (late built) distributor vacuum diaphragm assembly. Refer to the 1969 Car Shop Manual, Vol. 2, Group 09-01-07 and 08 for rework procedures.

PARTS:

Part No.	Description	Avail.	Class
375484-S8B	040 Shim Washer	OK	S
375483-S8B	020 Shim Washer	OK	S

WARRANTY STATUS: Reimbursable within the provisions of the Warranty Policy Manual.

Operation: SP-12127-A-69

Time: 0.07 Hrs.

(TSB 116 - 5/30/69 - Article 1811)

Engine — 6 cylinder — 223, 240, 262

FAN MOUNTING HUB BOLT LOOSENING

(W Series Trucks with Cummins NH-230 & NH-250 Diesel Engines with Engine Serial Numbers in the 645,000-650,000 Range and Vehicle Warranty Numbers E-00001-E-99999)

Install new fan hub bolts released by Cummins whenever units are brought in for any reason, or on a customer complaint basis.

Cummins Engine Company Warranty Letter No. 1-22 dated February 19, 1969 advises Cummins Dealers of this problem and correction.

PARTS:

Qty.	Part No.	Description	Class	Avail.
6	S-163	3/8 16 x 3/4" Bolt	Not svcd	Cummins Distributors

PRODUCTION CORRECTION: This change was effective at Cummins on February 14, 1969.

WARRANTY STATUS: INFORMATION — Cummins Engine Company Responsibility.

(TSB 116 — 5/30/69 — Article 1812)

Engine — 8 cylinder — 221, 260, 289, 302, 351

289 CID VALVE SPRING BREAKAGE

All 1967 models with 289 CID engines built in Cleveland between December 9, 1966 and January 23, 1967 — vehicle build dates — approx. late December through February.

In the event a customer reports an engine malfunction traceable to a valve spring fracture on 289 CID engines built in Cleveland between December 9, 1966 (date code 6M9X) and January 23, 1967 (date code 7A23X), replace all 16 light green valve springs.

See main article for correct replacement parts and other details.

(TSB 63 — 3/31/67 — Article 1026)

IDENTIFICATION OF CORRECT CRANKSHAFT PULLEY BOLTS USED IN 289/302 CID ENGINES REGARDLESS OF ACCESSORIES TO PREVENT BOLT BREAKAGE

(All Vehicles Built Prior to January 15, 1968 and Equipped with 289 and 302 CID Engines)

Customers may complain of alternator belt noise or whipping movements caused from looseness of the crankshaft pulley. This loose condition may be caused by improper bolt torque or incorrect bolt usage. Vehicles with 289/302 CID series engines built prior to January 15, 1968 may have been built with the alternator adjusting bolt (3816-49-S2) installed incorrectly in place of the proper crankshaft pulley bolt (56140-54) identified with a raised letter "F" in the middle of its head. Proper bolt torque is 25-35 ft./lbs.

Refer to the main article for a comparative illustration between the alternator and the crankshaft pulley bolts.

(TSB 85 — 2/9/68 — Article 1280)

POSSIBLE MISALIGNMENT OF THE CRANKSHAFT PULLEY TO THE CRANK- SHAFT DAMPER

(1968 Model 289 CID and 302 CID Engines)

Customer complaints of front end knock and/or pulley wobble as a result of loss

of pulley bolt torque may be traced to an unspecified number of these vehicles built prior to February 19, 1968 where the crankshaft pulley was not fully seated into the crankshaft damper. The knocking or wobbling would occur when the pulley later seats itself to the damper.

To prevent any possible further damage, it is recommended that vehicles equipped with the above engines be inspected when in for service to assure the pulley is properly seated.

Refer to the main article for the proper inspection procedure.

(TSB 90 — 4/19/68 — Article 1366)

ROCKER ARM STUD REMOVAL — 351 CU. IN. ENGINE

(351 Cu. In. 8-Cylinder Passenger Car Engine)

Use existing tool T62F-6A527-B (or A) for 351 cu. in. engine rocker arm stud removal.

(TSB 102 — 11/15/68 — Article 1538)

"SPLIT-LIP" TYPE REAR CRANKSHAFT SEAL

(1962-1969 221, 260, 289, 302 and 250 Passenger Car Engines)

Correct rear main seal oil leaks with split-lip type rear oil seals. (Utilization of this seal is mandatory for warranty repairs.)

PARTS:

Qty.	Part No.	Descrip.	Class	Avail.
1	C92Z 6701-A	Seal-Rear Crankshaft	A*	OK

* Effective May 14, 1969.

PRODUCTION CORRECTION: Subject seal is not used in production.

WARRANTY STATUS: REIMBURSABLE Operation: 6675-A, 6675-A-5 Time: Use time appropriate to engine as per Service Labor Time Standards book.

(TSB 114 — 5/2/69 — Article 1776)

ENGINE — 8 CYLINDER — HARD HOT CRANK

(351-2V and 4V, 1969)

Cars exhibiting hard slow crank after a two to ten minute hot soak should be checked for the build date stamped in the case under the part number. If built before 8H12, replace with a starter built after 8H12. Starters built after 8H12 must be checked as follows:

1. All starter, solenoid and battery connections for corrosion or tightness.
2. Battery application for correct amp. hour capacity (list included in main article).
3. Battery specific gravity, if below 1.250, recharge.
4. Remove starter and lubricate the drive housing bearing with Lubriplate 777. Reinstall the starter.

PARTS:

Part Number	Class	Avail.
C20Z-1100Z-B (Auto. Trans.)	A	Avail.
C5TZ-1100Z-D (Stan. Trans.)	A	Avail.

PRODUCTION CORRECTION: August 12, 1968.

WARRANTY STATUS: REIMBURSABLE Operation: 11001-A Starter Motor Replace (Starter Built Before 8H12)

Time: 0.3 Hr. per Service Labor Time Standards Book.

Operation: SP-11001-B-69 Hard Hot Crank — Correct (Starter Built After 8H12)

Time: 0.4 Hr.

(TSB 114 — 5/2/69 — Article 1777)

302 CID BOSS ENGINE SPECIFICATIONS

(The 302 CID Boss Engine is Available in the Mustang Boss 302 Sports Roof Model With Four-Speed Manual Transmission, Power Disc Brakes, and Ride and Handling Suspension Only.)

The engine, ignition and fuel specification in this article are for the 302 CID Boss (High

Output) engine only.

PRODUCTION: April 17, 1969.

WARRANTY STATUS: Covered by the 1969 standard 12/12-5/50 Passenger Car and Two-Wheel Drive Light Truck Warranty as outlined in the Warranty Policy Manual

(TSB 115 — 5/16/69 — Article 1793)

ENGINE — 302-2V — "DIESELING" OR ENGINE CONTINUES TO RUN AFTER SHUT-OFF

(All Units Equipped With A/C — 1968 and 1969)

1. Verify engine is adjusted to proper specification with regard to idle speed and timing.
2. Check for vacuum leaks and proper fuel usage.
3. Check for proper return to idle before shut-off.
4. The driver allows sufficient time for the engine to return to idle rpm prior to turning the ignition off (races engine before shut-off).
5. If the above does not correct the problem, install a throttle stop solenoid switch and bracket (Figure 11).
6. Use a long wire and fuel shut-off solenoid feed wire assembly to connect the solenoid to the No. 640 circuit (red-yellow striped wire) and on Mustang, to the No. 904 circuit (green-red striped wire) at the ignition switch as in Figure 13).

PARTS:

Part Number	Part Name	Class	Avail.
C90Z-9D856-A	Throttle Solenoid	B	OK
C9AZ-9J586-A	Throttle Solenoid Bracket	B	OK
C9AZ-9A451-A	Fuel Shut-Off Wiring Assembly	A	OK
C8AZ-9D857-A	Wire (22-1/2" long)	AG	OK
C9UZ-9D857-A	Wire (44" long)	AG	OK

PRODUCTION CORRECTION: **WARRANTY STATUS:** Reimbursable with in the provisions of the Warranty Policy Manual.

Operation: SP-9856-A-69 Time: 0.7 Hr.

(TSB 115 — 5/16/69 — Article 1794)

302 BOSS ENGINE RPM LIMITER (GOVERNOR)

(1969½ Mustang)

302 Boss engines installed in 1969½ Mustangs are equipped with an rpm-limiting device which prevents accidental overspeeds above 6000 rpm, such as when shifting. The device is a solid-state electronic governor plugged into the primary circuit between the ignition switch and the ignition coil (Figure 4). Above 6000 rpm (+ or - 50 rpm) the governor shorts-out the primary circuit through a resistor contained in the control. The effect of the shorting-out is similar to that from fouled spark plugs and thus prevents engine runaway.

The governor is serviced as a unit.

PARTS:

Part Number	Part Name	Class	Avail.
C9Z2-12450-A	Governor	C	OK

PRODUCTION DATE: 4-18-69.

WARRANTY STATUS:

Operation: Not Available

Time: Not Available

(TSB 121 — 8/15/69 — Article 1923)

ENGINE — NUMBER EIGHT SPARK PLUG REMOVAL AND INSTALLATION

(1969 Ford Equipped with 351 CID Engine and Saginaw Power Steering Gear)

1. Separate the pressure line (forward

part on gear) from the hose indexing clip (blue in color for Saginaw gear) rotate the clip on the return line upward for additional pressure line clearance.

2. Loosen pressure line fitting, at the gear, only enough to rotate the line forward to provide socket clearance to the spark plug.

3. Remove, replace, or reinstall the spark plug as required.

4. Reinstall the pressure line in the indexing clip.

5. Torque the pressure line fitting to the gear (16-25 lb. ft.).

6. Check power steering fluid level — add fluid if required.

PARTS: N/A.

PRODUCTION CORRECTION: None.
WARRANTY STATUS:
INFORMATION ONLY

(TSB 120 — 8/1/69 — Article 1899)

CAMSHAFT IDENTIFICATION

(1969 302 CID Series Engine)

1969 CID 2V and 4V engines with a 302-4V Boss camshaft may demonstrate rough engine idle. The following chart will identify the proper camshaft for the engine application.

PARTS:

Part Number	Engine	Intake	Exhaust	*Casting Ident.
C3AZ-6250-V	302-2V-4V	.366	.378	UA
C9ZZ-6250-A	302 4V Boss	.477	.477	VE-B
DOZZ-6250-A	302 4V Boss	.477	.477	VE-D

(TSB 126 — 11/7/69 — Article 1988)

351-C — BROKEN ROCKER ARM BOLT

(Fairlane, Mustang — 1970)

If a unit has one or more broken rocker arm bolts, check the breakaway torque in the tightening direction on the remaining bolts (on both heads). If any bolts require less than 20 ft.-lb. of torque to breakaway discard that bolt. File (or grind) the piloting chamfer edges of all sixteen fulcrums (as per Figure 1). Buffing may be required to ensure a free fit in the head. Inspect push rods for straightness. When reassembling the rocker and bolt, apply oil to threads and bolt head and torque to 20-25 ft.-lbs. Back off four full turns and retorque to 20-25 ft.-lbs.

PARTS:

Description	Part Number	Class	Avail.
Rocker Arm Bolt	DO02-6A527-A	C	11-3-69

PRODUCTION CORRECTION: 10-15-69.
WARRANTY STATUS: REIMBURSABLE.
Operation: SP-6527-B-70
Time: 2.2 Hrs.
DLR. CODING: Basic Part No. GA527 — Code No. 33

(TSB 126 — 11/7/69 — Article 1989)

Engine — 8 cylinder — 352, 390, 406, 427, 428

ROUGH IDLE AND/OR POOR ENGINE PERFORMANCE CAUSED BY BURNING OR IMPROPER SEATING VALVES AND/OR EXCESSIVE VALVE GUIDE WEAR

(1965-66-67 390 and 428 CID Engines — Excluding Police Interceptor)

If, on a customer complaint basis of rough idle and/or poor engine perfor-

mance, the problem can be traced to low compression due to burned or improper seating valves and/or excessive valve guide wear, it may be necessary to replace the standard intake and exhaust valves and cylinder head with the new interceptor valves and stress relieved cylinder head as outlined in the main article.

(TSB 65 — 4/21/67 — Article 1053)

AMENDMENT TO TSB NO. 65, ARTICLE 1053, ROUGH IDLE, POOR PERFORMANCE, BURNING VALVES, IMPROPERLY SEATED VALVES, EXCESSIVE VALVE GUIDE WEAR

(390 GT Engines)

The previous article did not cover the 390 GT engine. This engine has cylinder heads in which the exhaust manifold bolt pattern does not conform to the conventional 390 CID exhaust manifold. No "stress-relieved" cylinder head has been released for the 390 GT engine, so when dealing with rough idle and/or poor engine performance problems, use the GT cylinder head (Part No. C60Z-6049-AA1).

An amended procedure for curing these problems in 390 GT engines appears in this article.

(TSB 70 — 6/23/67 — Article 1109)

1967% IMPROVEMENTS AND SPECIFICATION CHANGES FOR 352 C.I.D. TRUCK ENGINES

(All 1967% Truck Engines)

Several parts improvements and specification changes have been made on the 1967% 352 C.I.D. truck engines. See the article for full details.

(TSB 68 — 5/19/67 — Article 1082)

LEFT-HAND SIDE EXHAUST MANIFOLD TO CYLINDER BLOCK INTERFERENCE

(1968 Ford Car and Thunderbird Engines 390 and 428 CID)

In early manufacturing of 1968 vehicles, it was determined that a build-up of manufacturing tolerances has caused an interference problem on the left hand side of the engine between the exhaust manifold and the block. This condition does not exist in 1968 Mustang or 1968 Fairlane passenger cars because they utilize completely different exhaust manifolds.

A new left bank exhaust manifold has been released which overcomes this interference problem by extending the outlet necks out further than the old manifold. This can be identified by casting number C8AE-9431-B on the side of the runner.

In order to maintain production of 1968 engines while awaiting the new manifolds, manufacturing has made a production change which consists of using two (2) exhaust manifold gasket heat shields to provide sufficient manifold to cylinder block clearance.

When reinstalling left side exhaust manifold on engines utilizing the double gaskets, it is mandatory that two new gaskets be replaced to insure that there is no interference between the block and the exhaust manifold and that there will be no exhaust gas leaks.

(TSB 77 — 10/13/67 — Article 1169)

ENGINE SURGE 352 CID ENGINE, ALL TRUCKS EXCEPT THOSE EQUIPPED WITH EXHAUST EMISSION SYSTEMS

(All 1965, 1966, 1967 Trucks So Equipped)

To correct complaints of engine surge, first replace the spacer to manifold gasket with a new spacer to manifold gasket. Bring fuel back to specification and road test. If after road test the unit still surges, replace the main metering jets with one size larger jets. In extreme cases it may be necessary to increase the jet two sizes, this should be done only after the above corrections have been tried and failed to correct the surge complaint.

(TSB 78 — 11/3/67 — Article 1187)

OIL CONSUMPTION ORIGINATING FROM THE CRANKCASE VENTILATION SYSTEM

(All 1967 Vehicles Powered with 352, 390 or 428 CID Engines, Except Cougar and Mustang)

In the event of a customer complaint of oil consumption and the engine crankcase ventilation system is suspected, it is suggested an oil separator cap (C8AZ-6A665-A; Class B) and oil separator grommet (C8AZ-6A892-B, Class A) designed to accommodate the PCV valve be installed in the right valve rocker arm cover assembly identified by "Powered by Ford" stamped on the upper surface. These new valve rocker arm cover assemblies feature at the PCV valve location a cam-lock which will hold the oil separator cap. Finally, install the PCV valve into the oil separator grommet and cap assembly. It should be noted that this modification will not completely eliminate oil wetting of the PCV valve or inside diameter of the attaching hose or tube since oil vapor is disseminated through the system; therefore, every 12,000 miles remove the adaptor (cap) and wash in a low volatility petroleum base solvent. Shake the cap dry and reinstall. Do not dry with compressed air as damage to the filtering media may result.

(TSB 85 — 2/9/68 — Article 1269)

FIELD FIX FOR NOISY TAPPETS AFTER PROLONGED IDLE

(352, 390, 427, 428 CID Passenger Car and 330, 352, 360, 361, 390, 391 CID Truck Engines)

Customer complaints of noisy hydraulic tappets encountered on engine idle speeds following high speed operation and/or prolonged idle speeds may be minimized by reworking the oil pump to incorporate an internal relief valve chamber vent instead of the present external vent. A newly revised pump has been incorporated into regular engine production as of February 26, 1968. The improvements made to the subject oil pumps may be incorporated in pumps built prior to this date by following the instructions listed in the main article.

(TSB 91 — 5/3/68 — Article 1389)

REAR MAIN SEAL OIL LEAKAGE

(All 1969 Passenger Vehicles with 390/428 CID Engines)

Rear main seal oil leaks in 390/428 C.I.D. engines may be attributed to reversed or marine type crankshaft oil seal journal knurling which pumps or pushes the oil past the rear main seal. Verify the correct direction of the knurling by viewing the crankshaft from the left side of the engine with the flywheel to your right. The correct oil seal knurling runs from "Northwest to Southeast" in direction as illustrated in the main article.

The proper rear main crankshaft knurling in passenger vehicles provides an auguring action which pushes or pumps the oil away from the rear crankshaft seal as the engine rotates counterclockwise when viewed from the flywheel side. If the oil seal journal knurling is incorrectly machined, the crankshaft must be replaced.

(TSB 103 — 11/29/68 — Article 1556)

428 CID ENGINE COMPONENT IDENTIFICATION

(1969 428-CJ and 428 Super CJ Equipped Vehicles)

To effectively diagnose and repair 1969 428 CID engine problems it is necessary to differentiate between Cobra Jet and Super Cobra Jet applications. It is also imperative

PARTS:

PARTS	COBRA JET ENGINE		SUPER COBRA JET ENGINE	
	Part Description	Part Number	Class	Part Number
Flywheel (Std. Trans.) (Auto. Trans.)	C80Z-6375-A	C	C9ZZ-6375-A	C
	C6AZ-6375-B	A	C9OZ-6375-B	C
Crankshaft	C9ZZ-6303-B	C	C9ZZ-6303-A	C
	("IUB" stamped on #7 cheek)		("IUA" stamped on #7 cheek)	
Vibration Damper	C9ZZ-6303-E	C	C9ZZ-6303-D	C
	(Engines built after 12/26/68, "IUB" stamped on #7 cheek and/or "A" stamped on #1 counterweight)		(Engines built after 12/26/68, "IUA" stamped on #7 cheek and/or "B" stamped on #1 counterweight)	
Spacer, Crankshaft/ Vibration Damper	C8AZ-6316-A	A	C8AZ-6316-C	C
Short Block Assy.	B8AZ-6359-A	A	C9ZZ-6359-A	C
	C8OZ-6009-A	C	C9ZZ-6009-A	C

(TSB 113 - 4/18/69 - Article 1758)

ERRONEOUS OIL DIPSTICK READINGS - 1969 428 CID COBRA JET ENGINES

(All So Equipped)

Low oil readings may be obtained if the oil indicator end of the dipstick is bent, or if the dipstick is inserted backwards into the tube. The "curl" of the dipstick handle must be toward the front of the engine and its blade must be straight to assure correct oil level readings.

(TSB 109 - 2/14/69 - Article 1657)

ENGINE BLOCK DATE STAMP LOCATION

(330, 360, 361, 390, 391 CID Truck and 390, 427, 428 Car Engines)

The engine date code stamp location has been changed from the machined pad on the "left" front side of the cylinder block to the front surface of the "right" bank of the cylinder block adjacent to the cylinder head.

PRODUCTION CORRECTION: 2/12/69.

(TSB 113 - 4/18/69 - Article 1757)

OIL FILTER FAILURE (RUPTURED) - HIGH OIL PRESSURE

(1969, 428 CID Passenger Car Engines)

Replace damaged oil filter and check oil pressure to specifications, using a direct reading gauge.

NOTE: Oil pressure specification - 35-75 p.s.i. (hot) at 2000 r.p.m.

If oil pressure exceeds 85 p.s.i., replace the oil pump.

CAUTION: If oil pressure exceeds 85 p.s.i. before reaching the specified 2000 r.p.m., do not continue check.

PARTS: Use appropriate service oil pump per parts catalog.

PRODUCTION CORRECTION: June 18, 1969.

WARRANTY STATUS: REIMBURSABLE
Operation: SP-6600-A-69 - Check Oil Pressure

Time: 0.4 Hr.

Operation: 6675-A, Replace Oil Pan Gasket and 6675-A-1, Replace Oil Pump

Time: Use Applicable Service Labor Time Standard.

DLR. CODING: Basic Part No. 6600 - Code No. 91

(TSB 121 - 8/15/69 - Article 1920)

that engine components (e.g., crankshaft, flywheel, vibration damper, etc.) be compatible within a given engine.

Aluminum engine identification Tag Codes:

428 Cobra Jet Engine - 418S, 419S, 420S, 421S

428 Super Cobra Jet Engine - 422S, 423S, 424S, 425S

PARTS:

Part Number	Part Name	Class	Avail.
000Z-8005-A	Radiator Assy.	C	As of 9/26/69

WARRANTY STATUS: REIMBURSABLE

Operation: 8005-A

Time: 0.6 Hr.

DLR. CODING: Basic Part No. 8005 - Code No. 65.

(TSB 124 - 10/10/69 - Article 1961)

ROCHESTER QUADRAJET CARBURETOR SPECIFICATIONS

(429 CID Cobra Jet 4-V Engine)

The adjustment specifications for the subject carburetor have been revised. The major adjustments are as listed in this article. The adjustment procedures are detailed in the 1970 Car Shop Manual.

WARRANTY STATUS:

ROCHESTER QUADRAJET CARBURETOR 429 CID COBRA JET 4V ENGINE AUTOMATIC CHOKE (PASSENGER CAR) IMCO EMISSION SYSTEM			
Basic No. 9510	DOOF-A DOOF-F	DOOF-B	DOOF-E
Float Setting		11/32"	
Pump Rod Location		Outboard Hole	
Pump Height		5/16"	
Fast Idle (bench adj.)		2 Turns	
Cam Clearance (choke rod)		0.160	
Air Valve Dashpot		0.030	
Vacuum Break	0.140	0.190	
Choke Unloader		0.325	
Air Valve Lockout		0.015	
Secondary Throttle Opening		0.070	
Secondary Throttle Closing		0.020	
Secondary Metering Rods		53/64"	
Air Valve Spring		15/16 of a turn	
Remote Choke Rod		1/2 to 1 total dia. past hole	

(TSB 126 - 11/7/69 - Article 1990)

Cortina Engine, 1300cc, 1600cc

1967 CORTINA CARS WITH

1968 ENGINES AND OTHER

1968 COMPONENTS

(A11)

Approximately 1,000 Cortina cars are currently being delivered equipped with a new 1600 series (97.6 C.I.D.) engine which is a feature of the 1968 models. Because these engines do not have an exhaust emission control system, they must be registered as 1967 models.

(TSB 81 - 12/8/67 - Article 1229)

ENGINE OVERHEATING UNDER ROAD LOAD

(1969 Ford Vehicles Equipped With 390 428 P.I., and 429 CID Engines and Factory Installed Air Conditioning)

Verify that the cooling system is within acceptable limits (fan clutch, thermostat operation, coolant dilution -20° F, and system ability to maintain 12 to 15 P.S.I. pressure). Road test at legal speeds. If complaint condition persists, replace the existing radiator with the following.

PARTS:

Part Number	Part Name	Class	Avail.
000Z-8005-A	Radiator Assy.	C	As of 9/26/69

WARRANTY STATUS: REIMBURSABLE

Operation: 8005-A

Time: 0.6 Hr.

DLR. CODING: Basic Part No. 8005 - Code No. 65.

(TSB 124 - 10/10/69 - Article 1961)

Engine - 8 cylinder - 429, 460

NEW POSITIVE STOP ROCKER ARM STUD

(1968 Thunderbird)

A new positive stop rocker arm stud, nut and push rod has been released for the 429 and 460 CID engines eliminating the necessity for adjusting valve lash.

(TSB 93 - 5/31/68 - Article 1412)

ENGINE OVERHEATING UNDER ROAD LOAD

(1968 Ford Vehicles Equipped With 390 428 P.I., and 429 CID Engines and Factory Installed Air Conditioning)

Verify that the cooling system is within acceptable limits (fan clutch, thermostat operation, coolant dilution -20° F, and system ability to maintain 12 to 15 P.S.I. pressure). Road test at legal speeds. If complaint condition persists, replace the existing radiator with the following.

CRANKCASE EMISSION CONTROL VALVE (FULLY CLOSED VENTILATION SYSTEM)

(1967 Corrina)

Customers may complain of uneven engine idling or engine noise traced to emission control valve. A modified emission control valve was introduced in production in June 1967 to overcome these problems. The modified emission control valve is available in service under part number 105E-6A666 for the GT and part number 116E-6A666 for all other models.

(TSB 88 - 3/22/68 - Article 1326)

CORTINA TIMING PULLEY

(All 1968 - U. S. only)

All 1968 U. S. Cortina cars are equipped with the Thermoactor emission system and will have a crankshaft pulley with a single timing notch.

The initial ignition timing on all 1968 U. S. Cortina engines should be set at 4° BTDC (notch set to left segment of distributor, see main article).

(TSB 90 - 4/19/68 - Article 1365)

ENGINE DATE CODE LOCATIONS

(Corrina)

Following complaints of illegible date code stampings on in-line engines, effective from mid-October, 1967, the date code has been stamped on the left hand side of the clutch housing mounting flange of the cylinder block for all engines including the cross-flow design, as illustrated in the main article. Prior to this, the date code was stamped on the top of the right hand engine mounting pad. This new position is visible when the engine is installed. The first date code to be applied in this manner was 7K13. The first digit represents the year; the second figure (a letter) stands for the month, and succeeding digits are the days. Thus, 7K13 decipher as October 13, 1967. The months begin with "A" which is January and end with "M" which is December, the letter "I" is omitted.

(TSB 91 - 5/3/68 - Article 1380)

ENGINE KNOCK ON ACCELERATION - TRANSMISSION FLEXPLATE TO CRANKSHAFT RETAINING BOLT TORQUE

(Corrina Model "C" Units with Automatic Transmission)

Customer complaints of an objectionable "engine knock" on acceleration may be encountered on Cortina Model "C" units equipped with an automatic transmission and built prior to approximately May 1, 1968. If this knock complaint is confined to the rear of the engine, it may be caused by inadequate transmission flexplate to crankshaft retaining bolt torque.

Subject units produced after approximately June, 1967 are equipped with a corrective steel spacer rather than a die-cast aluminum spacer between the transmission flexplate and crankshaft. In addition, units built after approximately May 1, 1968 are equipped with a revised transmission flexplate retaining bolt to allow a higher bolt torque specification and insure proper correction.

The main article contains necessary information to update a problem unit built prior to May 1, 1968 to the latest corrective design level and avoid repetitive problem occurrence.

(TSB 94 - 6/21/68 - Article 1426)

CORRECTION TO T.S.B. ARTICLE NO. 1426 IN ISSUE NO. 94 OF JUNE 21, 1968 - ENGINE KNOCK ON ACCELERATION - TRANSMISSION FLEXPLATE TO CRANKSHAFT RETAINING BOLT TORQUE

(Cortina Model "C" Units with Automatic Transmission)

The previous T.S.B. article number 1426

regarding Cortina automatic transmission flexplate to crankshaft retaining bolt torque requires two corrections:

1. The part number of the revised driveplate to crankshaft retaining bolt is 113573-ES rather than 113573-ES2.
2. The "operation" and "time" provided as a part of the warranty status do not apply to this article. Use the standard labor operation(s) which apply to the repairs required. (TSB 96 - 8/2/68 - Article 1450)

REPLACEMENT OF FRONT COVER OIL SEAL

(1968 Corrina)

When repairing customer complaint Cortinas for leaking front cover oil seals it is important to install the seal correctly to avoid recurrence of the problem.

To replace the seal effectively it is necessary to remove the radiator and hoses, fan belt and water pump as described in the main article.

(TSB 101 - 11/1/68 - Article 1535)

Engine - 8 cylinder Truck

- 330, 360, 361, 390, 391

EXCESSIVE OIL CONSUMPTION - FT TRUCK ENGINES EXCEPT 330 MD

(1964-67 330 HD, 361, 391 CID Engines)

Some FT truck engines are experiencing the following problems; cylinder bore, excessive wear and scoring, and piston rings breaking and sticking, contributing to high oil consumption.

To correct engine problems relative to piston and rings, a four ring piston is now in production. Service parts for four ring pistons, rings and short block assemblies are in the Parts Catalog. The new four ring pistons and rings can be used to service past models. The new rings must be used with new four ring pistons.

(TSB 83 - 12/29/67 - Article 1246)

THERMOACTOR EMISSION SYSTEM

(1968 F-100 with 360/390 CID Engine and Standard Transmission)

Effective approximately March 25, 1968, these units will no longer utilize the thermoactor exhaust emission control system.

The Imco emission system currently used on automatic transmission equipped units will now be used on the standard transmission.

All servicing procedures currently pertaining to Imco exhaust emission control system apply. (TSB 90 - 4/19/68 - Article 1358)

NEW CYLINDER HEADS - FT TRUCK ENGINES EXCEPT 330 MD

(1964-68 330 HD, 361, 391 CID Engines)

Revised cylinder heads incorporating intake valve inserts and decreased exhaust valve seat insert interference fits were effective March 18, 1968 in engine production. The revised cylinder head part number C4TZ-6049-E is available in Class A depots. (TSB 94 - 6/21/68 - Article 1437)

VALVE TRAIN NOISE

(All 1968 Trucks Equipped with 330 Medium Duty Engines)

This article supersedes and cancels Article 1366.

Remove both heads and inspect all intake valves for signs of scoring.

PRODUCTION CORRECTION: 2-28-69.
WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.
Operation: 6051-A and 6051-A-1
Time: Per the Service Labor Time Standards Manual.

PARTS:

Part No.	Name	Class	Avail.
C4TZ-6507-J	Intake Valve (Standard)	A	OK
C4TZ-6507-K	Intake Valve (.003-0.5)	B	OK
C4TZ-6507-L	Intake Valve (.015-0.5)	B	OK
C4TZ-6507-M	Intake Valve (.030-0.5)	C	OK

(TSB 112 - 4/4/69 - Article 1732)

ENGINE BLOCK DATE STAMP LOCATION

(330, 360, 361, 390, 391 CID Truck and 390, 427, 428 Car Engines)

The engine date code stamp location has been changed from the machined pad on the "left" front side of the cylinder block to the front surface of the "right" bank of the cylinder block adjacent to the cylinder head.

PRODUCTION CORRECTION: 2/12/69.
(TSB 112 - 4/4/69 - Article 1739)

EXHAUST VALVE SEAT LOOSENING

(1968-69 Heavy and Extra-Heavy Trucks with 330 H.D., 361 and 391 CID Engines)

Valve seat insert loosening on heads produced after June, 1968, and mentioned in Technical Service Bulletin No. 94, Article 1437, dated June 21, 1968, was attributed to a greater interference of the seat to head than specified. This condition was corrected on engines produced in late October 1968 and date coded 8L or later.

PRODUCTION CORRECTION: Approximately October 20, 1968.
WARRANTY STATUS: INFORMATION ONLY

(TSB 122 - 9/5/69 - Article 1936)

PISTON SCUFFING OR BROKEN RINGS ON NUMBER ONE PISTON

(1970 Medium, Heavy or Extra Heavy Trucks With 330, 361 or 391 CID Engines)

Piston scuffing and/or broken rings on the No. 1 piston may be due to a timing cover bolt which is too long. The bolt has a flat head 3/8-16 x 3 3/4 with a washer, and is the third bolt from the bottom of the cover as shown in Figure 5. The correct bolt is a self-locking bolt 3/8-16 x 3-1/16 with six notches on the head.

PARTS:

Part No.	Part Name	Class	Avail.	Qty.
359099-S	Bolt	S	OK	1

PRODUCTION CORRECTION:

WARRANTY STATUS: INFORMATION ONLY
DLR. CODING: Basic Number 6019 - Defect Code 62.

(TSB 124 - 10/10/69 - Article 1962)

1970 MEDIUM FT ENGINE - IMPROVED OIL ECONOMY

(F, B, C, N & T with 330, 361 and 391 CID Engines)

The following engine improvements have been incorporated into production:

1. New piston with full circle dish in top and a 5/32 inch top compression ring groove.
2. Top compression ring barrel faced with no serrations and .006 chrome finish.
3. The Number Two and Three compression rings have scraper grooves and are phosphated coated.
4. The oil ring is a cast iron one-piece design with .004 chrome and a hump-type expander.
5. New water pump with increased drive ratio and impeller and by-pass revisions.

PRODUCTION CORRECTION: October, 1969.

WARRANTY STATUS: INFORMATION ONLY

(TSB 126 - 11/7/69 - Article 1991)

Engine — 8 cylinder Truck — 401, 477, 534

SUPER DUTY ENGINE OIL CONSUMPTION

(401, 477 and 534 CID Engines)

The problem of excessive oil consumption at low mileage has been reported on 401, 477 and 534 CID engines. This article describes a field test that should be conducted to determine a possible cause prior to any engine work.

(TSB 78 — 11/3/67 — Article 1188)

NEW EXHAUST VALVES — SUPER DUTY ENGINE

(1958-68 401, 477, 534 CID Truck Engines)

A new exhaust valve has been released for super duty truck engines. The metallurgy of these new valves is intended to reduce valve guide wear and valve breakage. Reference the article for exhaust valve part numbers.

(TSB 94 — 6/21/68 — Article 1436)

NEW EXHAUST VALVE — SUPER DUTY ENGINE

(1958-1969 401, 477, 534 CID Truck Engine)

A new exhaust valve has been released for super duty truck engines. The metallurgy of these new valves is intended to reduce valve guide wear and valve breakage. Reference the article for exhaust valve part numbers.

(TSB 103 — 11/29/68 — Article 1549)

VALVE GUIDE WEAR

(All Trucks With Super Duty 401, 477 or 534 CID Engines)

When cylinder head assembly replacements are made, it is suggested that the new head assembly with the valve guide length increased .400 inches be used.

PARTS:

Part Number	Part Name	Class	Avail.
B8TZ-6049-G	Head Assembly Cylinder	AQ	5-20-69

PRODUCTION CORRECTION: 4-1-69.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: 6051-A and 6051-A-4
Time: Per Service Labor Time Standards Book for appropriate Truck Series & Mileage.

(TSB 114 — 5/2/69 — Article 1778)

Diesel Engine

LUBRICATING OIL CAPACITIES — DORSET DIESEL

(Light and Medium Trucks)

Correct crankcase capacities: (including filter change)

	Imperial	U. S.
Dorset 6-cylinder 363 Diesel engine	3 gal.	3-3/4 gal.
Dorset 4-cylinder 242 Diesel engine	8 qts.	10 qts.

Capacities shown in Owner's Manuals and the 1967 Truck Spec. Book are incorrect.

(TSB 67 — 5/5/67 — Article 1062)

CRANKCASE VENT TUBE ASSEMBLY

(1967-363 Dorset Diesel Engine)

Field complaints of loose or missing crankcase vent tube assemblies and caps can be corrected by replacement of the parts. Application of a coating of Loctite retaining compound around the

oil pan contact mating surface of the tube assembly will insure retention.

The Louisville Assembly Plant has been 100% checking for loose assemblies since February 17, 1967.

See article for corrective procedure.
(TSB 71 — 7/14/67 — Article 1114)

363 CID DORSET DIESEL

(1967 B-C-F and N-6000-7000 Series Trucks)

This article outlines problems encountered in the starting, operation, and maintenance of the Dorset Diesel engine along with the corrective action required.

(TSB 74 — 8/25/67 — Article 1148)

NEW CYLINDER HEAD GASKET

(1967 Dorset Diesel)

To prevent cylinder head gasket external water and oil seepage, a new rubber coated gasket is available. This coating can be observed on both ends of the gasket and in the center section, only this gasket should be installed when the cylinder head is removed.

(TSB 75 — 9/8/67 — Article 1154)

FUEL SHUT-OFF SOLENOID INSTALLATION PROCEDURE

(1967 B, C, F and N-6000/7000 Series Trucks)

Due to field reports involving Dorset engine start-up and shut-down, a revised adjustment procedure is contained in the article. This new method specifies adjustment while the solenoid is energized rather than the original de-energized position.

(TSB 76 — 9/29/67 — Article 1160)

LOOSE AIR COMPRESSOR OR VACUUM PUMP DRIVE GEARS

(1967-68 242 or 363 CID Dorset Diesel Engines)

Reported loose air compressor drive gears on the 363 Dorset, or loose vacuum pump drive gears on the 242/363 Dorset, are attributed to incorrect torque application to the retaining bolt or nut. The article lists the correct torque specifications.

(TSB 80 — 11/24/67 — Article 1220)

ACCELERATOR SHAFT PIN

(N-1000-D, NT-850-950-D with Cummins NH Engine)

Due to field complaints of accelerator pin breakage, a new hardened spring pin is now available to preclude breakage and loss of the pin. The article explains installation and adjustment procedure.

(TSB 80 — 11/24/67 — Article 1224)

INCORRECTLY MARKED DIPSTICKS — C-8000 TRUCKS EQUIPPED WITH CUMMINS DIESEL ENGINES

(1966-67 C-8000 Trucks Equipped With C-160, CF-160 or C-180 Cummins Engines With Engine Numbers Prior To No. 556292)

Incorrectly marked dipsticks (Cummins Part Numbers 178078 and 191594) were installed in 1966-67 C-8000 models with C-160, CF-160 or C-180 Cummins Diesel engines with engine numbers prior to No. 556292. These incorrectly marked dipsticks will allow engine oil level to be in excess of the proper high and low levels: However, no appreciable damage to the engine will result.

Complete instructions for reworking the dipsticks are contained in the article.

(TSB 81 — 12/8/67 — Article 1228)

DORSET DIESEL ENGINE SLEEVE REMOVER & INSTALLING TOOLS

(All Dorset Diesel Engines)

Dorset Diesel engine cylinder sleeve removing and installing hydraulic tools available from National Parts Depot.

(TSB 85 — 2/9/68 — Article 1278)

CHANGE IN LUBRICATING OIL SPECIFICATIONS

(1967-1968 242 and 363 CID Ford Dorset Diesel Engines)

Single-viscosity oils were formerly specified under ML-L-2104A(S-1). Multi-viscosity oils are now permitted, providing they meet Ford Specification ESE-M2C101-B. Single-viscosity oils also must meet the Ford Specification. A temperature-viscosity chart is given.

(TSB 85 — 2/9/68 — Article 1282)

EXCESS FUEL CABLE RETURN SPRING

(1967-68 C, B, N P-5000 & F 6000/7000 Vehicles Equipped With 363 CID Dorset Diesel Engines)

An excess fuel cable return spring can be installed on subject vehicles to improve excess fuel selection actuation and extend the cable life. The article describes installation procedure and lists component part numbers.

(TSB 86 — 2/23/68 — Article 1294)

ENGINE CRANKCASE OIL VISCOSITIES

(1967-68 242 and 363 CID Dorset Diesel Engines)

Reference: 1968 Ford Truck Maintenance and Lubrication Manual, Page 4-2

The referenced manual specifies only single viscosity crankcase lubricant for the 1968 Dorset Diesel engines.

The article lists both single and multi-viscosity crankcase lubricants for 242 and 363 Dorset Diesel engines. Listed as well are the ambient temperatures for which the lubricants are recommended.

(TSB 86 — 2/23/68 — Article 1296)

STARTER FAILURE TO ENGAGE

(All Trucks Equipped with B771 Diesel Engine)

This article describes the procedure for installing a new starter lever housing on B771 Diesel engines to correct "Starter failure to engage" complaints.

(TSB 89 — 4/6/68 — Article 1349)

REAR ENGINE MOUNT BOLTS

(C-8000 Vehicles with Cummins C-CF-160 and CF-180 Engines)

Longer bolts and special hardened steel washers are recommended on a complaint basis for use in attaching rear engine supports to the flywheel housing. Installation of these bolts and washers will preclude loosening of the rear engine mount and resultant flywheel housing failures.

(TSB 89 — 4/6/68 — Article 1350)

FORD DORSET DIESEL SERVICE PUBLICATION SUMMARY

(1967 B-C-F and N 6000-7000 Series Trucks and Buses)

This article summarizes information published to date which outlined problems encountered in the starting, operation and maintenance of the Dorset Diesel engine along with the correction action involved.

(TSB 91 — 5/3/68 — Article 1387)

OIL PRESSURE FITTING FAILURES

(Detroit Diesel 8V-71 Engines)

Field reports indicate that failure of the oil pressure take-off adapter fitting on Detroit 8V-71 engines is a potential problem which could lead to loss of engine lubrication oil. The article contains an illustration of the particular fittings involved and appropriate part numbers.

(TSB 92 — 5/17/68 — Article 1401)

IMPROVED MATERIAL REAR ENGINE MOUNT BOLTS AND LOCK NUTS
(1967 and Past Model N1000-D and NT-850-950-D with Cummins NH and Detroit Diesel 6-71 Engines)

To correct problems of loss of torque on rear engine mount bolts, the current mount design utilizing drilled bolts, castellated nuts and cotter pins has been improved. The new design which went into production during August, 1967, incorporates bolts of improved material and lock nuts. The article lists the individual parts and a kit number.

(TSB 94 - 6/21/68 - Article 1439)

CRANKSHAFT VIBRATION DAMPER TO ENGINE FRONT SUPPORT INTERFERENCE

(1967 "W" Series Trucks with Cummins NTC 335 Diesel Engines)

When crankshaft damper to front engine mount interference is encountered, it can be corrected by installation of a new spacer (Cummins part number 175185). Vehicles should be returned to a Cummins Distributor for this correction.

(TSB 97 - 8/30/68 - Article 1464)

NEW FAN SHROUD

(N-Series Trucks with Cummins NH Diesel Engines)

To preclude the possibility of fan shroud cracking, a new shroud of increased metal thickness is available for installation on a complaint basis. The new shroud Part C8HZ-8146F was effective in production on April 15, 1968.

(TSB 97 - 8/30/68 - Article 1466)

671N DETROIT DIESEL ENGINE OIL PUMP DRIVE GEAR INSPECTION

(1966-67 Units Built Thru March, 1968 Equipped with 671N Detroit Diesel Engines Having Less Than 100,000 Miles)

Field reports indicate that some Detroit Diesel 671N engines have experienced oil pump drive gear problems due to incorrect initial engine assembly. This problem could contribute to oil starvation and resultant engine damage.

Detroit Diesel has requested that all suspect vehicles having less than 100,000 miles be returned to a Detroit Diesel Distributor for inspection and/or correction.

Those customers whose names are available will be advised by letter from Ford Division General Office to take their vehicles to a Detroit Diesel Distributor to have the inspection and/or correction performed at no cost. To assure that customers avail themselves of this program, dealers are requested to contact operators of trucks in their area, which qualify under the 100,000 mile period to insure that they are aware of the program.

(TSB 98 - 9/13/68 - Article 1485)

DORSET DIESEL ENGINE SLEEVE REMOVER & INSTALLATION TOOLS - ALL DORSET DIESEL ENGINES

(All Dorset Diesel Engines)

Dorset diesel sleeve pulling and installing portable press and accessories available for immediate shipment. See article for part numbers and usage.

(TSB 100 - 10/18/68 - Article 1512)

POSSIBLE LOSS OF ENGINE LUBRICATION OIL

(1968 F, B, C-6000/7000, F-T-C-8000 with Ford V-Series Diesel Engine - Caterpillar Mid-Range)

Field reports indicate the possibility of leaking engine to vacuum pump or compressor metal lubricating oil supply lines which can result in loss of oil and engine

damage.

Steel tube assemblies were replaced by flexible hose assemblies in production on June 3, 1968.

The article outlines nomenclature, part numbers, and illustrations required for conversion to flexible hoses.

(TSB 103 - 11/29/68 - Article 1565)

PARTS:

Part No.	Name	Quantity	Class	Availability
C8HZ-9C674-A	Engine air inlet connector	1	CQ	OK
C8HZ-9C675-B	Tube - Engine air intake to air cleaner	1	CQ	OK
C8HZ-9B613-A	Hose - Air cleaner inlet connector to tube	1	CQ	OK
C8HA-9C681-C	Hose - Air cleaner inlet to air intake tube	1*		OK
	Hose Clamps	4#		OK
381738-S	Bolt 7/16-14 x 8 1/2" long	1	S	OK
382774-S	Flat Washer 7/16" I.D.	1*		OK
44751-S	Rubber Seal	1	S	OK
376668-S				

*Reuse, #2 clamps are carryover reuse

ENGINE REAR SUPPORT BRACKETS

(F-T 8000-D Trucks Equipped with Caterpillar V8 Mid-Range Diesel Engines)

The original aluminum rear engine supports on subject vehicles can be replaced to improve product durability on a complaint basis. New rear brackets which are made of nodular or malleable iron are now available. The new brackets were incorporated into production on September 16, 1968, as a product improvement.

(TSB 106 - 1/10/69 - Article 1622)

SIMMS FUEL INJECTION SYSTEM - 363 DORSET DIESEL ENGINE

(1968 B-C-F and N 6000 and 7000 Model Trucks)

A product improvement is now effective in production which incorporates the Simms injector pump on 363 Dorset engines in the subject models.

The purpose of this article is to explain maintenance and adjustment procedures relative to the Simms injection system. The article contains appropriate sketches, pictures and illustrations. For other pertinent data regarding the Simms fuel injection pump, refer to the Ford 2700 Range 4 and 6 Cylinder Diesel Engines Service Manual.

(TSB 106 - 1/10/69 - Article 1624)

FLYWHEEL RING GEAR INSTALLATION

(Caterpillar V8 Diesel Engines with 14" Single Plate Clutch F-B-C-6000, 7000, F-C-T-6000)

The flywheel ring gear and flywheel used with the 14 inch single plate clutch incorporate 12 (3/8" - 16) tapped holes in the ring gear and 12 (3/8") diameter clearance holes in the flywheel for the pressure plate attaching bolts. Whenever the ring gear is replaced, the tapped holes in the ring gear and the clearance holes in the flywheel must be in correct alignment. Pilot studs or bolts installed in the ring gear may be used for alignment.

The article includes a sketch illustrating flywheel-ring gear alignment.

(TSB 107 - 1/24/69 - Article 1637)

TACHOMETER ADAPTER LUBRICATION

(Caterpillar V8 Diesel Equipped Trucks)

A 12,000 mile lubrication cycle has been established for the tachometer adapter used with the Caterpillar V8 Diesel Engine. Specified lubricant is ESA-M1G-75B Lubricant applied with a pressure gun. The article sketch locates the adapter on the engine including the lubricant fitting.

(TSB 108 - 1/31/69 - Article 1651)

AIR CLEANER TO ENGINE DUCTING CRACKS

(F-T 8000 Trucks with Caterpillar V-8 Diesel Engines)

New design air inlet tubes can be used to replace early cracked tubes on a customer complaint basis.

Production Correction: June, 1968.

WARRANTY STATUS: Reimbursable under provisions of Warranty and Policy Manual

Oper: SP-9674-A-68

Time: 0.5 Hr.

(TSB 110 - 2/28/69 - Article 1688)

BY PASS OIL FILTER AVAILABLE AS RPO

(All Cummins Engines)

The RPO by pass lube oil filter can be installed on any Cummins engine as a product improvement, however, it is of particular advantage on engines operating in dusty environments and on engines equipped with the Turbocharger system. Turbocharger bearing life can be prolonged due to the added filtration.

Production Correction Available RPO.

(TSB 110 - 2/28/69 - Article 1687)

EXHAUST MANIFOLD INTERFERES WITH FRAME

(C6000-7000 & 8000 Series Trucks with Caterpillar V8 Diesel Engines)

Grind frame rail at point of interference as shown in Figure 5. Engine front and rear mounts should be inspected for condition and torqued to specification.

PARTS: None.

Production Correction: November, 1968.

WARRANTY STATUS: Reimbursable under the provisions of the Warranty & Policy Manual

Oper: SP-9430-A-69

Time: 1.1 Hrs.

(TSB 110 - 2/28/69 - Article 1684)

START-UP SMOKING

(Ford-Caterpillar V-8 Diesel Engines)

Excess exhaust smoke during start-up can be reduced by:

1. Checking for air in fuel system.
- Check for loose fuel fittings between fuel tank and transfer pump.

- Bleed fuel system by loosening injection lines at cylinder head while cranking engine until fuel is free of air (as per Caterpillar Service Manual).

2. Checking fuel injection pump timing and reset if necessary (refer to your Caterpillar Service Dealer).

Where minimum exhaust smoke is desired a more volatile distillate fuel (No. 1 Diesel) is recommended in addition to Steps 1 and 2.

PARTS: None.

Production Correction: February 1, 1969. Timing specifications changed.

(TSB 110 - 2/28/69 - Article 1690)

SIMMS DIESEL INJECTION EQUIPMENT - SERVICE CENTERS

(Dorset Diesel Engines Fitted with Simms Injection Equipment)

A list is provided of Simms Service Centers which are fully equipped to provide fast and reliable service on Simms injection equipment.

(TSB 110 - 2/28/69 - Article 1691)

DETROIT DIESEL REGIONAL OFFICE DIRECTORY

(All Detroit Diesel Engine Applications in Ford Trucks)

For assistance or technical direction pertaining to Detroit Diesel engines, refer inquiries to the appropriate Regional Office. **INFORMATION ONLY**

(TSB 112 - 4/4/69 - Article 1723)

FRONT COVER CRACKING - CUMMINS NH DIESEL ENGINES

(N Series Trucks with Cummins NH Diesel Engines)

A kit is available which includes an engine front support bracket, a front engine support cap and necessary bolts and washers.

PARTS:

Qty.	Part No.	Name	Class	Avail.
1	C1TZ-6028-B	Bracket & Cap Front Engine Support Bkt. Support Kit	C	OK

(TSB 112 - 4/4/69 - Article 1733)

ENGINE AIR INLET CONECTOR RETAINING BOLT GASKET

(F & T 8000 Trucks with Caterpillar V-8 Diesel Engines)

On a complaint or product improvement basis, a nylon washer (gasket) available through Autolite can be used to replace the rubber gasket (356168-S). The steel washer must be retained under the bolt head with the nylon washer. Bolt torque is 15-20 ft. lbs. This new gasket will prevent the loss of bolt torque and resultant dust entry through the air inlet.

PARTS:

Qty.	Name	Class	Avail.
1	Nylon Washer (Gasket) No. 376668-S (1.45 I.D. x 1.00 O.D. x .06 thick)	S	OK

PRODUCTION CORRECTION: 2-17-69. **WARRANTY STATUS:** Reimbursable within the provisions of the Warranty & Policy Manual. **Operation:** SP-9600-B-69 **Time:** 0.3 Hr. (TSB 112 - 4/4/69 - Article 1735)

NEW OIL PICK UP TUBE ASSEMBLY

(242 CID Dorset Diesel Engine 1967-68)

Install improved oil pan to oil pick up tube assembly.

PARTS:

Part Number	Part Name	Class	Avail.
CSTZ-6615-A	Oil Pick Up Tube Assy.	C	O.K.

PRODUCTION CORRECTION: Engines built subsequent to engine Serial Number 5646636. **WARRANTY STATUS:** Reimbursable within the provisions of the Warranty & Policy Manual. **Operation:** SP-6622-A-69 **Time:** 3.1 Hrs. (TSB 113 - 4/18/69 - Article 1759)

NEW RADIATOR SUPPORT

(F & T 8000 Trucks With Caterpillar V-8 Diesel Engines - 1968-69)

To further improve durability, a new right side radiator support to frame brace is available through Autolite-Ford. The rod diameter of the new brace is increased from 5/8" to 3/4".

PARTS:

Qty.	Part Number	Description	Class	Avail.
1	C8HZ-8A364-B	Brace - Radiator Support to Frame	C	OK

PRODUCTION CORRECTION: 2-28-69. **WARRANTY STATUS:** Reimbursable within the provisions of the Warranty & Policy Manual. **Operation:** SP-8364-A-69 **Time:** 0.8 Hr. (TSB 115 - 5/16/69 - Article 1795)

FAN BLADE ASSEMBLY - NEW

(242 CID Dorset Diesel Engine)

A new fan blade assembly is available as a replacement on the subject engine.

PARTS:

Part Name	Part Number	Class	Avail.
Fan Blade Assembly	CSTZ-8600-A	C	OK

PRODUCTION CORRECTION: 4-17-69.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual. **Operation:** SP-8600-A-69 **Time:** 0.3 Hr. (TSB 117 - 6/13/69 - Article 1832)

OIL FILTER - NEW REINFORCED MOUNTING BRACKET

(WT-950-D, W-1000-D Trucks With RPO By-Pass Filter)

A new reinforced by-pass oil filter mounting bracket is available which can be installed to replace the original type, see Figure 4.

PARTS:

Part Number	Part Name	Class	Availability
C8HZ-6728-B	Bracket - Oil Filter Mounting	CQ	6/15/69
56141-S4	Bolt	S	6/15/69
33771-S4	Nut	S	6/15/69

PRODUCTION CORRECTION: 2-4-69. **WARRANTY STATUS:** Reimbursable within the provisions of the Warranty & Policy Manual. **Operation:** SP-6728-A-69 **Time:** 2.4 Hrs. (TSB 118 - 6/27/69 - Article 1854)

PARTS:

Part Number	Part Name	Application	Class	Availability
CSTZ-6670-B (Color Coded Silver)	Spring - Oil Pump Relief Valve	242 & 363 CID	C	OK

R.P.O. ETHER QUICK START

(Caterpillar V8 Diesel Engines - All Truck Applications 16000-5000 Series)

This article is to clarify the operation and installation of the R.P.O. ether quick start that is available on subject engines.

WARRANTY STATUS: INFORMATION These parts are designed to provide improved front cover durability.

NOTE: All new parts are required for field modification, including the new Cummins front cover listed below.

NOTE: Cummins front cover part number 196530 replaces 137164. The new cover has a trunnion diameter of 4.997-5.000.

PRODUCTION CORRECTION: 7-1-68. **WARRANTY STATUS:** Reimbursable within the provisions of the Warranty & Policy Manual. **Operation:** 6019-A **Time:** 6.2 Hrs. (TSB 118 - 6/27/69 - Article 1855)

KINKED HEATER HOSE

(Caterpillar V-8 Diesel Engines - 1969 C-6000/8000 Trucks)

Extend the heater hose length.

PARTS:

Part Number	Part Name	Class	Avail.
(Bulk) C7AZ-18472-A	Std. Heater Hose (Cut to Fit)	A	OK
Improvise	Bracket (See Fig. 6)		
377494-S100	Clamp - Heater Hose	S	OK
56320-S4	*Bolt - Hex Head 5/16" - 18 x 3/4"		
33770-S4	*Nut - Hex 5/16" - 18"		
351053-S	Strap - Adjustable (to tie heater hoses together)	S	OK

*Retains clamp 377494 to fabricated bracket.

PRODUCTION CORRECTION: 11-15-68. **WARRANTY STATUS:** Reimbursable within the provisions of the Warranty & Policy Manual. **Operation:** SP-18472-C-69 **Time:** 1.2 Hrs. **DLR CODING:** 18472-55 (TSB 119 - 7/18/69 - Article 1878)

DIESEL COOLING SYSTEMS

(All Diesel Powered Trucks)

Do not use water soluble oils or sealers and additives which contain water soluble oils in diesel truck cooling systems equipped with water conditioners.

Possible chemical reaction between water soluble oil and chemicals in the water conditioner could result in clogging of the conditioner and affect efficiency of the coolant system.

WARRANTY STATUS: INFORMATION

(TSB 120 - 8/1/69 - Article 1904)

OIL PRESSURE - LOW

(242 & 363 CID Dorset Diesel Engines Equipped with Burman Vane Type Oil Pump)

A new oil pump relief valve spring is available for 242 CID Dorset engines date coded 8-M-11 or earlier and all 363 CID Dorsets with C.A.V. fuel injection systems. 363 CID Dorsets with Simms injection systems do not use the new spring.

PRODUCTION CORRECTION: 12-11-68. **WARRANTY STATUS:** Reimbursable within the provisions of the Warranty & Policy Manual. **Operation:** 6675-A & 6675-A-2 **Service Labor Time Standards Book** **Time:** As applicable to F-C-N 6000-7000 Series Trucks

DLR CODING: Basic Part No. 6670 - Code No. 53

(TSB 122 - 9/5/69 - Article 1937)

FAN ASSEMBLY BREAKAGE - CATERPILLAR

(C Series Trucks with Caterpillar V-8 Diesel Engines)

New five (5) blade fan assemblies are available with a reinforced mounting hub and flange for Caterpillar V-8 diesel engine equipped "C" Series trucks.

PARTS:

Part Number	Part Name	Class	Availability	Application
C9HZ-8600-B	Fan Assembly	C	9-19-69	150HP Ext. Cooling 175 & 200 Std. Clg.
C9HZ-8600-A	Fan Assembly	C	9-19-69	225HP Std. Cooling 175 & 200 Ext. Clg.

(TSB 122 - 9/5/69 - Article 1938)

HARD STARTING

(Caterpillar V-8 Diesel Engines)

To correct this condition, replace the pump assembly on a complaint basis. Do not rework existing pumps because a slot replaces the orifices in the seat of the fuel pump check valve. The slot serves the same purpose as the orifice, but has been relocated to an area so the fuel flow will continually wash the slot clean.

PARTS:

Part No.	Part Name	Class	Avail.
9L7180	Fuel Transfer Pump	-	Available from Caterpillar - 8-1-68

PRODUCTION CORRECTION: Caterpillar Engine Production - September 1, 1969.

WARRANTY STATUS: Reimbursable via Caterpillar Diesel Engine Warranty Claim Procedure.

(TSB 124 - 10/10/69 - Article 1963)

AIR INLET CONNECTOR LEAKAGE

(All F-T-8000 Trucks with Caterpillar V-8 Diesel Engines)

A new fabricated metal air inlet elbow connector is available to replace the present "Ductron" type to minimize dirt entry through the air induction system on a customer complaint basis. See instructions and Figure 7 for installation sketch.

PARTS:

Part Name	Part Number	Avail.	Req'd	Class
Air Inlet Connector	C9HZ-9C674-A	OK	1	CG
"J" Bolt	C9HZ-9628-A	OK	2	CG
"J" Bolt	C9HZ-9628-B	OK	2	CG

PRODUCTION CORRECTION: N/A Service Only.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: SP-9674-A-69

Time: 0.6 Hr.

DLR. CODING: Basic Part No. 9628 - Code No. 25

(TSB 128 - 12/5/69 - Article 2021)

Engine - 6 cylinder Truck - 240-300

CAMSHAFT GEAR INSTALLATION

(All 1965-67 240 and 300 CID Engines)

The service procedure for installing the camshaft gear on the camshaft post has been changed. The use of Loctite retaining compound is now required. For the exact procedure see the article.

(TSB 62 - 3/24/67 - Article 1013)

PRODUCTION CORRECTION: 8-11-69.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: 8600-A

Time: 0.5 Hr.

DLR. CODING: Basic Part No. 8600 - Code No. 01

NEW OFFSET DESIGN PISTONS TO CORRECT PISTON PIN NOISE

(1965-66 F100-350 Equipped with the Light Duty 300 CID Engine)

To reduce excessive piston pin noise on Light trucks equipped with the 300 CID Light Duty engine, a new piston with an .0625 offset (to thrust side) piston pin was incorporated in production on October 10, 1966, on all units produced under serial #A-24001.

The new piston assemblies should be selected fitted to the cylinder bores to avoid exchanging a piston pin noise for a piston slap noise. New and old piston assemblies can be intermixed in the engine. See article for part numbers of the new piston and pin assemblies.

(TSR 63 - 3/31/67 - Article 1029)

ROCKER ARM TO COVER INTERFERENCE

(All with 240/300 CID Engines)

Approximately 1,600 of these engines were built (date codes 8G15 and 8G16) incorporating an obsolete ventilation baffle in the rocker cover. The obsolete baffle does not impair the function of the engine, but can interfere with the Number 6 exhaust rocker arm, causing a noise similar to tappet noise. Should a complaint of tappet noise be encountered on very late 1968 units or early 1969 units, the date code should be checked for the discrepant engines prior to any repairs. If the date code is in the band, remove the rocker cover and dimple the baffle, at the point of interference, with a ball peen hammer.

(TSB 98 - 9/13/68 - Article 1473)

FRONT ENGINE SUPPORT BRACKET

(1965-68 F-B-500-600 with 240-300 CID Engine)

A redesigned front engine support CSTZ-6028-B (replacing part number CSTZ-6028-F) has been incorporated in B series vehicle production in May, 1968. This new front engine support provides a 3/16" thick steel plate welded to the lower flange for improved durability and increased serviceability. Also released for service use is bolt part number 43039-S8 (7/16" x 14-7/8" grade 8 - 4 required) and flat washer part number 380079-S2 (7/16" - 4 required) for attaching engine support to engine block. The bolt, part number 43039-S8, should be torqued 50-60 lb. ft.

(TSB 99 - 9/27/68 - Article 1493)

ENGINE DIESELING (RUN AFTER KEY OFF)

(Econoline 1969 & F100 1968 with 240 CID Engines, Standard Transmission and Thermoator Emission System)

Verify engine adjustments such as idle speed, timing and proper return to idle. If the above does not correct the problem, install a throttle stop solenoid switch and bracket as outlined in the main article.

PARTS:

Part Number	Part Name	Quan.	Class	Avail.
C8AZ-9D856-A	Solenoid	1	B	OK
C8AZ-9J586-A	Bracket	1	C	OK
C9AZ-9A451-A	Wire Assy.	1	A	OK
C9UZ-9D857-A	Wire Assy.	1	AG	OK
383313-S	Plastic Strap	As Req.	S	OK

PRODUCTION CORRECTION: August, 1968.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: Econoline SP-9856-B-69; F-100 SP-9856-A-69

Time: Econoline 1.0 Hr.

F-100 0.7 Hr.

(TSB 118 - 6/27/69 - Article 1856)

Engine - V8 Truck 352

ENGINE SURGE - ALL 352 CID ENGINES EXCEPT WITH EMISSION CONTROL SYSTEMS
(All 1965, 1966, 1967 Trucks 50 Equipped)

This article supersedes Article 1187, Bulletin No. 78, dated November 3, 1967. To correct complaints of engine surge at constant throttle opening:

1. Replace the spacer to manifold gasket with a new gasket, part No. C7AZ-9447-C.
2. Bring fuel level to specification.
3. Road test.
- If unit surges:
4. Replace the main metering jets with one size larger jets.
5. Road test.
- If still not corrected:
6. Increase the main metering jets to one size larger.

(TSB 81 - 12/8/67 - Article 1227)

OIL CONSUMPTION ORIGINATING FROM THE CRANKCASE VENTILATION SYSTEM

(All 1967 Vehicles Powered with 352, 390 and 428 CID Engines, Except Cougar and Mustang)

In the event of a customer complaint of oil consumption and the engine crankcase ventilation system is suspected, it is suggested an oil separator cap (C8AZ-6A665-A, Class B) and oil separator grommet (C8AZ-6A892-B, Class A) designed to accommodate the PCV valve be installed in the right valve rocker arm cover assembly identified by "Powered by Ford" stamped on the upper surface. These new valve rocker arm cover assemblies feature at the PCV valve location a cam-lock which will hold the oil separator cap. Finally, install the PCV valve into the oil separator grommet and cap assembly. It should be noted that this modification will not completely eliminate oil wetting of the PCV valve or inside diameter of the attaching hose or tube since oil vapor is disseminated through the system; therefore, every 12,000 miles remove the adaptor (cap) and wash in a low volatility petroleum base solvent. Shake the cap dry and reinstall. Do not dry with compressed air as damage to the filtering media may result.

(TSB 85 - 2/9/68 - Article 1269)

FIELD FIX FOR NOISY TAPSETS AFTER PROLONGED IDLE

(352, 390, 427, 428 CID Passenger Car and 330, 352, 360, 361, 390, 391 CID Truck Engines)

Customer complaints of noisy hydraulic tappets encountered at engine idle speeds following high speed operation and/or prolonged idle speeds may be minimized by reworking the oil pump to incorporate an internal relief valve chamber vent instead of the present external vent. A newly revised pump has been incorporated into regular engine production as of February 26, 1968. The improvements made to the subject oil pumps may be incorporated in pumps built prior to this date by following the instructions listed in the main article.

(TSB 91 - 5/3/68 - Article 1389)

COOLING SYSTEM

FAN SHROUD FAILURES

(F, N, C-600-800)

Some reports have been received advising that the bolts that retain the fan shroud to the radiator cut into the shroud or lose their torque which eventually causes the shroud to fail due to shake and vibration.

To resolve this problem, flat washers were installed between the head of the bolt and the shroud effective Job 1, 1966.

When investigating field complaints of shroud failures, the shroud retaining bolts should be checked to assure that a flat washer has been installed beneath the head of each bolt.

The correct installation is shown on pages 11-16 through 11-23 of the 1966 Ford Truck Shop Manual.

This correction can be applied to 1965 model vehicles when required.

(TSB 62 - 3/24/67 - Article 1014)

NEW RADIATOR SUPPLY TANK KIT

(C-8000 Trucks with Cummins Mid-Range Engines)

Where customer complaints of coolant loss are experienced on subject vehicles, the cause of such a problem could originate due to the present coolant circulation system. A new radiator supply tank is now available under a single kit part number which incorporates changes that will correct coolant loss complaints.

This article further details the changes incorporated, the part number, and an illustration indicating the fitting arrangement in both the water manifold and radiator tank.

(TSB 62 - 3/24/67 - Article 1019)

RADIATOR SIDE SUPPORT AND LOWER TANK FAILURES

(1964-1966 F-B-500-600 Trucks with 6 Cylinder Engines)

Investigation has shown that some of the subject failures are due to interference or insufficient clearance between the lower tank of the radiator assembly and the number one (1) frame crossmember. The clearance should be approximately 3/8" on each side and should be the first condition checked when radiator assembly failure is encountered. If the specified clearance is not noted, this article explains corrective action.

(TSB 67 - 5/5/67 - Article 1065)

WATER FILTER LUG BREAKAGE

(1966-67 "W" Series with Cummins NH Engines)

Some reports have been received advising that the Perry water filter lugs break on 1966-67 "W" series trucks with Cummins NH engines.

Investigation has disclosed the problem was caused by engine vibration and a new bracket has been released to resolve the problem.

The new bracket, Cummins number 163346, became effective in production on April 7, 1967.

See complete article for further details.

(TSB 69 - 6/2/67 - Article 1097)

CORROSION RESISTOR HOUSING FAILURE

(SUPPLEMENT TO T.S.B. ISSUE #69, ARTICLE #1097, DATED JUNE 2, 1967)

(*W Series Trucks with Cummins NH Engines)

A new corrosion resistor bracket, Cummins part no. 163346, should be used to either prevent or correct corrosion resistor housing failures. The resistor housing should not be discarded because of failure at the mounting holes.

If so desired, the casting can be reworked at the failure areas to eliminate sharp edges, etc.

(TSB 82 - 12/15/67 - Article 1235)

INADEQUATE COOLING

(1967 Thunderbirds Equipped with Integral Air Conditioning Heating System)

This article outlines comprehensive information to aid in the diagnosis and correction of air conditioning inadequate cooling complaints on the 1967 Thunderbirds. The main article contains a two part procedure for correcting complaint units and covers specific areas.

Part I

● Check and adjust as required for proper installation and adjustments of air ducts, vacuum hoses, body leaks and control cables.

If the above procedure does not gain customer satisfaction, proceed to Part II.

Part II

- Replace thermostatic switch
- Insure that the higher flow expansion valve is installed
- Install an evaporator cover insulator
- Install a recirculating vent sound baffle.

Included are appropriate illustrations to aid in identifying parts and installation locations.

This information supplements previously released Technical Service Bulletins Number 53 dated December 2, 1966, Number 63 dated March 31, 1967 and Number 71 issued July 14, 1967.

(TSB 73 - 8/11/67 - Article 1137)

INADEQUATE COOLING (CORRECTION TO TSB NO. 73, ARTICLE 1137 DATED AUGUST 11, 1967)

(1967 Thunderbirds Equipped with Integral Air Conditioner-Heating System)

Correction of thermostatic switch replacement part number from C75Z-19618-D to C8Z-19618-A and correction of part A C75Z-19849-A class code from "C" to "BP"

(TSB 75 - 9/8/67 - Article 1155)

FAN SHROUD ASSEMBLY FAILURES

(1966 NT-850-950-D and N-1000-D)

Fan shroud failures on subject model vehicles can be repaired by fabrication of brackets which will provide added strength. This article describes the modification procedure including dimensional sketches of the brackets.

(TSB 77 - 10/13/67 - Article 1180)

POTENTIAL RADIATOR DAMAGE DUE TO INCORRECT MOUNTING BRACKET

(All 1968 Thunderbirds Built Prior to September 7, 1967)

Some owners of 1968 Thunderbirds may complain of coolant loss coming from seam leaks in the lower radiator area. A number of Wixom-built 1968 Thunderbirds assembled prior to September 7, 1967 were inadvertently equipped with the wrong left hand radiator support lower bracket which could twist the radiator when it is secured in place thereby pre-stressing the solder seams causing a leaking condition.

When encountering complaints of radiator leakage on 1968 Thunderbirds, inspect the radiator left hand lower mount area for improper support bracket usage. If, when looking down from the top, the driver's side lower corner of the radiator is located approximately 3/4" further rearward than the passenger side lower corner, an incorrect left hand bracket has been installed and must be replaced with a correct part (Part No. C8Z-8052-C).

Refer to the 1967 Thunderbird Shop Manual, Section II, page 5, for proper removal and installation procedures.

(TSB 84 - 1/26/68 - Article 1262)

POTENTIAL RADIATOR DAMAGE

(1968 Ford and Thunderbird Car Line)

Customer complaints of coolant leakage from the lower corners of the radiator in their 1968 Ford and Thunderbird vehicles built prior to November 15, 1967 may be attributable to an incorrect assembly plant procedure which would allow the radiator support lower bracket assembly to puncture the lower radiator tank.

When performing radiator installations in any of the subject vehicles built prior to November 15, 1967, inspect the lower radiator mounting areas to insure that the support brackets and rubber support pads are properly installed, and exercise special caution when lowering the radiator into place to preclude any possible damage to the radiator.

(TSB 87 - 3/8/68 - Article 1317)

POTENTIAL DAMAGE TO RADIATOR UPPER TANK

(1968 Mustang Equipped with 390 CID Engines and 189/302 CID Engines with A/C or with Extra Cooling)

On some early built 1968 Mustangs, the radiator was not securely retained at the top allowing a fore and aft movement and could contact the lower rear corners of the radiator upper support bracket resulting in possible upper tank damage.

Inspect for the subject problem when performing pre-delivery and regular maintenance checks or on a customer complaint of a leaking radiator.

Rework the upper radiator support bracket by bending or grinding away the sharp edges on the bracket surface which could puncture tank. This surface, as shown in the main article, is on the radiator side of the upper support bracket. After reworking the bracket, bend it down over the radiator to secure in place.

The problem was corrected in production on all units built after November, 1967.

(TSB 87 - 3/8/68 - Article 1319)

LOSS OF COOLANT

(All 1968 Vehicles)

Reports of coolant loss and/or overheating are being reported by the field. It has been brought to our attention that assembly plant methods during initial radiator fill can cause distortion of the filler neck.

When complaints of engine overheating or loss of coolant are encountered, it is recommended that the two (2) cam lock ramps on the radiator filler neck flange be examined (see Figure 13). A distorted flange can be repaired without removal of the radiator from the complaint vehicle by bending the tabs down with a pair of pliers or other suitable tool until maximum vertical distance from the top of the filler neck surface to the bottom edge of the cam lock flange is obtained. This will permit the cap to hold the pressure necessary for the system to function properly.

(TSB 93 - 5/31/68 - Article 1418)

INADEQUATE COOLING

(1967 Thunderbird Equipped with Integral Air Conditioning Heating System)

Field reports indicate that some dealers are not installing the correct air conditioning thermostatic switch when performing corrections necessary to satisfy customer complaints of air conditioning inadequate cooling on 1967 Thunderbird units. Technical Service Bulletin Number 73, dated August 11, 1967, outlines a step-by-step procedure which includes replacement of the thermostatic switch.

Note: The thermostatic switch part number (C75Z-19618-D) as listed in the above TSB is incorrect and should be changed to C8Z-19618-A. Only the C8Z-19618-A part number switch should be used in correcting air conditioning inadequate cooling complaints. The use of any other switch part number will result in a reduction of the air conditioning cooling capacity.

The C8Z-19618-A switch is available in depot stock as a class "B" item. (TSB 94 - 6/21/68 - Article 1422)

RADIATOR TOP TANK TO SUPPLY TANK HOSE FITTINGS

(N1000-D, NT-850-950 with 6-71 Engine, F-T-8000 with Caterpillar Mid-Range and C-6000-7000 with Dorset Engines)

To eliminate the possibility of the top tank to supply tank hose from slipping off the fitting, the present non-beaded hose fitting in the radiator top tank can be replaced with a combination of a 90° street elbow and a beaded hose nipple. A production change reflecting this fitting replacement is scheduled for approximately May 30, 1968. The article outlines an installation sketch with details.

(TSB 99 - 9/27/68 - Article 1504)

LOSS OF COOLANT

(1968 Ford Galaxie with 302 C.I.D. Engine and Air Conditioning)

In the event of customer complaints of engine coolant loss or overheating due to loss of coolant in the above subject vehicles, determine if the coolant is being lost out the overflow hose as described in the main article.

If the coolant is being lost through the radiator overflow hose install the "H" fitting described in the main article according to the instructions and illustration provided.

(TSB 101 - 11/1/68 - Article 1516)

NEW FAN BLADE ASSEMBLIES

(1968 C-6000/7000 with 363 Dorset Diesel Engine, 1968 P-3500-5000 with 242 CID Dorset Diesel Engine)

New fan assemblies are available for subject vehicles to improve durability.

The 242 Dorset fan has been improved by design. The spider type construction replaces the original cross blade design.

The 363 Dorset fan metal thickness has been increased from .048" to .075".

The article details part numbers and depot availability.

(TSB 103 - 11/19/68 - Article 1563)

ENGINE OVERHEATING

(1968-69 Bronco, Econoline, Parcel and Light Truck)

Customer complaints of overheating should be verified, using the following information, prior to effecting any repairs.

1. Determine when the overheating occurs: i.e., at idle, during high speed runs, etc.

NOTE: Overheating is defined as a continuing loss of coolant. The filling of a coolant tank to the top ring at the pressure cap seal, will result in the loss of approximately one (1) quart of coolant after the engine reaches normal operating temperature.

2. If no continuing coolant loss occurs, determine the temperature gauge pointer position that causes the customer concern.

NOTE: The pointer may remain in any area of the solid bar during operation and still indicate satisfactory operation. Only when the pointer is past the bar is it an indication of overheating.

If the vehicle does not exhibit coolant loss or has been overfilled on a regular basis, explanation of the foregoing should preclude further complaints.

If the vehicle continues to lose coolant and/or experience very high gauge readings, the main article contains corrective information.

(TSB 104 - 12/13/68 - Article 1587)

ENGINE IDLE OVERHEATING

1968 and 1969 Thunderbird Models with Air Conditioning

Some 1969 Thunderbird models built prior to September 16, 1968, and some 1968 Thunderbird vehicles with air conditioning may exhibit engine idling overheating problems. If the problem persists after

completing normal diagnostic procedures described in the shop manual, remove the water pump and measure the impeller. If the water pump impeller measures 3.75" in diameter, replace it with the new 1969 water pump assembly incorporating a 4.60" diameter impeller (part number C9VZ-8501-A, Class A).

(TSB 105 - 12/20/68 - Article 1607)

NEW RADIATOR SUPPLY TANK

(N-1000-D, NT-850-950-D with NH & 671 Engines)

A new improved surge tank has been incorporated into production and is available for service replacement. The original supply tank was supplied by O. L. Anderson Co.; the new tank is supplied by the Blackstone Corp.

(TSB 106 - 1/10/69 - Article 1615)

NEW LOWER RADIATOR HOSE

(N-T-8000-D with 6V53 Detroit Diesel Engines)

A new lower radiator hose incorporating a curved center section and anti-collapse spring for subject vehicles, can be installed as a product improvement or on a complaint basis.

The new hose assembly replaces the original straight hose and will prevent the possibility of lower outlet damage caused by shock loads transferred from the vehicle drive train.

The new part can be used on R.P.O. T-8000 and D.S.O. F-8000 1967-68 trucks.

(TSB 106 - 1/10/69 - Article 1619)

"W" SERIES RADIATOR IMPROVEMENTS

(All "W" Series Trucks)

The "W" Series radiator vendor (Modine) now incorporates additional welds to the radiator assembly to eliminate the possibility of weld separations at the tapping bar to side support. These weld areas are:

- Tapping Bar to radiator side support corners both internal and external.

- Add full weld replacing tack welds side support to tapping bar.

Radiators reflecting these changes are now being supplied to the assembly plant. New radiators are also available for "W" Series trucks which accommodate either Kysor or Cadillac shutter assemblies. The article lists the part numbers and engine applications.

(TSB 107 - 1/24/69 - Article 1626)

W SERIES RADIATOR TANKS

(All "W" Series Trucks)

Upper and lower radiator tanks and associated gaskets are now available through service parts depots for subject vehicles.

The part numbers and engine applications published in the Autolite Parts Book revision Change No. 45 dated January, 1969; Section 80 and 83, Pages 10, 12 and 13. The items are CQ.

(TSB 108 - 1/31/69 - Article 1644)

RADIATOR SHROUD

(C-550 Thru C-800, CT-800 Trucks)

During early 1968, the C4TZ-8146-A shroud manufacturing process was changed to improve shroud durability.

The shroud part number, C4TZ-8146-A, remains unchanged, however, the original and current shrouds can be identified as shown in the article.

(TSB 108 - 1/31/69 - Article 1649)

ENGINE OVERHEATS DUE TO ENGINE WATER TEMPERATURE SENDING UNIT TO ENGINE THERMOSTAT INTERFERENCE

(*W Series Truck with Detroit 6-71 Engine)

If interference between the water temperature sending unit and thermostat occurs, reverse the installation of the two components.

This action was incorporated into production in February, 1968, to preclude any possibility of interference.

The article contains a sketch illustrating similar field corrective action.

(TSB 108 - 1/31/69 - Article 1650)

LOWER RADIATOR HOSE

(W & WT, N-NT Trucks with 6-71 Detroit Diesel Engines)

A new lower radiator hose has been incorporated into production on December 5, 1968. This hose has an increased length curved section and spring to isolate engine movement from the radiator.

PARTS: C9HZ-8286-B - Class C - Hose Assembly (including spring) - Available.

Production Correction: December 5, 1968.

WARRANTY STATUS: Reimbursable under the provisions of the Warranty & Policy Manual

Oper: 8260-A
Time: 0.9 Hrs.

(TSB 110 - 2/28/69 - Article 1692)

NEW RADIATOR FLEXIBLE HOSE - SURGE TANK TO RADIATOR

(C-6000-7000-8000 Trucks With Caterpillar V-8 Diesel Engines)

A new flexible hose assembly may be installed as a product improvement or upon customer request to prevent surge tank vent line interference with the engine cover or air compressor.

NOTE: C7TS-2B291-K and C7TS-2B323-D are non-serviced items, however, these parts can be purchased commercially, as indicated, or via the Special Order System through the Ford Parts Depot.

PRODUCTION CORRECTION: 12-12-68.

WARRANTY STATUS: Reimbursable under the provisions of the Warranty & Policy Manual.

Operation: SP-2908-B-68
Time: 0.6 Hr.

PARTS:

QTY.	Part Number	Name	Class	Avail.
1	C7TS-2B291-K*	Elbow 45° x 1/4 Pipe No. 6 Hose		Outside Source
1	C9TZ-2269-B	Hose Assembly - Supply Tank to Radiator #6 - 28" Long 40R2 Material	B	OK
2	C7TS-2B323-D@	Swivel Ends #6 Hose		Outside Source
1	375906-S	Elbow 5/8-18 x 90°	S	OK
1	Fabricate	Clip		Make

* Aeroquip 2007-4-6B, Stratoflex 1020-4-6, Parker Hannifin 6-1/4-3104-4 meet this requirement.
@ Stratoflex 323-6S, Imperial Eastman BC06-06NS Parker Hannifin 5/16-6-20822-1 meet this requirement.

(TSB 115 - 5/16/69 - Article 1796)

NEW WATER PUMPS TO REDUCE ENGINE HEAT

(Medium, Heavy and Extra Heavy Trucks with 330, 361, and 391 CID Engines - 1969-1970 Models)

New improved water pumps with a 1.15 to 1 ratio and 97 gallons per mile flow have been incorporated on all 1970-330, 361 and 391 CID engines. The increase in water flow will improve engine heat dissipation thru the cooling system. The new pumps replace the water pumps formerly used for production and service and can be installed on prior model vehicles when a new service pump is desired. The parts required are shown below.

PARTS:

Part Number	Part Name	Class	Qty.	Avail.
DOTZ-8501-B	Water Pump (Low Fan)	A	1	OK
DOTZ-8501-C	Water Pump (High Fan)	A	1	OK
DOTZ-8509-A	Pulley (All Applications)	B	1	OK
DOTZ-8546-A	Spacer (All except "C" Series)	C	1	OK
DOTZ-8546-B	Spacer ("C" Series only)	C	1	OK

PRODUCTION CORRECTION: Approximately 8-16-69.

WARRANTY STATUS: INFORMATION

(TSB 130 - 12/19/69 - Article 2037)

ANTI-FREEZE PROTECTION REVISION

(1970 F-100-350, Bronco, Econoline and P-Series)

The anti-freeze protection level for U.S. built vehicles has been revised to -20° F. Vehicles built in Canada or built for shipment to Alaska are protected to -35° F. A tag is attached to the radiator of each vehicle to indicate the anti-freeze protection. A red tag is for protection to -20° F and a tan tag is for -35° F.

(TSB 130 - 12/19/69 - Article 2038)

COOLING SYSTEM PRESSURE SPECIFICATIONS

(Bronco, Econoline and All Trucks - 1969-1970)

The cooling system pressure specifications shown on page 11-04-01 of the 1969 Truck Shop Manual and on page 24-01-11 of the 1970 Truck Shop Manual should be corrected as follows:

COOLING SYSTEM PRESSURE - PSI
 F-100-350, P-Series, 13 psi
 Bronco and Econoline 13 psi
 500-9000 Series Trucks 7 psi
 (except P-500-500) 7 psi

Cooling System Pressure - PSI	
F-100-350, P-Series, Bronco and Econoline	13 psi
500-9000 Series Trucks (except P-500-500)	7 psi

(TSB 130 - 12/19/69 - Article 2039)

RADIATOR FILLER CAP REMOVAL

(All 1970 Passenger Cars, Econolines, Bronco, F-100/350 and P-350/5000 Models)

Alert all owners and service technicians that a pressure relief stop is incorporated in the radiator cap of subject vehicles to allow pressure to dissipate from a hot radiator while the radiator cap remains firmly in place.

CAUTION: Avoid injury when checking a hot engine. Muffle the radiator cap with a

thick cloth before attempting removal.

Then:

1. Rotate the radiator cap counterclockwise to the first stop.
2. After the pressure has completely dissipated, press the cap downward and continue the counterclockwise rotation until the cap is fully disengaged.
3. Remove the cap.

WARRANTY STATUS:
 INFORMATION ONLY

(TSB 130 - 12/19/69 - Article 2040)

FUEL SYSTEM

Fuel System General Service

COLD AND/OR WARM ENGINE HESITATION ON LIGHT ACCELERATION - (THERMACTOR UNITS ONLY)

(1967 289-2V Thermoactor engine equipped units built between December 1, 1966 and approximately March 1, 1967. Carburetor models C7AF-BN or C7DF-V with distributor model C7AF-AH)

Customers with subject units may complain of engine hesitation on light acceleration during cold and/or warm engine operation. Problem correction can be obtained by changing the carburetor bowl vent adjustment and modifying the distributor advance characteristics as outlined in the main article.

(TSB 63 - 3/31/67 - Article 1031)

ENGINE HESITATION DURING THE WARM-UP PERIOD

(1967 Ford 390-2V Engine Equipped Units with Air Conditioning or Comfort Stream Heating and Built Prior to Approximately January 1, 1967)

Customer complaints of engine during the warm-up period on subject units may be caused by the lack of water flow through the carburetor heat spacer with the heater in the "Off" position. Units built after January 1, 1967 incorporate an "H" fitting in the water system to avoid this problem. The main article contains a procedure to correct this condition on complaint units built prior to this date.

(TSB 67 - 5/5/67 - Article 1071)

CARBURETOR SPECIFICATIONS

(1967 Cars and Trucks)

This article reflects engineering changes and additions to the 1967 car and truck carburetor line-up.

The specification charts are produced in the same style as used in the car and truck shop manuals and specification books. Refer to Group 10 - Specifications, and note the number and date of this article.

(If R 68 - 5/19/67 - Article 1091)

CARBURETOR SPECIFICATIONS (CORRECTION TO TSB NO. 68, ARTICLE NO. 1091 - MAY 19, 1967)

(All Autolite Model 4300 4-V Carburetors)

Correct typesetter's error in Technical Service Bulletin No. 68, Article No. 1091. Under heading of "ALL AUTOLITE MODELS 4300 4-V," change Auxiliary Fuel Valve Setting from 1.16 inch ± 1/64 to 1.16 ± 1/64.

(TSB 69 - 6/2/67 - Article 1101)

CARBURETOR SPECIFICATIONS

(1967 Cars and Trucks)

This article denotes engineering changes and additions to the 1967 car and truck carburetor line-up.

The specification charts are produced in the same style as used in the car and truck shop manuals and specification books to facilitate in correcting your copy. Refer to Group 10 - Specifications and note the number and date of this article.

The charts in this article show only revised or new specifications as they apply.

(TSB 72 - 7/28/67 - Article 1131)

MOMENTARY ENGINE HESITATION OR STUMBLE ON LIGHT ACCELERATION

(1968 289-2V Imco and 302-2V Imco Engine Equipped Units - Carburetor Models C8AF-L and C82F-5)

Customers with subject units may complain of momentary engine hesitation or stumble on light acceleration. This problem is primarily associated with new (green) engines and caused by a lean carburetor air-fuel mixture during a momentary period of slow speed light acceleration. The main article contains a detailed procedure to correct this customer complaint assuming that ignition timing and vacuum line routing are correct.

(TSB 77 - 10/13/67 - Article 1174)

MOMENTARY ENGINE HESITATION ON ACCELERATION AND/OR ROUGH ENGINE IDLE

(1968 390-4V GT Engine Equipped Vehicles (Holley Carburetor) Built Prior to Approximately December 15, 1967)

Customer complaints of momentary engine hesitation on acceleration and/or rough engine idle may be encountered on 1968 390-4V GT engine equipped units built prior to approximately December 15, 1967. These units use Holley carburetor models C80F-C (standard transmission) and C80F-D (automatic transmission).

Complaints of this condition are primarily caused by a lean carburetor fuel condition at idle and off idle engine speeds.

Subject units produced after the December 15, 1967 correction date are equipped with revised carburetor models to eliminate possible occurrence of this problem.

The corrective service procedure involves carburetor enrichment as well as steps to ensure proper accelerator pump timing and carburetor base to manifold spacer sealing.

(TSB 85 - 2/9/68 - Article 1283)

POSSIBLE CAUSE OF CARBURETOR FLOODING - 240 CID ENGINE

(All 1968 Light Trucks With 240 CID Engine and Standard Transmission)

Improper installation of the fuel inlet tube connecting into the carburetor top can cause a metal chip to be cut from the carburetor fuel inlet threads. If this occurs, it is possible that the shaving can travel and lodge in the fuel inlet valve seat and cause a flooding problem.

If a flooding problem is encountered in the field, remove the fuel inlet fitting, the float, and the needle and seat assembly. Examine the carburetor in the fuel inlet area as well as in the fuel bowl for any metal shavings that may have been cut and are creating a problem. Reinstall the fuel inlet fitting and again clean out the inlet system before reassembly of the carburetor.

This problem was corrected in production on January 22, 1968.

(TSB 88 - 3/22/68 - Article 1335)

REVISED 1968 EXHAUST EMISSION SYSTEM AIR-FUEL RATIO SPECIFICATIONS

(All 1968 Passenger and Light Truck Units with Exhaust Emission Systems)

The 1968 exhaust emission system air-fuel ratio specifications for use with an approved Rotunda or equivalent exhaust gas analyzer have been revised as indicated below. Use of these specifications in accordance with the idle adjustment procedure outlined in the appropriate 1968 Maintenance Manual or the Vehicle Emission Control Systems Handbook are necessary to assure optimum vehicle operation and exhaust emission control.

Please revise all Service Specification Booklets or other references to reflect these changes.

(TSB 89 - 4/6/68 - Article 1341)

EXCESSIVE ENGINE NOISE CAUSED BY IMPROPER CHOKE CABLE INSTALLATION

(All 1965-1967 F-100-350 Trucks)

Customer complaints of excessive engine noise can be caused by a grounded out choke cable. If the choke cable is grounded out on the rocker cover or carburetor and is transmitting engine noise on the above models, a new cable should be installed as follows:

1. Order the 1968 choke cable assembly. NOTE: This part is enclosed in a rubber hose for its entire length.

2. Install cable making sure that the rubber is secured in the clamp at the carburetor end. (See article for sketch).

3. Evaluate unit to assure that the noise has been reduced or eliminated and the vehicle is acceptable.

(TSB 92 - 5/17/68 - Article 1390)

ENGINE DIESELING

(All 1968 Vehicles)

Customer complaints of engine dieseling (engine continues to run momentarily with ignition off) are being encountered on 1968 units. These complaints are more prevalent on 390-4V and 428-4V engine equipped units and are primarily associated with high engine curb idle speed. In addition, ignition timing, curb idle repeatability, fuel, and choke adjustments can also be involved. The main article contains necessary detailed information and a recommendation of accurate pre-delivery adjustment of the basic engine tune-up specifications to avoid problem occurrence.

(TSB 93 - 5/31/68 - Article 1415)

ENGINE IDLE SPEED SPECIFICATION

(1968 Econoline with 170 CID Engine, Thermoactor and Standard Transmission)

Concurrently with the incorporation of a revised distributor calibration approximately March 1, 1968 and identified by an engine exhaust emission tag No. C80E-9C485-A, the engine idle speed is revised to 750 RPM (was 700 RPM).

(TSB 94 - 6/21/68 - Article 1445)

CARBURETOR ALTITUDE CALIBRATION

(All 1968 and 1969 Passenger and Light Truck Units)

Carburetor modifications to compensate for vehicle operation in areas of high altitude are not required or reimbursed through warranty on 1968 or 1969 units operated in the United States. Due to the lean carburetor calibrations associated with the current Federal exhaust emission regulations, the

effect of high altitude is negligible and therefore no longer considered necessary.

(TSB 96 - 8/2/68 - Article 1454)

VACUUM LEAKS BETWEEN CARBURETOR AND SPACER

(All 1968 and 1969 Eight Cylinder Engines with Aluminum Spacers)

Customer complaints of rough engine idle or an under the hood whistling noise are often diagnosed as vacuum leaks between the carburetor and aluminum spacer under the carburetor. Many times the corrective action consists of adding a second gasket. This fix is **not effective and should not be used.**

The proper method of correcting the problem is to replace or repair the offending spacer. However, it must be verified, prior to disassembly, that in fact the cause of the complaint is an imperfect seal at the carburetor to spacer or spacer to manifold surfaces. These procedures are detailed in the main article.

(TSB 109 - 2/14/69 - Article 1673)

EVAPORATIVE EMISSION SYSTEM - PROPER ROUTING

(Maverick - 1970)

The proper routing for the evaporative emission system vapor tube is shown in Figure 9. Note there are no double clips aft of the frame kick-up. If units are found with a double clip at location B (Figure 9), it is recommended that the vapor tube be removed from the clip and routed as shown in Figure 9.

PARTS: None.

PRODUCTION CORRECTION: None.

WARRANTY STATUS:

INFORMATION

(TSB 119 - 7/18/69 - Article 1879)

Fuel Tanks and Lines

FUEL SENDER FLOAT RATTLE

(All 1965 to 1968 F Series with In Cab Fuel Tanks)

The fuel sender float can strike the upper edge of the fuel tank under conditions of 3/4 full or more and certain road conditions.

This condition exists due to the required length of the float arm because of the tank shape. It does not create any problems but does cause an annoying rattle.

On a customer complaint basis, a rubber boot (Part No. C77Z-9A175-A, Class AG) can be installed over the fuel sender float. Complete instructions are contained in the article.

(TSB 76 - 9/29/67 - Article 1161)

FAIRLANE FUEL TANK VENTING SYSTEM

(All 1965-1967 Fairlane Models Except Those Units Built Prior To April 1, 1966 and Station Wagons)

Customers may complain of an incorrect fuel gauge reading caused by a partially collapsed fuel tank resulting from a plugged vent exit and/or they may complain of fuel odor traced to fuel loss from the vent exit. The rework of the fuel tank venting system outlined in the main article will correct both of the above described conditions.

(TSB 78 - 11/3/67 - Article 1197)

NEW FUEL TANK STRAPS

(1967 W & WT-1000 Equipped with 100 Gallon Rectangular Fuel Tanks)

Improved fuel tank retaining straps have been made available for the 100 gallon rectangular tanks.

The new straps which are of increased width and thickness also incorporate a snap up step on the left side forward strap to facilitate driver servicing of the trailer connections.

The new straps became available ap-

proximately December 18, 1967.

See complete article for part numbers.

(TSB 86 - 2/23/68 - Article 1303)

FUEL LEAKING FROM THE FUEL FILLER CAP CAUSING STAINED PAINT AND LOSS OF FUEL

(Model "C" Corvair)

Customer complaints of fuel leakage at the filler cap, can be corrected by removing the screw which retains the filler cap gasket and checking to see that there is no welding flash preventing the gasket from seating fully. Any flash should be removed to prevent leakage between the cap face and the cap handle. In addition, install a new .090 in. gasket (Part No. 3014E-9035-A) to insure positive correction of filler cap leaks.

A new filler cap (Part No. 3014E-9030-B), which includes this new gasket, has been incorporated in production.

(TSB 87 - 3/8/68 - Article 1320)

FUEL STARVATION

(All 1968 Passenger Cars and Trucks Equipped with Carburetor In-Line Fuel Filters)

Customer complaints of fuel starvation apparently caused by defective carburetor in-line fuel filters may actually be the result of a kinked flexible fuel line.

Before replacing a fuel filter for this problem, inspect the rubber fuel line in the front left wheelhouse area to see if it is kinked. Also, examine the rubber line at the fuel tank for the same reason. If either is found to be kinked, reroute the line or replace it before attempting to replace the fuel filter.

(TSB 93 - 5/31/68 - Article 1411)

AUXILIARY FUEL TANK VENT NOISE

(F 100-250-350 Series Trucks, 1968-69)

If it becomes necessary to replace the vent hose, the following hose should be installed using new hose clamps if necessary:

PARTS:

Part Number	Part Name	Class	Avail.
C77Z-9170-A	Vent Hose	C	OK
B7A-8287-A	Hose Clamp	A	OK

PRODUCTION CORRECTION: 4-14-69.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: SP-9170-A-69

Time: 0.3 Hr.

DLR CODING: 9170-73

(TSB 119 - 7/18/69 - Article 1865)

RECTANGULAR FUEL TANKS - 100 GALLONS - REPLACEMENT FILLER NECKS & NEW INSULATORS

(W Series Trucks Equipped with 100 Gallon Rectangular Fuel Tanks)

A new neck, designed to be driven over the existing neck with a wooden block to avoid hammer damage, has been released to repair out-of-round necks on existing tanks. The out-of-round neck should first be reworked to original shape before installation of the replacement. Weld the new filler neck to the fuel tank for the entire filler neck circumference. New extruded rubber tank strap retaining insulators are also available for installation under existing straps (two per tank).

PARTS:

Part Number	Part Name	Class	Avail.
C9HZ-9034-A	4" Filler Neck (Threaded Cap)	CG	8-1-69
C9HZ-9034-B	4" Filler Neck (Bayonet Cap)	CG	8-1-69
C9HZ-9030-A	Vented Cap - Use with C9HZ-9034-A Filler Neck	CG	8-1-69
C9HZ-9067-A	Insulator - Fuel Tank (5" length per strap)	CO	7-1-69

NOTE: The existing bayonet type cap can be used with C9HZ-9034-B filler neck.

PRODUCTION CORRECTION: 2-1-69 (Vendor Production) - 7-1-69 (Louisville). **WARRANTY STATUS:** Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: Filler Neck (One Tank) SP-9002-A-69: 1.7 Hrs.; Install Insulators under & Time: Straps (One Tank) SP-9002-A-69: 0.5 Hr. (Both Tanks 0.8 Hr.)

DLR CODING: 9034-01

(TSB 120 - 8/1/69 - Article 1903)

SLOW FILL AUXILIARY FUEL TANK

(Bronco With Auxiliary Fuel Tank - 1967-69 - THIS ARTICLE CANCELS AND SUPERSEDES ARTICLE 1927, TSB NO. 121, DATED AUGUST 15, 1969)

Install vent hose in filler neck.

PARTS:

Part Number	Part Name	Qty.	Class	Avail.
C9PZ-9324-A (25 ft.)	Hose	33" Long	B	OK
376188-S	Clip	1	S	OK
350754-S8	Screw	1	S	OK
381801-S2	Screw	1	S	OK

PRODUCTION CORRECTION: 8-11-69. **WARRANTY STATUS:** Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: SP-9034-C-69
Time: 0.3 Hr.

DLR CODING: Basic Part No. 9034 - Code No. 53.

(TSB 124 - 10/10/69 - Article 1967)

Fuel Pump and Filters

PREMATURE PLUGGING OF FUEL FILTERS

(All Car and Truck)

Cases of premature fuel filter plugging or repeated replacement of fuel filters within short periods of time should trigger further investigation as to probable causes for the plugging.

It is good service practice to not replace the filter nor install a larger unit until the source of contamination has been determined and corrected. Installing a larger capacity filter will only prolong the next but ultimate failure.

In case of early and/or repeat filter failures, the fuel system, including the fuel tank, should be cleaned of contaminants before the vehicle is released for service, or a repeat failure is certain to occur.

(TSB 109 - 2/14/69 - Article 1654)

HARD HOT STARTS AND/OR SUBSEQUENT DRIVEAWAY STILL

(1966 240 CID Ecololine - All Models)

Customer complaints of hard hot starting and/or subsequent driveaway still can be corrected by the installation of 1967 design fuel handling components which include C5UZ-9350-C fuel pump, C5UZ-9155-A fuel filter, C3AZ-9558-B pin, CSTZ-9A517-A baffles. The 1966 type fuel line routed over the rocker arm cover is also utilized.

(TSB 76 - 9/29/67 - Article 1158)

FUEL STARVATION

(All 1968 Passenger Cars and Trucks Equipped with Carburetor In-Line Fuel Filters)

Customer complaints of fuel starvation apparently caused by defective carburetor in-line fuel filters may actually be the result of a kinked flexible fuel line.

Before replacing a fuel filter for this problem, inspect the rubber fuel line in the front left wheelhouse area to see if it is kinked. Also, examine the rubber line at the fuel tank for the same reason. If either is found to be kinked, reroute the line or replace it before attempting to replace the fuel filter.

(TSB 93 - 5/31/68 - Article 1411)

FUEL LIFT PUMP DIAPHRAGM

(363 and 242 CID Dorset Diesel Engines)

To preclude the possibility of fuel pump diaphragm failures on subject engines the Parts Depots have purged stock to eliminate the black laminated type fuel lift pump diaphragm.

As a product improvement, or on a complaint basis, a red (three layer) diaphragm can be used to replace the original black type.

(TSB 103 - 11/29/68 - Article 1543)

FUEL PUMP DIAGNOSIS AND REPAIR

(All Passenger and Truck Engines)

Accurate fuel pump associated problem diagnosis and repair is necessary to preclude the possibility of replacing good serviceable fuel pumps, and insuring customer satisfaction. Engineering analysis of reportedly failed 1968 fuel pumps returned from Field Service reveals that, of a total of 291 pumps inspected and tested for the cause of failure, 150 pumps, or 52% of the total, actually checked good with no defects whatever and never should have been removed.

If fuel leakage is the complaint, it should be verified that the fuel is actually leaking from the pump and not from some other area in the system.

If oil leakage is the complaint, a check for loose mounting bolts, condition of the cylinder block or front cover pump mounting surface, and/or an incorrectly installed pump mounting gasket, should be made before the pump is condemned.

If insufficient fuel is the complaint, a static fuel pressure test and a fuel flow capacity test, after and before the fuel filter, should be made in accordance with procedures in the shop manual before the fuel pump is condemned.

It is imperative that more emphasis be placed on proper diagnosis of customer complaints and performance of effective repairs to avoid replacing good serviceable fuel pumps.

(TSB 107 - 1/24/69 - Article 1633)

IV Carburetors

CARBURETOR SPECIFICATIONS AND CURB IDLE ADJUSTMENT - CARTER MODEL YF 1-V

(Maverick 170- and 200-Six With Air Conditioning)

The carburetor specifications and curb idle speed adjustment procedure for the 1970 Maverick equipped with air conditioning have been revised. The carburetor has a solenoid throttle modulator to reduce the curb idle speed by allowing the throttle plate to close further than the normal curb idle position when the ignition is turned off.

PARTS: DODF-9510-E, F, G, H.

(TSB 115 - 5/16/69 - Article 1797)

CARBURETOR - 250 CID - DASHPOT REMOVAL

(Fairlane and Mustang With Automatic Transmission - 1969)

It has been found that a more responsive throttle action has been achieved by deletion of the dashpot on units equipped with automatic transmissions and a 250 CID engine. Carburetors subsequent to April 18, 1969 do not have a dashpot and the dashpot may be removed from carburetors built prior to that date.

PARTS: None.

PRODUCTION CORRECTION: April 18, 1969.

WARRANTY STATUS: INFORMATION

(TSB 118 - 6/27/69 - Article 1858)

2V Carburetors

2-V CARBURETOR STUMBLE AND RESISTANCE

(All Lines - 1969 W/302, 351, 390 and 429 CID Engine W/2-V Carburetors and Automatic Transmissions)

1. Check position of accelerator pump return spring. Figures 6 and 7.
2. Check accelerator pump elastomer valve - if it has a small "V" on it, replace with a new valve without the "V".
3. Check pump discharge nozzles for dirt - drill 429 CID nozzles to .0465 inches (no. 56 drill).
4. Clean out all chips and dirt from pump nozzles.
5. Reset float level as necessary.

PARTS: C4AZ-9576-A - Elastomer Valve - Class A - Available.

PRODUCTION CORRECTION: 12-4-68.

WARRANTY STATUS: REIMBURSABLE
Operation: SP-9510-B-69
Time: 0.7 Hr.

(TSB 112 - 4/4/69 - Article 1734)

2V CARBURETOR - 390 HARD COLD START

(Ford - 1969)

Hard cold start complaints may be caused by the inability of the choke plate to close. The sticking could be caused by a sticky gum formation on the surface of the choke piston and inside of the cylinder of the choke assembly on 1969 Ford units equipped with a 390-2V. To correct this stickiness, remove and disassemble choke assembly, clean the piston and piston bore with Carburetor and Combustion Chamber Cleaner (C6AZ-19579-B). Examine the piston for burrs and the location of the wrist pin, being sure it is centered in the piston. After cleaning, reassemble and re-install the choke assembly.

Reset the choke to its proper specifications per 1969 Shop Manual, Vol. II, Part 10.4.

PARTS: None.

PRODUCTION CORRECTION: None.
WARRANTY STATUS: REIMBURSABLE
Operation: SP-9510-C-69
Time: 0.6 Hr.

(TSB 118 - 6/27/69 - Article 1859)

4V Carburetors

CARBURETOR LOADING DURING ENGINE WARM-UP - 4300-4V CARBURETOR

(1967 Ford and Thunderbird Units
Built Prior to Approximately
March 15, 1967, with 390-4V or
428-4V Engine and Automatic
Transmission)

Subject units which generate customer complaints of carburetor loading during the engine warm-up period may require a revised choke cover along with revised choke settings. The complete article contains corrective details.

(TSB 61 - 3/10/67 - Article 1008)

POWER VALVE SERVICE REPLACEMENT - HOLLEY CARBURETOR

(All 1967 Fairlane and Mustang Units
with 390-GT Engine)

The service replacement power valve presently specified in the Parts Catalog for all Holley 4V carburetors applied to the 1967 Fairlane and Mustang 390-GT engines is improper. This power valve, COAZ-9A565-A, does not have sufficient thread length to properly seat in the metering block.

When power valve replacement is required, the correct valve B8LY-9A565-A must be used. The Parts Catalog will be corrected to indicate this proper application.

(TSB 70 - 6/23/67 - Article 1106)

IMPROPER CHOKE OPERA- TION - 1968 THUNDERBIRD

(1968 Thunderbird (429 CID Engine) -
Carburetor Models C85F-E & C85F-G)

Customer complaints of hard cold starting or very rich choke operation on 1968 Thunderbird units may be caused by an improperly installed bimetal spring in the carburetor choke cover housing. The bimetal spring may be installed in reverse within the cover housing and/or the spring may be improperly retained to the choke housing center post. This problem is confined to 4300-4V carburetor models C85F-E and C85F-G (all 1968 Thunderbird units) which use a metal heat sink to retain heat in the choke housing.

Carburetors built after March 1, 1968 (build code "8C") are corrected to avoid occurrence of this problem.

The main article contains a procedure to properly install and retain the bimetal spring in the choke housing and resolve this customer complaint.

(TSB 89 - 4/6/68 - Article 1343)

428 COBRA JET RAM AIR INTAKE AND HOLLEY 4150-C 4-V CARBURETOR 1968-1/2 MUSTANG AND FAIRLANE

(1968-1/2 Mustang and Fairlane with
428 Cobra Jet engine)

An optional Ram-Air air cleaner is available for the Mustang and Cougar models equipped with the 428 Cobra Jet engine. The Ram Air system allows outside air to be forced through the functional hood scoop and into the air cleaner during open throttle or heavy load conditions.

The carburetor for the 428 Cobra Jet engine is equipped with plastic idle fuel mixture limiter caps. The external-type limiters restrict the travel of the idle fuel mixture adjustment screws to about one full turn.

A new design automatic choke system allows adjustment of the fast idle cam clearance and choke plate pulldown.

These new features are described and illustrated in the article.

(TSB 95 - 7/12/68 - Article 1449)

4-V CARBURETOR - UNNECES- SARY INSTALLATION OF AIR VALVE SPRING

(Ford-AutoLite 4300 Series Carburetors)

Do not add the secondary air valve spring assembly to early built 1969 4300 series carburetors. The air valve spring assembly was replaced in production Job 1, 1969, by a compression spring located in the fuel bowl under the air damper piston. Early 1969 4-V carburetors have the boss on the upper casting which housed the old type spring and it was not removed from the casting until approximately December 8, 1968.

PRODUCTION CORRECTION: Job 1,
1969.

(TSB 114 - 5/2/69 - Article 1779)

4-V CARBURETOR - CHOKE BY- PASS AIR SYSTEM FOR 428-4V CID

(428 4-V CID Police and Cobra Jet
Engine - 1969)

A new by-pass choke air supply system was introduced for the 1969 428-4V engine. This system allows cold air to be blended with the hot air from the choke stove before it enters the choke housing. This blend of air to the choke allows the choke to stay on longer and prevents stalling because the choke comes off too soon.

The system consists of a thermostatic valve in the air cleaner which is normally open below 50° F. and connected by a hose from the air cleaner to a "T" in the hot air supply line to the choke. With the thermostatic valve open, the choke draws a blend of air from the air cleaner and from the exhaust manifold choke stove. As the carburetor inlet air reaches 50° F., the thermostatic valve in the air cleaner closes so the choke draws only hot air from the exhaust manifold choke stove.

(TSB 114 - 5/2/69 - Article 1780)

Throttle Linkage

ACCELERATOR LINKAGE CAUSING FAST IDLE

(1966's and 1967 "W" Series Trucks)

Accelerator linkage resulting in the engine not returning to idle speed may be due to lack of lubrication at the cross shaft and/or an interference condition between the cab sheet metal and the pedal rod. The article outlines field procedures to correct each of the above conditions.

(TSB 64 - 4/7/67 - Article 1044)

HIGH ACCELERATOR PEDAL EFFORTS

(1968 Falcons with 170 C.I.D.
Thermactor IMCO Engines)

Complaints of high accelerator pedal efforts or inability to reach full open throttle position can occur because of interference of the accelerator linkage with the heater return hose.

This condition can occur on units built prior to October 3, 1967 at the Oakville Assembly Plant (Vehicle Code 0-8B) and was caused by improper routing of the heater return hose in the area of the carburetor choke housing. Refer to the main article for the proper hose routing.

(TSB 79 - 11/17/67 - Article 1207)

ACCELERATOR LINKAGE - SLOW RETURN TO IDLE

(Maverick, Mustang, Fairlane - 1969)

Units exhibiting slow return to idle are to be checked as follows:

1. Check linkage, pedal and pedal bracketry for proper routing.

2. If the routing is correct, disconnect the accelerator cable from the carburetor throttle lever ball and test the movement of the cable.

3. If the cable is operational, disconnect the throttle return spring and check the idle speed and the throttle plate alignment, and if the alignment is correct, replace the retracting spring.

PARTS:

Number	Description	Dist. Code	Usage	Availability	Class
C5Z2-931-D	Throttle Return Spring	Green	Maverick, All Mustang, 150	OK	B
C5Z2-931-F	Throttle Return Spring	Yellow	Mustang, Light	OK	B

PRODUCTION CORRECTION: April 9,
1969.

WARRANTY STATUS: REIMBURSABLE

Operation: SP-9725-A-69
Time: 0.3 Hr.

(TSB 118 - 6/27/69 - Article 1857)

DIAGNOSIS AND SERVICING PROCEDURES FOR ACCEL- ERATOR CABLE ASSEMBLIES

(1967-1968 Ford and Thunderbird
Car Lines)

This article is intended as a supplement to the throttle cable information in the maintenance manual to cover any situation in which as owner of a subject vehicle complains that the accelerator feels tacky. The diagnostic procedure in the main article is recommended to accurately define and resolve this complaint.

(TSB 77 - 10/13/67 - Article 1179)

THROTTLE LINKAGE ADJUSTMENT

(All Caterpillar Mid-Range V-8
Engine Equipped Trucks)

Review of service reports indicates some service difficulty is being encountered with accelerator control adjustment.

The article supplements previously published throttle linkage adjustment procedure for vehicles with Caterpillar Mid-Range diesel engines, with the min-max fuel injector pump. (1968 Shop Manual, Vol. II, Section 10, pg. 44-45)

(TSB 99 - 9/27/68 - Article 1491)

HIGH ENGINE IDLE SPEED - CARBURETOR RETURN SPRING

(1968 302-2V and 390-2V Engine
Equipped Fairlane Units Built Prior
to December 1, 1967)

Customer complaints of high engine idle speed (600-700 RPM) on subject Fairlane units may be encountered which are caused by inadequate carburetor return spring tension rather than normal carburetor adjustment. A complaint unit with these symptoms and currently equipped with a "silver" colored return spring can be corrected by application of a revised "black" return spring with increased tension. (Part Number CSZZ-9737-B, Class "B").

(TSB 83 - 12/29/67 - Article 1251)

ACCELERATOR PEDAL FREE PLAY AND/OR IRREGULAR RETURN TO IDLE

(All 1967-68 F100/350 and U100 with 8 Cylinder Engines)

Complaints of accelerator pedal free play and/or irregular return to idle can be corrected with a new return spring and bracket.

Full instructions and part numbers are contained in the article.

(TSB 99 - 9/27/68 - Article 1489)

LOOSE ACCELERATOR PEDAL PAD BRIGHT TRIM COVER

(1969 Mustang and Fairlane)

The accelerator pedal bright trim cover on some 1969 Mustang and Fairlane models may fit too loosely and could rattle. Subject vehicles produced through October, 1969, should be serviced on a customer complaint basis only to correct this problem. When service is necessary, the procedure outlined in the main article should be followed.

Loose fitting bright metal trim on accelerator pedals of 1967 Mustang and Fairlane may cause unpleasant rattles. On a customer complaint basis only, the procedure outlined in the main article should be followed to correct the condition.

(TSB 103 - 11/29/68 - Article 1562)

CHANGES IN CARBURETOR DASHPOT REQUIREMENTS

(Ford, Fairlane, Mustang and Truck)

During 1968, only units with an automatic transmission required a dashpot on the carburetor. All 1969 vehicles, whether automatic or standard transmission, require carburetor dashpots with the following exceptions.

The engine, transmission type, carburetor number and application for which dashpots are not required are:

Prior to November 1, 1968, Fords with the 429-4V and automatic transmission used the C8SE-9510-H carburetor, which has a dashpot, external bowl vent and hot idle compensator. After November 1, 1968, Fords with the 429-4V and automatic will use the C9AF-9510-R, which does not require a dashpot, nor does it have an external bowl vent or hot idle compensator.

Engine	Trans.	Carburetor No.	Application
351-2V	Auto.	C90F-C C92F-B	Fairlane Mustang
330-2V	Manual	C9TF-A	Truck
360-390-2V	Auto.	C8TF-AZ	Truck (Non-Exhaust Emission)
351-4V	Auto.	C90F-D C92F-D	Fairlane Mustang
390-4V	Auto.	C92F-F	Mustang
429-4V	Auto.	C9AF-R	Ford

Warranty claims for these "missed dashpots" cannot be validated.

(TSB 103 - 11/29/68 - Article 1566)

ACCELERATOR BELL CRANK TO INTAKE MANIFOLD CLEARANCE

(1969 Mustang and Fairlane with 250 CID Engine Built Prior to November 15, 1968)

Clearance of $\frac{1}{4}$ " must be maintained between the accelerator bell crank-to-carburetor rod assembly and the intake manifold. Inadequate clearance will result in a slow return to normal idle speed.

A visual check of the linkage should show a quarter ($\frac{1}{4}$) inch of clearance between the bell crank to carburetor rod over the full speed range with the engine off. Should there not be a quarter ($\frac{1}{4}$) inch clearance, bend the bell crank arm outward toward the right fender apron until a quarter ($\frac{1}{4}$) inch of clearance exists over the full speed range. An illustration is shown in the main article.

(TSB 107 - 1/24/69 - Article 1635)

Air Cleaners

AIR INLET CAP

(1966½ and 1967 "W" Series)

Off-center air inlet cap failures which result in rattle and/or excessive water in air cleaners can be corrected by installing new design on-center type caps.

(TSB 62 - 3/24/67 - Article 1015)

HARD COLD STARTING - 240 CID

(1968 Kansas City Built F100 Trucks with Standard Transmission and Carter Carburetor)

An undetermined number of Kansas City F100 Trucks with the 240 CID Engine, Standard Transmission and Carter Carburetor were assembled with the wrong length air cleaner wing screw ($\frac{1}{2}$ " too long). This can result in a hard cold starting complaint because the wing screw will interfere with the movement of the choke plate and pedals of its intake closing fully in the air horn. This condition was corrected at the Kansas City Assembly Plant on February 13, 1968.

If hard cold starting is encountered replace the $\frac{1}{2}$ " x 20 x $\frac{1}{8}$ " wing screw with one $\frac{3}{4}$ " x 20 x $\frac{3}{8}$ " (370301-S-8) or cut $\frac{1}{2}$ " in. from the longer stud.

(TSB 91 - 5/3/68 - Article 1383)

VORTEX AIR INLET CAP

(W Series Trucks)

A $5\frac{1}{2}$ " and 6" diameter Vortex off center rain cap is available to replace the production "on center" Donaldson type. The new rain cap will provide less air restriction, greater service life and increased protection against water entry.

(TSB 92 - 5/17/68 - Article 1394)

AIR INTAKE HOSE AND TUBE INSTALLATION

(1967-68 "W" Series Trucks - All Engines)

To help preclude entry of water and contamination into the "W" Series air induction system, action was initiated on April 10, 1968 at the Louisville Assembly Plant which permits application of paint stripes to all intake tubes and hoses to assist in proper initial assembly.

To assist service personnel in the field with proper location of intake hoses and tubes the article includes detailed drawings indicating installation dimensions.

(TSB 94 - 6/21/68 - Article 1434)

428 COBRA JET RAM AIR INTAKE AND HOLLEY 4150-C 4-V CARBURETOR 1968-1/2 MUSTANG AND FAIRLANE

(1968-1/2 Mustang and Fairlane with 428 Cobra Jet Engine)

An optional Ram-Air air cleaner is available for the Mustang and Cougar models equipped with the 428 Cobra Jet engine. The Ram Air system allows outside air to be forced through the functional hood scoop and into the air cleaner during open throttle or heavy load conditions.

The carburetor for the 428 Cobra Jet engine is equipped with plastic idle fuel mixture limiter caps. The external-type limiters restrict the travel of the idle fuel mixture adjustment screws to about one full turn.

A new design automatic choke system allows adjustment of the fast idle cam clearance and choke plate pull-down.

These new features are described and illustrated in the article.

(TSB 95 - 7/12/68 - Article 1449)

OIL BATH AIR CLEANER OIL CUP RETENTION KIT

(All "W" Series Trucks Equipped with Oil Bath Air Cleaner Assemblies)

A new oil cup retention feature for all "W" Series trucks equipped with the Donaldson 12-14 & 16 inch oil bath air cleaners has been incorporated into production on June 17, 1968. A kit incorporating the new retention feature is available only from the Supplier (Donaldson Co.) and can be installed in cases of customer complaints of the oil cup falling off or being lost. The article contains part nos., installation procedure and the supplier address.

(TSB 98 - 9/13/68 - Article 1481)

AIR CLEANER TUBE ASSEMBLY - FIELD FABRICATION

(1966½ - 1968 W Series Trucks)

To minimize the possibility of water intake into the W Series induction system, an off-set intake tube can be fabricated, on a complaint basis, for all W Series trucks equipped with the oil bath type air cleaner.

The new design tube was incorporated into production on July 8, 1968, however, the present straight design can be modified in the field.

The article outlines fabrication and dimensional details applicable to particular engine installations.

(TSB 101 - 11/1/68 - Article 1517)

AIR CLEANER VACUUM ACCESS TUBE COVER

(F-B-8000 & 7000 Trucks with Caterpillar Mid-Range Diesel Engines Without Vacuum Brakes)

A plastic cap was used on early models to cover the vacuum supply access tube incorporated in the engine air cleaner supplied with the subject vehicles. Accidental loss or damage of the cap can cause dirt entry into the engine through the air cleaner with possible engine damage.

A new rubber cap and hose clamp have been incorporated into production on September 15, 1968 to correct this condition.

The article includes a sketch outlining the rubber cap and hose clamp installation required for field modification on a complaint basis or product improvement.

(TSB 101 - 11/1/68 - Article 1526)

AIR CLEANER CONNECTOR TO ENGINE GASKET

(F-T-8000 Trucks with Caterpillar Mid-Range Diesel Engines)

Air cleaner connector to engine gasket deformation causing an improper seal between the air cleaner connector and the engine air intake flange has been experienced with some subject vehicles.

Possibility of this condition was precluded in production on October 10, 1968 by adding a 6" diameter hose clamp at the engine end of the air cleaner connector.

Field correction can be made by installing a hose clamp as illustrated.

(TSB 101 - 11/1/68 - Article 1529)

CONVERSION OF OIL BATH TO DRY TYPE AIR CLEANER SYSTEM

(1966½-78 "W" Series Trucks - All Engine Options)

As a product improvement, a dry type Donaldson "Cyclopac" air cleaner can be installed to replace the present oil bath air cleaner.

The "Cyclopac" utilizes a two stage filtration principle. The first stage is designed to discharge moisture and large contaminant particles, through an external evacuator valve, before they enter the second stage, which is the actual replaceable air filtration element. Both stages are integrated into a single chamber, similar in size to the present oil bath type. Conversion from the present oil bath air cleaner to the "Cyclopac" can be accomplished as a product improvement by using the components outlined in the article at customer expense.

(TSB 103 - 11/29/68 - Article 1564)

NEW AIR CLEANER INTAKE TUBE BRACE

(1966-68 'M' Series Trucks Equipped with Sleeper Cab)

To provide a more durable air intake system, an improved spring loaded air cleaner intake tube diagonal brace was incorporated into production on July 8, 1968. The new brace can be installed on a complaint basis to replace the original rigid design providing independent flexibility between the vehicle chassis and the intake and exhaust system.

The article includes the part number and installation procedure.

(TSB 104 - 12/13/68 - Article 1595)

AIR CLEANER TO INTAKE TUBE

W Series Trucks with Cummins NH and Detroit 8V71 Engines

To preclude the possibility of excessive air restriction due to collapse of the rubber air cleaner to manifold hose, a new "Ducron" tube was incorporated into production on 8-26-68. The article outlines part numbers and engine applications.

(TSB 105 - 12/20/68 - Article 1608)

AIR CLEANER BODY GASKET

(F-B-C-6000-7000, C-8000 Trucks with Caterpillar V-8 Diesel Engines)

The air cleaner body gasket (to engine air intake manifold) Donaldson part number P10-0832 is released for service on part number CITZ-9654-B, Class B. This gasket was originally released only for super duty engine usage. It is now also used to service the subject engine applications.

(TSB 107 - 1/24/69 - Article 1625)

NON-FUNCTIONING AIR CLEANER DUCT AND VALVE ASSEMBLY

A non-functioning air cleaner duct and valve assembly may cause stalling or poor drivability when the engine is cold due to the valve sticking open or in the "heat off" position.

Prior to making repairs to the carburetor or distributor for cold drivability, the duct and valve assembly should be checked for functionality. A correctly functioning duct and valve assembly should have the valve in the up or "heat on" position when the ambient temperature of the duct and valve assembly are less than 100° F.

(TSB 107 - 1/24/69 - Article 1630)

AIR CLEANER IDENTIFICATION AND INSTALLATION

(F-B-6000-7000, C-6000-7000-8000 Series Trucks with Caterpillar V-8 Diesel Engines)

The air cleaner assemblies released for the subject vehicles are similar in construction relative to diameter and height, however, the evacuator valve, air inlet and restriction indicator valves are in different locations. The article attachment illustrates these differences and proper position on the engine (as viewed from the top).

(TSB 107 - 1/24/69 - Article 1636)

DONALDSON AIR CLEANER "SPITTER VALVE" PROTECTIVE HOSE

(W Series Trucks With Donaldson Dry Type Air Cleaner Assemblies)

An air cleaner hose elbow is available which can be installed over the air cleaner evacuator valve (spitter valve) with a 4" hose clamp to provide protection for the valve from road contaminants. The hose should be placed over the valve facing the rear of the vehicle.

PARTS:

Part Number	Part Name	Class	Avail.
C9HZ-9B613-C	Hose Elbow	CQ	OK
378772-S	Hose Clamp	S	OK

PRODUCTION CORRECTION: 12-2-68.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: SP-9613-A-69

Time: 0.3 Hr.

DLR CODING: Basic Part No. 9613 - Code No. 49

(TSB 121 - 8/15/69 - Article 1922)

STARTING SYSTEMS

Starting System General Service

STARTER SYSTEM REPAIR

(All)

A review of starter assemblies and also starter drives removed and returned during the 1967 model year indicate that a large percentage of these repairs continue to involve mis-diagnosis and therefore nondefective part replacement. Many repaired starter assemblies should have been repaired rather than replaced and also many starter drives are replaced which have no apparent defect.

All starting system replacement parts are available through the Parts Depots and information necessary to diagnose and resolve any starter complaint is provided in the appropriate Maintenance Manual. Proper and recommended repair procedures will avoid warranty claim denial, eliminate nondefective part "charge-back" and assure customer satisfaction by use of positive rather than "trial and error" repair techniques.

(TSB 77 - 10/13/67 - Article 1170)

STARTER OR DRIVE REPLACEMENT

(1965-1967 Trucks with 240, 300, 330, 352, 361 or 391 Engines)

New improved starting motor assemblies and an improved starter drive assembly have been released for 1965-67 trucks with 240, 300, 330, 352, 361 or 391 engines. Refer to main article for details on description and identification.

(TSB 77 - 10/13/67 - Article 1177)

STARTER SYSTEM PROBLEM DIAGNOSIS

(All 1965-1968 Units with the Autolite Positive Engagement Starter)

Customer complaints of a starting system malfunction are caused by either a system electrical problem or a mechanical drive engagement problem. The basic customer complaint could involve both problems and sometimes results in intermittent operation. It is therefore important to obtain as many problem symptoms as possible from the customer to accurately determine the problem cause.

The main article contains a diagnosis flow chart to assist in isolating problems related to the starter system. In addition, a new procedure is provided to positively identify a starter drive clutch problem prior to starter removal. This problem has previously been very difficult to identify because of its intermittent nature.

(TSB 87 - 3/8/68 - Article 1318)

STARTER FAILURE TO ENGAGE

(All Trucks Equipped with 8V71 Diesel Engine)

This article describes the procedure for installing a new starter lever housing on 8V71 Diesel engines to correct "Starter failure to

engage" complaints.

(TSB 89 - 4/6/68 - Article 1349)

GROUNDING STARTER CABLE TO FRAME

(1968-69 F & B 500-750 Series Trucks)

To preclude the starter cable grounding on the frame, it is necessary to mount a new cable support, C4TZ-14550-A, Class C, to the right hand fender apron using a self-tapping screw, part number 55981-S2 (¼" x 14 x ½"), reference Figure 5.

PARTS:

Part Number	Part Name	Depot	Avail.
C4TZ-14550-A	Starter Cable Support	CG	6-1-69
55981-S2	Self-Tapping Screw (1/4" x 14 x 1/2")	S	OK

PRODUCTION CORRECTION: 2-10-69.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: SP-14550-A-69

Time: 0.4 Hr.

(TSB 116 - 5/30/69 - Article 1815)

Starter Motors

NO CRANK COMPLAINTS ON 429 C.I.D. EQUIPPED UNITS

(1968 and 1969 Thunderbirds and 1969 Fords)

Some late 1968 Thunderbird and early 1969 Ford or Thunderbird units containing a 429 C.I.D. engine may have a "no crank" problem. Starters (C8VF-1101-A) built prior to June 28, 1968, did not have insulated leads between the field and buss bar. Cases have been found with these leads shorted against the starter frame resulting in a "no crank" complaint. This problem was corrected in starter production June 28, 1968.

"No crank" complaints should first be checked for battery sufficient gravity and tight electrical connections. Testing and checking procedures are outlined in the appropriate section of the shop manual. If the tests show the field to be grounded the following procedure is to be followed:

1. Remove the starter assembly from the vehicle.
2. Remove the starter solenoid, cover band and brush plate.
3. Use a screw driver and carefully reform the contour of the field strap as shown in Figure 8.
4. Re-assemble the starter and connect to a 12-volt battery to check its operation prior to re-installation.

(TSB 101 - 11/1/68 - Article 1522)

BATTERY SHIELDS NOT REQUIRED

(Econoline - 1969)

Battery shields are not required on Econoline built after September 16, 1968 - Serial Number E03434, as these vehicles incorporate a new hood weatherstrip which performs the function of the battery shield.

(TSB 117 - 6/13/69 - Article 1838)

Starter Drives and Ringgear

IMPROVED "DEEP-CAM" STARTER DRIVE DESIGN

(All 1965-1968 Passenger Units)

All passenger units built since May, 1967 are equipped with an improved "deep-cam" design starter drive. This "deep-cam" design improvement involves a deeper ramp angle within the drive one-way clutch mechanism which increases the clutch torque capacity approximately 20%.

The revised "deep-cam" starter drive is similar in appearance to the previous drive but can be identified by the letters "DC" next to the build date code on the drive clutch barrel.

All depot stock of the three (3) starter drives which service all past model positive-engagement starters has been updated to incorporate this improvement.

Normal starter drive replacement will therefore automatically apply this improved starter drive to past model units.

(TSB 87 - 3/8/68 - Article 1315)

PREMATURE FLYWHEEL RING GEAR AND/OR STARTER DRIVE PINION WEAR

(All 1968 Manual Transmission Engines Except Super Duty)

Some questionable heat treated flywheel ring gears were inadvertently used in production prior to November 15, 1967. The incorrect heat treating causes the gear to be softer than required, and can result in premature tooth wear and possible starter drive breakage.

On vehicles experiencing starter drive problems, the ring gear must be inspected for broken, cracked or chipped teeth and replaced if found damaged.

Service stock of all replacement gears has been verified to be known quality and should not cause subsequent problems.

(TSB 91 - 5/3/68 - Article 1373)

STARTER SYSTEM - DIAGNOSIS AND REPAIR - SUPERSEDES ARTICLE 1318, TSB NO. 87

(All Car Lines Except Thunderbird Built After 1967)

Because of a high percentage on starter drives returned with no defect it is evident that other starting system malfunctions are being corrected through drive replacement. A positive test has been devised to determine if the starter drive is at fault. If the drive is not at fault, a diagnosis procedure is provided to assist in making proper repairs.

PARTS: See Diagnosis Chart.

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩
 .2 .3 .4 .3 .7 .6 .5 .4 .5 .5

PRODUCTION CORRECTION: None.

WARRANTY STATUS:

Operation: SP-1100B-69 -

Time: in hours - .2 .3 .4 .3 .7 .6 .5

(TSB 126 - 11/7/69 - Article 1992)

Starter Wiring and Solenoid

STARTER CABLE GROUNDED AT FRAME RAIL

(1967, F100, 250, 350)

A no start condition on 1967 Light trucks may be caused by the positive battery cable being grounded at the frame rail.

This condition was corrected in assembly on March 1, 1967, and can be corrected on units built prior to this date by removing the retaining clip from the fender apron and relocating it on the frame rail as shown in the article.

(TSB 63 - 3/31/67 - Article 1037)

LOOSE AND/OR CORRODED BATTERY AND STARTER CABLE CONNECTIONS

(All Vehicles 1968 and 1969)

Many cases of a no start or intermittent start condition have been found to result from an open circuit at the starter cable terminal to starter terminal stud connection. This open circuit usually is the result of either: inadequately torqued starter field terminal nut; corrosion between the starter field terminal and starter cable terminal; or both.

A new nut, Part No. 381561-S36, for the starter field terminal and starter relay terminals is being used in production. The new nut is a 5/16-18 UNC and incorporates a pre-assembled dished washer which acts as a seal when the nut is torqued to the correct specifications and consequently should help to arrest the problem of an open circuit at the starter or starter relay cable connections.

Any vehicle which exhibits intermittent and/or no start conditions should be checked for loose or corroded cable connection at the starter terminal stud, and at the

starter relay terminals.

If loose or corroded cable connections are present, the following procedures are recommended:

1. Remove cable from terminal.
2. Clean the cable terminal and starter (or relay) terminal.
3. Reinstall the cable using the new nut, part no. 381561-S36.
4. Torque all cable retaining nuts - 50-70 lbs. in.

(TSB 109 - 2/14/69 - Article 1671)

BATTERY CABLE CLAMP TO BATTERY POST CONNECTION

(1968 Vehicles)

"Slow engine starter cranking" or "no starter action" can be caused by a loose cable clamp connection at the battery post. The loose connection, in some cases, is the result of an undersize battery post which prevents the battery cable clamp from completing a tight connection. This condition can be corrected by cutting approximately 1/8" off the bolt end stop of the battery cable clamp. Refer to the main article for corrective procedures and illustration.

(TSB 80 - 11/24/67 - Article 1213)

NEW STARTER SYSTEM "DELAYED REINGAGEMENT" CONTROL RELAY

(All 1968's 428 CID Engine Equipped Units)

All 1968 units equipped with a 428 CID engine and built after approximately April 15, 1968 have a special solid-state relay in the starter control circuit to prevent starter reingagement for a 4 second period. This relay, mounted under the basic starter relay, does not affect the circuit during the initial starting attempt, however, if the engine immediately stalls this relay prevents starter reingagement for an approximate 4 second period. The starter drive and ring gear completely stop during this delay period to avoid gear tooth damage by reingagement of these components while in motion.

The main article contains complete service information regarding this reingagement control relay including a test procedure.

(TSB 94 - 6/21/68 - Article 1435)

ENGINE DOES NOT CRANK

(CORTINA - W/Auto. Transmission)

Mount a starter relay on the right front inner panel and connect to starter solenoid.

PARTS:

Qty.	Part No.	Description	Class	Avail.
1	86AZ-11450-A	Starter Relay	A	Make
2		19 gage wire (9' long)		OK
3		System Connector		
1		Spade Connector		

WARRANTY STATUS: REIMBURSABLE

Operation: SP-11450-A-69

Time: 0.6 Hr.

(TSB 111 - 3/14/69 - Article 1703)

GROUNDED STARTER CABLE

(Maverick, 1970)

Mavericks with a no start condition should be checked for proper routing of cable from the starter to the starter relay. Units built in St. Thomas (Code X) may have this cable grounded at the air cleaner air horn.

If the above condition is found check the cable for damage, replace if necessary, and route, clipping the cable to the fender with a retaining strap, part number 376914-S.

PARTS:

Part Number	Part Name	Depot Class	Avail.
DOTZ-4817-AA	Intermediate Driveshaft	C	11-3-69

PRODUCTION CORRECTION: June 23, 1969.

WARRANTY STATUS: REIMBURSABLE

Operation: SP-14431

Time: 0.2 Hr.

DLR. CODING: Basic Part No. 14431-A - Code No. 43

(TSB 126 - 11/7/69 - Article 1993)

IGNITION SYSTEMS

Ignition System

General Service

SPARK PLUG PROBLEM DIAGNOSIS

(All)

Analysis of spark plugs returned from the field indicate that unnecessary replacement is continuing. Generally, such replacement will provide a noticeable improvement in engine performance, however unless the basic problem component is corrected or replaced, this improvement will only be temporary. This article outlines the procedure recommended to detect and evaluate spark plug problems caused by related components and defines the types of problems which require spark plug replacement.

(TSB 57 - 1/6/67 - Article 972)

ENGINE ROUGHNESS AT IDLE OR PART THROTTLE SPEEDS - 390 GT ENGINE

(1967 Mustang and Fairlane 390 GT Engine Equipped Units Built Prior to Approximately November 15, 1966)

Customer complaints of engine roughness at idle or part throttle speeds may be caused by insufficient spark plug gap. The spark plug gap specification for the 390 GT engine has been revised from 0.028-0.032 inch to 0.034 inch and units built after November 15, 1966 reflect this change. This revised spark plug gap may be required to correct this customer complaint on units built prior to the production effective date.

(TSB 57 - 1/6/67 - Article 977)

ROUGH IDLE DIAGNOSIS

(All 1967 8-Cylinder Engines except 427 CID)

A rough idle diagnosis procedure and details as to distributor vacuum advance source for each engine are included in the main article.

(TSB 58 - 1/27/67 - Article 989)

CORRECTION TO BULLETIN NO. 58, ARTICLE 989, JAN. 20, 1967 - ROUGH IDLE DIAGNOSIS

(All 1967 Passenger and Truck Models Equipped With 289 CID Engines (Built Prior to March, 1967) and Automatic Transmission)

The original article has a vacuum sourcing chart which indicates the vacuum source for 289 CID engines with automatic transmissions (A/C or Non-A/C) is the intake manifold, designated with an "I". The vacuum source for the 289 CID engine with A/C or Non-A/C and automatic transmission has been changed to the carburetor on all 1967-289 engines except Mustang with thermostat; therefore, the chart should read "C".

(TSB 68 - 5/19/67 - Article 1078)

IGNITION SYSTEM COMPONENT DIAGNOSIS

(All)

This article contains a diagnostic procedure to assist in the efficient correction of ignition system problems. A test procedure is provided for each of the primary ignition system components to quickly determine if replacement of that component will resolve a customer complaint.

(TSB 65 - 4/21/67 - Article 1051)

IGNITION POINT RESISTANCE AND DISTRIBUTOR ROTOR AIR GAP SPECIFICATIONS

(All Gasoline Engines)

The procedures and specifications for ignition point resistance and distributor rotor air gap voltage drop have been revised.

See the article for details.

(TSB 68 - 5/19/67 - Article 1085)

ENGINE SKIP OR ROUGHNESS DURING NO-LOAD OPERATION AT FASTER THAN IDLE SPEEDS

(All Engines with Vacuum Advance Distributors)

A miss-like "skip" when the engine is operated with "no load" above curb idle speeds is normal and is not caused by an actual problem in the engine. This "skip" is the result of unnatural operating conditions. This phenomena, wherein the engine actually runs rough as though a cylinder is mis-firing, occurs only during free engine operation in the off idle to 1200 rpm range and is caused by the abnormally high spark advance resulting from the high manifold vacuum produced by the operating conditions of the engine.

Dealers can verify the above condition by momentarily disconnecting the distributor vacuum line at the distributor (plug the line while it is disconnected).

If the roughness smooths out without loss of rpm, nothing is wrong with the engine and no corrective action should be attempted.

If obvious roughness is still apparent, further diagnosis is in order.

(TSB 69 - 6/2/67 - Article 1100)

REVISED DISTRIBUTOR VACUUM SIGNAL TAKE-OFF SOURCE

(1968 330 H.D., 361 and 391 CID Truck Engines)

Effective with 1968 production of the subject engine models, the vacuum signal for part throttle distributor vacuum advance will be taken directly from the intake manifold instead of from the distributor port in the carburetor.

(TSB 78 - 11/3/67 - Article 1186)

IGNITION TIMING

(1967 P-Series Trucks - 240 and 300 Engines)

The timing mark on the 240 and 300 P-Series engines is viewed through an opening in the engine rear cover plate on the lower left side of the engine.

(TSB 79 - 11/17/67 - Article 1199)

PIVOTLESS IGNITION POINT WEAR PATTERN

(All 1968 Car and Truck)

The pivotless ignition contacts which are used in 1968 vehicles have an erosion pattern on the tungsten contact discs which is different than that observed on the pivot type contact used in previous model years. This wear pattern can be misdiagnosed as "misaligned contact" by those not familiar with the pivotless contact assembly. Fig. 1, article 1226 shows a comparison of "normal wear patterns" for pivotless and pivot type contacts respectively.

(TSB 81 - 12/8/67 - Article 1226)

NEW TEST PROCEDURE - DISTRIBUTOR VACUUM ADVANCE CONTROL VALVE (DECELERATION VALVE)

(All 1968 Engines So Equipped)

An improved and simplified method of testing the Distributor Vacuum Advance Control Valve (Deceleration Valve) has been released.

This procedure is preferable to that in the 1968 Ford-Mercury and the Cougar, Fairlane, Falcon, Montego and Mustang Shop Manuals.

For details see the article.

(TSB 82 - 12/15/67 - Article 1238)

IGNITION POINT DWELL ANGLE VARIATION

(All Current and Past Model Units with Single or Dual Diaphragm Distributors)

The distributor vacuum line or lines must be disconnected and plugged on all current and past model units with vacuum advance to properly check or adjust the ignition point dwell angle. This is required since any timing advance (caused by the vacuum diaphragm) will increase the point gap and decrease dwell angle to cause a possible erroneous reading or false problem concern.

In the current distributor design, the vacuum portion of the timing advance is accomplished by the vacuum diaphragm rotating the distributor breaker plate. Since the breaker plate rotates around a point other than the distributor shaft, the point gap by design will increase as the breaker plate rotates in the advance direction. The corresponding normal dwell decrease can therefore cause an erroneous dwell angle adjustment and also, is not indicative of a distributor problem. It is, therefore, imperative that all distributor vacuum lines be disconnected and plugged prior to any dwell angle check or adjustment.

(TSB 87 - 3/8/68 - Article 1314)

IGNITION SYSTEM TESTS

(All Vehicles Covered in Ford-Mercury, CFM and Bronco-Econoline Shop Manuals)

In Group 9 of the subject manuals, two figures covering the Battery-to-Coil and Starting Ignition Circuit Test, and the Coil-to-Ground Test, do not show the correct wiring connections.

See the article for details.

(TSB 89 - 4/6/68 - Article 1348)

IGNITION VACUUM SCHEMATICS

(1968 Ford Car with 240 Engine, Imco Emission and Automatic Transmission)

The 1968 Ford-Mercury Shop Manual on page 9-21, Figure 31, illustrates the Ignition Vacuum Schematic for the 240 CID engine with Thermactor emission.

Figure 13 in this article illustrates the connections used with Imco emission.

(TSB 89 - 4/6/68 - Article 1352)

CORTINA TIMING PULLEY

(All 1968 - U. S. only)

All 1968 U. S. Cortina cars are equipped with the Thermactor emission system and will have a crankshaft pulley with a single timing notch.

The initial ignition timing on all 1968 U. S. Cortina engines should be set at 4° BTDC (notch set to left segment of pointer, see main article).

(TSB 90 - 4/19/68 - Article 1365)

ENGINE TIMING

(1969 Econoline with 240 CID Engine)

The timing mark on the 1969 Econoline 240 CID engine is found on the flywheel and may be viewed through an opening in the engine rear cover plate on the lower left side of the engine.

Complete timing procedure is detailed in the article.

(TSB 92 - 5/17/68 - Article 1392)

ENGINE DIESELING

(All 1968 Vehicles)

Customer complaints of engine dieseling (engine continues to run momentarily with the ignition off) are being encountered on 1968 units. These complaints are more prevalent on 390-4V and 428-4V engine equipped units and are primarily associated with high engine curb idle speed. In addition, ignition timing, curdle die repeatability, fuel, and choke adjustments can also be involved. The main article contains necessary detailed information and a recommendation of accurate pre-delivery adjustment of the basic engine tune-up specifications to avoid problem occurrence.

(TSB 93 - 5/31/68 - Article 1415)

Ignition Adjustments and Maintenance

IGNITION TIMING SPECIFICATIONS

(1967 289 CID High Performance Engines for California Registration)

The 289 CID 4-V High Performance Engines produced beginning approximately April 5, 1967 will have Thermactor Exhaust Emission Control systems for both standard and automatic transmission equipped vehicles.

See the article for applicable initial ignition timing and distributor curve specifications.

(TSB 67 - 5/5/67 - Article 1070)

Distributors

THERMOSTATIC DISTRIBUTOR VACUUM CONTROL VALVE ASSEMBLY - DIAGNOSIS PROCEDURE

(All Vehicles So Equipped 1967-1968)

Only two malfunctioning conditions, other than an obvious fluid leak, could cause a valve assembly to be classified as defective. Either the valve is vented to the intake manifold when it should be vented to the carburetor, or the valve is vented to the carburetor when it should be vented to the intake manifold.

Refer to the article for all details. See bulletin No. 56 - Article 967 of December 16, 1966 for the operation, application and illustration of the valve assembly.

(TSB 68 - 5/19/67 - Article 1081)

DISTRIBUTOR UPPER BUSHING FAILURE - ALL

(All Car and Truck V-8's Except 289 CID)

Some FE and FT engines have been built in which the thrust boss for the distributor drive gear was machined too deeply in the block. This machining discrepancy will result in premature distributor upper bushing failure and/or seizure because there is not a proper

surface for the distributor gear to thrust against.

If a distributor upper bushing failure should occur, it is most important that the block machining be checked according to the five-point procedure outlined in the article.

(TSB 70 - 6/23/67 - Article 1105)

DISTRIBUTOR DUAL DIAPHRAGM ASSEMBLY

(1968 So-Equipped Units Built Prior to September 6, 1967)

A quantity of dual diaphragm distributors in vehicles built prior to September 6, 1967 did not have the dual diaphragm mechanism securely attached to the distributor assembly. This problem is caused by inadequate torque of the two attaching screws and under adverse conditions of vibration could cause the diaphragm mounting boss to fail.

Units with this retention problem can be identified by physically checking for vertical looseness of the diaphragm with respect to the distributor assembly. Diaphragms which are loose should be corrected by backing out the attaching screws one turn and retightening them to 20-35 in.-lb. torque.

A quick check of units built prior to September 6, 1967 for this problem at pre-delivery or during normal service will insure troublefree distributor performance.

(TSB 77 - 10/13/67 - Article 1168)

DISTRIBUTOR - ADJUSTMENT OF INITIAL ADVANCE

(All Engines With IMCO or Thermoator)

Higher idle speeds necessary for exhaust emission control require additional caution in setting the initial advance, especially on units equipped with dual diaphragm distributors. Distributor advance characteristics for emission control engines are such that it is possible to have partial centrifugal advance at engine speeds of 700 rpm. Because of this partial advance, the following procedure is recommended:

- Disconnect vacuum line(s) at distributor.

- Check rpm, if over 650 rpm, reduce to 650 rpm.
- Adjust initial advance to 6° BTDC.
- Reconnect vacuum lines and readjust idle speeds as required.

PARTS: None.

WARRANTY STATUS: INFORMATION

(TSB 117 - 6/13/69 - Article 1833)

Ignition Wiring, Coil, and Switches

ELECTRICAL MALFUNCTION - ENGINE WILL NOT START, ELECTRICAL COMPONENTS INOPERATIVE

(All Car Lines and Light and Medium Trucks, 1968-69)

This problem can be caused by a poor electrical connection at the ignition switch or at the multiple connector behind the fuse box on some 1968 and 1969 vehicles. Remove the suspected connector, and inspect for spread female terminals (especially at the large terminals) and signs of a poor electrical connection (blackened terminals, melted or cracked plastic, etc.). If a female terminal is spread and there is no evident damage, carefully reshape the terminal with a small screwdriver or terminal removal tool as shown in Figure 2 in the main article and carefully reassemble the connector.

NOTE: Do not twist or tilt connector during reassembly for this will result in spread terminals.

Damaged terminals or wiring should be replaced. Replacement parts will soon be available and a TSB will be published at a

later date covering this repair.

PARTS: None.

Production Correction: 3/69.

(TSB 111 - 3/14/69 - Article 1704)

ELECTRICAL MALFUNCTION - ENGINE WILL NOT START, ELECTRICAL COMPONENTS INOPERATIVE (ADDITION TO TSB 1704)

(All Car Lines, Light and Medium Trucks, 1968-69)

As indicated in TSB Article 1704, inoperative or intermittent electrical components can be caused by a loose electrical connection at the ignition switch. This loose connection may result in damage to the switch and wiring connector. The wiring connector should be replaced, as outlined below, on units that exhibit connector damage.

PARTS:

Part Number	Name	Class	Avail.
C9AZ-14313-A	Wire Assy. Ign. Feed	B	OK

PRODUCTION CORRECTION: February 1969.

WARRANTY STATUS: REIMBURSABLE

Operation: SP-14313-A

Time: 0.8 Hr.

(TSB 115 - 5/16/69 - Article 1799)

ELECTRICAL MALFUNCTION - ENGINE WILL NOT START, ELECTRICAL COMPONENTS INOPERATIVE (ADDITION TO TSB 1704)

(Ford 1969)

As indicated in TSB Article 1704, inoperative or intermittent electrical components can be caused by a loose electrical connection for the main power feed at the multiple connector behind the fuse box. If the affected terminals cannot be satisfactorily repaired by resizing, the multiple connector should be bypassed using a jumper wire as outlined in the main article and illustrated in Figure 8.

PARTS:

Part Number	Name	Class	Avail.
C9AZ-14A411-A	Wire Assy. Main Jumper	B	OK

PRODUCTION CORRECTION: February 1969.

WARRANTY STATUS: REIMBURSABLE

Operation: SP-14411-A-69

Time: 0.5 Hr.

(TSB 118 - 6/27/69 - Article 1860)

SPARK PLUG HIGH VOLTAGE WIRES

(All)

A majority of replaced spark plug high voltage wires returned through the Warranty Parts Return Center are found to be non-defective. These wires are usually replaced because of a system related problem or complaint. This article contains a brief procedure to definitely determine if a spark plug wire replacement is required to correct or assist in the correction of a customer complaint.

(TSB 57 - 1/6/67 - Article 976)

PINCHED DISTRIBUTOR PRIMARY WIRE

(All 1969 Vehicles Built Prior to October 11, 1968 Utilizing the 351-2V CID Engine)

The cause for a "no run" or "no start"

condition on vehicles built prior to October 11, 1968, and having a 351-2V engine may be traced to a shorted primary coil wire. The shorted condition is the result of chaffing away of the wire insulation on the engine block or distributor housing as a result of the fuel line routing. An improved fuel line routing has resulted in additional clearance eliminating the probability of wire chaffing on units built after October 11, 1968.

As new units are pre-delivered it may be beneficial to check if there is adequate wire clearance in the area of the distributor. Should units be found with the primary coil wire pinched or chaffing, it should be disconnected at the coil and routed around and forward of the distributor. Chaffed wires should be taped to eliminate any further chaffing or possibility of shorting.

(TSB 104 - 12/13/68 - Article 1594)

Spark Plugs

CHANGE IN SPARK PLUG USAGE

(1967 390-4V, 410, and 428 CID Engines)

The spark plug recommendation for 1967 390-4V, 410, and 428 C.I.D. engines (except police interceptor) has been changed from BF42 to BF32. On normal replacement only, BF32 plugs should be used for the above engine types. This change was effective at the engine plant April 3, 1967.

(TSB 77 - 10/13/67 - Article 1175)

PREMATURE SPARK PLUG FOULING

(All 1968 302, 390 and 428 CID Engines Except the 390-4V GT, 428 Police Interceptor and 428 Cobra-Jet Packages)

The specified spark plug for all 1968 302, 390 and 428 CID Engines except the 390-4V GT, 428 Police Interceptor and 428 Cobra-Jet packages has been revised from Autolite model BF-32 to BF-42.

This change, in response to complaints of premature spark plug fouling in cold weather applications, was effective at engine assembly plants approximately April 1, 1968.

Please revise all specification booklets and other spark plug application references to reflect this change.

(TSB 90 - 4/19/68 - Article 1355)

SPARK PLUG REMOVAL

(1968 Fairlane and Mustang Units with 390, 427 or 428 C.I.D. Engine Packages)

The spark plugs and associated plug secondary wires are difficult to remove on 1968 Fairlane and Mustang units equipped with "FE Series" (390, 427, 428) engines. The main article provides a general procedure to minimize the time required to perform this operation.

(TSB 90 - 4/19/68 - Article 1362)

SPARK PLUG USAGE - LIGHT TRUCK - 1968-70 AND ECONOLINE 1969-1970

(All Wm 302, 360, 390 CID Engine)

The change to BF-42 spark plugs on Car engines does not apply to Light truck engines. Due to heavier load requirements of Truck engines, the BF-32 or BTF-31 plugs are required for correct performance and durability. Indiscriminate changing of spark plugs from BF-32 to BF-42 on Light trucks could result in engine damage. Under conditions of extended idle periods with subsequent fouling, the BF-42 may be substituted to obtain customer satisfaction.

PRODUCTION CORRECTION: None.

WARRANTY STATUS:

INFORMATION ONLY

(TSB 126 - 11/7/69 - Article 1994)

CHARGING SYSTEM

Charging System General Service

CORRECTION TO 1968 FORD-MERCURY AND COUGAR, FAIRLANE, FALCON, MONTEGO AND MUSTANG SHOP MANUALS

(Ford, Fairlane, Falcon, and Mustang)

This article corrects typographical errors in Group 13, of the 1968 Ford, Mercury, and the Fairlane, Falcon, and Mustang Shop Manuals.

(TSB 84 - 1/26/68 - Article 1267)

ALTERNATOR AND BELT SPLASH SHIELDS

(W Series Trucks with Detroit Diesel 8V-71 Engines Standard Cab Only)

For customer complaints of contaminants entering the alternator, belt and alternator shields are available in depot stock for the subject vehicle with Detroit Diesel 8V-71 engine. Refer to complete article for parts and installation sketches.

(TSB 97 - 8/30/68 - Article 1471)

ELECTRICAL SYSTEM DIAG- NOSTIC TIPS

Radio Antenna - 1970 Thunderbird

To determine if a problem exists with the antenna system, use a known quality conventional wand antenna as a substitute. Since there are two parts in the antenna system, windshield portion and lead-in cable, you can determine which portion is causing the problem by first connecting the test antenna to the radio (point A, Figure 8) and then to the lead-in cable (point B, Figure 8).

If radio does not play OK with test antenna at point A, you can assume that the antenna system is OK, further radio system diagnosis is required (refer to Car Diagnosis Manual).

If radio plays OK with test antenna at point A, check operation at point B.

If radio does not play OK with test antenna at point B, lead-in cable replacement should correct problem.

If radio plays OK with test antenna at point B, then windshield portion is at fault and will have to be replaced.

Overhead Safety Convenience Panel or Exterior Lights Malfunction - 1970 Thunderbird (2-Door Models with Safety Convenience Only)

The wiring to the overhead safety convenience panel can be shorted by screws used to retain the left quarter window garnish moulding or coat hook. Check this area when encountering peculiar malfunctions with the overhead convenience lights, exterior lights, or accessories which indicate that a short to ground exists (convenience lights stay on, lights circuit breaker trips, accessories operate with lights on, etc.). If the malfunction is with the exterior lights or accessories, try disconnecting the wiring to the overhead convenience panel to see if the problem goes away (connection is behind rear seat, accessible through trunk).

Engine Gauges Erratic - All Car Lines

A poor body to engine ground can cause erratic gauge reading or peculiar malfunction of electrical components associated with the engine. Use a separate jumper to provide a good body to engine ground. If the problem is corrected using the jumper, check the body to engine ground for looseness or poor terminal to wire contact.

**WARRANTY STATUS:
INFORMATION ONLY**

(TSB 128 - 12/5/69 - Article 2022)

Battery

BATTERY CARRIER CRACKING

(1966-67 W Models with Two 12 Volt or Four 6 Volt Batteries)

Some reports have been received advising that the battery carrier on the W series trucks crack due to vibration.

The complete article outlines a field fix which will provide additional support to the battery carrier.

This fix should be used when problem is encountered.

(TSB 71 - 7/14/67 - Article 1124)

Alternator

ALTERNATOR MOLDED CIRCUIT BOARD WITH LOCKING MOUNTING SCREW

(All Vehicles with Autolite Alternators)

Field information indicates that some dealers are not aware that two different type circuit boards are contained in Autolite alternators. The two types are the molded circuit board and the printed circuit board. The method of removal of the two circuit boards is not the same. When removing and installing the molded circuit board, the retaining screw must be turned to match the slotted holes in the circuit board. Refer to main article for additional information.

(TSB 63 - 3/31/67 - Article 1034)

LEECE-NEVILLE 65 - AMPERE ALTERNATOR FRONT BEARING

(Medium, Heavy and Extra-Heavy Truck)

A new front bearing is available for the 65 ampere Leece-Neville alternator. The new bearing incorporates an improved grease and the use of better seals to retain the grease within the bearing.

(TSB 84 - 1/26/68 - Article 1256)

ALTERNATOR RECTIFIER KIT - NEW INTEGRATED DESIGN

(Thunderbird 65 Ampere Alternators)

A new rectifier assembly will be used in some 55-ampere alternators. Use the revised procedure given when servicing this alternator rectifier. Follow the 1969 Shop Manual procedure when servicing Thunderbird alternators that use the older rectifier assembly.

To distinguish between the old and the new rectifier, look for the dull black paint covering on the new rectifier. The older rectifier has a plated metal finish.

PARTS:

Part No.	Name	Class	Avail.
CSAZ-10304-B	Alternator Rectifier Kit	A	OK

PRODUCTION CORRECTION: 3/69.

(TSB 112 - 4/4/69 - Article 1736)

INTEGRAL REGULATOR VOLTAGE LIMITER TEST AND ALTERNATOR OUTPUT TEST

(Thunderbird and Mark III)

The main article gives a complete procedure for the Integral Regulator Voltage Limiter Test and the Integral Regulator Alternator Output Test. Use these two procedures when checking voltage limiting and alternator output of the integral regulator charging system as the shop manual procedures are incomplete.

(TSB 118 - 6/27/69 - Article 1862)

ALTERNATOR REPLACEMENT VERSUS REPAIR PROCEDURE

(All Vehicles Equipped with Alternators)

Analysis of returned alternator assemblies reveals that nearly all of the alternators could have been made fully serviceable by replacement of one or two electrical components, i.e., rotor stator, rectifier or brushes. Generally, the only case where an alternator assembly replacement is required are those rare instances where extensive mechanical damage had occurred to the rotor and stator.

Dealers are urged to review alternator replacement practices with all responsible personnel as debits are being initiated when the alternator is inspected and it is determined that repair of the alternator would have been more economical than replacing the assembly.

(TSB 119 - 7/18/69 - Article 1880)

ALTERNATOR ROTOR DIAGNOSIS

(All Vehicles with Alternator)

Analysis of returned alternator rotors indicates that more than half are non-defective. A suspected rotor should be checked by positioning the probes of the Rotunda Ohmmeter (ARE-27-42) on the slip-rings. The meter "Multiply by" switch should be set to the "1" position and a reading of 4 or 5 indicates a good rotor. A higher reading indicates a defective soldered connection at the slip-ring tangs, or a broken wire. A lower reading indicates a shorted wire in rotor. The slip-ring assembly can also be shorted at the tangs or soldered lugs bent down and ground against the shaft. Excess solder can cause one of the tangs to short to ground.

PRODUCTION CORRECTION: August, 1967.

(TSB 120 - 8/1/69 - Article 1905)

Regulator

SERVICING THE AUTOLITE INTEGRAL ALTERNATOR VOLTAGE REGULATOR

(1969 Thunderbird)

The new integral alternator voltage regulator used on the 1969 Thunderbird charging system incorporates a solid state integrated circuit which requires a different diagnosis approach from that normally used on mechanically regulated charging systems.

Problems may be encountered in the following areas:

- Incorrect diagnosis using a voltmeter for battery drain checks.
- Erratic operation due to poor connection in the alternator exciter circuit.
- Regulator circuit damage due to vehicle voltage surges.

Refer to the main article for correct diagnosis procedures and illustration.

(TSB 103 - 11/29/68 - Article 1572)

INTEGRAL REGULATOR VOLTAGE LIMITER TEST AND ALTERNATOR OUTPUT TEST

(Thunderbird and Mark III)

The main article gives a complete procedure for the Integral Regulator Voltage Limiter Test and the Integral Regulator Alternator Output Test. Use these two procedures when checking voltage limiting and alternator output of the integral regulator charging system as the shop manual procedures are incomplete.

(TSB 118 - 6/27/69 - Article 1862)

Wiring — Charging System

INADEQUATE BATTERY CABLE TERMINATION

(All 1968 Vehicles Built Prior to November 15, 1967)

Field reports indicate that in some cases, customer complaints of slow starter cranking is caused by a poor connection (high resistance) between the battery cable and the cable eyelet.

When encountering customer complaints of slow or no starter cranking, assure the following before attempting other repairs:

1. Check battery state of charge - recharge if necessary.
2. Check all cables for loose and/or corroded connections - clean and tighten connections as necessary.
3. Disconnect and ground the high tension lead from the ignition coil.
4. Connect the positive lead of a voltmeter to the battery positive battery post terminal and the negative lead to the cable eyelets at the starter relay.
5. With the engine cranking, flex the cable and observe the voltmeter.
6. Perform the above test on both the negative and positive battery cables - if the needle fluctuates or the reading is in excess of 0.1 volts, replace the cable.

The main article contains an illustration showing the proper voltmeter connections for testing the cable resistance.

(TSB 86 - 2/23/68 - Article 1292)

BATTERY CABLE CHAFING ON BATTERY TRAY EDGE

(1967 Corvair)

Reports have been received advising that electrical system shorts in some cases can be traced to the battery cable being chafed. This problem is caused by the cable rubbing against the battery tray. To resolve this problem, effective with November 1967 produced units, a plastic wiring clip was installed in the side fender apron to retain the cable.

When servicing units built prior to November 1967 check cable routing to be certain that the chafing condition is not present. To prevent cable chafing install a plastic wiring clip (Part No. 113899-ES) to the side apron. The main article contains a step by step procedure and an appropriate illustration.

(TSB 90 - 4/19/68 - Article 1357)

ALTERNATOR REGULATOR DAMAGE CAUSED BY IMPROPER WIRING HARNESS ROUTING

(All 1968 Vehicles)

Field reports indicate that in some cases multiple alternator regulator failures have resulted from pinched, cut or burned wires caused by improper routing of the wiring harness. To prevent recurring regulator failures the wiring harness between the alternator and regulator should be carefully inspected during any repair involving the charging system, to be certain that it is routed properly.

The main article contains more specific instructions and an illustration showing the proper harness routing.

(TSB 91 - 5/3/68 - Article 1372)

SHORTED ALTERNATOR WIRING

(All Cars and Light Trucks Equipped with V-8 Engines)

A plastic coated metal clip is used to hold the alternator wiring harness to the alternator. If the plastic coating does not satisfactorily cover the edges of the clip, it is possible for the wiring harness to become chafed and shorted on the clip.

To prevent possible wiring shorts in this area, the coated metal clip will be replaced

with a nylon clip as a running change.

During vehicle pre-delivery inspect the alternator harness clip to assure that it is adequately coated and is not cutting into the alternator harness. If clip replacement is required, use the new nylon clip, Part No. 376188-S.

(TSB 104 - 12/13/68 - Article 1578)

ELECTRICAL SYSTEM FUSE LINK - NEW FEATURE

(All Car Lines and Light Trucks, 1969)

A fuse link (piece of wire designed to act as a fuse) has been installed in the power circuit wiring on all vehicles except medium and heavy trucks. Two fusing systems are used, one affects the charging system only, the other affects the entire vehicle. The fuse link is designed to protect the alternator diodes and vehicle wiring from excessive heat caused by a reversed polarity booster battery connection, and to protect the power circuit wiring from grounds or short circuits.

On vehicles that have a fuse link in the charging circuit (Ford, Fairlane, Falcon, Bronco, Parcel and Light Truck with R.P.O. ammeter), a "blown" fuse link will cause the charge indicator to indicate a failure. The fuse link is located between the starter relay and the alternator.

Vehicles that have the fuse link located in the power-feed circuit (Mustang, Thunderbird, Econoline, Light Truck with warning light) will appear to have a dead battery when the fuse link "blows". The fuse link is connected to the battery terminal at the starter relay.

Detailed repair procedures will be published in a later issue.

PRODUCTION INCORPORATION: 4/69.

(TSB 115 - 5/16/69 - Article 1798)

FUSE LINK - CHARGING CIRCUIT

(All 1969 Cars Except Thunderbird, All Light Trucks, 1970 Maverick.)

The fuse link is a short length of insulated wire integral with the engine compartment wiring harness. It is several wire gages smaller than the circuit that it protects. Production fuse links are black. Service fuse links are green or black depending on usage. All fuse links have the words FUSE LINK printed on the insulation.

A burned out link will generally have bare wire ends protruding from the insulation, or it may only have expanded or bubbled insulation with illegible identification. If it is hard to determine if the link is burned out, perform a continuity test (see main article). **Do not puncture the fuse link insulation.** Replace the fuse link by the procedure given if the link burns out.

PARTS:

Part Number	Description	Class	Avail.
C9AZ 14526 D	Fuse Link	A	OK
C9AZ 14526 E	Fuse Link	A	OK

APPLICATION:

Part Number	Color	Usage
C9AZ 14526 D	Green	Ford, Fairlane & Falcon vehicles with 55 or 65 ampere alternators. All Mustangs Parcel Delivery Trucks
C9AZ 14526 E	Black	Ford, Maverick, Fairlane & Falcon All light trucks, including Bronco (except Parcel Delivery), 38, 42, 45 ampere alternator

PRODUCTION: 4/69.

WARRANTY STATUS: REIMBURSABLE

Operation: SP-14094-A-69

Time: 0.4 Hr.

(TSB 116 - 5/30/69 - Article 1814)

AMMETER NOT SHOWING CHARGE - W SERIES TRUCK

(1967-70 W-WT-1000-D Trucks)

Check first for an open or disconnected wire connection between the alternator and the voltage regulator. Use the corrective pro-

cedure in the main article and Figure 6 if wire is disconnected.

PARTS:

Part Number	Part Name	Depot	Qty.	Avail.
C9AZ-14487-D	Wire Butt Connector	C	1	OK

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: SP-14448-B-69

Time: 0.3 Hr.

DLR CODING: Basic Part No. 14487 - Code No. 28.

(TSB 124 - 10/10/69 - Article 1964)

AMMETER NOT SHOWING CHARGE - F & B SERIES TRUCK

(1967-69 F & B 500-700 Trucks)

Check first for an open or disconnected wire connection between the ignition switch and the voltage regulator. Use the corrective procedures in the main article and Figures 7 and 8 if wire is disconnected.

PARTS:

Part Number	Part Name	Depot	Qty.	Avail.
B9A-14487-A	Wire Butt Connector	B	2	OK

PRODUCTION CORRECTION: September 29, 1969.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: SP-14448-A-69

Time: 0.4 Hr.

DLR CODING: Basic Part No. 14487 - Code No. 28.

(TSB 124 - 10/10/69 - Article 1965)

LIGHTS, HORNS, WIRING, AND INSTRUMENTS

Wiring General Service

TRUCKS EQUIPPED WITH HEAVY CURRENT DRAW ACCESSORIES

(All Trucks)

With the installation of Heavy Current Draw Accessories such as snow plows, lift gates, winches, etc. a sufficient capacity ground circuit to carry the heavy operating current should be provided. The recommended ground is a six (6) gauge cable routed from either the accessory motor to a ground on the engine or from the engine to the body sheet metal. Either of these two grounding methods will prevent possible electrical failures.

(TSB 64 - 4/7/67 - Article 1041)

INADEQUATE GROUND WIRE SIZE

(1968 Bronco with Electric-Hydraulic Lift Kit No. C&T-19E537-D)

A 12 gauge ground wire, engine to sheet metal, is used with production installed accessories and does not have required capacity for the high current flow experienced with the electric-hydraulic lift snow plow accessory kit.

It is imperative that a 6-gauge ground wire be installed from the engine to the electric motor to ensure a ground circuit capacity capable of handling the heavy operating current required for the plow lift.

or
If a Bronco equipped with a plow is returned to a dealer for replacement of a -14305-Wiring Assembly, install the following part on the vehicle:

C3DZ-14431-A - Wiring Assembly

Class C

Attach one end to engine ground boss and route the other end through the grille to one of the electric motor mounting bolts.

(TSB 93 - 5/31/68 - Article 1407)

INTERMITTENT OR INOPERATIVE ELECTRICAL COMPONENTS

(1967 Ford)

Problems of intermittent or inoperative electrical components may be due to inadequate retention of the related terminal pin in its hard plastic connector (refer to Group 19, 1967 Ford and Mercury Shop Manual for wiring diagrams). This condition was corrected in production during mid-March by increasing the retaining lance height, thereby providing more positive terminal retention.

When diagnosing complaints of intermittent or inoperative electrical components inspect for continuity across the appropriate hard plastic connector and reinsert any terminals that are found to be inadequately retained (to assure adequate retention after re-insertion carefully raise the retaining lance on the side of the terminal approximately 1/16").

(TSB 70 - 6/23/67 - Article 1110)

NEW DESIGN NEUTRAL SWITCH REPLACEMENT

(1967 Thunderbird - June Build)

A new design neutral switch identified by its crescent shape and a white paint daub, was installed on 100 early June built 1967 Thunderbirds. In the event customer complaints of neutral switch malfunction are encountered replace the switch and actuator lever with the conventional parts, C7S2-7A247-B neutral switch and C7A2-7B097-B actuating lever, as outlined in the 1967 Ford Thunderbird Shop Manual, Page 7-26. When replacing the switch, remove the short piece of 1/4" rubber hose and the nylon reducer from the emergency brake release vacuum line so that the line can be attached to the replacement switch.

(TSB 72 - 7/28/67 - Article 1128)

CRIMPING TOOL

(All Car Lines - 1966 and Up)

A new inexpensive (\$19.95) solderless wire and crimping tool (T675-17018-A) replaces expensive (\$54.00) model for all lines.

(TSB 77 - 10/13/67 - Article 1172)

PLUG-IN CONNECTION - ENGINE WIRING ASSEMBLY TO MAIN LOOSEMOUNT

(C & CT Series)

If complaints are encountered concerning the plug-in connection working loose between the dash to engine wiring assembly and main loom assembly (behind the grille), a retaining clip can be added to secure the engine wiring assembly. The main article describes the procedure for adding the clip.

(TSB 96 - 8/2/68 - Article 1458)

IMPROVED ACCESSORY RELAY ASSEMBLY

(1967-68 W Series Trucks Built Since Serial No. A84000)

An improved accessory relay assembly part No. C7TZ-13A435-C, Class CQ, replaces the part No. C7TZ-13A435-B to minimize relay terminal flexing on the subject vehicles as outlined in Article 1308, Technical Service Bulletin No. 87. This revised relay which mounts on the console or incorporates reduced wire gauge and lengthened wiring leads.

(TSB 101 - 11/1/68 - Article 1528)

ENGINE COMPARTMENT ELECTRICAL JUNCTION BLOCK ASSEMBLY

(1966½ - 1968 W Series Trucks)

A new electrical junction block assembly, part number C7TZ-14448-C, which has improved connector staking became effective in subject vehicle production May 9, 1968.

This new electrical junction block assembly replaces part number CSVY-14448-A and is now available for service. Refer to the article for location of the junction block assembly.

(TSB 101 - 11/1/68 - Article 1532)

Exterior Lights and Horns

HEADLAMP BULB - SPECIAL TOOL

(1967 Ford Products)

Easily fabricated tool to remove and install headlamp bulb and vacuum operated headlight door retaining springs.

(TSB 59 - 2/10/67 - Article 996)

HEADLAMP BULB BREAKAGE

(1966-1967 Ford and Fairlane - All Models)

Headlamp bulb breakage caused by excessive pressure at the indexing lugs was corrected in production on November 2, 1966 by the addition of tape to the ball ring indexing notches. The field correction consists of applying two layers of friction tape to the indexing notches whenever a headlamp bulb is replaced in service.

(TSB 60 - 2/24/67 - Article 1001)

INOPERATIVE TRANSISTORIZED TURN SIGNAL FLASHER

(All 1967 F100-350)

Instructions for isolating the cause of inoperative turn signal flasher and conversion to a conventional flasher assembly are contained in the article.

(TSB 64 - 4/7/67 - Article 1039)

RELOCATION OF STOPLAMP RELAY

(1967 Thunderbird Vehicles with Speed Control Built after February 7, 1967)

The stoplamp relay required on speed control equipped units has been relocated from the luggage compartment cocoon to the speed control mounting bracket to facilitate service and production procedures. The revised mounting bracket is located forward on the left front fender apron in the engine compartment.

The circuitry of the system remains unchanged and the Thunderbird Shop Manual can be consulted for the wiring diagram.

(TSB 70 - 6/23/67 - Article 1104)

INOPERATIVE STOP LAMP SWITCHES

(1967 Econoline, P-350 and P-500, All Models - Except Air Brakes)

This article is to advise dealers on the procedures to be followed in the replacement of stop lamp switches, including those that were subject to road splash and other corrosive elements, resulting in their subsequent failure.

(TSB 76 - 9/29/67 - Article 1164)

CORRECTION TO T.S.B. ARTICLE #1164 - BULLETIN #76 - DATED SEPTEMBER 29, 1967 - INOPERATIVE STOP LAMP SWITCHES

(1967 Econoline P-350 and P-500 - All Models except Air Brakes)

This article corrects the parts list shown in Article #1164. The replacement procedure is not affected and remains the same.

(TSB 78 - 113/67 - Article 1191)

HEADLAMP ALIGNMENT

(All Trucks)

All trucks must have headlamps realigned after body installation or modification at an equipment company.

(TSB 78 - 11/3/67 - Article 1184)

INTERMITTENT ILLUMINATION OF FRONT FENDER CORNERING LAMPS

(1968 Thunderbirds Equipped with This Option)

Customer complaints of intermittent illumination of the front fender cornering lamps have been received on some early built 1968 model Thunderbirds. This problem is attributed to an inadequate electrical ground for the bulb circuit and was corrected on units built after November, 1967 by the installation of a jumper wire between the fender apron and the lamp body. The installation of a similar jumper wire will correct customer complaint vehicles built prior to the above date.

(TSB 79 - 11/17/67 - Article 1209)

STOP LIGHTS REMAIN ILLUMINATED

(All 1968 Model Car Lines)

Customer complaints of stop lights remaining illuminated when pressure is released from the brake pedal have been received on some 1968 model vehicles. This problem may be due to a stop light switch binding condition caused by excessive side pressure applied by the switch retaining pin or missing nylon spacers (there should be a spacer on each side of the switch).

This problem was corrected in production in mid-November by assuring correct installation of the nylon spacers and by installing a new switch retaining pin.

To insure against unnecessary switch replacement on vehicles displaying the problem outlined above, inspect for correct installation of the nylon spacers (one on each side of switch) and check to see that the retaining pin is not causing a switch binding condition. Install any missing nylon spacers (Part No. C5DZ-2B129-A lubricated by dipping in SAE 10W oil) and replace the retaining pin with a new pin (Part No. 382797-S100) to correct any binding condition.

(TSB 81 - 12/8/67 - Article 1230)

STOPLAMPS REMAIN ILLUMINATED

(1966, 1967 and 1968 Thunderbirds Equipped with Speed Control)

A modified, heavy duty, stop lamp relay (part number C7S2-13482-B) is available for use when encountering customer complaints of stoplamps remaining illuminated. This new relay can be used on vehicles built prior to February, 1967, with the relay located in the turn signal "cocoon", by reworking the relay mounting bracket as shown in the main article.

(TSB 90 - 4/19/68 - Article 1359)

BACK-UP LIGHT SWITCH ADJUSTMENT

(1967 and 1968 Model C Cortina)

The following procedure should be used to adjust the transmission mounted back-up light switch on GT models when customers complain of difficulty in engaging reverse gear.

1. Disconnect battery.
 2. Disconnect wires to back-up light switch.
 3. Loosen switch lock nut and turn switch counter-clockwise a few turns.
 4. Place transmission into Reverse.
 5. Connect self-powered test light to switch wires and carefully turn switch clockwise until light comes on.
- NOTE: Turning switch too far into transmission may result in switch damage and difficulty in placing transmission into Reverse.
6. Turn switch a half turn further and tighten lock nut.
 7. Reconnect switch wires and battery and check switch operation.

(TSB 86 - 2/23/68 - Article 1287)

REVISED PROCEDURE AND SCHEDULED TIME FOR REPLACING THE HEADLIGHT COVER MOTOR

(1968 Ford)

The Shop Manual procedure was based on the early 1968 headlight cover motor which was smaller than the present unit released. The main article gives the revised procedure for the larger present production unit. The revised time is 0.7 hours.

(TSB 91 - 5/3/68 - Article 1382)

BACK-UP LIGHTS INOPERATIVE

(All Model "C" Corvairs Except Station Wagon)

Reports from the field indicate that it is possible for the jack to pinch and short the back-up light wiring resulting in inoperative back-up lights.

This problem was corrected in production. February, 1968, by installing a wiring protection bracket to the right side back-up light attaching bolt and adding an in-line fuse.

When encountering customer complaints of inoperative back-up lights or when a vehicle is in for routine service, inspect the right side back-up light wiring to insure that it is properly routed and protected as illustrated in the main article. If the protective bracket and fuse are not installed, these parts, 121E 13K007 in-line Fuse Assembly and 3015E 15K505 A Bracket, are available for installation on a customer complaint basis.

(TSB 94 - 6/21/68 - Article 1428)

EXTENSION ADAPTORS TO FACILITATE HEADLAMP ALIGNMENT

(1969 Mustang - All Models)

Body front end sheet metal styling does not permit the "Hopkins" type mechanical headlamp aimer to be used on 1969 model Mustangs. Therefore, two extension adaptors are being provided in a special envelope in the luggage compartment of every 1969 model Mustang. These adaptors, when fitted into the "Hopkins" type aimer will extend the equipment forward and enable dealerships, state inspection stations and other service locations to align the headlamps.

NOTE: These adaptors are for the "Hopkins" type mechanical aimers only and are not to be used on Rotunda or other type headlamp alignment equipment.

(TSB 98 - 9/13/68 - Article 1479)

HORN BUTTON EXCESSIVE EFFORT

(1968 F, N, B, C 500-1000 and W Series Trucks)

To correct complaints of high efforts to actuate the horn button on subject vehicles, horn button spring CODF-13A807-B, Class B, a 5-7 lb. spring can be used to replace the presently used 19-22 lb. spring.

(TSB 104 - 12/13/68 - Article 1592)

CORNERING LAMP CIRCUIT PROTECTION (FUSE)

(All 1969 Thunderbirds)

The circuit protection (fuse) for the fender mounted cornering lamps is provided by the same fuse used for the speed control and seat belt warning light systems. The information on the fuse panel cover incorrectly calls for a 4 amp fuse to be used for these circuits. A 4 amp fuse is not large enough to carry the load for all three systems, therefore, a 15 amp fuse should be used.

As a running change, the fuse cover will be modified to state the correct fuse usage and to make it easier to read.

The main article illustrates the fuse panel and the proper size fuse for each circuit.

(TSB 109 - 2/14/69 - Article 1672)

HORN - FAILS TO OPERATE

(1969 Econoline)

1. Check circuit continuity by physically grounding the small flex joint pin to the steering shaft flange. Poor conductivity may be caused by heavy phosphate coating on the shaft flange, therefore, it is important that a positive ground be made when checking for horn operation.

2. Visually check if the copper ground strap is intact. If the ground strap is intact and the horn operates when grounded, loosen the two flex joint to shaft flange nuts and re-torque to 12-16 ft. lbs. This operation will assure positive grounding of nut to shaft flange.

3. If the ground strap is broken, install a new flex joint assembly.

PARTS: Before Serial D68001 Use C67Z-3A525-B. After Serial D68001 Use C8UZ-3A525-B.

WARRANTY STATUS: REIMBURSABLE
Operation: SP-3525-A-69
Time: 1.0 Hr.

(TSB 110 - 2/28/69 - Article 1694)

HORN SWITCH REPLACEMENT - THREE SPOKE - RIM-BLOW

(All 1969 Passenger Cars So Equipped)

The rubber horn switch insert for the "rim-blow" steering wheel has been released as a service part. Therefore, it is no longer necessary to replace the complete steering wheel to correct a malfunctioning horn switch. Horn switch replacement is outlined below.

PARTS:

Qty.	Part No.	Name	Class	Avail.
1	C9AZ-13A875-C	Horn Switch Insert	C	OK

WARRANTY STATUS: REIMBURSABLE
Operation: SP-13875-A-69
Time: 0.4 Hr.

(TSB 115 - 5/16/69 - Article 1800)

HEADLAMP BULB BURNED OUT DUE TO ROAD SPLASH

(F & B 500-750 Trucks - 1967-69)

Seal existing open sheet metal holes in the radiator and front fender apron support assembly forward of front wheels with appropriate size sheet metal screws or body sealer material on a customer assistance basis.

Reference Figure 21 for radiator and front fender apron support location.

(TSB 115 - 5/16/69 - Article 1802)

THIS ARTICLE SUPERSEDES AND CANCELS TSB 1781 WATER ENTRY REAR LAMP ASSEMBLY - C, F, T, N & W SERIES TRUCKS

(1968-69 C, F, T, N & W Series Trucks)

Apply sealer into the open ends of the rear tail lamp wiring at the plastic sleeves to prevent possible water entry. Reference Figure 6.

PARTS:

Part Number	Part Name	Class	Avail.
C9AZ-19554-B	Liquid Windshield Sealer	A	6-1-69

WARRANTY STATUS: Reimbursable with in the provisions of the Warranty & Policy Manual.
Operation: SP-13465-B-69
Time: 0.3 Hr.

(TSB 116 - 5/30/69 - Article 1816)

TRUCK-TRAILER MARKER LAMPS STAY ON AFTER THE HEADLAMP SWITCH HAS BEEN TURNED OFF

(F, T, N, C and W Series Trucks - All 1968's Equipped With Seven Terminal Trailer Plug)

It is necessary to use the following procedure and Figures 13-17 to make changes in the truck wiring circuits. The marker lamps on the subject vehicles are not extinguished when the headlamp switch is turned off unless the marker lamp switch is actuated. This problem occurs when the tractor seven terminal plug is connected, using an adapter, to a trailer equipped with a six terminal receptacle, that has the tail lamp and marker lamp circuits connected together in the trailer wiring. This condition causes a back feed through the marker lamp relay coil and provides a battery feed to the tail lamp circuit keeping the marker lamps and tail lamps on when the headlamp switch is turned off. No parts are required for W Series modification.

PRODUCTION CORRECTION: August 15, 1968.

PARTS:

Part Number	Part Name	Depot	Avail.	Qty.
C5AZ-14294-B	Bullet Terminal	B	OK	3
B6A-14487-A	Double Connector Plastic Electrical Tape	B	OK	1

WARRANTY STATUS: Reimbursable with in the provisions of the Warranty & Policy Manual.

Operation: SP-14290-A-69
Time: 0.5 Hr.

(TSB 117 - 6/13/69 - Article 1835)

SPEED CONTROL AND HORN INOPERATIVE

(Ford With Speed Control - 1969)

Remove the steering wheel and inspect the speed control ground brush in the steering column for poor contact to the steering wheel contact ring. If the brush contact point is broken or the spring has wound up on the retaining clip, thereby providing insufficient spring pressure, the brush assembly should be replaced. Refer to the 1969 Car Shop Manual, Group 3 for steering wheel removal and installation.

PARTS:

Part Number	Name	Class	Avail.
C9AZ-9C899-A	Brush Assembly Speed Control	B	OK

WARRANTY STATUS: REIMBURSABLE
Operation: SP-9C899-A-69
Time: 0.4 Hr.

(TSB 117 - 6/13/69 - Article 1836)

REAR LIGHT BULBS

(Ford Station Wagons - 1969)

Use a double contact bulb No. 1157 (32-C.P.) in the upper portion of the rear light assembly for the tail stop and turn signal light. Use a single contact bulb No. 1095 (4 C.P.) in the lower portion of the rear light assembly for the lower taillight.

PARTS:

Part No.	Part Name	Class	Avail.
C8T2-13466-B	Double Contact No. 1157	Class A - OK	
C7T2-13466-A	Single Contact No. 1095	Class A - OK	

(TSB 118 - 6/27/69 - Article 1861)

ROOF MARKER LAMP LENS CRACKING

(1969 F, T, N, C, Series Trucks)

Replace cracked or missing roof marker lamp lens with the indicated part.

PARTS:

Part Number	Part Name	Depot	Avail.
C27Z-15464-A	Marker Lamp Lens Assy.	A	7/28/69

PRODUCTION CORRECTION: Approximately June 27, 1969.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: SP-15464-A-69
Time: 0.3 Hr.

DLR. CODING: 15464-01

(TSB 120 - 8/11/69 - Article 1906)

BENT HORN RING CONTACT PLATES

(All 1969 Passenger Cars With Horn Blowing Ring)

A bent horn ring contact plate may cause the horn to be self-activated. This is most likely to occur when the vehicle has been left to stand for a prolonged period of time in temperatures of 85° F and above.

Using needle nose pliers bend the horn ring contact plate to provide for .020" to .040" gap at the contact points.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: SP-13808-A-69
Time: 0.2 Hr.

DLR. CODING: Basic Part No. 13A808 - Code No. 02

(TSB 125 - 10/24/69 - Article 1975)

HEADLIGHT ADJUSTING BRACKET SCREW DISEN- GAGEMENT

(Light Trucks - 1970 Built Prior to 8-28-69)

Straighten Slot Tab and Re-Assemble Bracket to Outside of Grille Assembly.

PARTS: None.

PRODUCTION CORRECTION: 8-28-69.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: SP-13000-A-70 (Left and Right Sides)

Time: 0.7 Hr.

DLR. CODING: Basic Part No. 13032 - Code No. 37

(TSB 125 - 10/24/69 - Article 1976)

HEADLAMP DIMMER SWITCH STICKS OR BINDS

(Ford - 1969)

The headlamp dimmer switch has been revised to provide smoother operation. The new switch is available for service and is the only replacement part that should be used on the 1969 Ford.

PARTS:

Part Number	Name	Class	Avail.
COTZ-13A024-A	Switch Assy. - Headlamp Dimmer	A	OK

PRODUCTION CORRECTION: October 1969.

WARRANTY STATUS: Reimbursable under the provisions of the Warranty & Policy Manual.

Operation: 13024-A

Time: 0.3 Hr.

DLR. CODING: Basic Part No. 13A024 - Code No. 41

(TSB 125 - 10/24/69 - Article 1977)

HORN SWITCH INSERT DE- TERIORATION - THREE SPOKE RIM-BLOW

(All 1969 Passenger Cars Equipped with Three Spoke Rim-Blow Steering Wheel)

Experience in the field with use of the 1969 three spoke rim-blow horn has indi-

cated a need for certain precautions when cleaning or handling the rubber horn switch insert. Specifically, any solvent or cleaning agent that contains hydrocarbons should not be brought into direct contact with the rubber insert. Tests have shown hydrocarbons cause deterioration of the rubber insert material with possible loss of horn operation.

When it becomes necessary to clean the rim-blow steering wheel it is recommended only Ford triple clean all purpose cleaner (COAZ-19526-A) or its equivalent be used. If deterioration of the insert is present, the insert (C9AZ-13A875-C) may be replaced (see TSB No. 115, May 16, 1969). Replacement of the entire steering wheel is unnecessary.

The 1970 Rim-blow steering wheels do not have a replaceable horn switch insert, but the rubber material has been changed to prevent any possibility of deterioration.

WARRANTY STATUS:

INFORMATION ONLY

(TSB 128 - 12/5/69 - Article 2023)

Turn Signals

TURN SIGNAL FAILS TO CANCEL

(1967 F & B500-750)

The turn signal cancel cam used in these trucks, built prior to September 7, is incorrect and may cause no cancel of the turn signal after a completed turn.

On a complaint of none cancel of the turn signal put the vehicle in a straight ahead position and inspect the cancel cam by removing the steering wheel. The correct cam is color coded black.

If the cam is not black, make note of the cam tab position on the steering wheel, in relation to the wheel spokes, and replace with the correct cam Part Number C7TZ-13318-A. Reinstall steering wheel and check for correct turn signal canceling.

(TSB 64 - 4/7/67 - Article 1042)

INSTRUMENT PANEL TURN SIGNAL INDICATOR LIGHT REVISION

(All 1968 Model Thunderbirds Built After November 10, 1967)

All 1968 Thunderbirds built after November 10, 1967 will no longer be equipped with sequencing instrument panel turn signal indicator lights. Instead, the instrument panel turn signal indicator lights will function in a conventional manner. The left indicator light lens will blink when the left turn signal is activated and vice versa. Also, the center lens of the indicator panel has been blocked out so that no light will shine through at any time. No attempt should be made to modify the systems on these vehicles to obtain sequential operation.

Articles explaining the operation and problem diagnosis of both the old and new turn signal systems are scheduled for publication at a later date.

(TSB 79 - 11/17/67 - Article 1204)

REMOVAL OF TURN SIGNAL CONNECTOR

(All 1968 Carlines Except Thunderbird With Speed Control)

Some difficulty may be encountered in the field on all 1968 carlines, except Thunderbirds equipped with speed control, in removing the female terminals from the turn signal switch hard-shell connector at the lower end of the steering column. The correct tool for proper terminal removal is tool Part No. C4AZ-17018-B. The 1968 Thunderbird equipped with speed control retains the previous design hard-shell connector. For proper removal of this hard-shell connector, refer to TSB Article No. 77, dated December 7, 1964.

To remove the 1968 type female terminal, insert the tool, No. C4AZ-17018-B, as shown in Fig. 5, View A, into the hard-shell connector View B and C and depress the tang on the terminal. Once the tang is depressed, remove the terminal. To install the terminal, insert the

terminal into the hard-shell connector and pull on the wire to insure proper seating of terminal tang.

(TSB 80 - 11/24/67 - Article 1218)

TURN SIGNAL AND EMERGENCY SWITCH DIAGNOSTIC PROCEDURE

(All 1967 & 1968 Model Vehicles)

Turn signal switch or system problems have been encountered in the field during the past few model years. The purpose of this article is to assist technicians in quickly and accurately diagnosing the turn signal switch malfunction.

For the diagnostic procedure, refer to the complete article.

(TSB 80 - 11/24/67 - Article 1219)

INOPERATIVE TURN SIGNAL SWITCHES - FIXED AND TILT COLUMN

(All 1968 Car Lines)

The lubricant used as a corrosion preventive on the internal contact points of the hazard switch may act as an insulator between the points and cause turn signal malfunction.

To correct this problem in production, an improved lubricant was released which is less apt to exhibit this condition. This change, however, was not incorporated at a definite point in vehicle production as steering column assemblies are color keyed. Therefore some of these switches will still be found on present production units due to in-plant stock.

Before attempting any repairs to the switch or loom, the hazard switch "on and off" knob should be cycled a minimum of ten (10) times to assure that the contact points are clear of this lubricant.

(TSB 84 - 1/26/68 - Article 1263)

TURN SIGNAL INDICATOR LIGHT OPERATION AND PROBLEM DIAGNOSIS

(All 1968 Thunderbirds)

Field reports indicate that complaints of malfunctioning instrument panel turn signal indicator lights are being encountered on some 1968 Thunderbirds. The main article contains information to aid you in correcting customer complaint units. This information includes the following.

PART I - 1968 Thunderbirds Built Before Mid-November 1967 With Sequential Dash Light Indicator

- Explanation of system operation
- Problem diagnosis guide
- Updated wiring diagram

PART II - 1968 Thunderbirds Built After Mid-November 1967 Without Sequential Dash Light Indicator

- Explanation of system operation
- Problem diagnosis guide
- Updated wiring diagram

The updated wiring diagrams supersede the one appearing in the 1968 Wiring and Vacuum Diagrams Book (page 6-E7).

(TSB 84 - 1/26/68 - Article 1268)

TURN SIGNAL PROBLEM DIAGNOSIS

(1968 Thunderbird)

The 1968 Thunderbird turn signal system was revised in mid-November to eliminate the sequencing dash indicator light feature. To accomplish this revision many of the system parts were changed internally and although they look the same they are not interchangeable with early 1968 system parts or vice versa.

When encountering complaint units, inspect the turn signal system parts (indicator relay, flasher motor, and flasher relay) to make sure the correct parts are installed (see main article for a table identifying these parts). Also, on units with the revised system, inspect to see that the yellow and brown wires are removed from the green

plastic three wire connector located under the left side of the instrument panel. These two wires are not used in the revised system and should be insulated from one another. For further diagnostic aid, including updated wiring diagrams, refer to Technical Service Bulletin 84, article 1268.

(TSB 97 - 8/30/68 - Article 1459)

TURN SIGNAL INDICATOR SWITCH

(All Cortina Model "C" Units)

A new turn signal switch, Part No. 3015 E-13335-F (Class C), was released for production in May, 1968. It is now available as a service part for units built prior to that date in which the self-cancelling arm may have bent and/or broken off.

Refer to Main article for the correct replacement procedure.

(TSB 97 - 8/30/68 - Article 1468)

TURN SIGNAL SWITCH LEVER BROKEN/BENT - SUPERSEDES TSB 1639-32

(CORTINA)

Refer to the detailed procedure portion for the revised article.

PARTS:

Part No.	Name	Class	Avail.
3015E-13335-F	Turn Signal Switch	C	Yes

WARRANTY STATUS: Reimbursable under the provisions of the Warranty & Policy Manual.

Operation: SP-13319-A-68

Time: 0.3 Hr.

(TSB 113 - 4/18/69 - Article 1761)

WATER ENTRY INTO FRONT TURN SIGNAL LAMP ASSEMBLY - W SERIES

(1967-69 W-WT-1000-D Trucks)

PARTS:

Part Number	Part Name	Depot	Avail.
C3AZ-19562-B	Silicone Sealer	A	OK

PRODUCTION CORRECTION: August 19, 1969.

WARRANTY STATUS: Reimbursable with the provisions of the Warranty & Policy Manual.

Operation: SP-13368-A-69

Time: One - 0.3 Hr.; Both - 0.4 Hr.

DLR. CODING: Basic Part No. 13368 - Code No. 68

(TSB 125 - 10/24/69 - Article 1978)

Interior Lights

SEAT BELT WARNING LIGHT - REDUCTION IN ILLUMINATION TIME

(1967 - All Car Lines)

The illumination time of the seat belt warning light has been reduced on all 1967 car lines. The light should remain illuminated from 7 to 20 seconds, versus 30 to 150 for 1966 models. Customers may also note reduction in illumination time when restarting a vehicle after a period of continuous operation.

(TSB 58 - 1/27/67 - Article 986)

DEALER FABRICATED TOOL FOR BULB REMOVAL FROM CONVENIENCE LAMP SOCKETS

(All Model Years - All Car Lines - All Models)

Locally fabricated tool to facilitate bulb removal in restricted areas easily made from available material.

(TSB 71 - 7/14/67 - Article 1126)

DOOR AJAR SWITCH CORROSION

(1965-1967 All Car Lines So Equipped)

Malfunction of the door ajar warning system may be due to corrosion of the terminal arm of the latch-mounted door ajar switch. This problem can be corrected by replacing the corroded switch with one that has been dipped in red oxide rust inhibitor primer (paint should cover terminal arm and part of plastic block, remove paint from terminal arm contact point).

This problem was corrected starting with 1968 vehicle production by providing a similar protective coating on the switch terminal arm.

(TSB 74 - 8/25/67 - Article 1144)

CORRECTION TO BULLETIN NO. 74, ARTICLE NO. 1144 DOOR AJAR SWITCH CORROSION

(1965-1967 All Car Lines So Equipped)

The incorrect time was inadvertently supplied for the operation described in the article. Use operation number 21812-A (front door) or 26412-A (rear door) and the appropriate time from the Suggested Labor Time Schedule book.

(TSB 77 - 10/13/67 - Article 1171)

CONTINUOUS ILLUMINATION OF ALL COURTESY LIGHTS

(1968 & 1967 Thunderbird)

Customer complaints of continuous illumination of all courtesy lights have been encountered on 1967 and 1968 Thunderbirds. This problem can be caused by a dislodged instrument panel courtesy lamp socket allowing the bulb case to ground against the socket retainer acting as a switch to turn on the courtesy light system.

This problem was corrected in production beginning with November-built units and can be corrected in the field by installing an additional retaining bracket (C7SZ-13763-A) to each instrument panel courtesy lamp. Place the new bracket over the bulb socket between the instrument panel and the original retainer using the existing screw. The main article contains an illustration showing proper installation of the bracket.

(TSB 83 - 12/29/67 - Article 1250)

CHANGE IN DOOR COURTESY LIGHT AND MAP LIGHT IN 1968 FORD CAR SERVICE SPECIFICATIONS BOOKLET

(1968 Thunderbird)

On Page 15-8, 1968 Ford Car Service Specifications Booklet change both the Door Courtesy Light and the Map Light to a 212 or 212-1 6c. bulb.

(TSB 88 - 3/22/68 - Article 1334)

INTERMITTENT OR INOPERATIVE INSTRUMENT PANEL LIGHTS

(Model "C" Cortina)

Customer complaints of intermittent or inoperative instrument panel lights in the Model "C" Cortina may be the result of an inadequately grounded light socket caused by poor socket retention.

This condition was corrected in production February 14, 1968 by reworking the socket to improve retention.

To correct this condition on a customer complaint basis, replace the instrument light socket with a new socket (Part No. C4AZ-13621-A) and bulb (Part No. 100E 13466B) by cutting the old socket from the loom and using a wire butt connector to assemble the replacement socket to the loom.

(TSB 90 - 4/19/68 - Article 1356)

GLOVE BOX LIGHT STAYS ON

(1969 Ford, Mustang, Thunderbird)

The glove box light may remain on, with resulting battery drain, if the glove box door does not move the switch plunger enough to open the switch contacts. To assure proper operation of the glove box light, a change was made in production during the month of September to provide adequate movement of the glove box light switch plunger.

To correct this condition exhibiting this condition, first inspect the glove box door for proper fit and correct as required. If the condition cannot be corrected in this way, the switch can be modified to provide additional plunger movement by installing a flat washer (Part No. 373262-S36) to the switch retaining prongs on Mustang and Thunderbird, and by installing a shortened (remove 5/16 inch) vacuum cap (Part No. 80614-S) to the switch plunger on Ford cars.

(TSB 103 - 11/29/68 - Article 1570)

COURTESY LIGHTS STAY ON OR DO NOT WORK WITH REAR DOORS

(Thunderbird - 1967-68-69)

The insulating coating has been revised to increase the durability of the rear door courtesy light switch. This revised switch is available and is the only part that should be used for service replacement.

PARTS:

Part Number	Name	Class	Avail.
C9SZ-13713-A	Switch Assy. - Courtesy Lamp - Right	B	OK
C9SZ-13713-B	Switch Assy. - Courtesy Lamp - Left	B	OK

WARRANTY STATUS: REIMBURSABLE

Operation: SP-13713-A-69

Time: 0.6 Hr.

DLR. CODING: Basic No. 13713 - Code No. 84.

(TSB 123 - 9/26/69 - Article 1948)

COURTESY LIGHTS INOPERATIVE DUE TO BLOWN FUSE

(Fords Equipped With Door Mounted Courtesy Lights)

The wiring to the door mounted courtesy light can become chafed and shorted by the window regulator mechanism. This condition can be corrected by adding a wiring clip (Part No. 352974-S100 or equivalent) to the courtesy lamp housing retaining stud nearest the bulb socket as shown in the main article.

PARTS:

Part Number	Name	Class	Avail.
352974-S100	Wiring Clip	BS	OK

PRODUCTION CORRECTION: Job No. 1, 1970.

WARRANTY STATUS: Reimbursable under the provisions of the Warranty & Policy Manual.

Operation: SP-13751-A-69

Time: 0.4 Hr. for one door - 0.6 Hr. for both doors

DLR. CODING: Basic Part No. 13A769 - Code No. 95

(TSB 125 - 10/24/69 - Article 1979)

Instruments

OIL PRESSURE INDICATOR SYSTEMS

(1967 Mustang)

Two distinctly different type oil pressure indicator systems are used on 1967 Mustang units. The standard system utilizes an engine oil pressure sensor and a pressure indicator gauge. On the optional system the tachometer is installed in the oil pressure indicator gauge location, and these models utilize an oil pressure switch and light to indicate oil pressure status. The oil pressure sending units of the two systems

are not interchangeable: Refer to the main article for additional information and correct part number usage.

(TSB 61 - 3/10/67 - Article 1011)

NEW TACHOMETER DRIVE AND CABLE

(1963-66 Dodge/Chrysler Engine Equipped C & M 6000-7000)

A new tachometer drive and cable is now available for these model trucks. The article gives mounting instructions and part numbers for the conversion.

(TSB 61 - 3/10/67 - Article 1012)

ALTERNATOR INDICATOR LIGHT GLOWS CONTINUOUSLY OR UNTIL ENGINE SPEED IS INCREASED

(1967 Ford - All)

The problem of continuous illumination (or illumination until engine RPM is increased) of the alternator indicator light may be due to a loose or disconnected alternator resistor wire at the main loom multiple disconnect. This problem was corrected in production mid-February by utilizing a two lead "Amp" terminal and fastening the resistor wire to the adjoining wire to provide additional support.

The service correction is to reconnect the violet resistor wire by splicing it to the adjoining yellow-black stripe wire.

Note: Do not solder, cut, or alter the violet resistor wire in any way.

(TSB 63 - 3/31/67 - Article 1030)

ERRATIC OPERATION OF THE TWO-SPEED AXLE SPEEDOMETER ADAPTER

(1967 F & B 500-750)

Erratic operation of the two-speed axle adapter, which is usually evident by a change in the registered speed of the vehicle after shifting the two-speed axle, may be caused by the lack of an electrical ground on the adapter unit.

Since the speedometer head is mounted in the instrument cluster through noise absorbing rubber insulators, the two-speed adapter requires a separate ground wire to complete the electrical circuit.

The omission of this ground wire was noted on some early produced units and was resolved in production approximately October 16, 1966. When the problem is encountered on units built before October, check the adapter for evidence of a ground wire. If the wire was not installed in production, fabricate and install a ground wire long enough to reach from the adapter to the screw that retains the constant voltage regulator to the cluster.

(TSB 67 - 5/5/67 - Article 1063)

SPEEDOMETER SYSTEM DIAGNOSIS

(All Car Lines)

This article outlines comprehensive information to aid in the diagnosis of speedometer system complaints. Complaints directed against the speed indicating system fall into one of the following categories:

1. Audio - (Noise complaints - usually clicking sound)
 2. Audio and Visual - (Distracting noise and function - usually clicking oscillating pointer)
 3. Visual - (Distracting function - usually oscillating pointer)
 4. Functional - (But not readily discernible - usually low or high reading)
- The most probable causes of the audio and/or visual complaints are:

- a. Defective cable core (kinked, bent tip, etc.)
 - b. Defective outer casing (severe bends due to improper routing, etc.)
 - c. Defective driven gear at cable input (due to nicks on teeth, etc.)
 - d. Defective speedometer assembly
 - e. Loose cable attaching nut
- The most probable causes of functional

complaints are:

- a. Incorrect driven gear (at cable input)
 - b. Defective speedometer head
- Prior to replacement of any parts, check cable attaching nut and ferrule for tightness to the speedometer, cable routing, and road test the vehicle. If further information is required refer to the main article.

(TSB 69 - 6/2/67 - Article 1093)

SERVICE PROCEDURE FOR INSTRUMENT CLUSTER GAUGES

(All 1967 Vehicles)

A review of warranty returns has indicated that a high percentage of non-defective gauges, sender units and instrument voltage regulators are being returned as defective parts. This letter supplements shop manual information for the diagnosis and the replacement of defective components and provides a simplified diagnostic procedure.

(TSB 71 - 7/14/67 - Article 1118)

INSTRUMENT CLUSTER REMOVAL

(All 1967 Mustangs)

Reports have been received that instrument clusters on 1967 Mustang units are being cracked because of improper removal. When removing the instrument cluster make sure that you remove the right hand stud nut which retains the inboard end of the instrument cluster to the instrument panel. See article for illustration.

The 1967 Mustang Shop Manual contains complete removal instructions on Page 15-36 under "Instrument Cluster Removal". Failure to adhere to this disassembly procedure may result in a cracked cluster mounting.

(TSB 71 - 7/14/67 - Article 1120)

NOISY, ERRATIC OR INOPERATIVE SPEEDOMETER

(1967 Ford and Thunderbird with Rolling Door Lock)

Some production vehicles built prior to January 1, 1967 may have been assembled with the Lincoln rolling door lock vacuum control valve (C7VY-53219A00-B) instead of the Ford (CSMY-54219A00-B) or Thunderbird valve (C7SZ-65219A00-C).

The Lincoln valve is approximately 3/8" longer which permits the speedometer driven gear to be inserted too far into the transmission and results in only partial engagement of the drive gear. It also caused an interference between the gear retaining clip and the drive gear. If these conditions exist, the following problems can occur:

1. The speedometer system will be noisy and erratic due to erratic gear driving action when the retaining clip interferes with the drive gear.

The driven gear becomes damaged due to partial engagement with the drive gear and results in an inoperative system.

Whenever a driven gear is replaced on the subject vehicles equipped with rolling door locks, check the door lock vacuum control valve to insure correct valve usage. Refer to the attached sketch for correct usage.

(TSB 74 - 8/25/67 - Article 1145)

HIGH CHARGE READING ON AMMETER

(1967-8 Thunderbird)

A loose connection or corroded terminals at the inboard terminal of the electrical power circuit junction block, can cause false high charging indications by the vehicle ammeter. Usually the false ammeter indication will be much higher than the actual amperage rate.

The junction block terminates the fuse link wire in the power circuit. If false ammeter indications are suspected, test both terminal nuts in the tightening

direction and tighten if necessary.

A discharged battery can also result from loose connections at the junction block.

The junction block is located on the right front of the fender skirt, near the starter relay and battery. See Fig. Q

(TSB 77 - 10/13/67 - Article 1181)

OIL PRESSURE GAUGE READING

(1968 Thunderbirds Built Prior to Approximately December 1, 1967 with 429 C.I.D. Engines)

Customers may complain of high oil pressure readings (pointer on "H") which occurs during cold starts and at speeds above 60 MPH. This condition is normal and is not an indication of improper operation of the engine oil system. However, should a customer object to the high reading, a service correction may be made by removing the oil gauge dial hub and replacing it with a new hub (CSZS-10C867-A).

The new hub contains a peg to limit pointer movement at the high end of the gauge. When installing the new hub make sure that the peg is up in a "one o'clock" position. If the hub is incorrectly installed, it will limit the pointer movement of the gas gauge instead of the oil pressure gauge. The dial hub (CSZS-10C867-A) is available at all class A depots. The main article contains an illustration showing the proper oil pressure readings and correct positioning of the dial hub.

(TSB 79 - 11/17/67 - Article 1203)

SPEEDOMETER CABLE QUICK DISCONNECT

(1967-1968 Thunderbird)

Analysis of 1967 Thunderbird speedometer cable assemblies returned from the field show that many are being damaged at the "quick disconnect" attachment. To prevent damage of the attachment during removal, it is necessary to release the cable catch which is locked into a groove on the plastic collar attached to the instrument cluster housing. To install the cable to the head, simply align the cable housing to the head assembly and push the cable on with a rotating motion until the catch snaps into position. The main article contains an illustration and more specific instructions relating to removal and replacement procedures.

(TSB 82 - 12/15/67 - Article 1240)

SERVICE PROCEDURE FOR INSTRUMENT CLUSTER GAUGES

(All 1967-68 Vehicles)

A review of warranty returns has indicated that a high percentage of non-defective gauges, sender units and instrument voltage regulators are being returned as defective parts. This letter supplements shop manual information for the diagnosis and the replacement of defective components and provides a simplified diagnostic procedure.

(TSB 89 - 4/6/68 - Article 1354)

TEMPERATURE SWITCH DIAGNOSIS

(All Car Lines Equipped with Temperature Warning Lights)

Analysis of temperature switches returned from the field indicates that a high percentage of them should not have been replaced. To reduce the rate of temperature switch replacement a systematic diagnostic procedure has been prepared. It is important that you follow this procedure as outlined in the main article.

(TSB 92 - 5/17/68 - Article 1391)

TACHOMETER DIAGNOSIS

(Model "C" Corvair GT)

Analysis of Corvair tachometers returned from the field indicate that a high percentage of them should not have been replaced. To reduce the rate of unnecessarily replaced

tachometers and to insure customer satisfaction, inspect all electrical connectors to the tachometer for poor contact including the ground wire to the instrument panel brace (behind dash above steering column) and repair as required before replacing the tachometer. Also check for continuity between the white wire leading to the speed terminal on the tachometer and the white wire leading to the tachometer primary coil lead, as illustrated in the main article. Continuity, zero resistance, should exist.

(TSB 94 - 6/21/68 - Article 1424)

ERRATIC OPERATION OF THE TEMPERATURE AND OIL PRESSURE GAGES

(1968 Broncos Built Between 1-1-68 and 3-20-68)

Some 1968 Bronco may experience erratic operation of the temperature and oil pressure gages. At cold engine starts the temperature gage indicates approximately 200° and the oil pressure gage indicates zero. This condition can be caused by wires crossed in the multiple connector of the dash to headlamp wiring assembly.

Service correction may be performed by referring to the 1968 Bronco Shop Manual, Group 19, Figure 2, item "G" and "L." and reversing the wiring leads, circuit No. 31 and No. 39, on the instrument cluster.

(TSB 94 - 6/21/68 - Article 1441)

NOISY AND/OR ERRATIC SPEEDOMETER OPERATION

(Cortina - All Models)

Noisy and/or erratic speedometer operation may be caused by a kinked or damaged speedometer cable. Corrective action has been taken to eliminate the causes of this condition by incorporating a reverse wound inner cable (February, 1968) and the replacement of the plastic nut (cable to speedometer head) with a metal nut (June, 1967).

Determining the cause of noisy and/or erratic speedometers is accomplished by rolling the inner cable on a clean flat surface and checking for kinks or damage. If no damage is noted, lubricate the lower two-thirds of the cable and reinstall. If damage is noted, replace the inner and outer cables as outlined in the main article.

(TSB 95 - 7/12/68 - Article 1453)

SPEEDOMETER IS NOISY AND/OR ERRATIC - SUPERSEDES TSB 1639-29

(Federal Cortinas - All Models)

Refer to the detailed procedure portion for the revised article.

PARTS:

Part No.	Name	Class	Application	Avail.
3037E-17260-B	Casing and Shaft Assy	C	Automatic Trans.	Yes
3035E-17260-B	Casing and Shaft Assy	C	Standard Trans. - 1968	Yes
3051E-17260-B	Casing and Shaft Assy	C	Standard Trans. - 1969	Yes

(TSB 112 - 4/4/69 - Article 1742)

INACCURATE FUEL GAUGE

(1968 Fairlane and Falcon)

Recent reports from the field indicate that the full and empty marks on the 1968 model Fairlane and Falcon fuel gauges are positioned such that they may be misinterpreted as the 3/4 and 1/4 full marks, resulting in customer complaints of fuel gage inaccuracy.

This condition will be corrected (on a running change basis) by more clearly identifying the empty and full positions of the gage.

When encountering customer complaints of fuel gage inaccuracy, insure that the customer is not misinterpreting the gauge markings before attempting to further diagnose the problem. If further diagnosis is required, follow the procedure outlined in Technical Service Bulletin article 1354 or in section 15-3 of the 1968 Cougar, Fairlane, Falcon, Montego, Mustang Shop Manual.

(TSB 95 - 7/12/68 - Article 1448)

KINKED SPEEDOMETER CABLE CAUSED BY IMPROPER CLUSTER REMOVAL

(1967 - 1968 Mustang)

Noisy and/or erratic speedometer may be caused by a kinked speedometer cable. To preclude kinking of the cable it is mandatory that proper instrument cluster removal procedures are followed and that the speedometer cable is disconnected first.

To properly disconnect the speedometer cable nut from the head, remove the heater control and reach through the control opening at the instrument panel.

(TSB 95 - 7/12/68 - Article 1454)

SPEEDOMETER DIAGNOSIS GUIDE

(Cortina - All Models)

Speedometer malfunctions can be divided into three groups. They are attributed to problems with the drive cable, external factors (such as tires, axle ratios and speedometer gears) and the speedometer head itself.

The nature of the problem should be determined using the following guide for diagnosis prior to speedometer head replacement.

- **Drive Cable Test** - assure the drive cable is free from damage, kinks and is properly routed and installed.
- **Accuracy Test** - assure that the speedometer is, in fact, inaccurate and that the cause of this problem is not attributable to related systems (tires, speedometer gears, etc.)
- **Speedometer Head Test** - assure that the speedometer head indicates the specified 60 mph at 1000 rpm and that the mileage recorder and trip meter function properly.

(TSB 95 - 7/12/68 - Article 1457)

INOPERATIVE OR INACCURATE FUEL GAUGE

(1967-68 Fairlane and Falcon)

An important part of the fuel gauge system is the ground circuit which is provided by the fuel tank, fuel tank attaching screws, and the trunk floor pan (illustrated in main article). The fuel tank attaching screws on the models listed above are phosphate coated, and therefore may not do an adequate job of completing the ground circuit between the fuel tank and the trunk floor pan.

When encountering a vehicle with an inoperative or inaccurate fuel gauge, connect a jumper wire between the fuel tank and the floor pan to determine if an effective ground exists. If the addition of a jumper wire corrects the problem, remove at least four (4) of the fuel tank attaching screws and replace them with similar screws having a cadmium (silver) or zinc-dichromate (yellow) finish to provide a good ground. Remove the jumper wire and recheck gage operation. If further diagnosis is required, refer to TSB articles 1448 and 1354 for assistance.

(TSB 98 - 9/13/68 - Article 1475)

OIL PRESSURE GAUGE READS HIGH

(1969 Mustang - Cobra Jet)

In order to provide the required oil flow at high speeds, 1969 Mustangs equipped with the 428-4V "Cobra Jet" engine have a special high output engine oil pump. This pump provides a higher oil pressure and results in a higher reading on the oil pressure gauge than is seen with other engines.

When encountering customer complaints of high oil pressure reading on vehicles equipped with the "Cobra Jet" engine, the customer should be informed that normal gauge readings are about 3/4 scale for normal driving conditions, and 3/4 to full scale for high speed and/or cold engine conditions. This is the correct intended operation of the gauge system, its electrical circuitry and the engine lubricating system.

(TSB 101 - 11/1/68 - Article 1525)

ENGINE TEMPERATURE COLD LIGHT DELETED

(1969 Ford, Fairlane, Torino)

Beginning with the 1969 model year the engine temperature cold indicator (blue) light feature was deleted from the Ford, Fairlane, and Torino models. Although the cold indicator light opening still exists in the Fairlane and Torino model instrument panel, it is no longer used and therefore a missing bulb and socket does not reflect improper assembly.

When encountering customer complaints of an inoperative cold light, it should be explained to the customer that this feature has been deleted and is no longer available.

(TSB 103 - 11/29/68 - Article 1569)

INOPERATIVE OR INTERMITTENT FUEL GAUGE

(1969 Ford, Fairlane and Falcon)

An inoperative or intermittent fuel gauge may be caused by a loose wire connection on the radio suppression choke which attaches to the instrument voltage regulator.

A change in production was made on October 1, 1968 by revising the suppression choke assembly and installation procedures. The change can be made in the field, on a customer complaint basis, by replacing the choke assembly (Part No. C9AZ-18A952-A) with a new part from depot stock. When installing the new choke, place it on the instrument voltage regulator with the paper insulated female terminal facing away from the regulator and press the choke, printed circuit and instrument voltage regulator together firmly to provide good electrical contact. The main article contains an appropriate illustration.

(TSB 103 - 11/29/68 - Article 1571)

TACHOMETER ADAPTER LUBRICATION

(Caterpillar V8 Diesel Equipped Trucks)

A 12,000 mile lubrication cycle has been established for the tachometer adapter used with the Caterpillar V8 Diesel Engine. Specified lubricant is ESA-M1C-75B Lubricant applied with a pressure gun. The article sketch locates the adapter on the engine including the lubricant fitting.

(TSB 108 - 1/31/69 - Article 1651)

PARKING BRAKE WARNING LIGHT DOES NOT WORK

(1969 Ford)

Inspect the switch which is attached to the parking brake mechanism to see if the switch leaf contacts the parking brake mechanism with the pedal depressed to the second notch.

If the switch leaf contacts the parking brake mechanism, inspect for a burned out bulb, open circuit in the wiring, or blown fuse. If the switch leaf does not contact the brake mechanism, carefully bend the leaf downward to the position illustrated in Figure 6.

PARTS: None.

Production Correction: Sept. 16, 1968

(TSB 110 - 2/28/69 - Article 1693)

SPEEDOMETER DIAGNOSIS GUIDE - SUPERSEDES TSB 1639-30

(Cortina - All Models)

Refer to the detailed procedure portion for the revised article.

(TSB 112 - 4/4/69 - Article 1743)

NEW TEMPERATURE SENDER

(Mustang With 351 CID Engine - 1968)

A new temperature sender unit was incorporated into production during the month of February. This new sender, identified by a green insulator, is available for service replacement. When installing the new sender (green insulator) in a vehicle which was previously equipped with a sending unit having a red insulator, remove and discard the short jumper harness (C9ZB-14K064-A) connecting the engine to the main loom and re-

connect the remaining wiring, see Figure 20.
PARTS:

Qty.	Part Number	Description	Class	Avail.
1	C9WY-10884-A	Water Temperature Sender	A	OK

PRODUCTION CORRECTION: February 1969.
WARRANTY STATUS: REIMBURSABLE
Operation: 10884-A
Time: 0.3 Hr.
(TSB 115 - 5/16/69 - Article 1801)

**TACHOMETER MALFUNCTIONS
AT HIGH ENGINE SPEED
(APPROX. 6000 RPM)**
(Boss 302 Mustang)

As indicated in TSB Article 1923, an electronic engine RPM limiter is used to prevent accidental over-revving. This device interrupts the ignition primary circuit from which the tachometer is triggered. Therefore, whenever the limiter is functioning (approximately 6000 RPM), tachometer operation is affected, usually indicating a much lower RPM than actual. This condition is considered normal and no repair should be attempted.

WARRANTY STATUS:
INFORMATION ONLY
(TSB 123 - 9/26/69 - Article 1949)

**SPEEDOMETER SYSTEM
NOISE - SUPERSEDES
T.S.B. NUMBER 119,
ARTICLE 1866**
(All Vehicles - 1969 Model)

To eliminate noise in the speedometer system, the following procedure is suggested:

1. Check the speedometer cable for visible defects such as routing, damaged or kinked conditions. Make repairs as necessary.

2. With the speedometer cable disconnected at the speedometer head, work a dab of C5AZ-19581-A lubricant approximately the size of a 3/16" diameter ball into the speedometer magnet shaft hole. Connect the speedometer at the speedometer head and road test.

If the speedometer system noise level has still not decreased to an acceptable level, follow additional procedures outlined in the car diagnostic manual number P19.

PARTS:

Part Number	Description	Qty.	Code
C5AZ-19581-A	Lubricant	1	C

WARRANTY STATUS: Reimbursable under the provisions of the Warranty & Policy Manual.
Operation: SP-17255-A-69
Time: Ford - 0.6 Hr.; Fairlane - 0.3 Hr.; Mustang - 0.9 Hr.; Thunderbird - 0.6 Hr.
(TSB 125 - 10/24/69 - Article 1971)

**TEMPERATURE GAUGE READS
HIGH**
(Thunderbirds with Automatic Temperature Control - 1970)

The engine temperature gauge in early bird Thunderbirds with Automatic Temperature Control may read high resulting in customer concern. This condition is caused by different calibration of the unique temperature sending unit used on ATC equipped vehicles, and was corrected in production by adding resistance to the temperature gauge circuit of the engine wiring jumper harness (14A411 at rear of engine).

Inspect for the proper jumper harness, as indicated in the chart and replace as required.
NOTE: Vehicles built after December 1, 1969, will have the jumper harness incorporated into the main wiring harness.

PARTS:

Usage	Part No. (Identified)	Part Name	Class	Avail.
With ATC	DOSZ 14A411 B (DOSB 14A411 B)	Engine Wiring Jumper	C	OK
Without ATC	DOSZ 14A411 A (DOSB 14A411 A)	Engine Wiring Jumper	C	OK

**MISROUTED SPEEDOMETER
CABLE**
(Fairlane 1970)

Misrouted speedometer cables may result in noise, pointer waver and eventual cable breakage. Correct cable routing as shown in Figure 1.

PRODUCTION CORRECTION: Oct. 15, 1969.
WARRANTY STATUS: REIMBURSABLE
Operation: SP-17260A-70
Time: 0.2 Hr.
(TSB 130 - 12/19/69 - Article 2041)

**Instrument Panel
and Controls**

**SPEED CONTROL AND/OR
VACUUM DOOR LOCK
SWITCHES WILL NOT ENGAGE**
(1967 Thunderbirds Built Prior to January 2, 1967)

Reports from the field indicate that inoperative or restricted travel of speed control and/or vacuum door lock switches may be encountered on subject vehicles. This problem is attributed to interference between the switch knob and the bezel and was corrected in production approximately January 2, 1967. Units encountering this problem may be corrected by installing a revised bezel and grinding off the underside of the control knob.
(TSB 60 - 2/24/67 - Article 999)

INSTRUMENT PANEL SHAKE
(1967 Fairlane - All Models)

Reports from the field have indicated that instrument panel shake has been evident on some 1967 Fairlane vehicles. This problem was corrected in production on December 1, 1966 by the addition of an instrument panel brace previously used only on vehicles equipped with air conditioning. Customer complaints of this problem can be corrected by the installation of Instrument Panel Lower Brace, C6DZ-62044E00-A.

(TSB 63 - 3/31/67 - Article 1035)

**INSTRUMENT PANEL PAD
WRINKLES**
(1967 Mustang)

Objectionable wrinkles in the area of the radio speaker are attributed to difficulty in maintaining adequate retention along the front edge of the instrument panel pad.

This problem was corrected on units built after approximately May 1, 1967, by increasing the thickness of the pad at the speaker opening to add rigidity and make the pad less susceptible to wrinkles during installation.

Units encountering this problem in the field can be corrected by installing additional screws along the front edge of the pad.

(TSB 67 - 5/5/67 - Article 1072)

**ENGINE WILL NOT START
OR WARNING LIGHT PROVE-
OUT DOES NOT FUNCTION**
(All 1968 Model Car Lines)

Customer complaints of inability to start the engine or non-functioning warning light prove-out have been received on some 1968 model vehicles. This problem may be due to a poor connection between the main wiring loop multiple

WARRANTY STATUS: Reimbursable under the provisions of the Warranty & Policy Manual.
Operation: SP-14411-A-70
Time: 0.3 Hr.
DLR. CODING: Basic Part No. 14A411 - Code No. 38
(TSB 128 - 12/5/69 - Article 2024)

lead connector and the ignition switch. Corrective action was taken in production during early November, 1967. Customer complaint units can be corrected by assuring positive connection and terminal retention at the main loop to ignition switch connector.
(TSB 79 - 11/17/67 - Article 1206)

**IGNITION SWITCH
RELOCATION**
(1967 "W" Series)

Since April 24, 1967, the "W" series trucks have been built with the ignition switch on the instrument panel located in a more convenient position. This improvement can be incorporated into previous production trucks. The main article describes the procedure.
(TSB 85 - 2/9/68 - Article 1275)

**INSTRUMENT CLUSTER
PLASTIC BEZELS CRACK**
(1968 Fairlane - All Models)

Cracking of the instrument cluster plastic bezel has been reported on 1968 Fairlane built prior to approximately May, 1968. Because this bezel was not designed to be serviced separately through the parts depot, replacement of the complete instrument panel pad assembly is required to correct customer complaints.

A field correction is currently under development to provide dealers with a method of correcting this problem without extensive disassembly of the instrument panel area. Therefore, if customer complaints are encountered on this problem, dealers are encouraged to advise the customer that a satisfactory repair procedure will be available in approximately 60 days to correct the condition without extensive disassembly of the instrument panel area. Also, it would be advisable to temporarily postpone repairs pending the availability of this correction. However, if this delay will be inconvenient to the customer, the instrument panel pad assembly should be replaced to satisfy the customer.

(TSB 103 - 11/29/68 - Article 1573)

**LIGHT LEAKS AT "PRND21"
SELECTOR ASSEMBLY**
(All 1969 Thunderbirds with Fixed Steering Column)

To correct light leaks at the "PRND21" selector assembly on T-Birds with fixed steering columns, the procedure outlined in the complete article is to be followed.
(TSB 109 - 2/14/69 - Article 1663)

**COLUMN MOUNTED
"PRND21" INDICATOR
ADJUSTMENT - 1969 FORD
WITH AUTOMATIC TRANS-
MISSION**
(All Models So Equipped)

An improperly adjusted "PRND21" pointer can cause scraping noise or pointer misalignment. The procedure to follow to correct this is outlined in the complete article.
(TSB 109 - 2/14/69 - Article 1665)

**COLUMN MOUNTED
NEUTRAL SWITCH
SUBSTITUTION**
(1969 Ford, Fairlane and Falcon)

Some 1969 vehicles with column mounted neutral switches may have a 1968 type "B" switch, due to a stock float. Such switches do not incorporate the exterior reset button feature found on the 1969 switch.

Adjustment of the type "B" switch requires that the 1968 adjustment procedure be followed as outlined in the complete article.
(TSB 109 - 2/14/69 - Article 1668)

CIGAR LIGHTER AND EMERGENCY FLASHER DO NOT WORK DUE TO BLOWN FUSE

(1969 Ford & Truck)

Inspect for an electrical short in the cigar lighter and emergency flasher circuits. If no short is evident, the problem may be caused by the lighter element metal retaining cup shorting to the socket bi-metal retaining prongs when the lighter is pushed fully into the socket. This problem can only occur with the element made by Casco as illustrated in the detailed procedure. You can check for this problem by installing a new fuse and checking lighter operation. If fuse blows when lighter is pushed into socket, the element should be replaced.

Production Correction: 1/69.

WARRANTY STATUS: REIMBURSABLE

PARTS:

Part No.	Name	Class	Avail.
C7SZ-15054-A	Element Assy. Cigar Lighter (Cuno)	A	OK

(TSB 111 - 3/14/69 - Article 1705)

VENTILATION SYSTEMS

COLD AIR LEAKS FROM RIGHT VENT DUCT

(1968 Fairlane and Falcon Equipped with Standard Heating System)

Customer complaints of cold air leaks from the right vent duct on 1968 model Fairlane and Falcon vehicles built prior to December 1, 1967, equipped with standard heater systems can be caused by improper control cable adjustment, or bent control cable mounting brackets. Improper adjustment of this cable will allow the control knob shaft to pull too far out of the cable housing resulting in complaints of poor appearance as well as cold air leaks. Weak control cable mounting brackets can be bent out of position also as a result of improper cable adjustments.

The conditions can be corrected by installing a new mounting bracket made of heavier gauge steel and adjusting the control cable as outlined in the main article.

(TSB 83 - 12/29/67 - Article 1248)

WATER LEAK AT THE COWL AIR DUCT ATTACHMENT

(1968 Fairlane, Falcon and Mustang - All Models)

Customer complaints of cowl water leaks may be caused by broken attaching studs at the fresh air duct on 1968 Fairlane, Falcon and Mustang vehicles. All affected assembly plants have been advised of the appropriate repair procedures and, therefore, this problem should not be encountered on vehicles built after January, 1968.

Customer complaint units can be corrected by drilling a 5/16" hole in the cowl top inner panel and air duct where the stud has broken and installing a screw and expanding washer to secure the duct and seal the hole.

(TSB 86 - 2/23/68 - Article 1289)

FRESH AIR VENT - AIR LEAKS AND HIGH EFFORTS

(Ford - 1969)

Cold air leaks or high efforts on cowl vent control cables may be caused by improper routing, kinked cables or a bind in the cable and housing assembly when the control knob is turned to the right or left when opening or closing the vents. The right and left cowl vent assemblies are also susceptible to distortion during installation and in some instances the vent door pops out resulting in air leaks. Refer to Figures 4, 5, and 6 for the following corrections:

- Install piece of vacuum hose on vent door pivot shaft.

- Check vent door for flatness - replace if necessary.

- Remove kinks and/or replace "D" shaft control cables.

PARTS:

Part No.	Name	Class	Avail.
C9AZ-6201890-B	Cable Assy.	A	OK
C9AZ-6201891-B	Cable Assy.	A	OK
C9AZ-6201862-B	Damper Door	B	OK
C9AZ-6201863-B	Damper Door	B	OK

Production Correction: 10/68.

WARRANTY STATUS: REIMBURSABLE

Operation: SP-01862-A-69

Time: One Side - 0.4 Hr.

Both Sides - 0.6 Hr.

(TSB 111 - 3/14/69 - Article 1706)

ELECTRICAL ACCESSORIES

INOPERATIVE ACCESSORIES DUE TO FAILED RELAY ASSEMBLY

(1966's and Early 1967 "W" Series Highway Tractor)

Inoperative accessories, such as temperature warning gauges, air pressure buzzer, heaters and air conditioners, may be due to failure of the accessory relay assembly. A higher load capacity relay became effective in production December 1, 1966. Article outlines modification procedures where a failure has been encountered on vehicles built prior to December 1, 1966.

(TSB 60 - 2/24/67 - Article 1002)

ACCESSORY RELAY TERMINAL REINFORCEMENT - SERVICE PART NUMBER C7TZ-13A435-B

("W" Series)

Article 1002, Technical Service Bulletin #60, describes the procedure for installing an accessory relay, part number C7TZ-13A435-A. A service relay, part number C7TZ-13A435-B, is available for this installation with the wire leads already soldered to the accessory terminals.

During service installation of the relay, the number one terminal can break off at the base. The main article describes the procedure for reinforcing the terminal PRIOR to installation into the truck.

(TSB 87 - 3/8/68 - Article 1308)

Heaters

HEATER HOSES

(1967 Mustang units equipped with air conditioners built Oct. 20, 1966 through Jan. 31, 1967)

"Straight" heater hoses were used in production during a period from October 20, 1966 through January 31, 1967 in place of "formed" heater hoses. Because of the hose routing on these units, they are susceptible to problems of kinked, burned or ruptured hoses that could result in poor heater performance and/or possible engine ruin. Units built during this period should be examined for proper hose routing during normal dealer servicing and if damaged hoses are encountered, they should be replaced with the proper "formed" hose. The main article lists the proper released "formed" hoses and their usage.

(TSB 63 - 3/31/67 - Article 1027)

HEATER MOTOR IMPROVEMENTS

(1966-67 "W" Series Trucks)

To improve the durability of the "W" series heater motor, a revised motor incorporating changes in the size and positioning of the low speed field winding wire became effective in production approximately December 1, 1966. These changes were made to reduce the motor operating temperatures that have effected wiring insulation and bearing lubricant loss.

When reports of inoperative heater motors are received, and the problem is diagnosed as the motor, the motor should be replaced with the new motor. The new motors reflecting the above improvements are identified with a daub of yellow paint on the motor housing.

(TSB 65 - 4/21/67 - Article 1049)

INADEQUATE AIR TEMPERATURE AT DRIVER'S LEFT FOOT

(All 1967 Fords)

Reports have been received from the field of customers complaining because of inadequate warm air temperatures at the driver's left foot. When this problem is encountered, it can quickly be corrected by modifying the left discharge air outlet on the heater plenum as illustrated in the main article.

(TSB 65 - 4/21/67 - Article 1055)

ERRATIC OR NO HEAT

(1967 Mustang Equipped with Standard Heater System)

Customer complaints of erratic or no heat conditions in the standard heater system can be caused by improper re-termination of the control cables to the damper door pivot arms. Control cables improperly routed or kinked will, in some cases, cause the pig tail at the heater end of the cable to slide off the pivot arm, resulting in inoperative damper doors.

Refer to the main article for the recommended corrective procedure.

(TSB 68 - 5/19/67 - Article 1088)

HEATER CORE REPLACEMENT VEHICLE WITH AIR CONDITIONING

(1967 Ford)

Replacement of the 1967 heater core (Ford with air conditioning), requires loosening of the fender apron. The complete replacement procedure is given.

(TSB 71 - 7/14/67 - Article 1115)

INADEQUATE DEFROST PATTERN ON DRIVER'S SIDE OF WINDSHIELD

(All 1967 Ford Equipped with Standard air Comfort Stream Heating System)

Customer complaints of inadequate defroster operation on the driver's side of the windshield can be corrected by adding a new deflector in the defroster nozzle which will direct air flow to clear the affected area.

Refer to the main article for the correct installation procedure.

(TSB 78 - 11/3/67 - Article 1193)

ERRATIC OR NO HEAT CONDITION

(1967 Thunderbird Equipped with Heater or A/C Heater System Built Prior to November 7, 1966)

Customer complaints of erratic or no heat conditions in the 1967 Thunderbird equipped with standard heater or A/C heater system, can be caused by one or more of the following reasons:

- Kinked or loose vacuum hoses.
- Vacuum hoses connected improperly to water valve vacuum switch.
- Core sand restricting water valve operation.

Refer to the main article for procedures to correct this problem.

(TSB 78 - 11/3/67 - Article 1194)

SLOW WARM-UP OR INSUFFICIENT HEAT

(1967 Ford)

This article outlines comprehensive information to aid in the diagnosis and correction of slow warm-up or insufficient heat complaints on 1967 Fords. The main article contains a two-part procedure for correcting complaint units and covers specific areas to be checked and corrected.

PART I

Check for air leaks, proper installation and adjustment of control cables, vacuum hoses and lines, air ducts, restriction in the heater core or water hoses and proper operation of the thermostat.

If the above procedure does not gain customer satisfaction, proceed to Part II.

PART II

On 390 or 428 CID Engines

● Change the water pump pulley ratio from .94 to 1.06.

● Change the heater hose adapter to a curved elbow.

● Install a new water valve on A/C or comfort stream vehicles.

● Revise heater hose rerouting on 300 CID 2V engines.

Also included in the main article are appropriate illustrations to aid in identifying parts and installation locations.

(TSB 79 - 11/17/67 - Article 1211)

1968 HEATER BLOWER MOTOR AND WHEEL ASSEMBLY SERVICE POLICY

(All Car Lines)

The 1968 shop manual procedure for replacing heater blower motor assembly (Part 16-1) has been revised to eliminate the necessity of transferring the blower wheel and mounting plate when a new motor is installed. Effective immediately all heater blower motor and wheel assemblies will be serviced as a complete assembly for all 1968 car lines. The blower motor and wheel is balanced as an assembled unit by the manufacturer and must not be disassembled and serviced separately during the warranty period.

All blower motors and wheel assemblies that are recalled by the Warranty Parts Return Center must not be disassembled and should be returned in the original new parts container to insure against damage in transit.

(TSB 83 - 12/29/67 - Article 1245)

REDUCTION OF HEATER CORE WATER FLOW OR PRESSURE

(All 1966, 1967 and 1968 Vehicles Built Prior to December 15, 1967 and Equipped With 289 or 302 CID Engines)

Whenever heater core leakage is encountered in the subject vehicles, in addition to repairing the leak, also replace the hot water heater connection at the intake manifold with a restricted elbow (CGAZ-18599-B, Class C) to reduce water flow through the heater core; thus, diminishing the possibility of water loss from erosion or pressure problems.

(TSB 85 - 2/9/68 - Article 1271)

HEATER MOTOR WITHOUT BLOWERS

(All "W" Series)

A separate heater motor is available from Autolite Ford for "W" series trucks. This motor may be used where replacement of the blowers is not required. The separate motor is listed in Section 182, page 10 of Change 32, dated January 1968, of the Truck Master Parts Catalog under part number C7TZ-18527-B.

(TSB 92 - 5/17/68 - Article 1396)

HEATER HOSE CONTACTING THERMATOR PUMP PULLEY

(1969 Econolines E100/300 with 240 CID Engines Built Prior to April 24, 1968)

If cases occur where the heater hoses rub against the thermator pump pulley it is necessary to secure the hoses to the Thermator support bracket as illustrated in the main article using nylon strap Part No. 351053-S.

(TSB 96 - 8/2/68 - Article 1456)

NEW FRESH AIR HEATER CORE - C SERIES TRUCK

(1958-1968 C and CT 550-1000 and 1968 F=4000-7000 Series Trucks)

A new fresh air heater core designed to improve product durability and reduce internal pressures has been incorporated into 1968 production on the subject vehicles. This heater core part number B8T-18476-A1, Class B, has two humps on top and one full tank on the bottom and replaces heater core part number B8T-18476-A.

(TSB 98 - 9/13/68 - Article 1483)

INSUFFICIENT COOLING, HEATING AND DEFROSTER OPERATION

(1969 Ford)

Customer complaints of insufficient cooling, heating or defroster operation can be caused by one or more of the following problems:

VEHICLES EQUIPPED WITH A/C HEATER SYSTEMS

● Defroster ducts improperly assembled to plenum chamber.

● Inoperative recirculating air door due to improper installation of vacuum motor.

● Inadequate cooling caused by right wheel trim panel restricting air circulation.

● A/C refrigerant line rubbing on air cleaner resulting in damage to suction line and possible loss of refrigerant.

● Water valve vacuum hose kinked.

● Water valve vacuum motor diaphragm sticking.

● Air leaks through dash panel due to improper installation of grommets around vacuum hoses and electrical wiring.

● Control cables improperly routed, kinked, or improperly adjusted.

● Air loss through evaporator case covers.

● Loose plenum and evaporator case to dash panel mounting screws causing air and water leaks.

VEHICLES EQUIPPED WITH STANDARD HEATER

● High efforts on mode door control cable caused by improper assembly of deflector on mode (Off-Heat-Defroster) door.

● Control cables improperly routed, kinked, or improperly adjusted.

The main article outlines the corrective procedures for correcting the above problems.

(TSB 104 - 12/13/68 - Article 1580)

INSUFFICIENT IN-CAB HEAT - C SERIES

(1968 and Post Model C Series Truck Equipped with Cummins C-160 and C-180 Diesel Engines)

When receiving complaints regarding a lack of in-cab heat during cold weather operation with the C Series trucks equipped with Cummins C-160 and C-180 diesel engine, reference the complete article to obtain the necessary parts and procedures for rerouting heater hoses.

The production correction which reroutes the heater hoses and uses a new water pump housing to improve the water flow through the heater core was incorporated on subject vehicles during May, 1968.

(TSB 104 - 12/13/68 - Article 1581)

COLD AIR LEAKS AFFECTING HEATER POTENTIAL - N SERIES

(N Series Trucks)

When encountering complaints of cold air entering "N" Series cabs to the extent that heater effectiveness is affected, investigate the possibility of leaks occurring in the floor pan and dash panel area caused by open holes and unsealed joints in the sheet metal.

The body joints should be sealed and/or holes plugged as described and illustrated in the 1968 Ford Truck Shop Manual, Volume III, Pages 17-1, 17-2, 17-3 and 17-4. Note the light bulb method for locating leaks as described in the Diagnosis and Testing Procedure on Page 17-1.

(TSB 108 - 1/31/69 - Article 1641)

HEATER CORE MOAN

(1969 Thunderbird)

An objectionable moan in the heater core during heater operation can be caused by

high velocity of coolant through the heater core. This condition can be corrected by installing a metered orifice between the heater inlet steel tube and the right angle adaptor. Tighten tube connector nut to 25-30 ft.-lbs.

PARTS:

Part No.	Description	Class	Availability
317750-S	Orifice	SG	OK

Production Correction: December 11, 1968.

WARRANTY STATUS: REIMBURSABLE

Oper: SP-18476-A-69

Time: 0.3 Hr.

(TSB 110 - 2/28/69 - Article 1695)

DEFROSTER OPERATION ON LEFT SIDE OF WINDSHIELD INADEQUATE

(1969 Ford with Integral Air Conditioning)

● Check defroster duct for proper retention.

● Adjust temperature and defroster control cables at turnbuckles to attain maximum defroster air flow.

PARTS: None.

Production Correction: January, 1969.

WARRANTY STATUS: REIMBURSABLE

Oper: SP-18548-A-69

Time: 0.4 Hr.

(TSB 110 - 2/28/69 - Article 1696)

HEATER WATER VALVE VACUUM MOTOR STICKING

(Mustang Equipped with Power Vent or A/C Heater System - 1969)

1. Start engine.

2. Move temperature control lever to "max. cool" position.

3. Move functional control lever to "max. A/C" or "off" position.

4. Visually check water valve in engine compartment. The actuating arm on the water valve vacuum motor should be pulled all the way in by vacuum to close the valve.

5. Remove the vacuum hose from motor. The actuating arm on the motor should return to its normal position to open the valve. Cycle the valve in this manner two or three times to be sure it operates properly.

6. Remove defective water valve. Note arrow on valve bracket denoting direction of water flow.

7. Install C7SZ-14895-A water valve assembly identified with a green dot on the bracket by the Part Number or date coded August, 1968 or after.

PARTS:

Part No.	Name	Class	Avail.
C7SZ-18495-A	Water Valve	A	OK

Production Correction: 8/68.

(TSB 111 - 3/14/69 - Article 1708)

DEFROSTER OPERATION ON LEFT SIDE OF WINDSHIELD INADEQUATE

(Ford with Integral Air Conditioning - 1969)

● Check defroster duct for proper retention.

● Adjust temperature and defroster control cables at turnbuckles. Attain maximum defroster air flow.

PARTS: None.

Production Correction: 1/69.

WARRANTY STATUS: REIMBURSABLE

Oper: SP-18548-A-69

Time: 0.4 Hr.

(TSB 111 - 3/14/69 - Article 1709)

THIS ARTICLE SUPERSEDES AND CANCELS TSB 1782 HEATER BLOWER MOTOR - IMPROVEMENT

(WV-WT-1000-D Trucks - 1966-1968)

A new improved heater motor for all heater and heater/air conditioner applications with increased durability is now available for service.

PRODUCTION CORRECTION: 8-15-68.

PARTS:

Number	Name	Class	Avail.
C7TZ-18527-E	Heater Blower Motor less wheel	BQ	OK
C6TZ-18527-C	Heater Blower Motor with wheel assembly	BQ	OK

(TSB 114 - 5/2/69 - Article 1782)

DEFROSTER GRILLE PULLING AWAY

(Econoline 1969 E-100/300 Models)

Install new clips. Grasp grille where it has pulled away from the instrument panel and work it free of the panel using a plastic or wooden pry to prevent damaging the dash panel.

Force the clips from the grille and install the new clips.

Install the grille on the instrument panel making sure the clips are secured to the panel.

PARTS:

Part Number	Part Name	Class	Avail.
383125-S	Clip (8 per pkg.)	S	OK

PRODUCTION CORRECTION: 11-4-68.

WARRANTY STATUS: Reimbursable under the provisions of the Warranty & Policy Manual.

Operation: SP-18517-B-69

Time: 0.3 Hr.

(TSB 117 - 6/13/69 - Article 1839)

WINDSHIELD DEFROSTER OPERATION ON LEFT SIDE

(1969 Ford)

Install a baffle in the plenum chamber to direct more air through the left defroster nozzle to provide a more efficient defog and/or defrost pattern.

PARTS:

Part Number	Part Name	Class	Availability
C9AZ-19D365-A	Baffle	CG	7/21/69

WARRANTY STATUS: REIMBURSABLE

Operation: SP-19565-A-69

Time: 0.6 Hr.

(TSB 119 - 7/18/69 - Article 1881)

WINDSHIELD DEFROST OPERATION ON LEFT SIDE

(1969 Ford)

Correct part number TSB No. 119, Article 1881, to read: C9AZ19D595A - Baffle, in both part number box and illustration.

(TSB 120 - 8/1/69 - Article 1907)

DEFROSTER CONTROL LEVER HIGH EFFORTS

(1970 Maverick With Standard Heater)

High efforts on the heat-defrost control lever when moving the lever from "defrost" to "heat" position is caused by over travel of the heat-defrost door in the full defrost position. This condition can be corrected by providing a limit stop for the door in the defrost position.

PARTS:

Part No.	Description	Class	Avail.
376449S	Plastic Rivet	BS	OK

PRODUCTION CORRECTION: 5-21-69.

WARRANTY STATUS: REIMBURSABLE

Operation: SP-18518-A-70

Time: 0.2 Hr.

(TSB 121 - 8/15/69 - Article 1924)

LACK OF HEAT OR LACK OF COOLING

(F100/350 Trucks With Air Conditioning - 1968-69)

The procedure outlined in the main article should be applied to isolate and correct the cause of the condition.

PARTS:

Part Number	Part Name	Class	Avail.
C8TZ-19988-A	A-C Temperature Control Cable	C	OK
C8TZ-18548-B	Defroster Control Cable	C	OK
C8TZ-18518-C	Heater Temp. Control Cable	C	OK

WARRANTY STATUS: Reimbursable with in the provisions of the Warranty & Policy Manual.

Operation: SP-19700-B-69

Time: 0.3 Hr. - Add 0.3 Hr. if necessary to cut out insulation.

DLR. CODING: Basic Part No. 19700 - Code No. 07

(TSB 121 - 8/15/69 - Article 1925)

WINDSHIELD DEFROST OPERATION ON LEFT SIDE

(1969 Ford)

Correct part number TSB No. 119, Article 1881, to read: C9AZ19D565-A - Baffle, in both part number box and illustration.

Cancel Article 1907, TSB No. 120.

NOTE: The defroster adapter and air baffle are not available as an assembly. Therefore, pop rivet the air baffle to the existing adapter.

(TSB 123 - 9/26/69 - Article 1950)

HEATER CORE MOAN

(1969 Thunderbird)

Refer to Technical Service Bulletin No. 110 dated February 28, 1969 for installation of moan eliminating orifice. If the moan still remains, replace the heater core with a new core from depot stock with a "V" after the date stamp on the core end tank.

Do not install the metered orifice with the new heater core.

PARTS:

Part Number	Name	Class	Avail.
D05Z 18476-A	Heater Core	B	OK

PRODUCTION CORRECTION: April 28, 1969.

WARRANTY STATUS: Reimbursable under provision of Warranty & Policy Manual.

DLR. CODING: 56.

(TSB 124 - 10/10/69 - Article 1966)

HEATER CORE NOISE - THIS ARTICLE CANCELS AND SUPERSEDES ARTICLE 1933, TSB 11, DATED SEPTEMBER 5, 1969.

(F100/350 and Econoline - 1968-69)

Replace the heater core with one out of service stock date coded 9JA or later. Part numbers have not been changed with the improved heater core.

PRODUCTION CORRECTION:

WARRANTY STATUS: Reimbursable with in the provisions of the Warranty and Policy Manual.

Operation: 18476-A

Time: Use appropriate time for affected truck series and model year as shown in Service Labor Time Standards Book.

DLR. CODING: Basic Part No. 18476 - Code No. 56

(TSB 126 - 11/7/69 - Article 1995)

FOG ON WINDSHIELD AND HIGH HUMID CONDITIONS IN VEHICLE

(Ford - 1969)

Plugged drain holes in the standard heater case assembly or manual A/C-Heater evaporator case assembly will restrict the normal

drain of water that may enter the cases due to improper sealing, or condensate from the evaporator case. This condition will result in high humid conditions in the vehicle and fog on the windshield and side windows. This problem can be corrected by applying body sealer along the top of the case at the dash panel and midway down both sides of the case. Refer to Figure 3, inspect the drain slots and remove any body sealer or foreign material that is plugging the slots.

PARTS:

PRODUCTION CORRECTION: **WARRANTY STATUS:** Reimbursable under provision of Warranty and Policy Manual.

Operation: SP-19860-A-69

Time: 0.5 Hr.

DLR. CODING: 45

(TSB 126 - 11/7/69 - Article 1996)

WINDSHIELD DEFROSTER OPERATION ON LEFT SIDE INADEQUATE

(1969 Ford)

Install a baffle in the plenum chamber to direct more air through the left defroster nozzle to provide a more efficient defog and/or defrost pattern.

PARTS:

Part Number	Name	Class	Avail.
C9AZ-19D565-A	Baffle only	CG	7-21-69
C9AZ-18C640-A	Baffle & Adapter Assy.	CG	12-15-69

WARRANTY STATUS: REIMBURSABLE

Operation: SP-19565-A-69 - Baffle & Adapter

Time: 0.6 Hr.

SP-19565-B-69 - Baffle Only

Time: 1.2 Hrs.

(TSB 128 - 12/5/69 - Article 2025)

Radios

STATIC NOISE IN RADIO SPEAKERS

(1967 Thunderbird)

Static noise in the radio speakers can usually be corrected by assuring that the antenna attachments to the body are secure and that the lead-in cable is tightly connected to the antenna mast jacket. Also, check to assure that the prong on the stanchion retaining clip firmly grips the underside of the fender to provide a positive ground for the antenna assembly.

(TSB 58 - 1/27/67 - Article 980)

LOW VOLUME FROM DOOR STEREO SPEAKERS

(1967 Thunderbird)

The door mounted stereo speakers may not have volume equal to that of the rear speakers.

This problem was corrected in production November 2, 1966 and may be corrected on a customer complaint basis by replacing the original speaker (16 ohm) with an 8 ohm speaker C7SZ-18808-D.

(TSB 59 - 2/10/67 - Article 994)

REMOVAL AND INSTALLATION OF RADIO OR STEREO TAPE PLAYER

(1967 Thunderbird)

Reports have been received indicating that difficulties are being encountered with the removal and installation of the radio or radio stereo tape player. To aid you in performing this operation, add the following steps to the procedure prescribed in 1967 Shop Manual.

● It is advisable to remove the vacuum motor from the steering column as outlined in step three.

● Before removing the radio rear support bracket, remove the left defroster tube. (This will allow more room for removal of the radio chassis.)

● To aid in replacing the defroster tube, remove the instrument panel upper finish panel (snaps out) and the left side defroster nozzle. Position the defroster tube to the heater plenum then replace the defroster nozzle and the upper finish panel.

(TSB 60 - 2/24/67 - Article 998)

OWNER INSTRUCTION — FM RADIO CHARACTERISTICS AND LIMITATIONS

(All with AM/FM Radio)

Customers complaining of poor reception with the FM portion of their AM/FM radio should be instructed on the following characteristics and limitations of an FM radio.

- FM tuning is more critical than AM. When tuning adjust pointer to center of area over which station is heard.

- Generally good reception can be expected up to approximately 35 miles.

- The antenna should be adjusted to a height of 30 to 33 inches for best reception.

(TSB 68 — 5/19/67 — Article 1077)

INCORRECT ANTENNA LOCATING TEMPLATE

(1968 Ford with Front Mounted Antenna)

Investigation shows that the incorrect antenna locating template may have been supplied with some 1968 Ford front antenna installation kits. This includes the kits that are shipped with the vehicle as well as those available from Ford parts depots. If this template is used it will be impossible to correctly install the antenna. The correct template can be identified by a 7/17/67 date located in the lower left corner.

Before attempting to install a front fender mounted antenna on a 1968 model Ford, make sure you have the correct template. Any template bearing a date other than 7/17/67 should not be used. The main article contains a copy of the correct template.

(TSB 82 — 12/15/67 — Article 1239)

ANTENNA INSTALLATION

(1968 Ford)

Analysis of parts returned from the field indicate that some dealers are not taking proper care when installing the Ford antenna. Kinking the lead-in cable, pulling it too taut, or bending it too sharply may cause damage to the internal element of the cable resulting in customer complaints of intermittent or poor radio reception. To insure against this possibility, use the antenna lead-in cable routing as specified in the instructions included with the antenna kit and as shown in the main article. Also, make certain that the lead-in cable grommet is securely seated in the cowpl plenum chamber to prevent air and water leaks.

(TSB 86 — 2/23/68 — Article 1295)

ANTENNA LEAD-IN CABLE TOO SHORT

(Ford)

Reports from the field indicate that an incorrect antenna (with 12-inch lead-in cable) may have been inadvertently shipped with some 1968 Ford vehicles. The purpose of this article is to inform you that the extension cable (from radio to right cowl) used in vehicles equipped with air conditioning or high vent system is now available through Autolite.

Whenever a unit is received with the incorrect antenna kit (lead-in cable too short), install a lead-in cable extension part number (C8AZ-18812-A). Do not replace the complete antenna assembly.

(TSB 91 — 5/3/68 — Article 1378)

ENGINE IGNITION NOISE IN AM RADIO

(All 1968 Car Lines with Philco AM Radio)

Reports from the field indicate that complaints of engine ignition noise audible during radio operation are being encountered on some 1968 vehicles equipped with the Philco AM radio.

This problem was corrected, effective with May built vehicles, by adding a suppression choke to the antenna circuit within the radio chassis. Customer complaint units can be corrected by installing a suppression

adapter, part number C8AZ-18812-B, between the radio chassis and antenna lead-in cable. Since this is a plug-in device, it is not necessary to remove the radio chassis. Refer to the main article for proper installation procedure.

NOTE: This suppression adapter is designed for use with 1968 PHILCO AM radio only, if used with any other radio reception may be hampered.

(TSB 91 — 5/3/68 — Article 1379)

ENGINE IGNITION NOISE IN AM RADIO (SUPPLEMENT TO ARTICLE #1379)

(All Car Lines with Philco AM Radio)

The radio ignition noise suppression device described in article 1379 of bulletin 91 (part number C8AZ-18812-B) is a class B part and is available at your facing class B depot. Use this device when customer complaints of excessive ignition noise in AM radios are encountered. Do not remove the radio chassis for modification.

(TSB 94 — 6/21/68 — Article 1425)

ENGINE IGNITION NOISE IN RADIO

(1948 Thunderbird)

Reports from the field indicate that difficulty is being encountered in correcting some customer complaints of engine ignition noise audible during radio operation in 1968 Thunderbirds.

This problem is most frequently the result of an inadequately grounded antenna or a loose connection between the antenna lead-in cable and the antenna, but can also be caused by one or more of the following:

- Loose or missing hood bond strap.
- Loose or missing body to frame ground cable (left fender apron to frame).
- Loose spark plug wires or fouled spark plugs.

If inspection and correction of these items does not reduce the ignition noise to a satisfactory level, perform the operation as indicated below:

AM Radio and AM Radio Tape Player Combination

- Install three additional hood straps (C75A-16A600-A, Class CG).

AM/FM Stereo Radio

- Install three additional hood straps (C75A-16A600-A, Class CG).

- Install a capacitor (C9S2-18832-A, Class C) to the ignition coil battery terminal.

Refer to the main article for illustrations showing the installation of these parts.

(TSB 100 — 10/18/68 — Article 1513)

ALL RADIO SPEAKERS BECOME INOPERATIVE DURING FADER CONTROL OPERATION

(1969 Ford with AM Radio and Rear Speakers)

A condition where all the speakers (both front and rear) become inoperative during fader control operation can be caused by an incorrectly connected rear speaker wiring harness. This problem is due to an improperly manufactured wiring harness making it impossible to correctly connect the rear speaker wiring to the existing front speaker wiring.

This problem was corrected in production late August, by reversing the connections to the radio and front speaker and installing a short jumper wire to allow proper connection to the front speaker wiring.

This problem can be corrected on a customer complaint basis by reversing the connectors to the radio and front speaker. To perform this operation it will be necessary to modify the front and rear speaker wiring as outlined in the main article.

(TSB 101 — 11/1/68 — Article 1519)

NOISY OR POOR SOUNDING DOOR RADIO SPEAKER

(1969 Ford Equipped with AM/FM or AM Stereo Tape Radio)

A buzzing noise or poor sound quality from the door speakers during radio operation can be caused by an improperly installed door water shield. If the door water shield is installed over the speaker or if the water shield cut-out for the speaker is not

properly removed, speaker diaphragm movement can cause the paper to vibrate creating an objectionable buzzing noise.

When encountering a customer complaint vehicle exhibiting this problem, inspect for proper installation of the door water shield and correct as required. The water shield must be cut out to match the speaker opening in the door panel and must be sandwiched between the speaker frame gasket and the door inner panel to insure good speaker performance and to eliminate the possibility of water leaking into the vehicle.

(TSB 101 — 11/1/68 — Article 1523)

INOPERATIVE OR INTERMITTENT RIGHT DOOR SPEAKER

(1969 Mustang with AM/FM or AM Stereo Tape Player)

On some Dearborn built 1969 Mustangs the right door speaker was mislocated slightly to the rear allowing the window regulator mechanism to contact and short out the speaker wiring terminals resulting in intermittent or no speaker output.

This problem was corrected in production the last week in August by providing the correct speaker location and bending the speaker terminals to eliminate possible interference with the window mechanism.

When encountering a Dearborn unit built prior to September 1 with an inoperative or intermittent right door speaker, inspect for signs of shorting between the window mechanism and the speaker terminals. To correct a shorting condition bend the speaker wire terminals flat against the insulating material of the speaker basket.

(TSB 103 — 11/29/68 — Article 1557)

REAR SPEAKERS ARE INTERMITTENT OR DO NOT WORK

(Ford Equipped with AM Radio and Rear Speakers — 1969)

Inspect the connection between the fader control and rear speaker wiring harness under the left side of the instrument panel, see Figure 10 (main article). If this connection cannot be fully made, causing poor electrical contact, the fader control should be replaced with the appropriate new part from depot stock.

Also, refer to Technical Service Bulletin Articles 1519 and 1575.

Production Correction: September 1, 1968.

WARRANTY STATUS: REIMBURSABLE

Operation: SP-18972-A-69

Time: 0.3 Hr.

(TSB 111 — 3/14/69 — Article 1710)

RADIO INOPERATIVE — FUSE BLOWN

(Vehicles Equipped with Radio)

When diagnosing complaints of an inoperative radio and the fuse is blown, the following diagnostic checks should be made prior to radio chassis removal:

1. Check to see that the proper fuse size is in the circuit (See Chart).

2. Replace the fuse and operate all other components that are on the same fuse individually to determine if one of the other components is causing the fuse to blow (See Chart).

1969 VEHICLE RADIO SYSTEM FUSE USAGE

Car Line	Fuse Size	Components on Fuse
Ford	20 Amp	Radio, Back-up Lamps
Thunderbird	7.5 Amp	Radio, Rear Window Defogger
Thunderbird	15 Amp	Stereo Tape Player Kick-out Solenoid, Clock
Thunderbird	10 Amp	Power Antenna
Fairlane, Falcon, Maverick	20 Amp	Radio, Back-up Lamps, Windshield Washer
Mustang	20 Amp	Radio, Turn Signals, Back-up Lamps, Windshield Washer, PRND 21 Light

(TSB 116 — 5/30/69 — Article 1817)

RADIO KIT INSTALLATION INSTRUCTIONS

(Maverick - 1970)

The following procedure should be used when installing a radio kit in a Maverick:

1. Remove package shelf from under instrument panel.
2. Remove instrument cluster (refer to Maverick Shop Manual Section 15-080).
3. Remove defroster nozzle (one screw at heater plenum and four metal tabs).
4. Install speaker and plate assembly using the existing crash pad retaining studs and two "quickie bolts" installed to front edge of instrument panel.
5. Reinstall defroster duct.
6. Install radio rear support bracket to wiper motor mounting bracket.
7. Install radio bezel and instrument panel support bracket.
8. Install radio chassis and connect speaker and power feed wire.

NOTE: Radio power feed connector may be taped to the main wiring harness.

9. Install antenna (run lead-in cable through lower hole provided in hinge pillar).
10. Reinstall instrument cluster and package shelf.

(TSB 117 - 6/13/69 - Article 1837)

MUFFLED REAR SPEAKER OUTPUT - THIS ARTICLE CANCELS AND SUPERSEDES TSB ARTICLE 1575)

(Fords Equipped with Rear Speakers - 1969)

Remove the rear speakers and inspect to see that the package tray sound absorber material has been properly removed for the speaker openings and correct as required.

WARRANTY STATUS: REIMBURSABLE

Operation: SP-18875-B-69

Time: 0.3 Hr. for Both Speakers

DLR CODING: Basic Part No. 7046668 - Code No.: 17

(TSB 120 - 8/1/69 - Article 1908)

HUM IN RADIO SPEAKERS

(Ford with AM/FM Radio and Air Conditioning - 1969)

A poor connection at the ignition switch can cause a low frequency hum or "motorboat" noise audible in the radio speakers with the engine running and the radio on. Inspect the ignition switch and connector and if there are any signs of a loose connection (discolored terminals, melted or cracked plastic, etc.), or if the ignition switch is identified "Autolite Aetna, U.S.A.", replace both the ignition switch and wire harness connector as outlined in TSB No. 115, Article 1799.

A poor ground connection can also cause a low frequency hum. Inspect and tighten all ground (negative) connections from battery, to engine, to body.

PARTS:

Part No.	Name	Class	Avail.
C9AZ 14313 A	Wire Assy. Ignition Feed	B	OK
C8AZ 11572 A	Switch Assy. Ignition	A	OK

WARRANTY STATUS: Reimbursable under the provisions of the Warranty and Policy Manual.

Operation: SP-14313-A-69

Time: 0.8 Hr. - Includes switch and connector replacement.

DLR CODING: Basic Part No. 14401 - Code No. 97

(TSB 128 - 12/5/69 - Article 2026)

NOISE AND/OR POOR FM RECEPTION

(Vehicles Equipped with AM/FM Stereo Radio)

When diagnosing complaints of noisy or poor FM or FM stereo reception, be sure to consider the possibility of customer unfa-

miliarity with the unique characteristics of FM broadcast. These characteristics (described in detail below) can often result in noises which may lead the customer to believe that the radio system is not operating correctly. Therefore, it is advisable to road-test the vehicle with the customer, if at all possible over the route where problems are encountered, before any repair work is attempted.

FLUTTER

Flutter can best be described as repeated pops and hissing bursts heard in the speaker, during an otherwise good broadcast. Usually this condition exists while traveling in the fringe area of the station. Flutter will become more severe within approximately 25 miles of the station. The signal loss will become greater as you drive farther from the station, until finally noise takes over and you can no longer receive the station. Flutter may also be noticed near the station because of the "line-of-sight" characteristic of FM radio waves. This condition can happen when a building or large structure is between you and the station you are trying to receive (see Figure 2). Some of the FM signal "bends" around the building, but certain spots have almost no signal. Some of these signal losses are only a few inches wide and if your car is parked in one of these "dead spots" you will only hear noise from the speaker. As you move out of the shadow of the structure, the station will return to normal. Flutter will not occur on AM, because the radio waves are much longer than FM waves.

MULTIPATH CANCELLATION

Another effect caused by the "line-of-sight" characteristic is called cancellation. This condition exists when the radio waves are reflected from objects or structures (see Figure 3). The noises produced by cancellation are similar to flutter, with the addition of distortion in the program. A more familiar description of cancellation is its similarity to the multiple ghosts and picture jumping that occur on television when a low flying plane passes. The same condition exists in a car, except that a car is moving and the reflecting structure is stationary. The reflected signal cancels the normal signal, causing the antenna to pick up noise and distortion. Cancellation effects are most prominent in metropolitan areas, but can also become quite severe in hilly terrain and depressed roadways.

CAPTURE AND OVERLOADING

FM capture is an unusual condition that occurs when traveling in the vicinity of a broadcast tower. If you are listening to a weak FM station, when passing the broadcast tower, a stronger station up or down the radio dial may capture the weak station. This switch to the stronger station occurs without changing the radio dial. As you pass the tower, the station may switch back and forth a few times before returning to the station that you were listening to originally. When several broadcast towers are present (common in metropolitan areas) several stations may overload the receiver, resulting in considerable station changing, mixing and distortion. Fortunately this condition is localized and it will not harm your receiver. Some overloading may also be noticed on AM, but usually to a lesser degree.

FM STEREO SENSITIVITY

Because more data is carried in the FM stereo waves than in the monaural FM broadcasts, flutter, cancellation and capture are even more noticeable, especially in metropolitan areas, hilly terrain and depressed roadways. Also, for the same reason, FM stereo broadcast range averages about five miles less than for regular FM.

The 1970 AM/FM Stereo Operating Manual (included with every vehicle so equipped) should be helpful in explaining these unique characteristics to the customer. This manual also includes helpful suggestions on how to obtain the best possible radio reception.

WARRANTY STATUS: INFORMATION ONLY

(TSB 130 - 12/19/69 - Article 2042)

ANTENNA INSTALLATION

(Fairlane 1970)

All the antenna mounting holes should be drilled to prevent possible fender distortion in that area. Also, on vehicles with air conditioning or high level ventilation, removing the glove box liner provides greater access for antenna lead-in cable installation.

WARRANTY STATUS: INFORMATION ONLY

(TSB 130 - 12/19/69 - Article 2043)

Stereo Tape

STEREO TAPE PLAYER PROBLEM DIAGNOSIS - CROSSTALK OR SLOW TAPE SPEED

(All Vehicles Equipped with the Optional Stereo Tape Player)

Recent reports from the field indicate that customer complaints of crosstalk (garbled sound) or slow tape speed are being encountered on some vehicles equipped with stereo tape players. Because these conditions can result from problems with the tape player chassis or the tape cartridge, use a known quality tape cartridge (Ford Family of Fine Music C8AZ 18816A) as a diagnosis aid to make certain that the problem is not associated with the customer's tape cartridge before removing the chassis for repair. If the tape player functions satisfactorily with a known quality tape cartridge, remind the customer of proper tape maintenance or advise him to return the malfunctioning tape cartridge to the source of purchase. If the tape player does not function satisfactorily, remove it and send it to the nearest qualified repair shop for correction.

(TSB 87 - 3/8/68 - Article 1306)

Clock

REVISED CLOCK REPLACEMENT PROCEDURE

(All 1967 Fords)

The procedure published in the 1967 Ford-Mercury Shop Manual requires 0.9 hours. The revised procedure given in the main article reduces the required time to 0.6 hours as published in the time schedule for Operation 15000-A.

(TSB 91 - 5/3/68 - Article 1376)

Windshield Wipers and Washers

INTERMITTENT OR INOPERATIVE WINDSHIELD WIPERS

(1968 Ford - Custom, Custom 500 and Ranch Wagon)

Reports from the field indicate that complaints of intermittent or inoperative windshield wipers on 1968 model Fords not equipped with an ash tray light may be due to the unused ash tray light wiring contacting and shorting the windshield wiper circuit breaker.

Action was taken April 1, 1968 to insure that the ash tray light wiring lead is properly clipped and held away from the windshield wiper circuit breaker on all models.

When encountering customer complaints of intermittent or inoperative windshield wipers, or when performing other electrical repairs under the instrument panel, check to see that the ash tray light wiring lead is clipped to the ash tray bracket and held away from the windshield wiper circuit breaker (as illustrated in the main article) and correct as required.

(TSB 94 - 6/21/68 - Article 1433)

CIGAR LIGHTER OPENING MISALIGNED TO SPEAK

(1969 Ford)

1. Remove cigar lighter and radio, heater, and wiper control knobs.

2. Remove the instrument cluster cover retaining screws and remove the cover.

3. Break off the alignment tabs on the left side and at the center of the cover as shown in Figure 10.

4. Place the cover in position on the instrument panel with the cigar lighter opening properly aligned to the cigar lighter socket and install and tighten each retaining screw in the sequence shown in Figure 10.

NOTE: As each screw is installed and tightened, be sure to hold the cover securely to maintain the desired alignment to the lighter socket.

5. Install the cigar lighter and wiper, radio, and heater control knobs.

PARTS: None.

Production Correction: Not Applicable.
WARRANTY STATUS: Reimbursable on a customer complaint basis.
Operation: SP-15044-A-69
Time: 0.3 Hr.

EXCESSIVE ROAD SPLASH REQUIRING FREQUENT USE OF WINDSHIELD WASHERS (Thunderbird - 1967-69)

1. Procure one C6OZ-17808-C Rear Bumper Stone Deflector.

2. Cut two splash shields (22" lengths) from the above deflector.

NOTE: Shields should be cut from deflector area having the downstanding lip section as shown in Figure 16, View 1.

3. Remove three of the six fender to apron attaching bolt and washer assemblies, No. 2, No. 3, and No. 4, as shown in Figure 16.

4. Apply the shield to the wheel opening having two inches overlap fore and aft of the No. 2 and No. 4 bolt locations respectively.

5. Pierce holes in the shield at the three bolt locations.

NOTE: Do not pierce through downstanding lip of shield.

6. Install the shield using the three bolts removed in Step No. 3.

NOTE: Prevent shield from deforming while tightening bolts.

7. Perform Steps No. 3 through No. 6 for opposite fender.

PARTS:

Qty.	Part No.	Name	Class	Avail.
2	C6OZ-17808-C	Rear Bumper Stone Deflector	C	OK

WARRANTY STATUS: Reimbursable within the provisions of the W/P Manual.
Operation: SP-17808-A-69
Time: One Side - 0.4 Hr.
Both Sides - 0.7 Hr.
(TSB 111 - 3/14/69 - Article 1714)

WINDSHIELD WIPER ARM PRESSURE IMPROVEMENT (1969 Ford - All Models)

Disposable pre-load pin in the wiper arm must be removed to obtain maximum wiper blade pressure against the windshield.

To remove the pre-load pin, operate the wiper blades and stall the blades in the vertical position by turning the ignition switch off. Raise the wiper arm off the windshield to relieve the spring pressure. Remove and discard the pre-load pin(s). (Refer to Figure 18.)

PARTS: None.

Production Correction: Approx. 11/18/69.

(TSB 111 - 3/14/69 - Article 1716)

WINDSHIELD WIPER DRIVE LINK - INTERFERENCE WITH COWL TOP INNER PANEL (Ford - 1969 All Models)

1. Remove the windshield wiper arms and blades and the upper cowl grille panel from the vehicle.

2. Cycle the wiper drive link arm to determine the exact point of contact or interference with the cowl top inner panel.

3. Using a wood or fibre tool with a blunt end, flatten the forward one inch of the outboard bead and the adjacent flat surface of the inner cowl panel until sufficient clearance is provided between the panel and the travel of the wiper drive link, refer to Figure 19.

4. Reinstall the upper cowl grille panel, wiper arms and blades.

PARTS: None.

Production Correction: Approximately December 18, 1968.

WARRANTY STATUS: REIMBURSABLE
Operation: SP-17508-B-69
Time: 0.4 Hr.

(TSB 111 - 3/14/69 - Article 1717)

WINDSHIELD WIPERS - WILL NOT PARK (Ford - 1969)

If diagnosis shows that the motor runs for a short period immediately after turning the wiper switch off and the wiper arms do not park, remove the motor and inspect the windshield for a bent tab. If the tab is bent or broken, replace the part by installing a windshield wiper motor output arm kit. If the motor does not run after turning the switch off, check for electrical problems. A bent windshield tab will permit the wipers to function normally when wiping but they will not return to the park position after the switch is turned off.

PARTS:

Part No.	Name	Class	Qty.	Avail.
C9AZ-17A436-B	Kit Windshield Wiper Motor Output Arm	B	1	2:15-69

WARRANTY STATUS: REIMBURSABLE
Operation: 17436-B

Time: 0.8 Hr.

(TSB 112 - 4/4/69 - Article 1737)

INCORRECT WINDSHIELD WIPER ARM ASSEMBLIES (1970 Maverick)

Some vehicles built prior to March 27, 1969, may have been equipped with Fairlane - Falcon wiper arm assemblies rather than the prescribed Maverick assemblies. This wiper arm is too long and causes the wiper blade to contact the "A" pillar moulding and the windshield belt moulding creating possible wind lift off. Refer to parts catalog for correct wiper arm assembly.

PRODUCTION CORRECTION: March 21, 1969.

WARRANTY STATUS: INFORMATION

(TSB 116 - 5/30/69 - Article 1818)

WINDSHIELD WIPER - LEFT HAND ARM & BLADE STAY IN UP POSITION - N SERIES (1968-69 N Series Trucks with Electric Windshield Wiper Motor)

Install a new left hand linkage arm and pivot using the procedures given in the main article.

NOTE: The windshield wiper motor should be operated with the left linkage arm disconnected at the motor. If the wiper motor is damaged or inoperative, replace with a new wiper motor, Part Number C7TZ-17508-D, Class A.

PARTS:

Part Number	Part Name	Class	Quan.	Avail.
C1TB-17A548-A	W/S Wiper Pivot Shaft Assy.	A	1	OK
C1TB-17540-A	W/S Linkage Arm (Left Hand)	A	1	OK
C3SZ-17531-A	Clip	A	1 Pk.	OK
C1TB-17A475-B	W/S Shaft Seal	B	1 Pk.	OK
374669-S2	Wave Washer	BS	1 Pk.	OK

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: SP-17566-A-69

Time: 0.4 Hr.

DLR CODING: 17540-41

(TSB 119 - 7/18/69 - Article 1882)

WINDSHIELD WIPER OPERATION IS NOISY (Maverick - 1970)

Subject units may exhibit a noise behind the instrument panel during windshield wiper operation due to the left hand wiper pivot arm hitting the cowl inner panel.

Dealers can provide satisfactory correction by modifying the left hand wiper pivot arm.

PARTS: None.

PRODUCTION CORRECTION: Approximately May 2, 1969.

WARRANTY STATUS:

Operation:

Time:

(TSB 122 - 9/5/69 - Article 1940)

WINDSHIELD WIPER ARM - W SERIES (1968-69 W-WT-1000-D Trucks)

Replace the existing flat section windshield wiper arm assembly with an improved wiper arm assembly in cases of inadequate wiper action not due to worn blades.

PARTS:

Part Number	Part Name	Class	Avail.
DOXZ-17526-A	Windshield Wiper Arm	C	9-1-69

PRODUCTION CORRECTION: August 4, 1969.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty and Policy Manual.

Operation: SP-17526-A-69

Time: 0.3 Hr.

DLR CODING: Basic Part No. 17526 - Code No. 53

(TSB 122 - 9/5/69 - Article 1941)

WINDSHIELD WIPER OPERATION IS NOISY (Maverick - 1970 - This Supersedes Article No. 1940 in Bulletin No. 122, Dated September 5, 1969)

Some 1970 units may encounter an annoying noise behind the instrument panel during windshield wiper operation due to the left hand wiper pivot arm hitting the cowl inner panel.

Dealers can provide satisfactory correction by modifying the left hand wiper pivot arm.

PARTS: None.

PRODUCTION CORRECTION: Approximately May 2, 1969.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: SP-17566-B-70

Time: 0.5 Hr.

(TSB 123 - 9/26/69 - Article 1952)

WINDSHIELD WIPER SWITCHES NOT INTERCHANGEABLE

(Mustang 1969-70 - Fairlane 1970)

Although the windshield wiper switches for intermittent and non-intermittent wiper systems have the same physical appearance they are not interchangeable. Using a non-intermittent switch on an intermittent wiper system or interchanging switches between carlines will cause damage to the transistorized governor requiring governor replacement. The chart below lists the proper switch usage.

	Standard 2-Speed	Optional Intermittent
1969 Mustang Eng. No.	C9ZB-17A553-A C9ZC-17A553-A	C9ZB-17A553-E Refer to Parts Catalog
1970 Mustang Eng. No.	D0ZB-17A553-A D0ZZ-17A553-B	D0ZB-17A553-B D0ZZ-17A553-A
1970 Fairlane Eng. No.	D00B-17A553-D D00Z-17A553-A	D00B-17A553-E D00Z-17A553-B

WARRANTY STATUS: INFORMATION ONLY

(TSB 125 - 10/24/69 - Article 1980)

IMPROPER PARK POSITION OF L.H. WINDSHIELD WIPER ARM ASSEMBLY (1970 Fairlane)

It has been noted that on a few 1970 Fairlane vehicles, the left hand windshield wiper arm will not park in the specified design position after wiper operation.

If necessary, vehicles built prior to August 15, 1969 can be corrected by reworking the pivot drive head as shown in Figure 5.

WARRANTY STATUS: Reimbursable under the provisions of the Warranty and Policy Manual.

Operation: SP-17526-A-70

Time: 0.3 Hr.

DLR. CODING: Basic Part No. 17566 - Code No. 07

(TSB 127 - 11/21/69 - Article 2009)

VACUUM SYSTEMS

DIAGNOSTIC PROCEDURE FOR THE MODIFIED 1967 THUNDERBIRD VACUUM SYSTEM

(1967 Thunderbird Units Built After October 18, 1966)

Diagnosis procedure for the modified central vacuum system on the 1967 Thunderbird is covered in this article. A brief description of the system modification is included to supplement the diagnosis and testing procedures. Also included are illustrations and vacuum schematics for the following: Headlight covers, door locks, luggage compartment door latch remote control, heater and heater A/C control systems.

All replaced vacuum hoses and vacuum components are subject to Company recall for evaluation and therefore should be properly tagged as soon as they are removed from the vehicle.

Service information required for repair of vacuum systems on Thunderbird vehicles built prior to the modification (October 18, 1966 build date) is contained in Technical Service Bulletin #46, Article 908, dated September 9, 1966.

(TSB 59 - 2/10/67 - Article 990)

VACUUM CONTROLLED COMPONENTS INOPERATIVE

(Ford and Thunderbird - 1968 and 1969)

Install a plastic clamp on any leaking vacuum hose connector in the following systems:

- Headlamp Doors
- Door Locks
- Speed Control
- Washer Coordinator
- Air Conditioning or Climate Control
- Rear Vent
- Rear Deck Lid Release

PARTS:

See Figures 11, 12, and 13.

Part No.	Description	Class	Availability
383313-S	Plastic Clamp	S	OK

Production Correction: 1/20/69.

(TSB 111 - 3/14/69 - Article 1711)

SPEED CONTROL AND SKID CONTROL

THUNDERBIRD SPEED CONTROL HOLDING RELAY REPLACEMENT

(1966 Thunderbird So Equipped)

When replacing the holding relay on 1966 Thunderbirds built prior to January 7, 1966, it will be necessary to rework the wiring harness to accommodate the service replacement assembly. The original relay has five wires and the new service part has three wires. Detailed illustrations identifying the part, location, and resulting circuit are shown in the main article.

(TSB 39 - 5/20/66 - Article 794)

CORRECTION TO SHOP MANUAL - SPEED CONTROL WIRING DIAGRAMS AND SET-SPEED SWITCH DIAGNOSIS

(1968 Ford and Mustang)

The wiring diagrams for the 1968 Ford and Mustang speed control systems appearing in the 1968 Shop Manuals and the 1968 Wiring and Vacuum Diagrams book are incorrect. The main article contains the correct wiring diagram to be used when diagnosing problems with the Ford and Mustang speed control system. Also, the diagnosis procedure for the set-speed switch as listed in part 16-3 of the Shop Manuals is incorrect. The correct procedure is as follows:

1. Disconnect the set-speed switch connector (green three wire plastic column) at the base of the steering column).

2. Connect a self-powered test light to the center male terminal and the white wire terminal of the connector.

- Button in normal position (out) - light on.
- Button in first detent position - light on.
- Button fully depressed - light out.

3. Disconnect the test light lead from the white wire terminal and connect it to the violet wire terminal.

- Button in normal position (out) - light out.
- Button in first detent position - light on.
- Button fully depressed - light out.

(TSB 86 - 2/23/68 - Article 1297)

CORRECTION TO THE 1968 FORD-MERCURY SHOP MANUAL

(1968 Ford and Mercury)

On page 16-33 of the 1968 Ford-Mercury Shop Manual, correct the first sentence in Step 3 listed under Turn Signal Lever Set-Speed Switch Test to read as follows:

3. Depress the switch to the first detent, there should be continuity between the center terminal of the connector and the violet wire terminal.

(TSB 88 - 3/22/68 - Article 1337)

ACCELERATE FEATURE OF AUTOMATIC SPEED CONTROL DOES NOT FUNCTION

(1969 Ford - Speed Control Equipped)

The accelerate feature of the automatic speed control system can become inoperative due to a short between the two resistors (mounted in steering wheel) in the set-accelerate/coast switch wiring. Although there is no possibility of damage to the resistors, wiring, or surrounding components, the short causes the coast circuit to be energized when pushing the "Set-Acc" portion of the switch resulting in a reduction of the set speed instead of an increase.

This problem was corrected in production early October and can be corrected in the field by using tape to insulate the two resistors from each other as described and illustrated in the main article.

(TSB 101 - 11/1/68 - Article 1531)

SPEED CONTROL AND HORN INOPERATIVE

(Ford With Speed Control - 1969)

Remove the steering wheel and inspect the speed control ground brush in the steering column for poor contact to the steering wheel contact ring. If the brush contact ring is broken or the spring has wound up on the retaining clip, then by providing insufficient spring pressure, the brush assembly should be replaced. Refer to the 1969 Car Shop Manual, Group 3 for steering wheel removal and installation.

PARTS:

Part Number	Name	Class	Avail.
CS9AZ-9C899-A	Brush Assembly Speed Control	B	OK

WARRANTY STATUS: REIMBURSABLE

Operation: SP-9C899-A-69

Time: 0.4 Hr.

SPEEDOMETER SYSTEM NOISE

(All Vehicles - 1969 Model)

To eliminate noise in the speedometer system, the following procedure is suggested:

1. Check the speedometer cable for visible defects such as routing, damaged or kinked conditions. Make repairs as necessary.

2. With the speedometer cable disconnected at the speedometer head, work a dab of CS9AZ-19581-A lubricant approximately the size of a 3/16" diameter ball into the speedometer magnet shaft hole. Connect the speedometer at the speedometer head and road test.

If the speedometer system noise level has still not decreased to an acceptable level follow additional procedures outlined in the car diagnostic manual number P19.

PARTS:

Part Number	Part Name	Quantity	Code
CS9AZ-19581-A	Lubricant	1	C

WARRANTY STATUS: Reimbursable under the provisions of the Warranty & Policy Manual.

Operation: SP-17255-A-69

Time: 1.0 Hr.

(TSB 119 - 7/18/69 - Article 1866)

IMPROVED SPEEDOMETER AND TACHOMETER CABLE ROUTINGS - C SERIES

(1968-69 C 550-1000 Series Trucks)

Remove the speedometer and tachometer cable clips and add a 45° speedometer adapter, C1TF-17A270-A, Class A, between the speedometer head and cable. Reference Figure 8 and the main article.

PART:

Part Number	Part Name	Class	Avail.
C1TF-17A270-A	45° Speedometer Adapter	A	OK

PRODUCTION CORRECTION: 6-30-69.

WARRANTY STATUS: Reimbursable with in the provisions of the Warranty & Policy Manual.

Operation: SP-17260-A-69

Time: 0.4 Hr. Add 0.3 Hr. to lower 2-speed adapter.

DLF CODING: Basic Part No. 17A270 - Code No. 59

(TSB 121 - 8/15/69 - Article 1928)

AIR CONDITIONING

AIR CONDITIONER EXPANSION VALVE DIAGNOSIS PROCEDURE

(All Air Conditioner Equipped Vehicles)

Inspection of air conditioner expansion valves returned from the field indicate that many of them are not defective as alleged. If the expansion valve is suspected of a malfunction, a step-by-step diagnosis procedure for checking can be performed without removing the expansion valve from the vehicle.

(TSB 63 - 3/31/67 - Article 1025)

AIR CONDITIONER EXPANSION VALVE DIAGNOSIS PROCEDURE

(All Air Conditioner Equipped Vehicles)

Inspection of air conditioner expansion valves returned from the field indicates that many of them are not defective as alleged. A step-by-step diagnosis procedure can be performed without removing the valve from the vehicle. All expansion valves suspected of a malfunction must be checked in accordance with this procedure before attempting a valve replacement. The procedure for checking a suspected expansion valve malfunction is as follows:

1. Install suction and discharge pressure gauges on the compressor service valves.

2. Open the valves and operate the engine at 2000 RPM with the air conditioner control on high blower and maximum cooling.

3. Observe the pressure gauges.

A. If the suction pressure does not stabilize (varies more than 10 PSI) then:

(1) Stop the engine; remove the expansion valve thermal bulb and clamp; clean the bulb, clamp, and suction line thoroughly; re-install the bulb and clamp SECURELY and re-insulate.

(2) If the problem still exists proceed with Step C-1.

B. If the pressure remains above 50 PSI, and the compressor knocks, then:

(1) Check the thermal bulb for looseness and perform Step A-1.

(2) If the problem still exists, proceed with Step C-1.

C. If the pressure goes below 0 PSI, then:

(1) Stop the engine, exhaust the freon charge slowly through the suction service valve gauge port and observe the discharge pressure gauge. If the discharge pressure does not drop below 70 PSI, the valve is stuck shut, and the valve should be replaced.

(2) If the discharge gauge pressure does drop, exhaust the entire charge, evacuate the system and recharge with the specified weight of refrigerant.

(3) If the system now functions normally, the problem was caused by a low charge and, therefore, the leak must be found and repaired.

(4) If the system does not function nor-

ally, the problem is elsewhere. It is suggested that the compressor function and oil level be checked.

Refer to Technical Service Bulletin No. 53, issued December 2, 1966, Article No. 963, for additional information on compressor diagnosis.

(TSB 89 - 4/6/68 - Article 1342)

EVAPORATOR CONDENSATE DRAIN HOSE

(1967 Mustang Equipped With Integral Air Conditioning Heater System)

Reports from the field indicate that in some cases the evaporator drain tube on Mustang units equipped with the integral air conditioning heater system is being dislodged from the floor pan allowing condensate drainage from the evaporator to flow into the passenger compartment.

This condition was corrected on units built after approximately April 4, 1967 by incorporating a new drain tube assembly (C77Z-19858-C) with a retention feature that secures it to the floor pan. The main article provides a step by step procedure for correcting this problem in the field.

(TSB 68 - 5/19/67 - Article 1084)

AIR CONDITIONER COMPRESSOR SECONDARY DUST SHIELD

(All Models Equipped With Air Conditioning)

A new air conditioning compressor shield, to prevent external dust and dirt from getting into the crankshaft seal area and causing leaks, has been designed and released. All compressors built after March 15, 1967 contain this newly designed shield. The procedure for replacing crankshaft seals on compressors without the dust shield. Do not attempt to install the dust shield on compressors built prior to March 15, 1967. Refer to the main article for illustrations and detailed repair procedures.

(TSB 71 - 7/14/67 - Article 1121)

AIR CONDITIONING COMPRESSOR DRIVE BELT VIBRATION AND RUMBLE CORRECTION

(1967 Mustang 289 CID Engine with Air Conditioning Built After March 1, 1967)

Customer complaints of compressor noise of vibration caused by drive belt flutter can be corrected by installing a tight side idler pulley on 1967 Mustang vehicles equipped with 289 CID engines and air conditioning built prior to March 1, 1967. For parts list and installation instructions refer to the main article.

(TSB 71 - 7/14/67 - Article 1122)

AIR CONDITIONING INSUFFICIENT COOLING AND EVAPORATOR CASE SWEATING

(1967 Mustang Equipped with Integral Air Conditioning)

Customer complaints of insufficient cooling or evaporator case sweating under high humidity and high ambient temperature may be caused by one or more of the following conditions.

- Evaporator core icing.
- Improper seal between evaporator case inlet gasket and cowl air inlet.
- Heater hose grommets on dash panel omitted or improperly installed.
- Refrigerant line seal and retainer improperly installed at dash panel.
- Antenna lead-in cable improperly installed or omitted.

The main article contains procedures and illustrations for correcting the above conditions.

(TSB 71 - 7/14/67 - Article 1123)

EVAPORATOR CASE CONDENSATE LEAK

(1967 Mustang Equipped with Integral Air Conditioning)

This article cancels and supersedes Article 1090 in Bulletin No. 68 released May 19, 1967.

Customer complaints of water leaking on the right front floor carpeting can be caused by inadequate sealing of the two-piece evaporator case or by a kinked or plugged condensate drain hose.

Evaporator case leaks can be corrected by applying black rubber silicone sealer and filler (C3AZ-19562-B) in the tongue and groove of the flange between the upper and lower section of the evaporator case. Water leaks caused by the drain hose can be corrected by removing the rubber membrane from the hose and insuring positive drainage. Refer to the main article for illustrations and detailed repair procedures.

(TSB 71 - 7/14/67 - Article 1125)

AIR CONDITIONER - USE OF 1967 MASTER KITS ON 1968 VEHICLES

(Ford and Lincoln-Mercury Dealers)

In most regions of the country, the air conditioner season is drawing to a close. Some of you may have an inventory of 1967 Air Conditioner Master Kits on hand. For your information, 1967 Air Conditioner Master Kits may be used on 1968 vehicles. The adaptation procedure is simple and most of the parts required can be improvised in the dealership. The instructions and drawings give full details on the adjustments necessary to adapt 1967 master kits to 1968 vehicles.

(TSB 79 - 11/17/67 - Article 1205)

INTERMITTENT BLOWER MOTOR OPERATION

(1968 Ford Equipped with Integral Air Conditioning Heating System)

Customer complaints of intermittent air conditioning blower operation have been received on some 1968 Fords with the integral air conditioning system. This problem may be caused by the blower motor and the wiper motor wires being misconnected (reversed) at their respective circuit breakers which are located adjacent to each other on the lower lip of the instrument panel.

When encountering customer complaints of intermittent blower motor operation, assure that the blower motor and wiper motor wires are properly connected before attempting repair.

CORRECT CIRCUIT BREAKER WIRING CONNECTIONS

- Blower motor wires - (1) yellow, (1) black with green stripe - 25 amp circuit breaker (C8AZ14526-A)
- Wiper motor wires - (2) orange with white stripe - 7-1/2 amp circuit breaker (C7AZ14526-C)

The main article contains an illustration showing the location of circuit breakers and related wiring connections.

(TSB 85 - 2/9/68 - Article 1276)

EXCESSIVE BLOWER MOTOR NOISE ON LOW BLOWER SPEED

(1968 Thunderbird Equipped with Automatic Temperature Control System)

Customer complaints of excessive blower noise when the automatic temperature control system is on "Low" position can be corrected by replacing the existing blower resistor assembly (C8SZ19A706-A) with a Lincoln Blower Resistor Assembly (C6VY18591-B).

The Thunderbird blower resistor backplate is tan and the Lincoln Resistor backplate is red for identification. The main article contains an illustration showing the location of the blower resistor assembly.

(TSB 80 - 2/9/68 - Article 1279)

AUTOMATIC CLIMATE CONTROL SYSTEM OPERATION AND MODIFICATION OF UNITS BUILT BEFORE NOVEMBER 6, 1967

(1968 Thunderbird)

Customer complaints of erratic passenger compartment air temperature may be encountered on 1968 Thunderbird units built prior to November 6, 1967. This problem occurs after the passenger compartment air temperature cools below the approximate temperature selected on the control when operating the A.T.C. system on "High" control position under high ambient temperature and high humidity conditions.

To correct this condition on early built units, it will be necessary to modify the A.T.C. system. The modification includes installation of an additional water valve solenoid (C8SZ-18C536-A), a modified power servo (C8SZ-18C495A) and a new vacuum harness (C8SZ-19C827K). Refer to the main article for illustrations and detailed repair procedures.

(TSB 88 - 3/22/68 - Article 1328)

REFRIGERANT LINES DAMAGED DUE TO IMPROPER INSTALLATION OF SUPPORT CLAMP

(1968 Fairlane and Falcon Equipped with 8 Cylinder Engines and Air Conditioning)

Customer complaints of "no cooling" in some cases may be the result of a freon leak in the refrigerant line. If the refrigerant lines are not properly supported at the spring tower they may be cut by the sharp edges of the air cleaner inlet tube.

Before attempting other A/C repairs inspect the refrigerant lines for damage and make certain that the lines are routed above the air cleaner air duct tube. The proper hose routing and clip retention is illustrated in the main article and should be checked during new car preparation or during servicing of the A/C system.

(TSB 89 - 4/6/68 - Article 1346)

AIR CONDITIONING RECEIVER-DRYER RESTRICTED WITH FOREIGN MATERIAL

(1967 and 1968 Mustang, Fairlane and Falcon Units Equipped with A/C)

Customer complaints of no cooling from the air conditioning system may be caused by foreign material build-up inside the receiver-dryer assembly at the filter screen which eventually restricts the flow of refrigerant throughout the system. This problem was corrected beginning with approximately February 1968 built units.

When this condition occurs, depending upon the amount of restriction, the problem may appear to be either a sticking expansion valve, noisy compressor or a leaking water valve. In operation the restriction will result in foam in the sight glass and/or blown head gasket. Also in some cases the A/C clutch will not cycle normally and continued operation under these conditions will severely damage the compressor.

Refer to the main article for a diagnosis procedure to determine if the receiver-dryer is restricted.

(TSB 91 - 5/3/68 - Article 1369)

INOPERATIVE AND/OR LEAKING HEATER WATER VALVE

(1968 Fairlane or Falcon Equipped with Integral Air Conditioning System)

Customer complaints of loss of engine coolant may be caused by leaking heater water valves on the 1968 Fairlane or Falcon with integral air conditioning systems. This condition can be corrected by replacing the existing dual water valve with a new design water valve and bracket assembly (Part number C8OZ-18495-C, Class BP). A replacement procedure is outlined in the main article with appropriate illustrations.

(TSB 98 - 9/13/68 - Article 1476)

ERRATIC OR NO BLOWER OPERATION

(1968-1969 Fairlane and Falcon Equipped with Integral Air-Conditioner-Heater System)

Customer complaints of erratic or no blower operation on 1968 or 1969 Fairlane or Falcon vehicles can be caused by a loose terminal connection at the single terminal on the blower resistor assembly located on the rear surface of the evaporator case assembly.

This condition can be corrected by replacing the existing female terminal on the blower motor lead wire (orange) to insure more positive retention to the resistor terminal.

When performing this repair use the following procedure:

- Remove orange wire from resistor assembly.
- Cut off the female terminal from orange wire.
- Install one B9A-14294-L female terminal connector on orange wire.
- Install wire terminal on resistor terminal and check for positive retention.
- Check blower operation.

The main article contains an appropriate illustration.

(TSB 101 - 11/1/68 - Article 1534)

INSUFFICIENT COOLING, HEATING AND DEFROSTER OPERATION

(1969 Ford)

Customer complaints of insufficient cooling, heating or defroster operation can be caused by one or more of the following problems:

VEHICLES EQUIPPED WITH A/C HEATER SYSTEMS

- Defroster ducts improperly assembled to plenum chamber.
- Inoperative recirculating air door due to improper installation of vacuum motor.
- Inadequate cooling caused by right cowl trim panel restricting air circulation.
- A/C refrigerant line rubbing on air cleaner resulting in damage to suction line and possible loss of refrigerant.

- Water valve vacuum hose kinked.
- Water valve vacuum motor-diaphragm sticking.
- Air leaks through dash panel due to improper installation of grommets around vacuum hoses and electrical wiring.
- Control cables improperly routed, kinked, or improperly adjusted.
- Air loss through evaporator case covers.
- Loose plenum and evaporator case to dash panel mounting screws causing air and water leaks.

VEHICLES EQUIPPED WITH STANDARD HEATER

- High efforts on mode door control cable caused by improper assembly of deflector on mode (Off-Heat-Defrost) door.
- Control cables improperly routed, kinked, or improperly adjusted.

The main article outlines the corrective procedures for correcting the above problems.

(TSB 104 - 12/13/68 - Article 1580)

ENGINE IDLE OVERHEATING

1968 and 1969 Thunderbird Models with Air Conditioning

Some 1969 Thunderbird models built prior to September 16, 1968, and some 1968 Thunderbird vehicles with air conditioning may exhibit engine idling overheating problems. If the problem persists after completing normal diagnostic procedures described in the shop manual, remove the water pump and measure the impeller. If the water pump impeller measures 3.75" in diameter, replace it with the new 1969 water pump assembly incorporating a 4.60" diameter impeller (part number C9VZ-8501-A, Class A).

(TSB 105 - 12/20/68 - Article 1607)

VENDOR SUPPLIED AIR CONDITIONER KITS

(All Corvair)

Field information indicates that vendor supplied air conditioner kits come with a spacer and multi-bladed metal fan to be installed on the water pump hub. This added

weight, in some cases, may cause water pump failures.

It is recommended that an eight-bladed plastic fan (Part Number 2733E-8607-A) be used in place of the multi-bladed metal fan included in the air conditioning kit to reduce the possibility of water pump failures.

(TSB 109 - 2/14/69 - Article 1655)

A/C/HEATER LEFT INSTRUMENT PANEL AIR REGISTER - AIR DISCHARGE INADEQUATE

(Thunderbird - 1969)

Check air velocity out of registers. If there is a loss of air through the left register, check under instrument panel around rear of register for air leaks. If air leaks are evident at rear of register, install polyurethane strip to provide a seal between the register and air duct (refer to Figure 14).

PARTS: 1/4 x 3/8 inch polyurethane tape - obtain local hardware.

Production Correction: 9/68.

WARRANTY STATUS: REIMBURSABLE

Operation: SP-19700-A-69

Time: 0.5 Hr.

(TSB 111 - 3/14/69 - Article 1712)

AIR CONDITIONING COMPRESSOR VIBRATION

(Thunderbird - 1969)

Refer to Figure 15 and tighten all compressor bracket retainer bolts as follows:

1. Loosen idler pulley adjusting screw and remove compressor drive belt.

2. Remove compressor bottom support bracket mounting nut (1).

3. Remove four (4) upper mounting bracket screws.

4. Slide compressor assembly forward to clear the three (3) studs on the block.

5. Torque the two (2) upper mounting bracket to block screws to 30-50 lb. ft.

6. Reverse the above procedure to reinstall the compressor, with reference to torque specifications on Figure 15.

7. Tighten the compressor drive belt to 110 lbs.

PARTS: None.

Production Correction: 1/1/69.

WARRANTY STATUS: REIMBURSABLE

Operation: SP-2875-A-69

Time: 1.1 Hrs.

(TSB 111 - 3/14/69 - Article 1713)

A/C COMPRESSOR - DRIVE BELT TENSION SPECIFICATION CHANGE

(All Vehicles)

The air conditioning compressor belt minimum tension specification has been changed from 70 lbs. to 90 lbs. The increase in the minimum belt tension is helpful in reducing belt vibration and rumbling noise when the air conditioner is in operation. All air conditioning drive belts should be checked for the minimum tension during pre-delivery operation or when the vehicle is brought in for A/C service.

PARTS: None.

(TSB 113 - 4/18/69 - Article 1763)

AIR CONDITIONER EXPANSION VALVE DIAGNOSIS PROCEDURE

(All Vehicles Equipped with Air Conditioning)

All expansion valves suspected of a malfunction should be checked in accordance with the outlined procedure before attempting a valve replacement.

PARTS: None.

(TSB 113 - 4/18/69 - Article 1764)

A. C. COMPRESSOR BELT CONTACTS RADIATOR HOSE
 In 1967/250 Series With A.C. and 240/300 CID Engine — 1969)

Replace upper radiator hose with part number shown.

PARTS:

Part Number	Part Name	Class	Avail.
C9TZ-8260-B	Upper Radiator Hose	C	OK

PRODUCTION CORRECTION: 10-10-68.

WARRANTY STATUS: Reimbursable with in the provisions of the Warranty & Policy Manual.
 Operation: 8260-A
 Time: 0.5 Hr.

(TSB 117 — 6/13/69 — Article 1834)

AIR CONDITIONING REGISTER BINDING — RIGHT OUTBOARD

(Ford — 1969)

The binding condition can be corrected by replacing the existing right hand register assembly with a new register assembly made after April 8, 1969 (refer to Figure 12).

DO NOT ATTEMPT TO LOOSEN THE ROTATING BALL WITH SILICONE LUBRICANT.

The Felt Cement in the register and the silicone lubricant are not compatible and will cause the cement to lose its adhesive quality.

PARTS:

Part Number	Part Name	Availability
C9MY-19893-D	A/C Outlet Register	7/21/69

PRODUCTION CORRECTION: 4-8-69.

WARRANTY STATUS: REIMBURSABLE
 Operation: SP-19893-A-69
 Time: 0.6 Hr.

(TSB 119 — 7/18/69 — Article 1833)

AIR CONDITIONING BLOWER CUTS OUT — THIS ARTICLE CANCELS AND SUPERSEDES TSB ARTICLE 1884

(Ford — 1969)

Replace the existing air conditioning circuit breaker (located under instrument panel

near ignition switch) with a 30 amp circuit breaker making sure that the wire terminals are securely fastened to the circuit breaker studs. Also inspect the ignition switch and ignition switch connector. If the switch is identified "Autolite Aetna, U.S.A.", or shows signs of heat damage (discolored terminals, melted or cracked plastic, etc.), replace the switch and the wiring harness connector as outlined in TSB Article No. 1799.

PARTS:

Part Number	Part Name	Class	Avail.
DDAZ-14526-A	Breaker Assy, Fuse - Elec. Circuit	B	Aug. 1

PRODUCTION CORRECTION: July, 1969.
WARRANTY STATUS: REIMBURSABLE
 Operation: SP-14526-A-69 — Replace Circuit Breaker
 Time: 0.3 Hr.
 D.L.R. CODING: Basic Part No.: 14526 — Code No.: 11

(TSB 120 — 8/1/69 — Article 1909)

AIR CONDITIONER CLUTCH SWITCH REPLACEMENT

(Ford — 1969)

When replacing the 1969 Ford air conditioner clutch switch it is not necessary to remove the instrument panel pad. Correct the procedure for CLUTCH SWITCH, page 16-02-32 of the 1969 Car Shop Manual to read as follows: At the left side of the plenum chamber (Figure 40), remove the switch mounting screw, disconnect the wires and remove the switch.

(TSB 120 — 8/1/69 — Article 1910)

AIR CONDITIONING RE-CIRCULATING AIR FLOW RESTRICTION

(1969 Ford)

In some cases, air being drawn into the right hand air door is restricted by a distorted trim panel which covers the opening. When this condition exists, the cowl side trim panel can be reworked by cutting away a portion of the top and forward edge as shown in Figure 7.

PARTS: None.
WARRANTY STATUS: REIMBURSABLE
 Operation: SP-02344-A-69
 Time: 0.3 Hr.

(TSB 121 — 8/15/69 — Article 1926)

ALUMINUM EVAPORATOR CORE REPAIR PROCEDURES

(All 1969 and 1970 Model Units with Aluminum Evaporator Cores)

There are two (2) satisfactory methods of repairing aluminum evaporator cores. They are:

Aluminum Brazing or Welding

These techniques can be used effectively to repair all types of aluminum tube failures: from pin hole leaks to rebuilding of melted or fractured tubes. However, the brazing and welding requires a highly experienced welder.

Flame Soldering

Provides a repair process for leaks and pin holes which is equally as simple to use as soft solder on copper. Anyone acquainted with simple soldering techniques and a propane hand torch can make leak repairs with this method.

(TSB 122 — 9/5/69 — Article 1939)

AIR CONDITIONING REGISTER BINDING — RIGHT OUTBOARD

(Ford — 1969)

Refer to Technical Service Bulletin No. 119, Article 1883. This article contains an incorrect part number for the A/C outlet register.

Correct part number is C9AZ-19893-A.

(TSB 123 — 9/26/69 — Article 1951)

AIR CONDITIONING THERMOSTATIC SWITCH REPLACEMENT

(1970 Ford with A/C)

To prevent evaporator core icing, always replace a malfunctioning thermostatic switch with one of the same part number. The switch part number is stamped on the side with indelible ink.

(TSB 130 — 12/19/69 — Article 2044)

BODY

SEATS AND POWER SEATS

FIELD REPAIR OF STRIPPED SEAT BELT FLOOR ATTACHMENTS

(All Ford Vehicles)

This article describes the method and parts recommended for field repair of all seat belt attachments if either the seat belt anchor plate or the attaching belt threads become stripped through improper service techniques. The article contains illustrations showing pertinent information relative to attachment locations, drill size, torquing specifications and model applications for proper repair procedures.

(TSB 70 — 6/23/67 — Article 1112)

BUCKET SEAT TRACK ROLLER NOISE

(1967-1968 Light Vehicles)

Customer complaints of bucket seat track roller noise in many cases can be corrected by applying an all purpose

lubricant (COAZ-19584-A) to the track roller guides. The lubricant serves as a filler and "cushions" metal to metal contact.

Before removing the track assembly to correct noise suspected to be caused by loose rollers, apply lubricant to the track roller guides. Move the seat to the maximum rearward position and apply the lubricant to the exposed roller guide. Repeat this operation with the seat in the maximum forward position. Operate the seat fore and aft several times to work the lubricant in and around the rollers.

(TSB 80 — 11/24/67 — Article 1215)

EXCESSIVE FRONT SEAT BACK ANGLE OR DEFLECTION

(1968 Thunderbird And Mustang)

Customer complaints of excessive front seat back angle or deflection on the Thunderbird, equipped with bucket seats, or the Mustang on units built prior to October, 1967 is usually attributed to structural weld failures or omission of seat back stops.

Corrective measures were taken in

production to improve welds along the lower section of the seat back frame on both Thunderbird and Mustang. Also an additional seat back stop was added to the inboard side of the seat back on Mustangs.

Thunderbirds encountering this problem in the field can be corrected by rewelding the pivot bracket to the seat back frame side member. Mustangs encountering this problem can be corrected by reinforcing the lower section of seat back frame using "pop" rivets and/or installing an additional stop at the inboard side of the seat back.

(TSB 81 — 12/8/67 — Article 1233)

FRONT SEAT COVER DAMAGE

(1968 Ford, Fairlane)

Customer complaints of front seat cushion cover damage in the area of the outboard seat back pivot arm are usually the result of insufficient clearance between the front seat back latch cushion striker and the swing travel of the outboard seat back pivot arm.

Corrective measures were taken by

decreasing the width of the seat cushion to provide the necessary clearance at the seat back pivot arm. Therefore, vehicles built after November 1, 1967 should not experience this problem.

Customer complaint vehicles in the field can be corrected by reworking the seat cushion frame for additional pivot arm clearance. This can be accomplished without removing the seat cover.

(TSB 83 - 12/29/67 - Article 1249)

EXCESSIVE FRONT SEAT BACK ANGLE OR DEFLECTION - ADDITION TO ARTICLE #1233, TSB #81, DATED DECEMBER 8, 1967

(1968 Bronco - All Models Equipped with Bucket Seats)

Article #1233 should be expanded to include 1968 Broncos with bucket seats built prior to October, 1967. The problem description, correction, and warranty status are the same as noted in the article for Mustang.

(TSB 85 - 2/9/68 - Article 1274)

FOLDING REAR SEAT BACK RATTLES

(1967 Mustang, Model 63)

Customer complaints of rattles in the area of the folding seat back are usually attributed to improper latch adjustment or insufficient pre-load of the seat back to auxiliary floor rubber bumpers.

Effective with 1968 model production improvements were incorporated to simplify assembly plant procedures and provide a more positive method of maintaining the adjustments.

Units in the field encountering rattles in the area of the seat back can be corrected by adjustment of the latch and the auxiliary floor rubber bumpers.

(TSB 87 - 3/8/68 - Article 1312)

DRIVER'S SEAT TILTS OUTBOARD

(*W* Series)

This article describes the driver seat leveling method to be followed on certain *W* series trucks built prior to November 28, 1967.

(TSB 87 - 3/8/68 - Article 1321)

PASSENGER SEAT REINFORCEMENT

(*W* Series)

Production improvements incorporated in the passenger seat mounting surface of the seat support were effective in production in December, 1967.

If complaints are encountered, the procedure outlined in the main article is to be applied to customer vehicles built prior to December, 1967.

(TSB 88 - 3/22/68 - Article 1331)

SEAT CUSHION NOISE OR SAG

(All 1967-68 Trucks With Conventional Cabs)

Complaints of seat cushion noise or sag can be caused by the spring elements working out of their capsules. If this condition is encountered, it can be corrected as outlined in the article.

(TSB 88 - 3/22/68 - Article 1332)

SEAT TRACK ADJUSTMENT TO CORRECT BINDING

(1968 Thunderbird, All Models)

Customer complaints of binding seat tracks are usually attributed to track misalignment, particularly on units equipped with bench seats.

Effective February 15, 1968 seat track locking fixtures are being used at the assembly plants to assure that the tracks are properly aligned and parallel to one another.

Units in the field can be corrected by loosening the forward left hand seat

track attaching nuts at both the seat frame and floor and shifting the track to obtain parallel relationship to the right hand track.

(TSB 90 - 4/19/68 - Article 1360)

REAR SEAT BACK FILLER MISALIGNMENT

(1968 Thunderbird Models - Less R.P.O. Center Arm Rest)

Field reports indicate that some 1968 Thunderbirds exhibit misalignment of the rear seat back filler to the right and left hand seat backs, as well as gaps to the package tray and/or seat cushion, presenting an objectionable appearance. Review of problem vehicles revealed that the rear seat back filler adjustment was insufficient to provide for production variations encountered at installation of the rear seat backs.

To compensate for these variations, new design rear seat back filler retaining brackets providing the necessary adjustments to properly install the rear seat back filler will be incorporated as a running change on 1968 models.

Customer complaints of rear seat back filler misalignment can be corrected by reworking the retaining brackets and/or lower rear seat back attachment for additional adjustment to obtain alignment.

(TSB 94 - 6/21/68 - Article 1440)

FOLDING SEAT BACK LATCH MECHANISM DIAGNOSIS AND REPAIR

(1968 - All Car Lines Including Bronco)

Diagnosis and repair procedures for the folding front seat back latching mechanisms for all car lines have been prepared and are included in this issue. This material should be used as a guide in conjunction with the information published in the 1968 Shop Manual.

(TSB 95 - 7/12/68 - Article 1450)

REPAIR OF SEAT AND/OR SHOULDER BELT ATTACHMENTS

(All 1968 Model Vehicles Except T10 Cab and Highway Tractor)

This article describes the method and parts recommended for field repair of all seat belt and shoulder harness attachments if either the seat belt anchor plate or the attaching bolt threads become stripped through improper service techniques. This article contains pertinent information relative to attachment locations, drill size, torquing specifications and replacement part numbers. In order to maintain seat and shoulder belt requirements it is essential that the procedures and released parts described in this article be strictly followed.

(TSB 95 - 7/12/68 - Article 1451)

CLICKING NOISE IN FRONT SEAT BACK

(1968-1969 Thunderbird)

A clicking noise may be encountered in the seat back assembly during extreme spring element deflection on 1968 and early built 1969 model Thunderbirds. This condition is caused by an interference between certain spring elements and the seat back frame.

This problem is currently under investigation. Interim corrective measures have been taken to assure that the spring elements are properly positioned to minimize interference with the seat back frame.

This problem can be corrected in the field by rearranging the spring elements.

(TSB 99 - 9/27/68 - Article 1502)

TORN FRONT SEAT BACK PIVOT COVER

(1968 Thunderbird Equipped with Reclining Seat)

The front seat back pivot cover can be torn by the pivot mechanism when the reclining seat is actuated. This problem is generally attributed to lack of stretching in the cover to allow for free movement of the pivot mechanism without tearing the cover.

Corrective measures were taken approximately June 12, 1968 by releasing a new cover design which incorporates elastic in

the ends to permit the pivot mechanism to move freely without causing cover damage. Complaint units built prior to June 12, 1968 can be corrected by installing the new design cover.

(TSB 104 - 12/13/68 - Article 1579)

FRONT SEAT HEADREST REMOVAL

All Passenger Car Lines so Equipped

Removing the front seat headrest from some vehicles will require the insertion of a 12-inch piece of thin flat stock into the guide sleeve at the front side of the post to disengage the headrest post from the mounting bracket.

To remove the guide sleeve, it may also be necessary to trip the guide sleeve locking tab with a piece of wire.

(TSB 105 - 12/20/68 - Article 1603)

SEAT BELT ANCHOR BOLT - SPECIAL TOOL

(All Car Lines)

Special tool available for seat belt domed socket head anchor bolt.

(TSB 107 - 1/24/69 - Article 1632)

SEAT SPRING ELEMENTS CLICK AGAINST HEADREST BRACKETS

(1969 Thunderbird - All Models)

Customers may complain of a "clicking" or "crunching" sound emanating from the inside of the front seat back as they lean backward. This is caused by the No. 2 seat back spring element contacting the headrest bracket or the seat back trim panel.

This problem was corrected on production models approximately September 30, 1968, by adding a piece of jute padding to the spring elements. Problems occurring on vehicles built prior to this date may be corrected by inserting a similar pad material in the seat frame springs.

(TSB 109 - 2/14/69 - Article 1667)

SEAT BELT ASSEMBLY REPLACEMENT

(All Car Lines)

In the event it is necessary to replace a seat belt in the field for any reason it is mandatory that the buckle and tongue be replaced in matched pairs. This action is essential because seat belt assemblies are manufactured in matched sets and must be installed in the same manner. The procedure is outlined on page 18-02-28 of the 1969 Car Shop Manual, Volume Four (Body). In no instance should dealers replace only one-half of the seat belt kit when performing a service repair. Warranty claims will be rejected if returned belts are not received in matched sets.

(TSB 121 - 8/15/69 - Article 1929)

REAR SEAT CUSHION SPRING ASSEMBLY - DISTORTED APPEARANCE - SUPERSEDES ARTICLE 1885, TSB NO. 119

(1970 Maverick - All Models)

Some early model vehicles may reveal a distorted appearance across the upper front edge of the cushion and a gap to the seat back along the rear edge of the cushion.

Add two rear seat rim support brackets to reinforce the front edge of the spring assembly.

PRODUCTION CORRECTION: Scheduled for 6-13-69.

WARRANTY STATUS: REIMBURSABLE Operation: SP-60082-A-69 Time: 0.7 Hr.

(TSB 121 - 8/15/69 - Article 1930)

WINDOWS AND POWER WINDOWS

POWER WINDOW MOTOR REGULATOR DRIVE GEAR

(All Vehicles So Equipped)

Reports from the field indicate that power window motor regulator assemblies are being replaced and reported as being inoperable when the window fails to operate. An investigation of these reports indicate that the problem could have been corrected by replacement of the drive gear instead of a complete motor regulator assembly.

When problems related to broken drive gears are encountered, a drive gear kit should be used instead of replacing the motor regulator assembly.

(TSB 59 - 2/10/67 - Article 993)

DOOR AND QUARTER WINDOW REPLACEMENT

(1967 Thunderbird)

If replacement of a door or quarter window glass is required on a 1967 Thunderbird, the glass and channel must be replaced as an assembly. Do not attempt to replace the glass in the original glass channel as a special bonding process is required for adequate retention of the glass in the channel. Refer to the 1967 Shop Manual for glass and channel removal and installation procedures.

(TSB 61 - 3/10/67 - Article 1006)

QUARTER WINDOW CLASS

(1967 Thunderbird)

If replacement of the quarter window glass is necessary, do not attempt to replace the glass in the original glass channel. The glass and channel must be replaced as an assembly. This is necessary as a special bonding process is required for adequate retention of the glass in the glass channel. The removal and installation procedure required to replace the glass and channel assembly is covered in this article.

(TSB 64 - 4/7/67 - Article 1043)

IMPROPER OPERATION OF ELECTRIC TAILGATE WINDOW

(1967 Ford, Fairlane and Falcon Model 71 with Electric Window)

Customer complaints of improper tailgate window operation have occurred due to a malfunction of the limit switch permitting the window to be cycled when the tailgate is not fully closed.

This condition was corrected in production February 7, 1967 by putting a rubber cap on the limit switch plunger to increase the plunger length. This article outlines the service correction giving a step-by-step procedure.

(TSB 67 - 5/5/67 - Article 1068)

VENT WINDOW INTERFERENCE WITH THE WINDSHIELD SIDE GARNISH MOULDING

(1967 Ford - All Models)

The vent window interferes with the padded windshield side garnish moulding ("A" pillar) when operating the window with the door closed.

This condition is usually caused by the padded moulding being out of position or not adequately retained to the pillar. This problem was corrected on units built after approximately May 1, 1967, by adding a metal retaining tab to

the padded moulding. This permits the moulding to be fastened to the "A" pillar with a sheet metal screw. Customer complaints of vent window interference can be corrected by repositioning the moulding and adding a retaining tab in a similar manner.

(TSB 67 - 5/5/67 - Article 1074)

POWER WINDOW FAILURE DUE TO SAFETY RELAY CORROSION

(1967 Ford, Fairlane and Falcon Vehicles Equipped With Power Windows)

Customer complaints of inoperative power windows may be caused by internal corrosion of the window regulator safety relay. (A defective relay may be determined by following the procedure outlined in Section 17 of the vehicle shop manual.)

Internal corrosion has been attributed to the location of the relay which permits water from the cowl area to drain over it. Pending relay design changes, this problem may be corrected by adding a bead of sealer around the edge of the metal relay case.

(TSB 72 - 7/28/67 Article 1130)

INOPERATIVE POWER WINDOWS - LOOSE SWITCH CONNECTIONS

(1968 Thunderbird)

Customer complaints of inoperative power windows have been reported on some 1968 model Thunderbirds. This problem may be attributed to loose connections at the master switch and/or window switch terminals. This condition was corrected on vehicles built after November 20, 1967 by the incorporation of a new type of switch connector. When investigating complaints of inoperative power windows and diagnosis indicates a switch problem, check for a loose switch connection at the brass female terminal in the hardshell connector. The main article includes a detailed diagnosis procedure to be used in isolating power window switch problems and illustrates a special tool to be used to insure adequate retention of the connection.

(TSB 79 - 11/17/67 - Article 1208)

MODIFICATION FOR POWER WINDOW OPERATION INDEPENDENT OF THE IGNITION SWITCH

(1968 Ford and Fairlane)

The power windows on 1968 Ford and Fairlane models may be re-wired to operate regardless of the ignition switch position. This article gives the procedure to perform the modification when requested by the vehicle owner in writing.

(TSB 81 - 12/8/67 - Article 1231)

VENT WINDOW INTERFERENCE WITH "A" PILLAR PAD

(1968 Ford - All Models)

Customer complaints of the door vent window contacting the "A" pillar pad have been received on early built vehicles and are usually attributed to a mispositioned pad, excessive width of "A" pillar weld flange, or interference at the cowl trim panel.

These discrepancies have been placed under close surveillance and units built after October 31, 1967 should not experience this problem.

In most cases customer complaint units can be corrected by properly positioning the "A" pillar pad to assure it is in the fully forward position. Other units may require further modifications to obtain the necessary vent window clearance. These modifications are given in the main article.

(TSB 83 - 12/29/67 - Article 1252)

HIGH QUARTER WINDOW OPERATING EFFORTS AND/OR DAMAGED VERTICAL WEATHERSTRIP

(1968 Ford Models 63 & 65)

Customer complaints of high quarter window operating efforts and/or damaged quarter window weatherstrip have been received on some 1968 Ford hardtops. This condition may be caused by the front edge of the quarter window weatherstrip contacting the rear outer corner of the quarter window front upper stop when the window is being raised.

This problem was corrected at the assembly plants approximately December 1, 1967 with the incorporation of an improved stop which has the outward corners rounded off. Customer complaint units can be corrected by repositioning the up-stop or, in some cases, grinding a radius on the rear outward corner of the stop.

(TSB 86 - 2/23/68 - Article 1290)

HARD OPERATING DOOR WINDOWS

(1968 Mustang)

Customer complaints of hard operating door windows may be received on some 1968 Mustangs built prior to January 15, 1968. This problem may be caused by interference between the rear guide door glass stabilizer and the lower glass channel. Also, insufficient lubricant in the regulator and door glass roller guides may contribute to the high operating efforts.

This problem was corrected in production by reworking the door glass stabilizer and using a revised method of lubricant application to assure adequate lubrication of all roller guides. In the event that normal glass alignment and proper lubrication does not reduce the operating efforts the stabilizer should be reworked as described in the main article.

(TSB 87 - 3/8/68 - Article 1307)

SNAPPING NOISE AND/OR WATER LEAK AT FRONT DOOR WINDOW FRAME

(1968 Fairlane - Models 63, 65 and 76)

Customer complaints of a loud snapping noise when the door window is operated and/or water leaks at the rear upper corner of the door window have been received on subject vehicles. These problems are caused by the top inboard edge of the door window rear weatherstrip retainer catching on the roof rail weatherstrip top clip and the inboard edge of the window frame catching on the roof rail weatherstrip front clip. Also, improper door window adjustment results in gaps in the area of the mitered joint at the upper rear corner of the door glass frame.

These problems were corrected in production effective approximately January 1, 1968. Customer complaint units can be corrected by readjusting the door and quarter windows and reworking the inboard upper edge of the door window vertical weatherstrip as described in the main article.

(TSB 90 - 4/19/68 - Article 1363)

REPLACEMENT OF WINDOW REGULATOR HANDLE KNOBS

(All 1968 Car Lines)

Customer complaints of loose window regulator knobs on 1968 model vehicles are attributed to undersize knob retaining pins. Corrective action was incorporated in production approximately February 15, 1968 and customer complaints can be corrected by installing a replacement knob and retaining pin. The replacement knob, pin and wave washer are packaged together and can be easily pressed onto the original handle. It is not necessary to replace the complete handle assembly.

(TSB 95 - 7/12/68 - Article 1452)

BROKEN DOOR WINDOW REGULATOR HANDLE

(1968 Truck Series F100-F750)

1968 Truck door window regulator handles are not designed to be used as door pulls.

Design of this item was in compliance

with Federal Safety Regulations so as to deflect and/or break off in the area between the knob and the hub when subjected to loads in excess of 90 lb.

Dealers encountering door window regulator handle breakage on vehicles should advise the customer of the break-away nature of the handle and caution him to use them only for their intended function.

(TSB 97 - 8/30/68 - Article 1460)

WATER LEAKS AT THE QUARTER WINDOW

(1969 Mustang - Model 63)

Customer complaints of water leaks at the quarter window area may be encountered on some early built Mustangs. Leakage can occur at the following areas:

- o Water entering between the glass and the rubber roof rail weatherstrip.
- o Water entering between the roof rail weatherstrip retainer and the roof rail sheet metal.
- o Water leaks between the roof rail weatherstrip and the bottom of vertical glass frame.

These types of leaks were corrected in production in mid-September by increased emphasis to assure that the quarter window is adjusted properly, that the vinyl foam tape under the roof rail retainer is properly installed and that the roof rail weatherstrip is seated properly at the vertical quarter glass weatherstrip. Customer complaint units can be corrected by readjusting the quarter window and/or adding sealer to the edges of the roof rail weatherstrip retainer.

(TSB 99 - 9/27/68 - Article 1505)

QUARTER VENT WINDOW WATER LEAKS (SUPPLEMENT TO ARTICLE 1505, TECHNICAL SERVICE BULLETIN NO. 99)

(1969 Mustang - Model 63)

This will supplement information published in Technical Service Bulletin No. 99, Article 1505 (September 27, 1968) and Special Service Letter No. 67 (November 12, 1968) due to the identification of an additional water leak area at the quarter vent window. It has been found that water which is trapped between the roof rail weatherstrip and the weatherstrip retainer flows downward and crosses into the vehicle at the end of the retainer above the window latch striker plate. Effective in production approximately October 18, 1968, adhesive was added to the inside surface of the weatherstrip retainer. Customer complaint units can be corrected by applying liquid butyl (Part No. CSAZ-19554-A-code class (A)) between the roof rail weatherstrip and the weatherstrip retainer.

(TSB 104 - 12/13/68 - Article 1585)

PIVOT WINDOW OUTER FRAME WEATHERSTRIP DISTORTION

(1969 Econoline Built Prior to May 31, 1968)

The sealing lip of the pivot window outer frame weatherstrip on some 1969 Econolines rolls inboard at the corners of the window opening. This results in poor appearance and possible leaks.

For service correction and illustration, see the complete article.

(TSB 101 - 11/1/68 - Article 1527)

TAILGATE WINDOW DISENGAGEMENT

(1969 Fairlane and Falcon Station Wagon - Model 71)

Diseengagement of the left-hand regulator arm roller from the tailgate glass channel occurs when the window is raised to its extremity and renders the window inoperative. In some 1969 Fairlane and Falcon station wagons this condition results primarily from sheet metal build up variations which increase the height of the tailgate window opening and thereby necessitate additional window travel. This condition was corrected in production approximately January 14, 1969.

In the event dealers encounter complaints of this nature, satisfactory correction can be accomplished by elongating the two existing 3/8" diameter holes in the window channel 1/4" inboard.

(TSB 109 - 2/14/69 - Article 1662)

POWER WINDOW SWITCH BEZEL LOOSE - BROKEN RETAINING CLIP

(Ford - 1969)

Replace the switch housing as outlined below:

1. Remove switch bezel by inserting a .025" feeler gauge or other suitable thin flat tool at each end to release the retaining clips. See Figure 20.
2. Remove trim panel.
3. Remove the switch housing, open the cover, and record the color and location of each wire in the housing.

PARTS:

Qty.	Part No.	Name	Class	Avail.
As Req'd.	C9AZ-14489-E	Switch Housing - Rt. Front & Rear Door	C	OK
As Req'd.	C9AZ-14489-F	Switch Housing - Qt. Window	C	OK
1	C9AZ-14489-G	Switch Housing - Master Control	C	OK
1	C9AZ-14489-J	Housing Cover - Master Control	C	OK

(TSB 111 - 3/14/69 - Article 1718)

DOOR GLASS BLOW-OUT AND HIGH SPEED WINDNOISE CORRECTION

(Ford - 1969 2 and 4-Door Hardtops)

Installation of the door glass anti-blow-out clip along the "A" pillar will keep the front door glass from moving outward of the roof rail weatherstrip during high speed operation. The detailed procedure should be followed for anti-blow-out clip installation, and the door glass adjusted correctly to permit proper glass engagement of the clip.

PARTS:

Part No.	Name	Class	Avail.
C9AZ-63222B08-A	Door Window Top Outer Clip	A	3-12-69

PRODUCTION CORRECTION: Clips will be installed in production during 3/69.

WARRANTY STATUS: REIMBURSABLE

Operation: SP-22208-A-69

Time: 0.3 Hr. Both Sides

(TSB 112 - 4/4/69 - Article 1739)

FRONT DOOR WINDOW WEATHERSTRIP RETAINER PULLS OFF

(All 1969 Hardtop and Convertible Models)

Reinstall frame assembly to door glass using sealant kit CSAZ-19562-C.

PARTS:

Part Number	Name	Class	Car Line	Models	Avail.
CSAZ-19562-C	Sealant Kit	A	All	All	Yes
C9AZ-6322220-A (R.H.)	Door Glass Rear Frame	C	Ford	63,65,76	4/30/69
C9AZ-6322221-A (L.H.)	Door Glass Rear Frame	C	Ford	63,65,76	4/30/69
C9AZ-5722220-A (R.H.)	Door Glass Rear Frame	C	Ford	57	4/30/69
C9AZ-5722221-A (L.H.)	Door Glass Rear Frame	C	Ford	57	4/30/69
C9AZ-6522220-A (R.H.)	Door Glass Rear Frame	C	Mustang	65-76	4/30/69
C9AZ-6522221-A (L.H.)	Door Glass Rear Frame	C	Mustang	65-76	4/30/69
C9AZ-6322220-A (R.H.)	Door Glass Rear Frame	C	Mustang	63	4/30/69
C9AZ-6322221-A (L.H.)	Door Glass Rear Frame	C	Mustang	63	4/30/69
C7S2-6522220-A (R.H.)	Door Glass Rear Frame	C	T Bird	65A & C	4/30/69
C7S2-6522221-A (L.H.)	Door Glass Rear Frame	C	T Bird	65A & C	4/30/69
C9O2-6322220-A (R.H.)	Door Glass Rear Frame	C	Fairlane	63-65	4/30/69
C9O2-6322221-A (L.H.)	Door Glass Rear Frame	C	Fairlane	63-65	4/30/69
C9O2-7622220-A (R.H.)	Door Glass Rear Frame	C	Fairlane	76	4/30/69
C9O2-7622221-A (L.H.)	Door Glass Rear Frame	C	Fairlane	76	4/30/69

NOTE: If vertical weatherstrip is also required, refer to the parts catalog under basic Part No. 214A14 and 5 for complete parts listing.

PRODUCTION CORRECTION: March, 1969.

POWER WINDOWS STICKING IN THE UP POSITION - FRONT DOOR

(Thunderbird, 1967-1968-1969)

If diagnosis of the inoperative power window indicates that the motor is in a stalled condition (stuck) it will be necessary to replace the motor with a revised design. To eliminate repeat failures the motor should be replaced even though it may become operative during the repair.

PARTS:

Part Name	Part No.
Motor & Drive Assy.	C9SZ-5723395-A (left)
Motor & Drive Assy.	C9SZ-5723394-A (right)

Production Correction: New motors installed approximately January 15, 1969.

WARRANTY STATUS: Reimbursable under provisions of Warranty and Policy Manual

Oper: 14553-A

Time: 0.8 Hr.

Part Class	Avail. Date
A	3/10/69
A	3/10/69

(TSB 110 - 2/28/69 - Article 1699)

WARRANTY STATUS: REIMBURSABLE

Operation: SP-22220-A-69

Time: 0.6 Hr. One Side

(TSB 113 - 4/18/69 - Article 1768)

TAILGATE MOUNTED ELECTRICAL WINDOW CONTROL SWITCH STICKING

(Ford 1969 Station Wagon with Power Tailgate)

This problem will be reported as a window which continues to operate after the key is released and/or an unexplained discharged battery. Replacing the switch control spring will correct the problem and all the necessary instructions are included in this bulletin.

PARTS:

Part No.	Name	Class	Qty	Avail.
C9AZ-14A456-A	Back Window Switch Control Spring	C	1	12-1-68

PRODUCTION CORRECTION:

Approximately 11/68.
WARRANTY STATUS: REIMBURSABLE
 Operation: 14687-A
 Time: 0.5 Hr.
 (TSB 113 - 4/18/69 - Article 1765)

GLASS CLASS FROM LOWER WINDOW CHANNEL

(Ford 1969 Sedans and Station Wagons)

Reinstall the door glass into channel using thicker "reverse" tape or the steps outlined in detailed procedure. This repair does NOT apply to the ventless bonded glass used on hardtop and convertible models.

PARTS:

Part No.	Name	Class	Qty.
CI4Z-19627-A	Body Tape	B	1

PRODUCTION CORRECTION:

Approximately 10-22-68.
WARRANTY STATUS: REIMBURSABLE
 Operation: 21410-A
 Time: 0.7 Hr.
 (TSB 113 - 4/18/69 - Article 1767)

LATCH - BODY SIDE DOOR WINDOW WILL NOT STAY OPEN

(Econoline - 1969 Models 82 A B C and Model 89)

Remove the latch pin and clip and replace with improved parts.

PARTS:

Part Number	Description	Class	Avail.
C9UZ 8927188 A	Pin	C	5 19 69
C9UZ 8927189 A	Clip	C	5 19 69

PRODUCTION CORRECTION: 3-17-69.

WARRANTY STATUS: Reimbursable under the provisions of the Warranty & Policy Manual.

Operation: SP-27189-A-69
 Time: 0.3 Hr. for One Latch - 0.1 Hr. for Each Additional Latch.
 (TSB 116 - 5/30/69 - Article 1819)

FRONT DOOR WINDOW VERTICAL WEATHERSTRIP DAMAGE

(1969 Ford 4-Door Hardtop)

If the front door vertical weatherstrip is damaged due to being trapped behind the rear door glass when the front door is slammed with the window lowered slightly, install a new vertical weatherstrip. The new replacement part has a portion of the metal "bone" within the weatherstrip removed so that it is flexible enough to by-pass the glass without damage should it become trapped. NOTE: Adjust the new weatherstrip to be flush to 1/32" below the top edge of the door glass.

PARTS:

Part Number	Name	Class	Avail.
C9AZ-57214A14-C	W/strip Front Door Glass R.H.	A	5/26/69
C9AZ-57214A15-C	W/strip Front Door Glass L.H.	A	5/26/69

PRODUCTION CORRECTION: May 16, 1969.

WARRANTY STATUS: REIMBURSABLE
 Operation: SP-21415-A-69
 Time: One Side 0.3 Hr.
 Both Sides 0.4 Hr.
 (TSB 115 - 5/16/69 - Article 1804)

DOOR WINDOW GLASS - DROPS DOWN - W SERIES

(1966-69 W-WT-1000-D Trucks)

The corrections involve removal of 1/8" from each end of the window roller retainer clips, reference Figure 14, and installation of a window downstop bumper, reference Figure 15.

PARTS:

Part Number	Part Name	Quan.	Depot	Avail.
447Z-16578-B	Rubber Bumper	1	B	OK
354193-S	Flat Washer 3/8" - 13/32" I.D.	1	S	OK
33924-S8	Hex Nut 3/8" - 16	1	S	OK

PRODUCTION CORRECTION: Approximately March 28, 1969.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.
 Operation: SP-21410-A-69
 Time: One Door - 0.7 Hr., Both Doors - 1.2 Hrs.

DLR. CODING: 21410-36

(TSB 119 - 7/18/69 - Article 1886)

IMPROVED RETENTION OF THE WINDOW REGULATOR EQUALIZER ARM TO THE INNER PANEL

(All 1969 Carlines with Ventless Windows)

Dealers may encounter door and/or quarter window regulator equalizer arms moving out of position when the window is operated.

Satisfactory correction can be made by adding a No. 44739-S8 or equivalent Flat Washer .635 I.D. x .132 thick between the regulator equalizer arm and the door inner panel to provide additional contact surface of the arm attachment to the inner panel. See Figure 16. This repair supersedes the use of the 5/16" external tooth lock washer recommended for Ford vehicles on page 12 of Training Handbook No. 21009 (Diagnosis & Repair of Windnoise and Water Leaks).

PRODUCTION CORRECTION: 6-30-69.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.
 Operation: SP-23202-A-69
 Time: 0.5 Hr. Per Door, 0.4 Hr. Per Quarter.

(TSB 119 - 7/18/69 - Article 1887)

POWER WINDOWS AND/OR TAILGATE WINDOW INOPERATIVE

(All 65-70 Ford and 66-70 Fairlane)

A revised relay assembly has been released in production and service that has improved durability. This relay is the only part that should be used for service replacement.

PARTS:

Part Number	Part Name	Class	Avail.
CSAZ-14677-A	Relay Assembly	A	11-3-69

PRODUCTION CORRECTION: Approximately October 1, 1969.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty and Policy Manual.
 Operation: 14677-A
 Time: 0.3 Hr.

DLR. CODING: Basic Part No. 14677 - Code No. 28

(TSB 128 - 12/5/69 - Article 2027)

DOOR GLASS PULLED FROM CHANNEL

(1969 Carlines Using Bonded Door Glass (Most Hard Top Models))

It will now be acceptable, in most cases, to repair a door glass to lower channel bond failure by rebonding. If the original bonding material in the channel is intact it can be repaired; if the original bonding material is loose in the channel, the window assembly must be replaced.

PARTS:

Part Name	Part No.
Devcon Clear Epoxy Adhesive	R-35

*This part can be purchased at local hardware store.
 *If not available locally, it can be obtained by writing Devcon Corporation, Danvers, Mass.

PRODUCTION CORRECTION:

WARRANTY STATUS: REIMBURSABLE
 Operation: SP-21410-B-69 - Supplement all time to all front or rear door glass.
 Time: 0.6 Hr. - Replacement time standards.

(TSB 130 - 12/19/69 - Article 2045)

ELECTRIC WINDOW REGULATOR REMOVAL OF MOTOR AND DRIVE ASSEMBLY

(All Car Lines)

Before attempting to remove the motor and drive assembly from the regulator assembly, it is essential that a 5/16" diameter hole be drilled thru the sector gear and regulator plate and install a 1/4" bolt and nut to prevent any rotational movement of the sector gear when the drive is removed. (See Figure 9 for drilling location.)

WARRANTY STATUS:

INFORMATION ONLY
 (TSB 130 - 12/19/69 - Article 2046)

LATCHES AND LOCKS**DOOR LATCH AND DOOR LATCH SYSTEM PROBLEM DIAGNOSIS**

(All Car Lines)

This article is a diagnostic procedure to assist in correcting problems within the mechanical portion of the door latch system. A review of warranty claims and associated replaced parts indicates that difficulty is being experienced in diagnosing these problems. Use of this guide will provide a quicker and more economical repair than trial and error methods and, in addition, assure maximum customer satisfaction.

(TSB 61 - 3/10/67 - Article 1010)

DECK LID LATCH HANG-UP

(1968 Ford - All Except Station Wagons)

Customer complaints of the deck lid not opening when the lock is actuated with the key have been reported on some vehicles built prior to November, 1967. This problem is attributed to burrs on the striker plate and corrective action has been taken to remove the burrs on units built after November, 1967. The problem can be corrected by removing the burrs with emery cloth or other suitable abrasive material.

(TSB 80 - 11/24/67 - Article 1221)

HIGH HOOD LATCH RELEASE EFFORTS

(1968 Ford - All Models)

Customer complaints of high effort to release the hood latch have been received on some 1968 model Ford cars built prior to November, 1967. This problem is attributed to improper latch adjustment. Customer complaint units can be corrected by re-adjusting the hood latch as outlined in the vehicle shop manual and torquing the attaching bolts to 12-20 ft. lbs. to prevent recurrence of the problem.

(TSB 83 - 12/29/67 - Article 1244)

DOOR LOCK REMOTE CONTROL ROD RETENTION

(1967 Corvair - All Models)

Customer complaints of an inoperative door lock when actuating the inside remote control handle are usually attributed to the remote control rod within the door becoming disengaged.

Corrective measures were taken by revising the remote rod attachment. Therefore, vehicles built after June, 1967, should not experience this problem.

Customer complaint vehicles in the field can be corrected by replacing the old remote rod retaining clip with a revised clip and washer.

(TSB 84 - 1/26/68 - Article 1255)

LUGGAGE COMPARTMENT LOCK MALFUNCTION

(1967 Corvair - Model "C")

Customer complaints of inoperative or sticking luggage compartment locks

may be caused by the center lock assembly retaining bolt jamming the lock mechanism. This problem is attributed to the installation of an incorrect length center bolt and was corrected in production effective January, 1967. The problem can be corrected in the field by installing the correct length bolt (1/2 inch long) available under Part No. 111540-ESS.

(TSB 84 - 1/26/68 - Article 1257)

PREVENTION OF RUST PROOFING MATERIALS ON DOOR LOCKING MECHANISM

(All Car and Trucks)

Recent investigations have revealed that commercial body rust proofing materials can cause locking mechanism malfunction. Lock malfunction complaints should be inspected for excessive application of rust proofing materials in the areas of the lock cylinders and latch assembly, and if necessary thoroughly cleaned in a cleaning solvent.

Accordingly all local independent body rust proofing shops should be advised to use caution during application to avoid direct spray on the locking mechanism.

(TSB 95 - 7/12/68 - Article 1455)

INSIDE DOOR HANDLE RATTLE

(1969 Ford and Mustang)

A rattle in the area of the inside door handle may be encountered on some early production units. This condition is attributed to metal-to-metal contact due to the omission of a rubber bumper stop at the lower end of the actuating lever. The rubber bumper is now being used and units built after September should not encounter this problem.

The rattle can be eliminated by inserting a piece of rubber hose 1/2" long (cut from part number C8AZ-17543-A) over the actuating lever stop tab.

(TSB 99 - 9/27/68 - Article 1503)

TAILGATE LATCH - EMERGENCY OPENING PROCEDURE

(1969 Ford Station Wagons)

1. Fabricate a Latch Actuating Tool from 1/8" diameter welding rod or equivalent as shown in Figure 13.

2. Working from the inside of the vehicle, insert the fabricated latch actuating tool down through the glass opening at the right hand belt line of the tailgate door and hook the latch pawl lever as shown on Figure 12.

3. Pull upward on the tool to trip the latch and open the door.

(TSB 110 - 2/28/69 - Article 1700)

TAILGATE OUTSIDE HANDLE STICKS OR BINDS

(Ford Station Wagon - 1969)

Sticking and/or binding tailgate outside handle can be corrected by removing approximately one inch of the flange on the handle bracket as shown in Figure 22.

NOTE: If the latch operating lever extension has become distorted, remove the latch assembly from the tailgate and, using vice pliers or other suitable tools, straighten the lever extension as shown in Figure 21.

PARTS: None.

Production Correction: Approx. 10/3/68.

WARRANTY STATUS: REIMBURSABLE

Operation: SP-43162-A-69

Time: 0.6 Hr.

(TSB 111 - 3/14/69 - Article 1719)

OUTSIDE DOOR HANDLES LOOSEN - W SERIES

(1966-69 W-WT-1000-D Trucks)

The existing or replacement handles on the outside door or stowage door attaching bolts may be secured using an additional hex nut which is to be used as a jam nut as shown in Figure 12.

PARTS:

Part Number	Part Name	Depot	Avail.
34053-S8 (#10-24)	Hex Nut	BS	OK

PRODUCTION CORRECTION: Approximately 1-10-69.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: SP-22400-A-69

Time: Outside Door 0.6 Hr.

Stowage Compartment 0.3 Hr.

(TSB 118 - 6/27/69 - Article 1864)

TAILGATE WINDOW LOWERS WITH UNLOCKING OF THE LATCH

(Ford 1969 Station Wagons with Power Tailgate Window)

If it is noted that when actuating the key only partially to unlock the latch the window also lowers, it will be necessary to replace the tailgate latch cylinder to release rod, which is too short, to correct the condition. The replacement rod has been modified and can be obtained by using the listed part number. Location of the tailgate latch cylinder to release rod is shown in Figure 20.

PRODUCTION CORRECTION:

Approximately 9-15-68.

WARRANTY STATUS: REIMBURSABLE

Operation: SP-43876-A-69

Time: 0.4 Hr.

PARTS:

Part No.	Name	Class	Avail.
C9AZ-7143876-B	Rod - Tailgate Latch Cylinder to Release	C	OK

(TSB 112 - 4/4/69 - Article 1738)

VACUUM DOOR LATCH OPERATIVE

(Ford & Thunderbird - 1969)

Lubricate the door latch vacuum motor rod at the seal with a silicone lubricant (Part No. COAZ-19553-A) to prevent the rod from pulling the seal out of the motor. If the seal has been pulled out, lubricate the seal, insert a portion of the lower lip into the housing hole and twist the seal until the entire lip rolls into the hole. If the seal is damaged, replace with a new seal (Part No. C9AZ-6221842-A).

PARTS:

Part Number	Part Name	Class	Avail.
COAZ-19553-A	Silicone Lubricant	A	OK
C9AZ6221842-A	Seal	C	7/21/69

PRODUCTION CORRECTION: 4-1-69.

WARRANTY STATUS: REIMBURSABLE

Operation: SP-21959-A-69

Time: Ford - One Door - 0.4 Hr., Each

Additional - 0.3 Hr.

Thunderbird - One Door - 0.5 Hr., Each

Additional - 0.3 Hr.

(TSB 119 - 7/18/69 - Article 1888)

PROPER ADJUSTMENT OF DOOR LATCH STRIKER TO PRECLUDE LOCK-OUT

(All W Series Trucks)

To preclude inadvertent locking of the doors on the "W" Series, it is necessary to establish and maintain proper adjustment between the striker and the door latch dovetail.

PARTS: None.

PRODUCTION CORRECTION: New latch and separate lock assembly scheduled for production January, 1970.

WARRANTY STATUS:

INFORMATION ONLY

(TSB 126 - 11/7/69 - Article 1997)

DOORS, HOOD, AND DECK LID

EXCESSIVE DOOR OPENING EFFORT

(1968 Thunderbird, Model 65)

On some units, the door may tend to bind or hang up during initial opening. Review of

complaint units has revealed that when the door is slammed, the door inner panel overrides the "B" pillar windlace causing the windlace to become wedged behind the rear edge of the trim panel.

Corrective measures have been taken on 1969 units by revising the "B" pillar pinch weld flange to include a taper at the upper end for required windlace clearance. A similar modification can be made on 1968 models complaint units.

(TSB 98 - 9/13/68 - Article 1484)

CARGO DOOR HOOD OPEN FEATURE

(1961-1969 Econolines All Models)

An all steel cargo door hold open device is available as a regular production option as well as service parts to be used in place of the fabric check straps.

The service parts are identified as "Two stage door positioner" in the body illustration section of the Ford Truck parts catalog. For installation information, see the complete article.

(TSB 100 - 10/18/68 - Article 1511)

'W' SERIES - DOOR INNER PANEL SHEET METAL REPAIRS

(1967-68 "W" Series Trucks)

When complaints are received regarding sheet metal cracks occurring at the front and rear belt relief notches of the door inner panels, reference the complete article for repair procedures and illustration. The production correction effective during July, 1968, enlarges the radius in the relief notches by removing metal from the vertical and horizontal trim lines.

(TSB 102 - 11/15/68 - Article 1536)

HOOD OUTER PANEL FLUTTER

(Ford and Fairlane, 1968 - All Models)

Hood "flutter" between the inner and outer panels during high speed operation can be corrected by applying an air dry adhesive bonding material (Part No. EC-1792) between the inner and outer hood panels to bond any loose areas that exist. On certain models it will be necessary to remove the hood sound absorber prior to applying the adhesive. Refer to Figures 23, 24 and 25 for details.

NOTE: It is recommended that the vehicle not be returned to service for at least an additional four hours. This will compensate for variations in the total drying time required as a result of thickness of application, ambient temperatures and humidity conditions. Heat lamps can be used to accelerate drying time.

PARTS:

Part No.	Description	Qty.
EC-1792	Adhesive	As Required

Availability

Local 3M Industrial Distributor of General Tape & Supply, Inc. 7451 W. Eight Mile Road Detroit, Michigan 48221 Minimum order one carton of 12 tubes.

Production Correction: Approx. 3/1/68.

WARRANTY STATUS: REIMBURSABLE

Operation: SP-16611-A-69

Time: 0.7 Hr.

(TSB 111 - 3/14/69 - Article 1720)

CARGO DOOR WATER LEAKS

(1969 Econoline Built Prior to July 22, 1968)

Install Improved Weatherstrip.

PRODUCTION CORRECTION: 7-22-68.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: 25325-A

Time: 0.5 Hr.

PARTS:

Part No.	Name	Class	Avail.
CBUZ-8925324-A	Door Weatherstrip	B	OK

(TSB 112 - 4/4/69 - Article 1744)

ROAD SPLASH AND MUD ACCUMULATION AT DOOR ENTRY STEP
(1970 F100-350)

Customer complaints of road splash and mud build up in the door step area of the 1970 Light trucks can be corrected by procuring two new splash seals Part No. C7WV-6520272-A, Class C and installing as outlined in the article.

(TSB 124 - 10/10/69 - Article 1968)

WINDSHIELD, BACK WINDOW, FIXED GLASS

BACK WINDOW MOULDING INSTALLATION

(All Car Lines)

If difficulty is experienced during back window moulding installation, the mouldings should be installed using the following procedure.

1. Place 200 pounds of shot on the window glass.

2. Fabricate a tamper from two pounds of body sealer and wrap the sealer with body tape or a shop towel.

3. Place the mouldings in position and tap into place with the fabricated tamper.

4. After the mouldings are installed with the moulding lip engaged under the retainer, remove the 200 pounds of shot from the glass.

(TSB 58 - 1/27/67 - Article 985)

CIRCLE IMPRESSIONS ON REAR WINDOW

(1967 Mustang - All Models Except Convertible)

Customer complaints of circle impressions "bulls-eyes" on the inside rear glass have been reported on some 1967 Mustangs built prior to December 27, 1966 at Dearborn Assembly Plant. This problem is attributed to contaminants found on suction cups used to install the glass during assembly and can be corrected by cleaning the inside surface of the glass with a silicone body polish (Part No. M7A-19530-A).

(TSB 61 - 3/10/67 - Article 1004)

POTENTIAL WINDSHIELD GLASS BREAKAGE DUE TO OUTSIDE BELT MOULDING CONTACT

(1966-1967 Fairlains and Falcons)

Windshield breakage has been reported from the field on 1966 and 1967 Fairlains and Falcons. A potential source of this problem is burrs along the windshield outside belt mouldings. Therefore, it is recommended that the center outside belt moulding spacer be inverted whenever windshield or moulding replacements are performed to assure that glass to moulding contact is eliminated. Similar action was taken in production effective February 23, 1967.

(TSB 70 - 6/23/67 - Article 1111)

PROPER USE OF SEALER - REPAIR OF WINDSHIELD AND BACKLITE WATER LEAKS 1964-1968

(All Car Lines - All Models)

Recently concluded field visitations indicate that some dealers are using water leak repair materials which are not recommended by the Company. This results in repeat failures and subsequent customer dissatisfaction. Currently, the only approved sealer for repair of water leaks around the vinyl and rubber weatherstrip installed windshield and backlite is Auto Glass Liquid Sealer, Part No. C5AZ-19554-A.

(TSB 84 - 1/26/68 - Article 1258)

BELT MOULDING TO BACKLITE MOULDING GAP

(Mustang Equipped with Vinyl Roof - 1969)

1. Loosen the back belt and belt side moulding attaching nuts (View B, Figure

26). The four rear nuts are accessible from inside luggage compartment; access to the front nut requires removal of the quarter trim panel and the edge of the headlining lifted.

2. Loosen the two lower screws attaching the backlite side mouldings (View C, Figure 26).

3. Loosen the attaching nuts that retain the backlite attaching moulding (View A, Figure 26).

4. Reposition the backlite side mouldings outboard, and the back belt and belt side mouldings toward roof peak line until a satisfactory appearance is achieved. Should more adjustment be required, the belt mouldings can be removed and the forward edges of the holes in the sheet metal filed out slightly. Adjust both sides to maintain equal gaps.

5. Tighten all nuts and screws to retain the moulding in the adjusted position.

PARTS: None.

Production Correction: Approx. 11/1/68.

WARRANTY STATUS: REIMBURSABLE

Operation: SP-42006-B-69

Time: 0.7 Hr. (Both Sides)

(TSB 111 - 3/14/69 - Article 1721)

WINDSHIELD GLASS - STRESS CRACK

(Ford 1969 - All Models)

Stress cracks in the lower windshield glass support areas on some 1969 Ford vehicles are occurring when the windshield glass wipes the rubber down from the metal lower support spacers during installation and contacts the unprotected metal, as shown in Figure 25.

When installing a replacement windshield, the lower support spacers should be installed in the inverted position, as shown in Figure 24.

PRODUCTION CORRECTION: March, 1969.

(TSB 115 - 5/16/69 - Article 1805)

IMPROPER REPAIR TECHNIQUES CAUSING WINDSHIELD BREAKAGE

(All Car Lines)

The use of a screwdriver or similar tool to pry the mouldings away from the glass can cause edge crushing of the glass, which, although it may not cause immediate breakage of the glass, can result in an unnoticed chip.

It is recommended that when glass repairs are made at the dealer body shop or by "glass shops" that the use of metallic tools except those specifically approved for moulding approval (T64P-42006-B & C) not be used when attempting water leak and/or moulding repair operations on windshield or backlites. Only plastic, wood or fiber tools should be used on these types of repairs.

PRODUCTION CORRECTION: January, 1969.

WARRANTY STATUS: INFORMATION

(TSB 116 - 5/30/69 - Article 1820)

WINDSHIELD WATER LEAKS

(1968-69 W-WT-1000-D Series Trucks)

Improved windshield sealer application and weatherstrip dimensions were incorporated into W Series production on vehicles built since approximately June 9, 1969.

WARRANTY STATUS: INFORMATION ONLY

(TSB 121 - 8/15/69 - Article 1931)

PAINT, CONVERTIBLE TOP

PAINT DEFECTS AND REPAIR PROCEDURES

(All Models)

The recommended repair procedures for exterior and interior finishes of passenger and commercial vehicles are explained in this article. This includes paint defects and the method of repair, polish procedures, repaint procedures for different finishes, wood grain transfer application and industrial fallout removal. A list of acceptable materials and tools with text reference numbers is included at the end of the repair procedures.

(TSB 63 - 3/31/67 - Article 1022)

TOUCH-UP REPAIR PAINT - SQUIRE MODEL STATION WAGONS

(1968-1969 Ford and Fairlane)

With the introduction of the pressure sensitive vinyl transfer film on Squire model station wagons some customer complaints have been received of poor appearance when the transfer is chipped or scratched, allowing the vehicle base color to show. Therefore, to enable dealers to perform acceptable touch-up repairs when the transfer is inadvertently chipped or damaged, appropriate color touch-up paints are available for repairs.

(TSB 103 - 11/29/68 - Article 1551)

VINYL TAPE/ACCENT TAPE - REPAIR AND REPLACEMENT

(All Vehicles So Equipped)

Repair or replace.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty and Policy Manual.

Operation: BP-83A - If applicable (Refinish panel).

Time: Per the Service Labor Time Standards Manual or "Actual Time" as defined in the introduction of the Warranty and Policy Manual.

PARTS:

Replacement Part	Description	Qty.	Code
See Parts Book, Body Section, Pages 1, 2, 3, 4, 4.	Decorative Tape	As Listed	As Listed
DL68-3721-A	Silicone & Wax Remover	1 Gal.	A

(TSB 112 - 4/4/69 - Article 1745)

PAINT STRIPE REPAIR LACQUER

(All Car Lines So Equipped - 1969)

Touch-up affected body paint stripes with repair lacquer listed below.

PARTS:

Color No.	Description	Supplier Code No.	Avail.
1619	White	X 5536	Order in one quart can.
1724	Black	X 5524	Order in one quart can.
1901	Silver	X 5539	tainers from
2025	Red	X 5588	Siebert Oxiderm
3108	Medium Blue	X 5541	Co., 6455 Strong
3210	Gold	X 5595	Ave., Detroit, Michigan

WARRANTY STATUS: Reimbursable within the provisions of the Warranty and Policy Manual.

Operation: BP-83A - If applicable (Refinish panel).

Time: Per the Service Labor Time Standards Manual or "Actual Time" as defined in the introduction of the Warranty and Policy Manual.

(TSB 112 - 4/4/69 - Article 1746)

VINYL ROOF COVERS - SQUIRE BODY SIDE TRIM

ROOF OUTSIDE COVER REPLACEMENT PROCEDURE REVISION

(All 1967 Corlines Except Thunderbird)

These procedures, as published in the 1967 Shop Manuals, include removal and installation of the windshield and back window glass. These steps are not necessary. This article provides revised replacement procedures for the roof outside cover and supersedes the procedures as published in all 1967 Shop Manuals with the exception of the 1967 Thunderbird.

Refer to the April 17, 1967 revisions to the Suggested Labor Time Schedules applicable to these procedures.

(TSB 63 - 3/31/67 - Article 1021)

VINYL ROOF REPAIR PROCEDURES - ALL CAR LINES SO EQUIPPED

The purpose of this article is to acquaint dealer personnel with vinyl roof repair techniques which have been de-

veloped and are now being used at most assembly plants with excellent results. These vinyl roof repair procedures are applicable to field repairs and will be time saving to the dealer and, of equal importance, result in delivery of the vehicle with a minimum delay to the customer.

The type and extent of repairs that can be performed on vinyl roofs generally fall into the following categories:

• **Repairs during pre-delivery** — A repair made during pre-delivery can be more extensive than one that is brought to the dealer's attention by the customer after the vehicle has been delivered. Therefore, close inspection of the vinyl roof is imperative during pre-delivery and obvious defects should be corrected to avoid potential customer complaints.

• **Customer complaint repairs** — Usually customer complaint repairs are somewhat limited as the customer is more apt to be severely critical of the repaired area. Certain complaint repairs should be discussed with the customer and the location and type of repair should be the guide in determining the feasibility of the repair, along with assuring the customer that the repair will be perfect to his satisfaction. In many cases the customer will accept the repair to avoid long delays and also if he can be assured that the repair will restore the vinyl top to a like-new condition.

• **Repairs on white vinyl** — Although the same type of repairs can be performed on white vinyl tops, the repair becomes more difficult (particularly when repairing a cut or scuff on the vinyl surface). However, with certain precautions the repair can be made to an acceptable level.

It is important that the vinyl surface is thoroughly cleaned before the repair is made and also that excessive heat be avoided to prevent possible charring of the vinyl. The recommended cleaning procedure and temperatures are outlined under "Repair Procedures."

TRAINING AND PERSONNEL

In order to perform quality workmanship, some training is required. The person selected to do vinyl roof repairs should be a conscientious and patient individual who is willing to develop the skill required to perform this kind of work. Tentatively, the National Service Office in conjunction with the local district offices is planning to schedule a training course on vinyl roof repair techniques. In the interim, however, the skills required can be obtained through "on-the-job" experience. Realizing that the individual's skill will be limited at first he will develop the confidence as he becomes familiar with the tools and knack for performing this type of work.

TOOLS AND MATERIAL

The following are the recommended tools and material required to perform the various types of repairs.

At the present time most items listed must be procured from outside sources. Arrangements have been made with these sources to expedite direct shipment. Before ordering from the sources listed, it is suggested that local jobbing shops or radio equipment outlets be contacted for availability of these items. If there are any difficulties encountered when ordering any of these items, contact your local district office for assistance.

Tools	Approx. Price
1. Heat Gun — Model HG-501	\$38.75
Source: Electric Tool & Service Co., 6188 12 St. Detroit, Michigan 48208	

2. Soldering Iron consisting of 1 (each):	
#6100 — Imperial Unger Handle	1.38
#6102 — Imperial Unger Standard 2-wire cord	1.97
#6202 — Imperial Unger 25-watt heating cartridge	3.74
#6372 — Imperial Unger Tip	1.11
Source: Radio Specialties Co., 12775 Lyndon Ave., Detroit, Michigan 48227	
3. Transformer — Model #10B Superior Variable	9.00
Bud Metal Box Model #C-1606	1.75
Source: Radio Specialties Co., 12775 Lyndon Ave., Detroit, Michigan 48227	
4. Hypodermic Syringe 2½ cc with a #BD-18 needle (Plastipak)	1.50
Source: Any medical supply company	

Materials

1. Rubber Cement Pick-Up (DRAFCO)	11
Source: Procure locally or Drafting Materials Inc., 4851 Woodward Ave., Detroit, Michigan 48201	
2. Abrasive — Cellulose sponge #7010 (Scotchbrite Brand 3M) (Surfa Scuff Sponge)	78
Source: Procure locally	
3. Vinyl Top Cleaner — Part #COAZ-19526-A	
Source: Class "A" Facing Parts Depot	
4. Vinyl Top Adhesive — Part #C2AZ-19C525-A	
Source: Class "BA" Master Parts Depot	
5. Drip Rail Sealer — C3AZ-19562-A (white); C3AZ-19562-B (black)	
Source: Class "B" Master Parts Depot	
6. Vinyl Paint — Spray Can net wt. 5 Oz. Avd.	
Color	Part Number
Black	VR-1724-S
White	VR-1525-S
Blue	VR-1903-S
Gold	VR-1915-S
Parchment	VR-1631-S
Brown	VR-2045-S
Dulling Agent	VR-95F17-S
Class "V" drop ship.	

NOTE: The above colors are packaged in quantities of (6). When ordering always select any combination of (6) colors by part number.

The main article describes the various types of vinyl roof problems and step-by-step procedures for performing repairs.

(TSB 66 — 4/28/67 — Article 1057)

PRESSURE SENSITIVE WOOD GRAIN VINYL TRANSFER FILM

(1965-1967 Ford, 1965 Falcon, and 1966-1967 Fairlane - Country Squire Models)

This article describes a revised repair procedure using a pressure-sensitive vinyl transfer which may be used to correct customer complaints of station wagon transfer graining problems on subject vehicles. Because the appearance of the new material does not match the production transfer, this procedure should be used only in those instances where all panels are defective. Defects on individual panels should be corrected by replacing the affected panel as outlined in Technical Service Bulletin Supplement No. 63 dated March 31, 1967.

(TSB 75 — 9/8/67 — Article 1150)

PRESSURE SENSITIVE WOOD GRAIN VINYL TRANSFER FILM

(1968 Ford & Fairlane Country Squire Station Wagons)

Recent dealer contacts indicate that some dealers are unaware of the new

appearance associated with the pressure sensitive vinyl transfer released for 1968 model Country Squire vehicles. This new material features a natural wood grain "ticking" and increased durability without the use of an under-bond coat or clear enamel top coat. Therefore, dealers should not attempt to improve the "gloss" of the transfer graining by applying a clear lacquer top coat. Likewise, attempts to obtain a high gloss finish by waxing and polishing will not be effective on this material. Dealer repair procedures applicable to this new (vinyl transfer) material are outlined in Technical Service Bulletin No. 75, Article 1150 dated September 8, 1967. These repair procedures can also be found in the 1968 Shop Manuals, Group 17-2.

(TSB 79 — 11/17/67 — Article 1200)

LOOSE SNAP-IN RETAINER FOR VINYL ROOF AT DRIP RAIL

(1968 Ford and Mustang, Models 65 — 57)

Customer complaints of loose and protruding snap-in retainers for vinyl roof covers in the drip rail area have been reported on some 1968 vehicles built prior to October, 1967. This problem is attributed to variations in the assembly of the drip rail and was corrected in production with the incorporation of pop rivets at critical points along the drip rail. Customer complaints of loose snap-in retainers on units built prior to the above date can be corrected by installing 1/8 in. pop rivets (Part No. 375203-S) along the drip rail.

(TSB 80 — 11/24/67 — Article 1216)

LOOSE FIBERGLASS RAIL ATTACHMENTS

(1968 Ford and Fairlane — Squire Models)

Customer complaints of fiberglass trim rails being loose or bowed to the sheet metal panels can be caused by loose fiberglass rail attaching clip retainers or retainers which have broken away from the rail. This occurs when the retaining clip is not aligned with the holes in the sheet metal and causes the clip retainer to disengage from the retaining bosses in the rail.

This was corrected in production approximately November, 1967 by adding epoxy cement at the clip retainer to the fiberglass rail boss. Customer complaints of loose or bowed rails can be corrected by properly aligning the retaining clips and securing them with epoxy cement.

(TSB 84 — 1/26/68 — Article 1265)

PRESSURE SENSITIVE WOOD GRAIN VINYL TRANSFER FILMS - REPAIR PROCEDURE

(1968 Ford, Fairlane Squire Models)

Field reports indicate that some dealers are replacing the pressure sensitive wood grain vinyl transfer on 1968 Squire models because of air bubbles and/or blisters.

An effective repair for the problem can be performed by piercing the blisters or bubbles with a pin, releasing the trapped air and pressing the transfer down to contact the sheet metal surface. In some instances it may be necessary to slightly preheat the sheet metal and vinyl transfer to reactivate the adhesive.

This method of repair should be attempted prior to transfer replacement and whenever complaints of air bubbles and/or blisters are encountered.

(TSB 87 — 3/8/68 — Article 1310)

NEW IMPROVED VINYL TOP REPAIR PROCEDURE

(1968-69 All Car Lines)

(The following information supplements procedures previously published on Vinyl Roof Repair and Replacement, Vol. 68 S8 L2A, Ready Reference 21008.)

A new improved procedure and repair kit has been developed for repair of gouged, torn or cut vinyl tops that can be performed by dealer technicians at a fraction of the cost of a trim shop replacement. Completed repairs are permanent and difficult to detect. The repaired area has the same strength, grain, and color of the original top material. The procedure utilizes a new repair kit No. VR-1.

(TSB 129 - 12/12/69 - Article 2031)

GENERAL INTERIOR TRIM

SERVICE REPAIR OF INTERIOR TRIM PANELS

(All Car Lines)

The purpose of this article is to acquaint dealer personnel with repair techniques developed and used effectively at assembly plants for repairing minor interior trim panel defects (e.g., broken foundation board or vinyl cuts along the edge of trim panels). These repair procedures can also be used in the field and will be time saving to the dealer and, of equal importance, will result in delivery of the vehicle with minimum delay to the customer.

The type and extent of the repairs that can be performed on interior trim panels generally fall into the following categories and should be considered prior to making the repair:

- **Repairs during pre-delivery** - A repair made during pre-delivery can be more extensive than one that is brought to the dealer's attention by the customer after the vehicle has been delivered. Therefore, close inspection of interior trim panels is imperative during pre-delivery and obvious defects should be corrected to avoid potential customer complaints.

- **Customer complaint repairs** - These repairs are somewhat limited as the customer is more apt to be severely critical of the repaired area. Certain complaint repairs should be discussed with the customer and the location and type of repair should be the guide in determining the feasibility of the repair, along with assuring the customer that the repair will be performed to his satisfaction. In many cases the customer will accept the repair to avoid delays and also if he can be assured that the repair will restore the trim panel to a like-new condition.

Tools and Materials

The following are recommended tools and material required to perform most type of defects:

- Heavy duty staple gun and 3/32" staples
- Heat gun-model HG-501
Source: Electric Tool and Service Co.
6188 - 12th St.
Detroit, Michigan 48208
- Box binding (No. 5 improved metal edge stap)
- Source: Metal Edge Industries
100 Gloucester Road
Barrington, New Jersey
- Trim cement - part no. C2AZ-19C525-A

Detailed instructions covering the repair procedures are included in this article.

(TSB 98 - 9/13/68 - Article 1478)

LOOSE OR GAPPING FRONT DOOR TRIM PANELS

(1969 Ford, All Models)

On some 1969 vehicles, the front door trim panel may be loose or gaps excessively to the door inner panel in the area of the inside locking button.

This condition is attributed to the upper trim panel retaining brackets (stools) mislocated or in some cases bent causing the panel to gap or flutter when closing the door.

Corrective measures were taken in October to assure that trim panel retaining brackets are properly located on the door inner panel. A satisfactory field correction can be performed by removing the trim panel retaining brackets (stools), drilling new mounting holes and relocating these brackets outward.

(TSB 104 - 12/13/68 - Article 1590)

ARM REST SPLITTING

(Econoline and "F" Series)

Replace the split arm rest with current Service Class C Part. Without a change in part numbers, the arm rests have been improved and now have a thicker and more durable vinyl cover.

PARTS: As Required by Vehicle Color Code.

PRODUCTION CORRECTION: 12-15-68.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: 24140-A

Time: 0.3 Hr.

(TSB 112 - 4/4/69 - Article 1747)

DOOR ARMREST COVER SEPARATION FROM THE FOAM

(1968 Mustang - Models 63A, 65A, 65C, 76A)

Replace armrests with revised replacement parts.

PARTS:

Part No.	Name	Qty.	Class	Avail.
*CAZZ-6524140-DW	Armrest Assy.(R)	1	C	3-31-69 (All Colors)
*CAZZ-6524141-DW	Armrest Assy.(L)	1	C	

*Refer to color supplement sheet for appropriate color suffixes.

PRODUCTION CORRECTION: Style change effective with 1969 models.

WARRANTY STATUS: REIMBURSABLE

Operation: 24140-A

Time: 0.2 Hr. - Armrest

(TSB 112 - 4/4/69 - Article 1740)

INSTRUMENT CLUSTER PLASTIC BEZELS CRACK

(Fairlane - 1968)

Models built prior to May, 1968, experienced cracked bezels. Design change (see Figure 8) increased thickness of bezel rim and eliminated the cracking problem.

Dealer repair can be accomplished on the earlier design, identified by the use of a snap ring within the pod, by installing a specially released service part, Instrument Panel Pad at Cluster Retainer Ring Cover (Part No. C80B-54044F74-A) over each bezel as described in the detailed procedure and Figure 9.

PARTS:

Part Number	Description	Class	Amount	Avail.
C80Z-54044F74-A	Cover	B	4/Package	4-21-69

PRODUCTION CORRECTION: May, 1968.

WARRANTY STATUS: REIMBURSABLE

Operation: SP-54044F74-A

Time: 0.4 Hr.

(TSB 113 - 4/18/69 - Article 1769)

LOOSE SEAT BELT RETRACTOR COVER AND PARTIALLY INSTALLED PLUG BUTTON

(All 1970 Models)

Reviews of vehicles built prior to September 2, 1969 revealed some loose front outboard seat belt retractor covers and improperly installed plug buttons. Loose front outboard seat belt retractor covers can be corrected by removing the cover and applying heat to the inner face of the cover with a heat gun (do not use open flame). Slowly move the heat gun in a circular motion until the plastic becomes pliable enough to re-shape. Squeeze the sides together until the cover snaps firmly on the retaining ears of the retractor.

If difficulty is experienced in moving or installing the plug button when servicing vehicles, rework the button by removing two retaining tabs as shown in Figure 6.

WARRANTY STATUS: Reimbursable under the provisions of the Warranty and Policy Manual.

Operation: SP-61106-A-70

Time: One or Both - 0.3 Hr.

DLR. CODING: Basic Part No. 7611A70 - Code No. 33

NOTE: All seat belts are coded by the manufacturer, and legal requirements make it mandatory that seat belts be removed and replaced in complete sets.

(TSB 127 - 11/21/69 - Article 2010)

FORD BODY AND TRIM

PACKAGE TRAY TRIM PANEL - POOR APPEARANCE

(1967 Ford - Model 63)

Warping and/or buckling of the package tray trim panel can occur on subject vehicles and results in poor appearance. Customer complaints of this problem may be corrected by replacement of the package tray trim panel assembly with a revised panel and, where applicable, a separate rear seat speaker grille and screen assembly.

(TSB 62 - 3/24/67 - Article 1016)

LOOSE FRONT FENDER ATTACHMENT

(1967 Ford - All Models)

Reports from the field indicate that the front fender lower rear attachment may not have been properly torqued or may lose torque sufficiently to cause fender misalignment.

This problem was corrected on units built after February 1, 1967 by adding Locktite sealer to the attaching bolt.

Customer complaints of front fender misalignment caused by loose front fender attachments may be corrected by adding Locktite to the attaching bolt.

(TSB 63 - 3/31/67 - Article 1023)

WIND NOISE 1967 FORD

(All)

Field complaints have indicated a wind noise problem on Ford vehicles. The two major sources of wind noise are the base of the "A" pillar at the belt line and the improper sealing of the two cage nuts which are in the inside cowl panel at the base of the dash sheet metal (both sides).

These problems were corrected in production as of January 15, 1967.

The following article outlines the procedures used for isolating and repairing these areas.

(TSB 69 - 6/2/67 - Article 1096)

HEAT INSULATION FOR STATION WAGON IN THE THIRD SEAT AREA

(1965-1967 Ford - All Station Wagons)

CUSTOMER COMPLAINTS OF EXCESSIVE HEAT IN THE AREA REARWARD OF THE SECOND SEAT ON STATION WAGON MODELS HAVE BEEN ENCOUNTERED. THIS PROBLEM IS DUE TO THE CLOSE PROXIMITY OF THE EXHAUST SYSTEM TO THE FLOOR PAN.

Effective April 15, 1967, an insulation package behind the second seat and under the stationary floor was incorporated in production in most assembly plants. Heat insulators and standard parts are now available to be used to correct the excessive heat condition on 1965-1967 Fords in the field. This article outlines the procedure for installation of heat insulators on customer complaint units.

(TSB 76 - 9/29/67 - Article 1166)

POOR ADHESION OF "F-O-R-D" DECK LID LETTERS

(All 1968 Models Where Applicable)

Loose and/or missing "F-O-R-D" letters have been encountered on some vehicles built prior to September 6, 1967.

The 1968 Ford Shop Manual states that service replacement letters are to be installed by drilling the deck lid to accept stud-mounted letters rather than the adhesive-backed letters now being used in production. However, adhesive-backed letters are now available for service and should be used as de-

scribed in this article whenever replacement is required. This will eliminate the necessity of drilling mounting holes and possible damage to painted surfaces.

(TSB 77 - 10/13/67 - Article 1182)

HOOD PANEL OVERCROWN

(1968 Ford All Models)

The center of the hood is high adjacent to the fender causing a mismatch of hood to fender contour. This problem will be corrected on units built after September 6, 1967 (upon resumption of production).

Vehicles exhibiting this condition to the extent that the hood side edge is in excess of 1/16" above fender surface should be corrected by performing the proper adjustments at the hood latch and hood hinges. When normal hood adjustment will not correct the problem, a tool may be fabricated locally to reshape the hood and obtain a satisfactory fit.

(TSB 77 - 10/13/67 - Article 1183)

POOR PACKAGE TRAY APPEARANCE

(1968 Ford, Models 57, 63, 65 and Fairlane Model 65)

Customer complaints of excessive gaps between the package tray and the rear seat back and unsightly appearance of the unfinished or "raw" edge of the package tray have been received on subject vehicles. This problem was corrected in production in November by the incorporation of a vinyl type welt along the leading edge of the package tray. Also, additional improvements include padding modifications to firm up the upper outboard corners of the seat back to eliminate excessive gaps in this area.

Customer complaint vehicles can be corrected by installing a service windshield available under part number C8AZ-5746888. In some extreme cases, other modifications may also be required to reposition and add padding to the seat back.

(TSB 82 - 12/15/67 - Article 1237)

LUGGAGE COMPARTMENT LEAKS

(1969 Ford: Models 54, 57, 63, 65)

Customer complaints of water and/or dust leaks may be encountered on some early-built Ford vehicles. This problem is attributed to sealer skips and/or misplaced sealer in the following areas:

- o Quarter wheelhouse at the floor pan
- o Rear fender along the down-standing flange at the lower drain trough area

Action was taken at all assembly plants during late August, 1967 to place increased emphasis on sealer application in this area to preclude water leak complaints. A suitable field correction can be performed by sealing the area with AB-19560-A sealer.

(TSB 99 - 9/27/68 - Article 1501)

METAL SQUEAK NOISE IN THE FRONT FENDER TO ROCKER PANEL AREA

(1969 Ford - All Models)

Metal squeaks in the rocker panel to fender area may be encountered on some early built 1969 Ford vehicles. This noise occurs as a result of the upstanding flange on the bottom rear edge of the fender interfering with offset angle of the rocker panels.

Approximately September 17, 1968, the upstanding flange on the bottom rear end of the front fender assembly was removed, and permanent action is being taken to revise the offset angle of the rocker panel rearward, to eliminate interference with fender in this area.

Dealers can correct customer complaint units by elongating the mounting hole in the rocker panel and installing washers to shim the fender and eliminate the squeaking noise.

(TSB 103 - 11/29/68 - Article 1561)

LOOSE QUARTER PANEL OUTSIDE MOULDING

(1969 Ford - All So Equipped)

Customer complaints of loose quarter panel outside mouldings may be encoun-

tered on some early-built 1969 Ford Custom and Custom 500 vehicles. Effective approximately mid-October, 1968, a new retainer with stock added to the center area for increased retaining strength was incorporated into production. Customer complaint units can be corrected in the field by replacing the existing moulding retainers with the new component (Part No. C9AZ-6220818-C - Part Class (A)).

(TSB 104 - 12/13/68 - Article 1582)

PART NUMBER CORRECTION ON ARTICLE #1582, BULLETIN #104, DATED DECEMBER 13, 1968 - "LOOSE QUARTER PANEL OUTSIDE MOULDING"

(1969 Ford - All So Equipped)

Part Number C9AZ-6220818C, Part Class (A), should be listed in subject bulletin no. 104 as C9AZ-6220818A, Part Class (A). Please correct Article No. 1582 accordingly.

(TSB 109 - 2/14/69 - Article 1652)

REPAIR PROCEDURE FOR STRIPPED OR PULLED OUT ATTACHING STUDS IN PLASTIC FRONT FENDER AND QUARTER PANEL EXTENSIONS

(1969 Ford and Mustang (Excludes Station Wagon Quarter Panels))

In some cases the front fender and/or quarter panel extensions were found to be loose on some 1969 early built Ford and Mustang vehicles. This condition was attributed to one of the attaching studs being stripped or pulled loose from the plastic extension due to excessive torque during installation. Therefore, effective Job No. 1, 1969, the Ford front fender extensions and Ford and Mustang quarter panel extensions incorporate integral attaching studs.

Repair screws are available to preclude the necessity of replacing the entire extension assembly in the event of customer complaints attributed to stripped or pulled-out attaching studs.

(TSB 104 - 12/13/68 - Article 1583)

WINDNOISE AT FRONT DOORS IN "A" PILLAR AREA

(1969 Ford Sedans and Station Wagons)

This article supplements Special Service Letter No. 63 dated October 16, 1968, and outlines additional corrective action which may be required to correct excessive wind noise in the "A" post area on sedan and station wagon models. Windnoise in this area is attributed to inadequate sealing between the door weatherstrip and door sheet metal and, in some instances, inadequate weatherstrip compression along the "A" pillar.

Additional corrective action was taken in production in these areas approximately December 1, 1968, by adding a strip of polyvinyl tape along the inboard side of the weatherstrip retaining flange. Also, body sealer was added along both sides of the flange in the notched area at the belt. A satisfactory field correction can be performed by applying sealer and polyvinyl tape under the weatherstrip along the mounting flange.

(TSB 104 - 12/13/68 - Article 1588)

MISLOCATED DELUXE ROOF LUGGAGE RACK ATTACHMENT HOLES

(1969 Ford - Station Wagons - Model 71 - So Equipped)

The roof luggage rack side rail and support assembly attachment holes may be mislocated slightly, resulting in difficult installation of the roof luggage rack to the roof panel on some 1969 Ford station wagons. The assembly plants were made aware of the hole mislocations and initiated appropriate corrective action approximately October 18, 1968.

Dealers installing deluxe roof luggage racks should verify that the attaching holes are properly located and perform the installation as outlined in the main article.

(TSB 109 - 2/14/69 - Article 1664)

JACK COLUMN RATTLES AND BECOMES DISLODGED - 1969 FORD STATION WAGON

(All 71 Models)

In some 1969 Ford station wagons the jack column rattles and becomes dislodged from the forward retainer bracket due to inadequate retention and spare tire movement. A production change in September revised the gage of the spare wheel mounting bracket metal to stabilize the tire and redesigned the jack column front retainer to accommodate a clamp and wing bolt and, thereby, provide positive jack retention.

Customer complaints of this nature on vehicles built prior to September 9 can be satisfactorily corrected by fabricating and installing a jack column retainer as described in the main article.

(TSB 109 - 2/14/69 - Article 1669)

LUGGAGE RACK CROSSBAR - INEFFECTIVE RETAINER ASSEMBLIES

(1969 Ford Station Wagons - Deluxe (Adjustable Luggage Rack))

Install new retainer assemblies.

PARTS:

Part No.	Description	No. Req'd.	Depot Code
C9AZ-71550A24-A	Luggage rack rear rail retainer (R)	1	C
C9AZ-71550A24-B	Luggage rack rear rail retainer (L)	1	C

Production Correction: September 19, 1968.

WARRANTY STATUS: REIMBURSABLE
Operation: SP-55132A-69
Time: 0.4 Hr.

(TSB 111 - 3/14/69 - Article 1715)

LUGGAGE RACK WIND NOISE

(1969 Ford Station Wagons - Deluxe (Adjustable Luggage Rack))

This article will supplement Article No. 1675 - Luggage Rack Windnoise, published in Technical Service Bulletin No. 110.

In order to verify that the complaint noise is caused by the luggage rack, drive the vehicle without the forward stationary bar and the adjustable cross bar on the vehicle. If the wind noise is isolated to the luggage rack, the corrective procedures detailed in the main article should be performed.

PARTS:

Replacement Part No.	Description	Qty.	Code
C9AZ-7155138-A	Adjustable Rail	1	C
C9AZ-7155106-B	Front Stationary Rail	1	C
C3AZ-19560-A	Sealer	1	B

WARRANTY STATUS: REIMBURSABLE

Operation: SP-55100-B-69

Time: 1.0 Hr.

(TSB 116 - 5/30/69 - Article 1821)

FENDER SIDE ORNAMENTS - MISSING OR LOOSE

(Ford Squire Wagons - 1969)

Ornament is loose or has fallen off but not lost.

Remove adhesive backing, check for any projections preventing full contact, clean with solvent, and recement with sealer. Allow approximately 8 hours to air dry before highway driving.

Ornament is lost or damaged.

Clean ornament mounting surface with solvent, check for any projections preventing full contact, install new ornament.

PARTS:

Replacement Part No.	Descrip.	Qty.	Code
C9AZ-16229-A(L,H)	Ornament	1	A
C9AZ-16228-B(R,H)	Ornament	1	A
C3AZ-19562-A	Sealer	1	A

WARRANTY STATUS: REIMBURSABLE
*Operation: Fender Ornament - cement
 loose - replace lost - SP-16229-A-69.
 Time: Loose 0.3 Hr.
 Replace 0.2 Hr.*

(TSB 114 - 5/2/69 - Article 1784)

GRILLE WIND NOISE
 (Ford - 1969 - All XL and LTD Models)

To eliminate an excessive wind noise that originates from the front center grille horizontal bars, which may vary from a "whine" to a "whistle", the detailed procedure given in the main article should be followed.
WARRANTY STATUS: REIMBURSABLE
*Operation: SP-8200-A-69
 Time: 0.5 Hr.*

(TSB 119 - 7/18/69 - Article 1889)

**PRESSURE SENSITIVE
 TRANSFER GRAINING
 REPAIR & REPLACEMENT
 PROCEDURE**

(All 1968 & 1969 Station Wagons -
 So Equipped)

This Technical Service Bulletin consolidates previous information published relevant to pressure sensitive transfer graining and emphasizes that minor repairs to the transfer can and should be accomplished where possible rather than performing total transfer replacement.
WARRANTY STATUS: Transfer replacement is reimbursable within the provisions of the Warranty & Policy Manual.
 Refer to Service Labor Time Standard 20748-A.

(TSB 120 - 8/1/69 - Article 1893)

**REAR VIEW MIRROR -
 INSTALLATION OF INSIDE
 BRACKET**

(1970 Maverick and All 1970 Models)

A new procedure has been developed for field installation of the sintered stainless steel mirror bracket to the windshield glass.

PARTS: "Loc Tite Minute Bond" adhesive No. 130 Kit (can be procured at local mill supply houses).

Part Number	Part Name	Class	Avail.
C9AB-17698-A	Sintered Stainless Steel Mirror Mounting Bracket	A	7-1-69

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

*Operation: SP-17698-A-69
 Time: 0.5 Hr.*

(TSB 120 - 8/1/69 - Article 1911)

**CORROSION OF DELUXE
 LUGGAGE RACK COMPONENTS**

(1969 Ford Station Wagon So Equipped)

Replace rusted and/or corroded component parts with replacement parts listed below and as shown on Figure 1.

PRODUCTION CORRECTION: February, 1969.

PARTS:

Part Number	Part Name	Description	Code	Avail.
C9AZ-71550A52-3A	Cap Assembly	Roof Luggage Carrier Side Rail	C	OK
C9AZ-7155058-9A	Extension Assembly	Side Rail	C	OK
C9AZ-7150862-A	Support Assembly	Airdeflector Center	C	OK
C9AZ-7155132-3A	Retainer Assembly	Clamp Housing	C	OK
C9AZ-7155140-1C	Support Assembly	Support Less Plate	C	8-15-69
C9AZ-71550A58A	Roller Assembly	Roof Luggage Carrier Assembly	C	OK

**LOOSE FIBERGLASS RAIL
 ATTACHMENTS**

Loose fiberglass rail attachments can satisfactorily be corrected by replacing any loose retainers with a shorter retainer. See Figure 10.

PARTS:

Part Number	Description	Class Code
C8AZ 71425A94B	Retainer	A

PRODUCTION CORRECTION: March 3, 1969.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty and Policy Manual.

(TSB 128 - 12/5/69 - Article 2028)

**RPO ROOF LUGGAGE CARRIER
 INSTALLATION**

(Ford and Fairlane - 1970 Model
 Station Wagons)

Side to side misalignment of the roof and rack stanchion holes can be overcome by deflecting the rack cross rails, thereby widening the distance between the stanchions sufficiently to provide hole alignment.

The stanchions on one side of the rack should be secured first and then the front and/or rear cross rails be deflected downward in the center as required to align and secure the stanchions on the other side.

PRODUCTION CORRECTION: 10/15/69.
WARRANTY STATUS: INFORMATION ONLY

(TSB 128 - 12/5/69 - Article 2029)

**LOOSE GRILLE WORK ON
 PLASTIC HEAD LAMP COVERS
 AND GRILLE ASSEMBLIES**

(Ford - Fairlane - 1970 Model - So
 Equipped)

Loose and/or broken pins on plastic head lamp covers or grille assemblies on subject vehicles can satisfactorily be repaired by obtaining locally and applying Devon clear epoxy adhesive or equivalent material into the existing holes used for the staking pins. If part of the staking pin is still remaining in the hole, the adhesive can be applied between the two component parts in the area adjacent to the hole. A clamp should be used to hold the parts together until the adhesive is sufficiently cured (approximately 2 hours). Refer to Figure 10 for additional information.

Part Number	Part Name	Description	Code	Avail.
D00Z-13A136-7-A2	Cover Assy.	Fairlane Head Lamp	A	OK
D0AZ-13A138-A2-B2	Cover Assy.	Ford Head Lamp	A	OK

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: SP-55100-C-69

*Cap Assembly - Time: 0.3 Hr.
 Extension Assembly - Time: 0.3 Hr.
 Air Deflector Center - Time: 0.3 Hr.
 Any Side Rail Support Rail Assembly - Time: 0.3 Hr.
 Operation: SP-55132-A-69
 Retainer Assembly and/or Roller - Time: 0.4 Hr.*

PRODUCTION CORRECTION: September, 1969.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

*Operation: SP-13064-A-70
 Time: One Assembly - 0.4 Hr.
 Both Assemblies - 0.6 Hr.
 DLR CODING: 6N08*

(TSB 130 - 12/19/69 - Article 2047)

**LUGGAGE RACK "RIV-NUT"
 INSTALLATION**

(1970 Ford - Fairlane Station Wagons)

Prior to installing a station wagon luggage rack check the "Riv-Nut" in the roof for proper installation. In the event "Riv-Nut" has not been "up-set" refer to the procedure shown in Figure 11.

PARTS:

Part No.	Part Name	Description	Code	Avail.
370386-57	Bolt	1/4 - 20 x 1-1/4"	S	OK
33797-57	Nut	5/16 - 18"	BS	OK
44720-52	Washer	1/4"	S	OK
34805-58	Washer	1/4"	BS	OK

WARRANTY STATUS: INFORMATION ONLY

(TSB 130 - 12/19/69 - Article 2048)

**THUNDERBIRD
 BODY AND TRIM**

**DRIVESHAFT TO BODY
 FLOOR TUNNEL INTER-
 FERENCE**

(All 1967 Thunderbirds)

Some customers will complain of a "rapping" noise traceable to the drive shaft bottoming out on the body floor tunnel. This condition is caused by the rear axle pinion bumper folding over on impact. This problem was corrected in production January 15, 1967. Field correction is achieved by in- dealership fabrication of a revised bumper bracket.

(TSB 63 - 3/31/67 - Article 1036)

**POOR APPEARANCE OF
 PACKAGE TRAY MOULDINGS**

(1967 Thunderbird - 65A and B)

Package tray moulding contour misalignment and mismatch with related mouldings on some early production models was due to assembly installation difficulties.

Improved installation techniques and contour modifications have resolved these problems and units built prior to November can be corrected by reforming the package tray end moulding to fit the mating mouldings.

(TSB 71 - 7/14/67 - Article 1117)

**INSTRUMENT PANEL
 STEERING COLUMN FINISH
 PLATE MOULDING**

(1967 Thunderbird)

Reports from the field indicate that, in some cases, the instrument panel steering column finish moulding may fit poorly or exhibit an out of flush condition with the mating mouldings.

This problem was corrected on units built after June, 1967 by replacing the single screw with two screws (one at each end of the moulding). Units having an appearance problem in this area can be corrected by reworking the moulding retaining tab to permit the moulding to fit flush with adjacent mouldings.

(TSB 71 - 7/14/67 - Article 1119)

**FIBERGLASS FRONT
FENDER INSTALLATION**
(1955-1957 Thunderbird)

As a result of recent dealer inquiries this article contains the recommended installation instructions covering fiberglass front fenders currently being supplied for 1955-1957 Thunderbirds. Therefore, this article should be reviewed with all affected body shop personnel to assure that they are familiar with the recommended procedures.

(TSB 74 - 8/25/67 - Article 1146)

**SEAT BACK TO ARMREST
INTERFERENCE**

(1968 Thunderbird Equipped With Bench Seats)

Customer complaints of interference between the front seat back and armrest have been received on some early-built 1968 model Thunderbirds equipped with bucket seats. This problem usually occurs on the right hand side and is attributed to variations in the floor pan assembly. Customer complaints of this problem can be corrected by adding spacers (Part No. COAA-3043-A) between the outboard seat track and the floor pan. Under no circumstances should attempts be made to correct this problem by relocating the seat tracks on the floor pan.

(TSB 80 - 11/24/67 - Article 1223)

**INSTRUMENT PANEL ASH
RECEPTACLE RETENTION**

(1968 Thunderbird Equipped with Bench Seat)

The instrument panel ash receptacle used on bench seat models incorporates a break-away feature that allows the fully extended receptacle to separate and pivot downward from its outer retainer in case of impact. Complaints have been received that the break-away effort in some cases is considerably less than specified and as a result the receptacle may break-away with a slight downward pressure. The receptacle inner retainer also disengages, allowing the receptacle to completely separate from the outer retainer permitting the four ball bearings to become dislodged and fall on the floor.

Corrective measures have been taken and units built in November have a new design ash receptacle retainer which provides the necessary rigidity to meet the break-away effort specifications.

Customer complaint units can be corrected by installing the new design ash receptacle retainer available under part number C85Z-6504826-A. If necessary the ball bearing can also be procured under Part Number 354872-S.

(TSB 04 - 1/26/68 - Article 1259)

**GAP BETWEEN REAR SEAT
CUSHION AND REAR SEAT
BACK - LEATHER AND
VINYL TRIM ONLY**

(1969 Thunderbird - Model 65 - Without Pull-down Armrest)

Some 1969 2-door Thunderbird vehicles exhibit a gap between the rear seat cushion and the rear seat back exposing the floor pan insulation material.

Vehicles were revised in production on approximately October 10, 1968, by repositioning the seat belt attachments and adding jute padding material in the rear cushion buildup.

Problems occurring on vehicles built prior to this date may be corrected by similar operations in the dealership.

(TSB 109 - 2/14/69 - Article 1674)

**GLAMOUR PAINT REPAIR
PROCEDURE**

(1970 Thunderbird - All Models So Equipped)

PARTS: See listed in repair procedure.

WARRANTY STATUS: Reimbursable with in the provisions of the Warranty & Policy Manual.

Time: Actual time as defined in the Warranty & Policy Manual introduction section Page (5).

(TSB 129 - 12/12/69 - Article 2032)

**MUSTANG
BODY AND TRIM**

**LUGGAGE COMPARTMENT
FRONT ACCESS DOOR
RATTLE**

(1967 Mustang, Model 63)

Luggage compartment front access door rattle which cannot be corrected by normal adjustments are due to either excessive looseness in the door hinges, under-size overslam bumpers, or insufficient striker plate adjustment.

Corrective measures have been taken by increasing the size of the rubber bumper and revising the hinges. Units built subsequent to January have all improvements to eliminate this problem.

Customer complaints can be corrected by installing new overslam bumpers and if necessary reworking the hinges as shown in illustration of the main article.

(TSB 65 - 4/21/67 - Article 1054)

**HOOD SIDE ORNAMENT
INSERT RATTLES**

(1967-1968 Mustang - All Models Equipped with Louvered Hood)

Customer complaints of rattles when the hood is slammed can occur due to inadequate retention of the insert in the hood side ornament (hood louver). This condition can occur on units built prior to November, 1967, and was corrected in production by adding a rubber "O" ring between the insert and the ornament.

Customer complaint units can be corrected by applying an air dry adhesive to the attaching studs. See the main article for specific details.

(TSB 80 - 11/24/67 - Article 1217)

**GLOVE BOX DOOR DOES
NOT STAY CLOSED**

(1967-68 Mustang)

Customer complaints of the glove box door not staying closed have been received on some early-built Mustang vehicles. This problem is usually caused by the latch pawl not making complete engagement or by-passing the striker. Customer complaint units can be corrected by bending the striker plate mounting flange downward to assure positive latch engagement with the striker plate.

(TSB 83 - 12/29/67 - Article 1243)

**CRACKS IN SEALER AND
POOR APPEARANCE OF
SEALER IN DRIP RAILS**

(1969 - Mustang Without Vinyl Tops)

Some early built 1969 Mustang vehicles without the vinyl roof have cracks in the sealer and/or a poor sealer appearance between the quarter roof and roof rail. Occasionally these defects will result from the difficulty encountered during the installation of the rear outside quarter window moldings.

In the event dealers are confronted with complaints of objectionable drip rail sealer appearance or cracks in the roof drip rail a satisfactory repair can be accomplished by cleaning the area of the drip rail of any loose or foreign material and using the appropriate sealer and directions as outlined in the main article.

(TSB 103 - 11/29/68 - Article 1568)

**INSTRUMENT PANEL LOWER
FLANGE ROUGH EDGE
ABOVE BRAKE RELEASE
HANDLE**

(1969 Mustang)

We have noticed that a rough edge has been left on the lower edge of the instrument panel in the parking brake release handle area on some of the subject vehicles.

To correct any problems of this nature on vehicles produced prior to this date, file off any burrs that exist at this area and apply tape as necessary.

(TSB 109 - 2/14/69 - Article 1653)

**FENDER SPLASH SHIELD
ACCESSORY KIT - SUPER-
SEDES ARTICLE NO. 1783,
BULLETIN NO. 114, DATED
MAY 2, 1969**

(Mustang - 1968-69)

The Splash Shield Accessory Kit, Part No. C8ZZ-16A550-A was released for use on units equipped with standard tire (735-14) and should not be used on units equipped with F70-14 (wide oval) tires. Also, tire chains should not be used if the unit is equipped with the splash shield kit.

PARTS: Splash Shield Kit - C8ZZ-16A550-A.

PRODUCTION CORRECTION:
WARRANTY STATUS: INFORMATION

(TSB 117 - 6/13/69 - Article 1840)

**REFLECTIVE VINYL TAPE
ACCENT STRIPE REPAIR,
REMOVAL AND INSTALLA-
TION**

(1969 Mustang Mach 1)

Procedures for repair - removal and installation of reflective vinyl tape accent stripe on the 1969 Mach 1 vehicle.

PARTS:

Replacement Part	Part Name	Quan.	Class
See Parts Book Body Section Pages 1, 2, 3, or 4.	Decorative Tape	As Listed	As Listed
C5AZ-19C525-A	Trim Cement	Tube	BA
AR60-3789-A	Rubbing Compound	Gallon	A
DL60-3721-A	Silicone & Wax Remover	Gallon	A

WARRANTY STATUS: Reimbursable with in the provisions of the Warranty & Policy Manual.

Operation: SP-20000-A-19

Time: Basic operation to be used only once - 0.2 Hr.

Add following as applicable:

- Fender - 0.7 Hr.
- Door - 1.0 Hr.
- Quarter Panel - 0.7 Hr.
- Rear (Deck) - 1.2 Hrs.
- One Side - 2.2 Hrs.
- Complete Vehicle - 5.4 Hrs.

PRODUCTION CORRECTION: February, 1969.

(TSB 120 - 8/1/69 - Article 1912)

**ASH RECEPTACLE LID
INTERFERENCE AT THE
FORWARD EDGE OF THE
CONSOLE PANEL**

(1969 Mustang So Equipped)

When binding ash receptacle lids are encountered in vehicles built prior to the production correction, the swing clearance can be increased as described in the main article.

PARTS: None Required.

PRODUCTION CORRECTION: March 6, 1969.

WARRANTY STATUS: Reimbursable with in the provisions of the Warranty and Policy Manual.

Operation: SP-04555-A-69

Time: 0.7 Hr.

(TSB 122 - 9/5/69 - Article 1942)

FALCON BODY AND TRIM

**BLACK PAINT ON ENGINE
COMPARTMENT SIDE OF
HOOD**

(1968 Falcon)

Current St. Thomas Assembly Plant 1968 Falcon vehicles, (Assembly Plant code "X") have hoods painted black on the engine com-

partment underside.

This process features a black electrocoat primer that is superior to the conventional sprayed finish and is less susceptible to corrosion.

Therefore, dealers should not refinish the underside of the hood to obtain a match with the exterior of the vehicle and, likewise, slight overspray of exterior color along the hood inner flanges is considered acceptable under this process.

(TSB 93 - 5/31/68 - Article 1409)

PAINT UNDERHOOD APPEARANCE

11969-1969 Falcon and 1970 Maverick Vehicles Built at the St. Thomas Plant

Because of the unique painting system used on the Falcon and Maverick vehicles built at the St. Thomas, Ontario Plant (Code X), the engine side of the hood panel is painted with a black electrocoat primer as a finish coat. The quality of the electrocoat primer is equal or superior in corrosion resistance when compared to the body color paint used on the underside panel. With this unique process at St. Thomas, subsequent painting of the top of the hood with a finish enamel coat will allow some overspray wrap-around on the underside flange edges. Repainting over the electrocoat on the engine side of the hood with the body color or black primer as a repair measure for this overspray is not reimbursable on a warranty basis.

(TSB 115 - 5/16/69 - Article 1806)

CORTINA BODY AND TRIM

INSUFFICIENT DOOR STRIKER PLATE ADJUSTMENT

(1967 Cortina, Model "C")

In some cases the door striker plate adjusting range may be insufficient to allow proper door closing effort and/or flush fit to the body opening. This condition is due to the cage containing the striker plate tapping plate being mispositioned on the body pillar.

Corrective measures were taken in June, 1967, to assure that the striker plate tapping plate cage is properly located on the body pillar to permit the required adjusting range.

Complaint units in the field can be corrected by breaking the weld at the upper end of the striker plate cage and relocating the cage to permit additional inboard striker plate adjustment.

(TSB 83 - 12/29/67 - Article 1247)

FLOOR CARPET DAMAGE

(1968 Cortina - All Models)

Customer complaints of front carpet damage along the transmission tunnel area are attributed to an interference condition at the seat back retaining catch ("J" bracket). Excessive carpet build-up in this area results in a scuffing action when the seat back is tilted forward. This condition can also occur on vehicles equipped with reclining seats.

Corrective measures are being taken in assembly to assure that adequate clearance is maintained in this area.

Customer complaint vehicles in the field can be corrected by removing some of the padding from the underside of the carpeting on vehicles with conventional seats or removing the "J" bracket on vehicles equipped with reclining seats.

(TSB 84 - 1/26/68 - Article 1261)

HEADLINING SAG

("New Cortina" Range)

Customer complaints of sagged or loose headlining are usually attributed to loose or mispositioned headlining bows.

Corrective action was taken in July, 1967 by revising the headlining bows to assure adequate bow tension against the roof panel.

Customer complaint units in the field can be corrected by wedging a felt spacer between the bow and roof panel.

(TSB 86 - 2/23/68 - Article 1286)

GLOVE BOX DOOR ADJUSTMENT

(Cortina Model "C")

Field reports indicate that the glove box door may stick in the closed position or fall open during vehicle operation over rough roads. This problem is attributed to improper adjustment of the glove box catch and/or retainer. Dealers encountering this problem on new vehicles can perform a satisfactory correction by re-adjusting the latch to assure proper engagement between the catch and the retainer.

(TSB 86 - 2/23/68 - Article 1291)

F & B-CAB BODY AND TRIM

HOOD AND REAR HOOD SHEET METAL REINFORCEMENT

(1961-1966 Truck and School Bus - F-500 to F-1000, T-750 to T-950 and B-500 to B-750)

THIS ARTICLE SUPERSEDES AND CANCELS ARTICLE 1018, IN TECHNICAL SERVICE BULLETIN #62.

The sheet metal fractures occurring in the hood and rear hood area (refer to illustrations in article), which result from excessive shake and vibration, should be repaired on a customer complaint basis.

The sheet metal fractures can be corrected by ordering repair kit C67Z-16C640-A, class CG. The repair installation procedure is outlined in the article.

(TSB 65 - 4/21/67 - Article 1050)

ROAD SPLASH AND MUD ACCUMULATION AT DOOR ENTRY STEP

(1967 F100-350)

Customer complaints of road splash and mud build up in the door step area of the 1967 Light trucks can be corrected by procuring two new splash seals Part #C7WY-6520272-A, Class C and installing as outlined in the article.

(TSB 67 - 5/5/67 - Article 1075)

ROAD SPLASH AND MUD ACCUMULATION AT DOOR ENTRY STEP

(1967-68 F-100-350)

Apply TSB #1075, bulletin #67, dated May 5, 1967, to correct complaints of mud build-up in the door step area on 1967 and 1968 F-100-350.

Article 1075 contains applicable installation procedure, part numbers and warranty information.

(TSB 86 - 2/23/68 - Article 1284)

ROAD SPLASH AND MUD ACCUMULATION AT DOOR ENTRY STEP

(1969 F100-350)

Customer complaints of road splash and mud build up in the door step area of the 1969 Light trucks can be corrected by procuring two new splash seals Part No. C7WY-6520272-A, Class C and installing as outlined in the article.

(TSB 105 - 12/20/68 - Article 1614)

FRONT END SHEET METAL FAILURES - 1967 SCHOOL BUS

(Models B-500 thru 750)

Field reports and subsequent field investigation have disclosed that sheet

metal fractures are occurring in the radiator support, fender aprons, hood, battery tray, battery hold down clamp, hood lock support brace and cowl at the fender attachment on some 1967 school buses.

Refer to the main article for the recommended corrective action.

(TSB 78 - 11/3/67 - Article 1192)

REAR CAB MOUNTS

(F, N, HT and T-500/1000)

A replacement kit, Body Bolt Insulator Repair, Class C item, is available for use when replacing the rear cab mounts. Order under part number C7ZT-8100165-A. One kit is required per vehicle. For packaging purposes, two different length bolts are included. The 5" bolt is to be used on N-500/750 only and the 4" bolt on the other models. Torque all bolts to 40 ft. lbs.

(TSB 88 - 3/22/68 - Article 1339)

LIMITED CLEARANCE BETWEEN STAKE PLATFORM BODY AND REAR TIRES

(1967 U. S. Army F-600 Trucks with 14" Stake Platform Body)

A kit is available to raise the body on 1967 U. S. Army F-600 trucks (Government Contract DAA-E07-67C-3455) which have been experiencing a limited clearance between the rub rail of the stake body and the rear tires. Reference the main article to obtain parts necessary, installation procedure and method of reimbursement.

(TSB 89 - 4/6/68 - Article 1347)

LOOSE PICK-UP BOX HOLD-DOWN BOLTS

(1968 F-100-350 Light Trucks)

An undetermined number of 1968 Light truck units were built at Kansas City Assembly Plant without a prevailing torque lock nut on the pick-up box hold-down bolts. This will result in a noisy or rattling pick-up box.

This condition could have occurred at other plants. All plants were using the proper prevailing torque lock nuts on February 7, 1968. Installing prevailing torque lock nuts (375032-S-36 1/2 x 13 N.C. or equivalent) will correct this problem.

(TSB 90 - 4/19/68 - Article 1361)

SUPPLEMENT TO SHOP MANUAL VOLUME 3, GROUP 17, ADJUSTMENT OF HOOD LATCHING COMPONENTS FOR MAXIMUM ENGAGEMENT

(1967-1968 Light and Medium Truck F100-750)

The intent of the article is to clarify and supplement the material contained in Shop Manual Volume 3, Group 17, on page 19, relative to installation, maintenance, adjustment, and lubrication of the hood latch and strikers to assure maximum hood latch engagement and operation. See article for details.

(TSB 91 - 5/3/68 - Article 1371)

WHEEL SPLASH ENTERS TRUCK CAB AT COWL SIDE VENT

(1967-68 Light and Medium Conventional Cab Truck - Models F-100-F-750)

A problem of water and dust entering the truck cabs via cowl side vent has been reported on frequent occasions. The problem is caused by front tire wheel splash being thrown up into the cowl plenum chamber drain hole that is located on the dash panel, under the front fender.

Customer complaints of water and dust entry can be corrected by installation of a rubber splash shield to the plenum chamber drain hole as outlined in the article.

(TSB 93 - 5/31/68 - Article 1416)

HEADLINING AIR LEAKS AND/OR DUST ENTRY

(1967-69 F-100 Through F-750)
(This article supersedes and cancels Article 1617)

Complaints of air and/or dust leaks from the headlining at the top of the "A" pillar can be caused by the omission of a fiberglass filler in the "A" pillar. This filler was effective in production May 15, 1967 but may have been omitted on some units built since that date.

Units exhibiting air or dust leaks in the "A" pillar area can be corrected in the following manner:

1. Procure two pieces of fiberglass insulation approximately 6" x 6" x 3".
2. Remove the headlining as described in the 1967 Truck Shop Manual, Volume 3, Page 18-1.
3. Install one piece of fiberglass into the top of each "A" pillar and pack down as far as possible.
4. Replace headlining.

(TSB 108 - 1/31/69 - Article 1642)

HEAT ON FLOOR PAN

(1968-1969 "F" Series Trucks with 360 or 390 CID Engines)

Examine the floor pan insulation and if insulation is missing, install as required.

PARTS:

Part No.	Name	Class	Avail.
C9TZ-8111165-A	Kit	CG	OK
C5AZ-19C525-A	Adhesive	BA	OK

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: SP-11398-A-69
Time: 1.3 Hrs.

(TSB 112 - 4/4/69 - Article 1748)

C-CAB BODY AND TRIM

SHEET METAL REINFORCEMENT

(All "C" Series)

Production changes were incorporated in February, 1968, to reinforce the floor pan to dash junction and add new hardened tilt hinge pins. The main article describes the method for adding the reinforcement on trucks built prior to the production changes. The article also describes welding procedures for the floor pan, pillars and wheelhouse to floor pan coach joint inside the cab if such repairs are found to be necessary.

(TSB 89 - 4/6/68 - Article 1353)

C SERIES CAB AIR LEAKS

(C Series Trucks)

To correct complaints received regarding air leaks in C Series cabs relative to improving heater potential, attention should be directed to the installation of seals (polyethylene wrapped sponge) in the front body pillars. To determine if the seals are properly installed, reference the inspection procedure and illustration in the complete article.

(TSB 101 - 11/1/68 - Article 1521)

TILT CAB SUPPORT ARM TO VACUUM PUMP OR AIR COMPRESSOR DISCHARGE FITTINGS INTERFERENCE

(C-6000-7000 with Caterpillar Mid-Range Engines)

Some of the subject vehicles were built with cab support arm to vacuum pump or air compressor outlet fitting interference. The article outlines the procedure for correcting the interference condition.

(TSB 101 - 11/1/68 - Article 1524)

WATER LEAKS

(Light and Medium Trucks - 1967-68 F100-F750)

Apply sealant in the designated areas.

PARTS:

Part Number	Part Description	Class	Avail.
AB-19560-A	Sealer	A	OK
C5AZ-19554-A	Sealer	A	OK

PRODUCTION CORRECTION: Job 1, 1969.

WARRANTY STATUS: Reimbursable under the provisions of the Warranty & Policy Manual.

Operation: SP-04200-A-69
Time: 0.9 Hr.

(TSB 116 - 5/30/69 - Article 1823)

N-CAB BODY AND TRIM

REPAIR OF FIBERGLASS ENGINE COVERS

(1963-1967 N Series Truck)

This article describes the recommended procedure for repairing enlarged or damaged attaching holes of the fiberglass engine cover.

(TSB 79 - 11/17/67 - Article 1201)

REPAIR OF FIBERGLASS ENGINE COVERS

(1963-1967 "N" Series Truck)

Article #1201 describes the recommended procedure for repairing enlarged or damaged attaching holes of the fiberglass engine cover. The operation number which was inadvertently omitted in the original article is: SP-8110351-A67.

(TSB 83 - 12/29/67 - Article 1253)

REAR CAB MOUNTS

(F, N, NT and T-500/1000)

A replacement kit, Body Bolt Insulator Repair, Class C item, is available for use when replacing the rear cab mounts. Order under part number CT7Z-8100165-A. One kit is required per vehicle. For packaging purposes, two different length bolts are included. The 5" bolt is to be used on N-500/750 only and the 4" bolt on the other models. Torque all bolts to 40 ft. lbs.

(TSB 88 - 3/22/68 - Article 1339)

COLD AIR LEAKS AFFECTING HEATER POTENTIAL - N SERIES

(N Series Trucks)

When encountering complaints of cold air entering "N" Series cabs to the extent that heater effectiveness is affected, investigate the possibility of leaks occurring in the floor pan and dash panel area caused by open holes and unsealed joints in the sheet metal.

The body joints should be sealed and/or holes plugged as described and illustrated in the 1968 Ford Truck Shop Manual, Volume III, Pages 17-1, 17-2, 17-3 and 17-4. Note the light bulb method for locating leaks as described in the Diagnosis and Testing Procedure on Page 17-1.

(TSB 108 - 1/31/69 - Article 1641)

W-CAB BODY AND TRIM

RELOCATION OF CAB HYDRAULIC LIFT PUMP HANDLE

(1966½ W Series)

On customer complaints of lack of accessibility relocate the Cab Hydraulic Lift Pump Handle from its present location on the cab toe plate to the side of the seat riser on units built prior to

August 5, 1966.

Refer to the complete article for relocation instructions.

(TSB 57 - 1/6/67 - Article 975)

ROAD SPLASH ONTO WINDSHIELD AND SIDE GLASSES

(1966-67 "W" Series Trucks)

Reports have been received from some truck fleets of excessive road splash onto the windshield on "W" series trucks.

To reduce the amount of wheel splash to the front of the vehicle, rubber splash shields have been incorporated between the bumper and the grille side panels.

See complete article for further details.

(TSB 69 - 6/2/67 - Article 1098)

VIBRATION AND CRACKING OF THE BODY AIR DEFLECTORS

(1966-67 "W" Model)

Field reports have been received advising that the body air deflectors on the "W" series truck vibrate and ultimately crack at the lower attachment bracket.

To resolve this problem, the method of mounting the deflector to the body was revised, and bodies with the new mounting were incorporated in production on December 19, 1966.

The complete article outlines field correction information for vehicles produced prior to December 19, 1966.

(TSB 69 - 6/2/67 - Article 1102)

ENGINE AIR CLEANER BRACKET - INTAKE AND EXHAUST TUBE

(1966-67 "W" Series)

To preclude bracket failures on subject vehicles, a new reinforced support bracket can be obtained by special order through the parts depot which incorporates an additional gusset. To improve durability of the original bracket, a reinforcing plate can be fabricated in the field. The article contains part numbers, fabrication details and illustrations.

(TSB 78 - 11/3/67 - Article 1189)

FLOOR MEMBER REINFORCEMENT AT CAB UPPER LATCH MOUNTS

("W" Series - Sleeper Cab Only)

Production changes were incorporated in November, 1967, to rework the floor member in the area of the upper latch mounts for sleeper cabs only. The main article describes the method for implementing the changes on trucks built before the production changes.

(TSB 87 - 3/8/68 - Article 1322)

SLEEPER CAB SUPPORTS

(All "W" Series Sleeper Cabs)

Unauthorized modifications are being made in the field to "W" series sleeper cabs by adding "snubbers" or "supports" at the back of the sleeper compartment to the frame. Addition of such supports will adversely affect the structural integrity of the cab.

Modifications which affect the reliability or stability of the vehicle are contrary to the warranty, and any damage arising from such a modification will not be reimbursable under the warranty.

(TSB 88 - 3/22/68 - Article 1337)

CAB LOCKING MECHANISM ADJUSTMENT

(All "W" Series Trucks)

This article describes the latest procedure for adjusting the cab locking mechanism and supersedes all previously published information.

(TSB 88 - 3/22/68 - Article 1340)

DOOR OUTER PANEL REINFORCEMENT AT BELT
(1967-68 "W" Series)

This article describes the procedure for incorporating reinforcement features in the left and right doors of trucks in the field and should be used in handling customer complaints. The improvements were effective in production in standard cabs beginning with cab serial number 1800 series and sleeper cabs with serial number 3650 series. (Cab serial numbers are located in the cab on the driver side where the toe board meets the front panel.)

(TSB 89 - 4/6/68 - Article 1344)

REINFORCED RIGHT HAND ENGINE COVER SIDE PANEL
("W" Series)

Fractures may occur in the right hand engine cover side panel. The metal thickness has been increased in production to correct this problem beginning with non-sleeper cab serial No. 1976 and sleeper No. 4201. The main article describes the procedure for repairing cabs built prior to the production improvement if complaints are received.

(TSB 91 - 5/3/68 - Article 1374)

REINFORCED LEFT HAND ENGINE COVER SIDE PANEL
("W" Series)

Added strength to the left hand engine cover panel was provided by including a partial panel in production in January, 1968. The main article describes the procedure for installing the panel locally on a customer complaint basis for cracked engine cover panels.

(TSB 91 - 5/3/68 - Article 1375)

FLOOR MEMBER REINFORCEMENT AT CAB UPPER LATCH MOUNTS
(W Series - Non-Sleeper Cab Only)

Production changes were incorporated in February, 1968 to rework the floor member in the area of the upper latch mount for non-sleeper cabs only. The main article describes the method for implementing the changes on trucks built before the production changes, if complaints are encountered. (Sleeper cabs are covered in Article 1322.)

(TSB 92 - 5/17/68 - Article 1399)

PISTON FOR BODY LIFT PUMP
("W" Series)

A body lift pump piston for "W" series trucks is available from Autolite Ford Parts Division. The piston is a "CQ" class part. Order part number C6TZ-5A391-A.

(TSB 92 - 5/17/68 - Article 1402)

BODY LIFT PUMP REPAIR KIT
(W Series)

A kit for overhauling the cab lift pump is available from Autolite Ford Parts Division. The kit includes gaskets, screens, "O" rings, spool end cap, and seals. The kit is identified by part number C6TZ-5A366-B.

(TSB 93 - 5/31/68 - Article 1419)

FLOOR SIDE OUTER MEMBER SEALING

(1966 and 1967 "W" Series Without Optional Left Hand Side Rear Step Assembly)

This article describes a recommended method for sealing the two weld nuts on the left floor side outer panel member when the rear step assembly is not used. The operation can be performed during regular maintenance on units built prior to April, 1967.

(TSB 93 - 5/31/68 - Article 1420)

UPPER CAB PIVOT PIN BRACKET
(1966-67 W-Series Trucks)

To improve product durability in the upper cab pivot pin bracket a larger diameter spring pin was incorporated to retain the cab pivot pin. This improvement is effective in 1968 production of the subject vehicles.

Refer to the complete article for a procedure to rework the upper cab pivot pin bracket.

(TSB 95 - 7/12/68 - Article 1446)

CAB AIR LEAKS - W SERIES
(1966%-1968 W Series Trucks)

When complaints are received regarding heater and/or air conditioner efficiency on the subject vehicles, it may be necessary to examine the cab for air leaks. One area to examine for cab air leakage is in the voltage regulator compartment. Reference article for illustration locating areas requiring body sealer.

(TSB 98 - 9/13/68 - Article 1474)

W SERIES - DOOR BODY SHIELD SHEET METAL REPAIRS
(1967-1968 W Series Trucks)

Sheet metal cracks in the lower area of the body lock pillars have been corrected on 1969 vehicle production by increasing the bend radii in the forward outside corners of the body pillar. Reference the article for repair procedure.

(TSB 98 - 9/13/68 - Article 1482)

SHEET METAL FRACTURES AT DOOR BOTTOM WEDGE PLATE
(1966½ - 1968 W Series Trucks)

To preclude possibility of sheet metal fractures in the bottom surface of the doors a change to strengthen the wedge bracket area was incorporated into 1969 production of the subject vehicles. This improvement involves the addition of upstanding flanges and additional welds to the door bottom retainer assembly.

Reference the complete article for repair procedures.

(TSB 100 - 10/18/68 - Article 1509)

CAB DIRT ENTRY THRU GEARSHIFT LEVER OPENING
(W Series Trucks)

When encountering complaints of water and dirt entry into the cab through the transmission gearshift lever opening when the seal is distorted, reference the complete article for corrective procedures. This correction involves the fabrication of an opening seal support bracket to prevent distortion of the opening seal.

(TSB 104 - 12/13/68 - Article 1589)

THIS ARTICLE SUPERSEDES AND CANCELS TSB 1785 NEW TAIL LIGHT AND LICENSE PLATE BRACKET - W SERIES

(1966-69 W-WT-1000-D Series Trucks)

A redesigned tail light and license plate bracket of heavier gauge material is now available to correct bracket fatigue.

PARTS:

Part Number	Part Name	Class	Avail.
CSHZ 13469-A	Bracket	C	OK

PRODUCTION CORRECTION: 4-1-69.

WARRANTY STATUS: Reimbursable under the provisions of the Warranty & Policy Manual.

Operation: SP-13469-A-69

Time: 0.4 Hr.

(TSB 116 - 5/30/69 - Article 1822)

BODY SEALER - TOP REAR OF SLEEPER CAB - W SERIES

(1968-69 W-WT-1000-D Trucks With Sleeper Cabs)

Improved body joint sealing at top rear of sleeper cab became effective in vehicle production on May 20, 1969.

WARRANTY STATUS: INFORMATION ONLY

(TSB 121 - 8/15/69 - Article 1932)

LIFT PUMP ASSEMBLY - CAB BODY
(W-WT-1000-D Series Trucks)

An improved cab body lift pump assembly incorporating a die cast front seal assembly is available in W Series production. PRODUCTION CORRECTION: August 4, 1969.

WARRANTY STATUS: INFORMATION ONLY

(TSB 122 - 9/5/69 - Article 1943)

RUBBER RADIATOR GRILLE SHIELD SEAL - IMPROVED - W SERIES
(1967-1969 W-WT-1000-D Trucks)

The rubber grille shield seal has been improved to prevent the possibility of tears and cracks in service.

PARTS:

Part Number	Part Name	Depot	Avail.
CTTZ-8348-A	Rubber Grille Shield	BQ	OK
CTTZ-8349-A	Deflector Shield	CQ	OK

PRODUCTION CORRECTION: September 23, 1969.

WARRANTY STATUS: Reimbursable with in the provisions of the Warranty & Policy Manual.

Operation: SP-8348-A-69

Time: One - 0.3 Hr.; Both - 0.4 Hr.

DLR. CODING: Basic Part No. 8348 - Code No. 01.

(TSB 124 - 10/10/69 - Article 1969)

BRONCO BODY AND TRIM

VINYL ROOF PAINT - REPAIR PROCEDURES
(Explorer Truck Cabs RPO)

Procedure for brush and spray touch-up are contained in this article.

PARTS:

DL60-3721-A	Silicone & Wax Remover	1 Gal.	Class A
M-GJ-12D	Dark Gray Primer Surfacer	1 Gal.	Class A
C6AZ-19000-A	Simulated Vinyl Roof Paint (Black)	1 Gal.	Class A
M-14J-646-E	Medium Fast Dry Lacquer Thinner	1 Gal.	Class A

(TSB 114 - 5/2/69 - Article 1786)

ECONOLINE BODY AND TRIM

WATER LEAK AT FRONT DOOR WEATHERSTRIP

(1969 Econoline - All Models Built Prior to April 1, 1968)

When front door weatherstrips do not seal out water at the cowl side pillar, a service correction may be performed by cementing a 3" length of 1/4" square neoprene closed cell sponge material between the weatherstrip lips. For illustration and details see the main article.

(TSB 96 - 8/2/68 - Article 1457)

ROOF TRIM PANEL AND MOULDING RETENTION

(1969 Econoline Club Wagon Models Built Prior to October 21, 1968)

Improper retention of roof trim panels and roof mylar trim panel mouldings may be corrected by installing additional retaining clips and fabricating retainers for the mylar trim moulding.

For Service Correction and illustration see the complete article.

(TSB 100 - 10/18/68 - Article 1510)

SPARE WHEEL CARRIER WELD FAILURE

(1969 Econoline - Models E200 and E300 Vans Without Spare Tire Built Prior to April 10, 1968)

Spare wheel carrier attaching welds may

fail and separate when a spare wheel is mounted without a tire. With a tire mounted on the wheel, the weight is supported by the tire resting on the wheel-house.

For a Service Procedure to repair and reinforce the spare wheel carrier refer to the main article.

(TSB 102 - 11/15/68 - Article 1539)

ROOF PANEL REINFORCEMENT SEPARATED FROM ROOF PANEL

(1969 Econoline Built Prior to July 3, 1968)

Some cases of roof panel reinforcements separating from the roof panel have been

encountered. The main article provides a Service Correction and illustrations.

(TSB 103 - 11/29/68 - Article 1577)

REMOTE CONTROL MIRROR - HOLE IN DOOR OUTER PANEL VISIBLE AFTER REMOVING (F Series Trucks - 1969)

When a factory installed remote control mirror is replaced with a Western type, the remaining 13/16 diameter hole can be covered with a rubber plug.

PARTS:

Part Number	Part Name	Class	Avail.
377949-S	Rubber Plug	S	OK

WARRANTY STATUS:
NON-REIMBURSABLE

(TSB 120 - 8/1/69 - Article 1913)

MAINT. /LUBE

Transportation and Receiving New Units

INSPECTION OF 1968-69 VEHICLES FOR CARRIER DAMAGE

Due to the location of tail and parking light lenses, damage to them has increased and is frequently not being noted by dealers upon receipt of the vehicle.

Other damaged items such as mouldings, steering wheels, fuel tanks, wheel covers, bumpers and exhaust components are overlooked at new vehicle receipt and inspection and are incorrectly submitted on 1863 claims as factory defects.

Carrier damage should be handled in accordance with Warranty and Policy Manual Subject 4.0 with regard to inspection, and Subject 2.4 on filing the 3715 claim brief for carrier damage.

Failure to completely inspect new vehicles for carrier damage at the time the vehicle is received may ultimately result in the denial of an improperly submitted 1863 claim.

(TSB 96 - 8/2/68 - Article 1455)

New Unit Preparation

CHECK AUTOMATIC TRANSMISSION FLUID LEVEL AT PRE-DELIVERY (1968 Ford)

The Automatic Transmission fluid level check has been omitted in error from the 1968 Ford Pre-Delivery Sheet. This check is still required at pre-delivery and should be included when checking all 1968 Ford units at pre-delivery. The second printing of the Ford Pre-Delivery Sheet will include this item.

(TSB 76 - 9/29/67 - Article 1162)

CORRECTION TO 1968 PASSENGER CAR MAINTENANCE AND LUBRICATION MANUAL

(All 1968 Passenger Cars)

Some additions and deletions should be made to the 1968 Passenger Car Maintenance and Lubrication Manual - Pre-Delivery Sequence Guide. Article lists these changes.

(TSB 76 - 9/29/67 - Article 1163)

PROCEDURE FOR CLEANING FABRIC INTERIOR TRIM

(All)

This article outlines recommended procedures for removing certain known

types of spots, stains or soilage which may be encountered on fabric materials during pre-delivery of new vehicles. In most cases the affected trim can be cleaned and restored to a like-new appearance and, therefore, this cleaning procedure should be used prior to replacing soiled fabric materials.

(TSB 82 - 12/15/67 - Article 1234)

PRE-DELIVERY INSPECTION OF RADIATOR HOSE AND CLAMP INSTALLATION (1968)

During vehicle pre-delivery operation the following inspection should be performed regarding upper and lower radiator hose clamp installations:

1. Verify that hoses are not twisted. Hoses are paint-stripped to aid in this inspection. Loosen hose clamps and reposition as required.

2. Verify that hoses have been installed far enough on the hose connection so that the end is adjacent to the second bead. Loosen clamps and reposition as required.

3. Verify that hose clamps are positioned approximately 3/16 of an inch from hose end and tightened securely. Reposition hose clamps if required and tighten.

(TSB 88 - 3/22/68 - Article 1336)

CORTINA PROTECTIVE WAX REMOVAL - PREDELIVERY

(Cortina)

Most Cortina models will be shipped to dealers coated with a protective wax. This wax coating should be removed using the procedure outlined in this article.

(TSB 91 - 5/3/68 - Article 1377)

TAPE ON HOOD

(All 1967-68 F & T Model Trucks)

It has come to our attention that some dealers are removing the protective tape from the underside of the hood nose panel on 1967-68 F & T Model Trucks.

The tape (ESB-M3G 32-A) is intended for protection against possible hand injury during hood operation and must be left in place throughout the life of the vehicle. Therefore, dealers are cautioned not to remove this tape during pre-delivery or subsequent service operations.

(TSB 93 - 5/31/68 - Article 1413)

FLOOR PAN FLANGE INTERFERES WITH OIL FILTER

(1969 Econoline - All Models Equipped with 8-Cylinder Engine Built Prior to March 5, 1968)

Field reports have been received stating that on some 1969 Econoline vehicles equipped with an eight cylinder engine the L.H. floor pan flange interferes with the oil filter.

Dealers performing pre-delivery operations on vehicles should inspect the oil filter for interference with the floor pan and if the interference condition is noted, rework the floor pan flange where necessary as shown on illustration in main article.

(TSB 94 - 6/21/68 - Article 1442)

DAMAGED EXHAUST OUTLETS TO DUAL EXHAUST SYSTEMS

(1969 Fairlane/Torino Passenger Cars Equipped with 427 CID Engine or the 428 CID Cobra Jet Engine)

Damage to the exhaust outlet extensions on the vehicles mentioned above has been reported due to transport tie down operations. As a result of this the exhaust outlet connections and necessary clamps will be packaged in the luggage compartment of these vehicles to be installed at the dealership level.

Refer to the main article and accompanying illustration for the installation instructions.

(TSB 101 - 11/1/68 - Article 1530)

1969 MUSTANG REAR SHIPPING TIE-DOWN PLATE REMOVAL

(1969 Mustang's with dual Exhaust System)

The large rear shipping tie-down plates, used on 1969 Mustang passenger cars equipped with dual exhaust systems, must be removed from these vehicles before vehicle is delivered to the customer. The shipping plates interfere with the rear spring shackles and exhaust system.

Reminder Stickers are attached and will continue to be attached to the rear of these cars as an additional reminder to assure dealer removal of the shipping plates before the vehicle is placed in operation.

The small rear shipping tie-down plates used on Mustang passenger cars with single exhaust systems provide no interference and do not need to be removed from these vehicles.

(TSB 107 - 1/24/69 - Article 1628)

TWIN I-BEAM ALIGNMENT CHECKING PROCEDURE (PHOTO CAPTIONS WERE REVERSED DURING PRINTING) CORRECTION TO TSB NO. 114, ARTICLE 1787, MAY 2, 1969

(This procedure replaces TSB No. 114, Article 1787 which is cancelled and not to be used)

(Econoline 1969 and F-100/350 1965-69)

"BLOCKS" NO LONGER NECESSARY

Wheel alignment specifications and the method of checking caster, camber and toe-in for Twin I-Beam vehicles have been changed. The current method of using spacer blocks to establish a ride height is no longer necessary. Alignment checks are now made with the vehicle at normal operating height and attitude. The only qualification is for the vehicle frame to be level - across the front side to side - when checking caster and camber. Check for toe-in with vehicle as equipped.

PARTS: None.
PRODUCTION CORRECTION: None.
WARRANTY STATUS:
NON-REIMBURSABLE

(TSB 117 - 6/13/69 - Article 1824)

Maintenance Guides

REVISED LUBRICATION PERIODS

(1968-69 F100/250 4 x 4 and Bronco - U-100)

The lubrication periods for certain chassis and transmission items on subject vehicles has been revised to improve durability.

(TSB 93 - 5/31/68 - Article 1421)

AUTOMATIC TRANSMISSION BAND ADJUSTMENT SCHEDULE REVISION

(1969 Passenger Cars Except Police, Taxi and Vehicles with 427-4V and 428-4V Cobra Jet Engines)

The automatic transmission band adjustment period for passenger cars in normal service has been changed to 12,000 miles. This does not include Police, Taxi or vehicles equipped with a 427-4V or a 428-4V Cobra Jet engine. The band adjustment intervals remain unchanged for these vehicles. Customers should be advised when they return for the 12,000 mile inspection of this change.

(TSB 101 - 11/1/68 - Article 1518)

ALTERNATE TOE-IN CHECKING PROCEDURE TO TSB NO. 117, ARTICLE 1824, DATED JUNE 13, 1969

(1966-1970 F-100/350, 1969-1970 E-100/300 Trucks)

The following front wheel toe-in checking procedure is suggested as an alternate method to TSB No. 1824.

PARTS: None.
WARRANTY STATUS:
INFORMATION ONLY

(TSB 126 - 11/7/69 - Article 1986)

Lubrication - Lubricant Specifications

SYNTHETIC SEALS AND CLEANING SOLVENTS

(All)

Many cleaning solvents currently available can be very detrimental to and, in most cases, can cause rapid deterioration of synthetic rubber seal material. It is extremely important that synthetic seals used in steering gears and power train components (rear axles, automatic transmissions, standard transmissions and power steering pumps) must not be cleaned, soaked or washed in cleaning solvents.

(TSB 63 - 3/31/67 - Article 1024)

FRONT WHEEL BEARING GREASE REQUIREMENTS AND TRUCK REAR WHEEL BEARINGS, WHERE APPLICABLE

(All 1967 Car and Truck Lines and All Louisville Trucks Built After April 10, 1967)

A lithium base front wheel bearing grease (CIAZ-19590-B, C or D, Blue-Black) with molybdenum disulfide is now used in all 1967 vehicles. This grease provides better rust protection and has a higher melting point than the previously used sodium base grease (CIAZ-19585-A, Yellow). Lithium base grease is not compatible with sodium base grease and should not be mixed when servicing front wheel bearings.

If lubricants from outside vendors are used, they must meet the truck specification ESA M1C75B and car specification ESA M1C75A. These lubricants differ in fiber content but CIAZ-19590-B, C or D meets both the car and truck specification. Truck lubricant ESA

M1C75B can be substituted for car lubricant ESA M1C75A but the car lubricant cannot be used to replace the truck lubricant.

This article supersedes article #1040 of Bulletin No. 64, dated April 7, 1967.

(TSB 68 - 5/19/67 - Article 1076)

LUBRICATION INTERVALS FOR DRIVESHAFT AND 4 WHEEL DRIVE FREE RUNNING HUBS

(1967 Bronco, Econoline and Light Trucks)

This article supplements all current information regarding lubrication of front driving axle free running hubs on all 4 wheel drive vehicles and all driveshafts for 2 and 4 wheel drive light trucks. The article lists the type of lubrication, intervals for both the slip yoke spline and the U-joint journals with regards to its vehicle application.

(TSB 68 - 5/19/67 - Article 1086)

VISUAL CHARACTERISTICS OF REAR AXLE HYPOID LUBRICANTS

(1967 - All Ford Manufactured Rear Axles)

Two new rear axle hypoid lubricants are used in production on 1967 Ford manufactured rear axles and are specified for all service usage.

These lubricants will vary in color from a yellowish-green when new, to a beige or gray, as mileage increases, and have flow characteristics of engine oil.

Axle lubricants previously used were black in color. These lubricants are no longer used in production or service.

When axle lubricant is checked and found to be a yellowish-green, beige or gray in color, it should not be replaced with a lubricant black in color.

(TSB 70 - 6/23/67 - Article 1108)

CORRECTION TO T.S.B. ARTICLE NO. 1108

VISUAL CHARACTERISTICS OF REAR AXLE HYPOID LUBRICANTS

(1967 - All Ford Manufactured Rear Axles)

(TSB 74 - 8/25/67 - Article 1108)

CORRECTION TO T.S.B. ARTICLE NO. 1108

VISUAL CHARACTERISTICS OF REAR AXLE HYPOID LUBRICANTS

(1967 - All Ford Manufactured Rear Axles)

(TSB 77 - 10/13/67 - Article 1173)

DIFFICULT KING PIN LUBRICATION

(1967 F-250 with Heavy Duty Brakes and All F-350)

Difficult king pin lubrication can be corrected by extending the grease grooves in the bushing and venting the thrust bearing dust cap.

Complete instructions are contained in the article.

(TSB 74 - 8/25/67 - Article 1143)

CHANGE IN LUBRICATING OIL SPECIFICATIONS

(1967-1968 242 and 363 CID Ford Dorset Diesel Engines)

Single-viscosity oils were formerly specified under MIL-L-2104A(S-1). Multi-viscosity oils are now permitted, providing they meet Ford Specification ESE-M2C101-B. Single-viscosity oils also must meet the Ford Specification. A temperature-viscosity chart is given.

(TSB 85 - 2/9/68 - Article 1282)

ENGINE CRANKCASE OIL VISCOSITIES

(1967-68 242 and 363 CID Dorset Diesel Engines)

Reference: 1968 Ford Truck Maintenance and Lubrication Manual, Page 4-2

The referenced manual specifies only single viscosity crankcase lubricant for the 1968 Dorset Diesel engines.

The article lists both single and multi-viscosity crankcase lubricants for 242 and 363 Dorset Diesel engines. Listed as well are the ambient temperatures for which the lubricants are recommended.

(TSB 86 - 2/23/68 - Article 1296)

USE OF AUTOMATIC TRANSMISSION FLUID MEETING FORD MOTOR COMPANY SPECIFICATION M-2C33-F

(All Automatic Transmissions)

The updated list of suppliers who have been approved as sources for the revised automatic transmission fluid, M-2C33-F, that meet Ford Motor Company specifications is included in the subject Technical Service Bulletin article.

Ford Motor Company automatic transmission specification M-2C33-F replaces all previous specification fluids as of Job 1, 1968.

(TSB 86 - 2/23/68 - Article 1298)

AUTOMATIC TRANSMISSION FLUID SPECIFICATIONS

(All Corlines, Light Trucks and Econolines)

To prevent the possibility of early Ford automatic transmission malfunction, it is essential that transmission fluid meeting Ford specification M-2C33-F be used at all times. In keeping with the company's objective of producing a vehicle which is as free of regular maintenance service as possible, a "Lifetime Fill" automatic transmission fluid was established. Therefore, use of any fluid which does not meet Ford Specification M-2C33-F, even for make-up, can result in soft or slipping shift that will cause band and clutch deterioration. In addition, use of any fluid that does not meet Ford Specification M-2C33-F may materially affect the life of the transmission through rapid formation of varnish and sludge within the transmission.

(TSB 97 - 8/30/68 - Article 1463)

AUTOMATIC TRANSMISSION AND POWER STEERING FLUID SPECIFICATIONS SUPERSEDING ALL PREVIOUS ARTICLES

(All Car Lines, Light Trucks and Econolines)

A list of suppliers and fluid trade names of automatic transmission and power steering fluids which have met the Ford Motor Company specification M2C33F replacing previously published lists are found in the main article.

(TSB 104 - 12/13/68 - Article 1593)

APPROVED AUTOMATIC TRANSMISSION AND POWER STEERING FLUID SUPPLIERS

(All Car Lines, Light Trucks and Econolines)

The main article lists suppliers who have been approved as sources for automatic transmission and power steering fluid, meeting Ford Motor Company specification M-2C33-F, and has been revised to add additional suppliers.

(TSB 109 - 2/14/69 - Article 1670)

DIFFICULT SHIFTING

(1968 E100/300)

Increase bushing bores in gearshift tube bracket and replace bushing.

PARTS:

Part Number	Part Name	Qty.	Class	Avail.
C8UZ-7335-A	Bushing	1	C	OK

PRODUCTION CORRECTION: None to date.

WARRANTY STATUS: REIMBURSABLE

Operation: SP-7335-A-69

Time: 1.5 Hrs.

(TSB 115 - 5/16/69 - Article 1791)

DRIVE SHAFT SLIP JOINT LUBRICATION

(All T, CT, NT & WT Models)

To assure proper operation of the inter axle slip yoke, the compliance with the maintenance schedule for lubricating the slip yoke as shown in the Truck Owner's Manual is being emphasized.

(TSB 119 - 7/18/69 - Article 1867)

BALL JOINT LUBRICATION

(All Car Lines - 1965-1970)

When lubricating the front suspension ball joints at the recommended interval of every 36,000 miles or 36 months, use only 10 grams (1 level teaspoonful) of lubricant for each ball joint. Application of this amount of lubricant will force new grease into the bearing area of the joint and will not balloon or damage the seal. Use only a low pressure (hand operated) grease gun when lubricating the ball joints.

This information supersedes all ball joint lubrication procedures published in the Pre-delivery, Maintenance and Lubrication Sections of Shop Manuals.

(TSB 128 - 12/5/69 - Article 2030)

Jacking and Hoisting

CAB TILT CYLINDER - CAB TO CYLINDER ATTACHMENT - W SERIES TRUCK

(1966-68 W-WT-1000-D Trucks)

If the cab lift cylinder plunger rod end adapter at the forward end of the lift cylinder loosens, it will be necessary to replace the cylinder plunger assembly, using the following procedure. Reference Figure 11 for cab tilt cylinder parts nomenclature.

PARTS:

Part Number	Part Name	Class	Avail.
C6TZ-5A394-A	Cab Tilt Cylinder Plunger Assy.	C	OK

PRODUCTION CORRECTION: Approximately 1-1-68.

WARRANTY STATUS: Reimbursable within the provisions of the Warranty & Policy Manual.

Operation: SP-5A394-A-69

Time: 1.8 Hrs.

(TSB 118 - 6/27/69 - Article 1863)

Appearance Maintenance

PLASTIC INSERTS IN RADIATOR GRILLE MAY DISTORT UNDER PAINT DRYING TEMPERATURES

(F-100/350 - 1970)

The radiator grille contains plastic inserts which may distort in temperatures over 210° F. The inserts must be removed for paint repairs and not subjected to heat during the paint drying operation.

PARTS: None.

PRODUCTION CORRECTION: None.

WARRANTY STATUS: INFORMATION ONLY

(TSB 124 - 10/10/69 - Article 1970)

UNDERHOOD PAINT

(Bronco and F Series - 1970)

The underside of the hood panel is painted with a black electrocoat primer as a finish coat with possible overspray occurring when the body color paint is applied to the top side of the hood.

Repainting for appearance reasons with black paint or body color paint is not reimbursable under warranty.

WARRANTY STATUS: NON-REIMBURSABLE

(TSB 125 - 10/24/69 - Article 1981)

SSI INDEX

GENERAL

SSI-61 - 11/14/68

AUTOMOTIVE SAFETY IN SERVICE
(General)

SSI-62 - 9/30/68

AUTOMATIC AND MANUAL TRANS. EXCHANGE PROGRAM
(Early 1969 Models)

SSI-60 - 9/21/68

EARLY PRODUCT PROBLEMS
(1969 Model Cars)

SSI-60-A - 9/24/68

EARLY PRODUCT PROBLEMS - SUPPLEMENT TO SSI NO. 60 DATED 9/21/68
(1969 Models)

SSI-80 - 4/25/69

FIELD CORRECTIONS APPLICABLE TO EARLY-BUILT MAVERICKS
(1970 Maverick)

SSI-80-A - 5/14/69

FIELD CORRECTIONS APPLICABLE TO EARLY-BUILT MAVERICKS
(1970 Maverick)

SSI-45 - 9/21/67

HARD STARTING
(1967 C, N, F, B-6000-7000 Trucks Equipped with Ford 363 Diesel Engine)

SSI-46 - 10/11/67

MANUAL FOR DIAGNOSING TIRE AND DRIVETRAIN NOISE, VIBRATION AND HARSHNESS
(All Models)

SSI-73 - 12/06/68

TIP-IN MOAN
(1969 Ford with 302-2V Engine and C-4 Automatic Transmission)

SSU-76 - 2/12/69

NEW WHEELS FOR VEHICLES EXHIBITING VIBRATION DURING LIGHT TO MEDIUM BRAKE APPLICATION
(1968-69 Falcon, Fairlane and Mustang with 10" Drum Brakes)

SSI-91 - 9/19/69

1970 EARLY FIELD CORRECTIONS - SPECIAL SERVICE INSTRUCTIONS
(1970 Models)

SSI-91A - 10/16/69

FIELD CORRECTIONS APPLICABLE TO EARLY BUILT 1970 MODEL UNITS - SUPPLEMENT TO SSI NO. 91
(1970 Models)

SSI-90 - 10/27/69

EARLY 1970 MODEL YEAR AUTOMATIC A J MANUAL TRANSMISSION EXCHANGE PROGRAM
(1970 Models)

SSI-84 - 7/23/69

LOOSE ENGINE FRONT LOWER SUPPORT BRACKET TO SIDE RAIL ATTACHING BOLTS & NUTS
(1970 Maverick)

CHASSIS

SSI-44 - 8/04/67

FIRESTONE F70 x 14 WIDE OVAL (NYLON) TIRES - ABNORMAL TIRE WEAR
(All Car Lines So Equipped)

SSI-50 - 2/02/68

TIRE PROBLEM DIAGNOSIS AND COMPLAINT HANDLING
(General)

SSI-64 - 10/16/68

RADIAL OR BIAS PLY TIRES
(Cortina)

SSI-76 - 2/12/69

NEW WHEELS FOR VEHICLES EXHIBITING VIBRATION DURING LIGHT TO MEDIUM BRAKE APPLICATION
(1968-69 Falcon, Fairlane and Mustang with 10" Drum Brakes)

SSI-68 - 11/12/68

FORD-THOMPSON POWER STEERING PUMP REPAIR PROGRAM
(1969 Models)

SSI-49 - 2/01/68

SECOND SPEED GEAR SEIZURE
(Clark 280 Series Transmission - 1968 F500-800, B-N-500-750, T-CT 800, F-B-C-N-6000-7000 and T-6000 Series Trucks)

SSI-70 - 11/18/68

POWER TAKE-OFF INSTALLATION
(1968 Medium and Heavy Truck with Clark 280 Transmission)

SSI-40 - 12/02/66

GEAR SET FAILURES - MODEL PHA-A, FX CRUISE-O-MATIC TRANSMISSION)
(1967 Fords with 289-2V Engines)

SSI-56 - 8/12/68

FMX AUTOMATIC TRANSMISSION EXCHANGE PROGRAMS
(1968 Ford)

SSI INDEX (Continued)

SSI-66 - 11/12/68

**FMX AUTO TRANSMISSION
"NO REVERSE" PROBLEMS**
(All Models - 1968-1969 So Equipped)

SSI-65 - 1/20/69

ONE WAY CLUTCH FAILURES
(1969 C-6 Transmission)

SSI-47 - 11/10/67

**NEUTRAL START SWITCH
ADJUSTMENT**
(1968 Models with Automatic Transmission
and Column Mounted Shift Lever)

SSI-47-A - 2/07/68

UNNECESSARY REPLACEMENT
(1968 Models with Automatic Transmission
and Column Mounted Shift Lever)

SSI-93 - 1/7/70

DISC BRAKE NOISE CORRECTION
(1969 and 1970 - All Carlines)

SSI-88 - 9/15/69

1970 MODEL TIRE INFORMATION
(1970 Cars)

SSI-86 - 8/22/69

**AUTOMATIC TRANSMISSIONS UNABLE TO
SHIFT OUT OF REVERSE - UNITS BUILT
FROM JULY 21, 1969 TO AUGUST 9, 1969**
(1970 Maverick)

ENGINE - FUEL,

IGNITION, and COOLING

SSI-74 - 12/06/68

EXHAUST SYSTEM NOISE
(1969 Ford with 390-2V Engine)

SSI-78 - 4/07/69

EXHAUST SYSTEM NOISE
(1969 Ford with 429-2V Engine and Ford
Station Wagons with 429-2V and 429-4V
Engines)

SSI-39 - 4/12/67

**EXCESSIVE INTERNAL OIL
CONSUMPTION**
(1965-66-67 Trucks Equipped with
352 CID Engine)

SSI-48 - 12/21/67

**REWORK OF THE EXHAUST CONTROL
VALVE ASSEMBLY TO REDUCE THE
TENDENCY OF VALVE BURNING**
(352 CID Engine - Truck 390/428 CID
Engine - Car)

SSI-81 - 4/30/69

**ENGINE OIL LEVEL INDICATORS
INCORRECT**
(1969 Ford with 390 Engine From Wayne
Assembly Plant)

SSI-45 - 9/21/67

HARD STARTING
(1967 C, N, F, B-6000-7000 Trucks Equipped
with Ford 363 Diesel Engine)

SSI-51 - 2/16/68

**INSPECTION AND REPLACEMENT OF
FUEL PUMP DIAPHRAGM**
(1967 C-N-F-B-6000-7000 Trucks Equipped
with Ford Dorset 363 Diesel Engine)

SSI-42 - 4/10/67

**IMPROPER CLEARANCE BETWEEN
THE FAN SHROUD AND RADIATOR**
(1967 Ford Galaxia with 280-2V Engine and
Factory Installed Air Conditioning)

SSI-54 - 4/01/68

IMPROVED COOLING SYSTEM FILL
(1967 C-6000-7000 Trucks Equipped with
Ford 363 CID Diesel Engine)

SSI-55 - 5/29/68

**INADEQUATE AIR CLEANER
FILTRATION**
(1966-68 T-8000 Trucks Equipped with
Cummins C, CF-160 and C-180 Diesel)

SSI-62 - 10/08/68

**PROCEDURE FOR ACCELERATOR
SYSTEM ADJUSTMENTS**
(All Models)

SSI-83 - 7/21/69

**WORN CYLINDER HEAD VALVE GUIDE
REPAIRS**
(Engines - except CJ & PI)

SSI-85 - 7/25/69

**PROCEDURES FOR REPAIRING LOOSE OR
DAMAGED ELECTRICAL CONNECTIONS AT
IGNITION SWITCH AND FUSE PANEL
CONNECTORS**
(All cars, light and medium trucks - 1968 & 1969)

SSI-87 - 8/26/69

**DIRECT READING OIL PRESSURE SENSING
LINE, CATERPILLAR V-8 DIESEL ENGINES**
(FT-8000 Trucks)

SSI-83 Sup. - 10/22/69

**WORN CYLINDER HEAD VALVE GUIDE
REPAIRS**
(Engines - except CJ & PI)

SSI-92 - 11/7/69

BROKEN ROCKER ARM BOLTS
(351-C Engine)

ELECTRICAL - HEATING,

A/C, and ACCESSORIES

SSI-54-A - 4/04/68

**SPECIALLY INSPECTED ELECTRICAL
SYSTEM**
(1968 Ford)

SSI-59 - 9/12/68

**INSTALLATION OF FENDER
MOUNTED CORNERING LIGHTS**
(1969 Thunderbird)

SSI-41 - 3/02/67

**SPEEDOMETER CABLE
MALFUNCTION**
(1967 Mustangs)

SSI-82 - 6/09/69

**FUEL GAUGE SYSTEM PROBLEM
DIAGNOSIS**
(General)

SSI-57 - 9/03/68

**HEATER INLET HOSE SCORCHED BY
HEAT RISER TUBE**
(1968 Fords Equipped with 390 CID Engine
- domestic - and Comfort Stream or A/C
Heater System)

SSI-72 - 11/21/68

**HEATER AND/OR VACUUM HOSES
CUT BY HEATER CORE COVER PLATE**
(1969 Ford with A/C and 390-2V or 428-4V IP
Engines)

SSI-53 - 3/13/68

1968 AM/FM RADIO REPAIR
(General)

SSI-72 - 11/21/68

**HEATER AND/OR VACUUM HOSES
CUT BY HEATER CORE COVER PLATE**
(1969 Ford with A/C and 390-2V or 428-4V IP
Engines)

SSI-58 - 9/16/68

**IMPROPER REPAIR PROCEDURE OF
AIR CONDITIONING RECEIVER DE-
HYDRATOR TANK**
(All Models with Air Conditioning)

SSI-56 - 11/12/68

**INADEQUATE COOLING IN CITY
DRIVING**
(1968-69 Thunderbird)

SSI-89 - 9/16/69

**ENGINE COVER, DASH INSULATION
AND HEATER WATER VALVE TO IMPROVE
PASSENGER COMFORT IN ECONOLINES
EQUIPPED WITH FACTORY AIR
CONDITIONING**
(1969 Econoline)

BODY

SSI-63 - 10/16/68

WINDNOISE CORRECTION
(1969 Ford)

SSI-67 - 11/12/68

**WINDNOISE AND WATERLEAK
CORRECTIONS**
(1969 Mustang)

SSI-77 - 3/10/69

**WINDNOISE AND WATERLEAK
CORRECTIONS**
(1969 Ford and Mustang)

SSI 63 - 10/16/68

WINDNOISE CORRECTION
(1969 Ford)

SSI-67 - 11/12/68

**WINDNOISE AND WATERLEAK
CORRECTIONS**
(1969 Mustang)

SSI-71 - 11/21/68

**TAILGATE WATER LEAK
CORRECTION**
(1969 Ford Station Wagon)

SSI-77 - 3/10/69

**WINDNOISE AND WATERLEAK
CORRECTIONS**
(1969 Ford and Mustang)

SSI-43 - 5/15/67

**CONVERTIBLE TOP - IMPROPER
NO. 3 BOW ATTACHING BOLT
TORQUE**
(1967 Ford and Fairlane)

SSI-79 - 4/10/69

**IMPROVED BODY SIDE AIR
DEFLECTORS**
(1966-68 W & WT 1000-D Truck)

SSI-52 - 2/20/68

**UNITS PRODUCED WITHOUT VEHICLE
IDENTIFICATION NUMBER TABS**
(1968 Ranchero)