

SERVICE Counselor

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Converter Reactor Shaft Thrust Washers— Thrust Bearings and Spacers

All Models

This article cancels and supersedes portions of the article on the above subject in Service Counselor Vol. 27, No. 6, June, 1953.

The following information covers service replacement of all converter reactor shaft thrust bearings and thrust washers regardless of combinations found in production converters.

1. If the converter is equipped with old original ball bearing type reactor shaft thrust bearing and spacer, (bearing assembly $\frac{5}{8}$ " wide and spacer $\frac{21}{64}$ " wide) replace it with the same type bearing and spacer using Part No. 421596 bearing and Part No. 421597 spacer. Fig. 1.

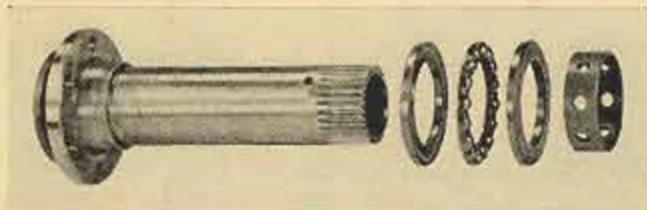


Fig. 1

2. If the converter is equipped with bronze thrust washer, two steel washers and spacer, replace these parts with the new reactor shaft thrust bearing kit Part No. 458290. This bearing assembly is $\frac{7}{16}$ " wide and the spacer is $\frac{21}{64}$ " wide. Fig. 2.



Fig. 2

3. Beginning approximately April 12, 1954, all production converters are equipped with the new thin reactor shaft thrust ball bearing and spacer. Service replacement will require the same type bearing and spacer.

4. Converter reactor shaft assembly Part No. 423424 used in the 24th and 25th Series converters with 9" direct drive clutch has been cancelled for service replacement. If replacement of this reactor shaft is needed, use Part No. 423754 reactor shaft assembly with Part No. 458290 reactor thrust ball bearing kit.

The new reactor thrust ball bearing kit is available at the Central Warehouse and may be ordered under Part No. 458290.

The kit consists of:

- Part No. 423794 Transmission Converter Reactor Thrust Ball Bearing
- Part No. 423795 Transmission Converter Reactor Spacer

Rear Fender and Quarter Repair Panels

24th-25th Series

Due to the highly competitive 1954 car and service market, it is important that every possible step be taken to reduce repair costs to customers and bid successfully on fender and body repair work. We highly recommend the use of repair panels for rear fender and quarter damage for quicker service and more profitable operation.

The following list shows the part numbers of Rear Fender Repair Panels released for 24th and 25th Series cars that are available at the Central Warehouse. It also shows the Rear Fender Assembly part numbers for your reference when ordering and using these repair panels:

REAR FENDER & QUARTER REPAIR PANEL	USE IN PLACE OF	MODELS
424020 (Right)	424030 Fender Assy..	2465-95 2565-95-98
435894 (Right)	435406 Fender Assy..	2467
	435004 Fender Assy..	2469
	441032 Fender Assy..	2577
	441034 Fender Assy..	2579
	435316 Repair Panel	2467-2577
424026 Repair Panel		2469-2579
435896 (Right)	425760 Fender Assy..	2462-92-2592 2562*
435897 (Left)	425761 Fender Assy..	2462-92-2592 2562*
424024 (Right)	425760 Fender Assy..	2462-92-2592* 2562
424025 (Left)	425761 Fender Assy..	2462-92-2592* 2562

*Indicates the fender and quarter repair panels that can be used on these models without any reworking. For the other models listed, the repair panels will require some minor reworking such as plugging or drilling moulding holes depending on the moulding equipment on the car.

In most instances rear fender and quarter repair panels can be used in place of rear fender assemblies. In some cases, it might be to your advantage to cut off and weld in only that portion of the fender repair panel that is needed.

Direct Drive Clutch Fails to Disengage

Ultramatic

Proving Ground tests reveal a condition that may be encountered in the field whereby the direct drive clutch might be slow in disengaging or stall the engine on quick stops.

This condition will only be encountered when the transmission is equipped with a rear pump check valve (flapper valve) having the $3/32$ " hole (See Service Counselor Vol. 26, No. 12, December, 1952) and the newly designed governor housing and inlet valve as described in Service Counselor Vol. 26, No. 10, October, 1952.

An oil pressure test at the governor and direct drive clutch will show if the governor is slow in venting off the oil pressure. The pressure should vent off at about 10 to 11 MPH, but if it does not vent until about 3 or 4 MPH, then the clutch may not disengage, thereby stalling the engine.

If this trouble should be encountered in the field, it can be corrected by removing and dis-assembling the governor housing. Enlarge the $.062$ " vent hole in the top of the governor housing to $.094$ " by drilling it out with a $3/32$ " drill. Be very careful to remove all burrs and clean thoroughly after drilling so that the inlet valve works free in the governor housing.

Rear Bumper Impact Bar

26th Series Caribbean

Part No. 455501 Rear Bumper Impact Bar is listed in the Parts Book for the 26th Series Caribbean (Body 2678). This has been cancelled and superseded by Part No. 443339 which also fits the following models: 2602-06-26-31-5402-06-26-31.

When installing a new Rear Bumper Impact Bar Part No. 443339 on the 26th Series Caribbean, it will be necessary to drill two $3/8$ " holes through the center portion of the bar using the dimensions shown in Fig. 1.

BUMPER FACE BAR

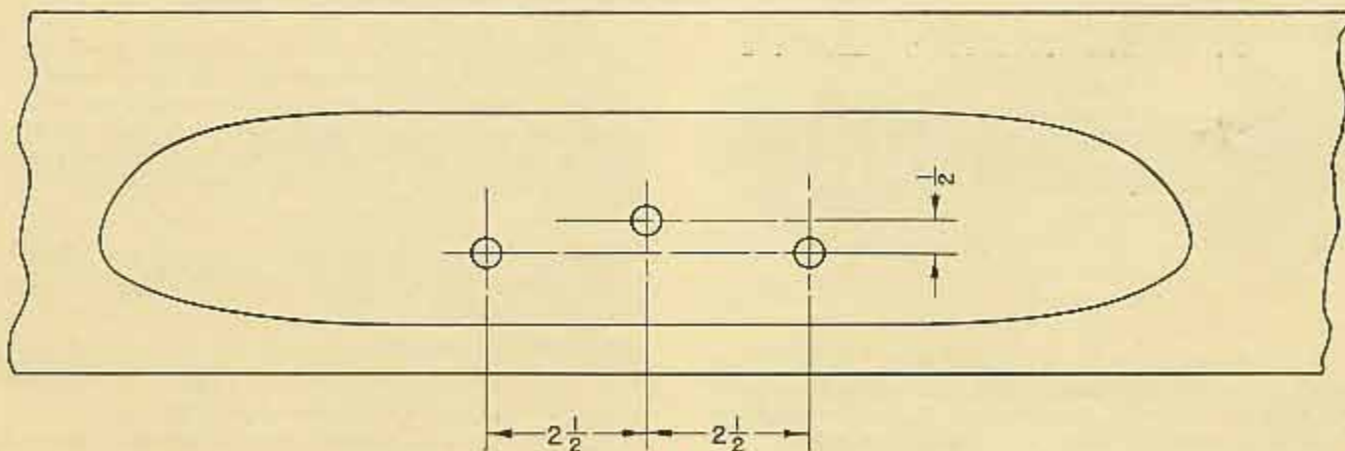


Fig. 1

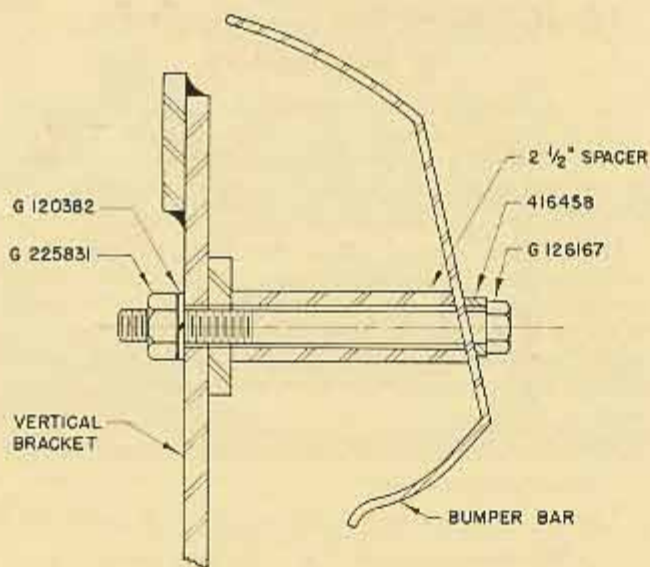


Fig. 2

Install the two long bolts with spacers through the bumper impact bar and tire carrier vertical bracket as shown in Fig. 2.

Air Conditioning Service Data

Listed for your information are four important service items pertaining to air conditioned cars.

1. CAUTION: STEAM CLEANING

Due to the extreme low boiling point (21.7° below zero) of Freon 12 used in the air conditioning system, steam should not be used on any parts of the system including the copper tubes. The intense heat from the steam will cause excessive pressure in the system which may cause the relief valve on the compressor to open resulting in a loss of Freon.

2. CLEANING AIR FILTERS

The two air filters in the return air ducts should be rinsed in cold water at least once a year, preferably in the spring.

The two air filters can be removed as follows:

A. Raise the trunk lid and note the two center rubber air ducts attached to the evaporator assembly. The air filters are located at the lower ends of the rubber air ducts.

B. Remove the three rear sheet metal screws and retaining plates from the lower edge of the rubber air ducts and then pull out the air filters.

C. Rinse out the air filters in cold water until clean. Reinstall the filters by reversing the above procedure.

3. COOLING COIL DRAIN PAN DRAIN TUBES

To insure proper drainage of the cooling coil drain pan, a change has been made in the length of the flat section of the two rubber drain tubes which are located directly under the evaporator assembly on the bottom of the trunk floor.

It is important that 11/16" be cut off of the flat section of the rubber tubes, leaving approximately

1/16" of the flat section which prevents dirt from entering and insures proper draining.

4. UNDERCOATING CAUTION

The following parts should be protected with masking tape while the car is being undercoated.

A. Flared joint connections in the connecting lines and at the filtered dehydrater.

B. Flared joint connections at the underside of the trunk floor.

C. Drain outlets from the evaporator pan at the underside of the trunk floor.

D. Liquid receiver tank.

E. Condenser and connecting tubes.

Accelerator Pump System Fuel Vapors

4-Barrel Carburetors

A stumbling condition on low speed acceleration may be encountered occasionally with cars equipped with 4-barrel carburetors in extreme hot weather.

This condition may be caused by vapors trapped in the accelerator pump system which will not permit an instantaneous flow of fuel from the pump housing jets at the moment the accelerator pump is operated.

An accelerator pump passage check valve has been released for Service which will bleed off any vapors accumulating in the pump system during extreme hot weather.

Installation is as follows:

1. Remove the carburetor air cleaner. Remove the carburetor air horn and floats assembly as described in Service Counselor Vol. 27, No. 1, January, 1953.

2. "See Fig. 3 in same article." Remove the screw driver slotted plug from the carburetor bowl which is located in the upper left hand corner next to the accelerator pump well. Install the new type check valve.

3. Check the floats level and reinstall the air horn and floats assembly using a new gasket if necessary.

The new check valve can be used in all 4-barrel carburetors and is available at the Central Warehouse under Part No. 458320.

Starting approximately December 1, 1953 all WCFB 2112S Carburetors incorporate the new check valve. Identification is as follows: "L 3" with three or more punch marks in the brass tag or "A 4" on brass tag.

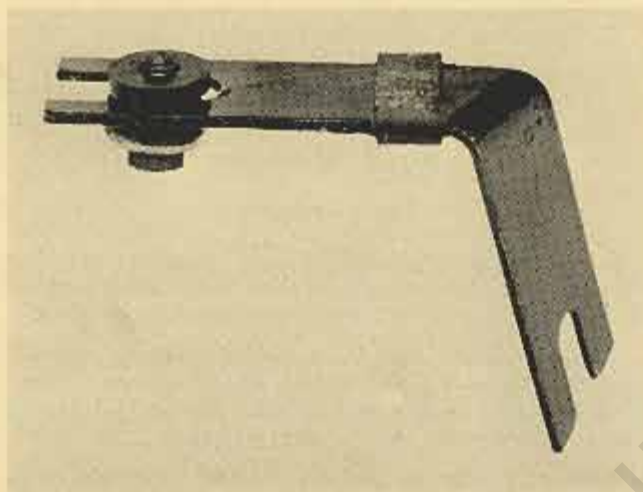
The carburetor heat shield Part No. 455679 which is standard equipment on the 359 cu. in. engine can also be used on any present or earlier model 4-barrel carburetor equipped cars. The shield provides a means of deflecting manifold heat from the carburetor which might become excessive causing malfunction of the carburetor during extreme hot weather or abnormal driving conditions.

Carburetor Air Cleaner Rattles

A rattle or vibration in the carburetor air cleaner may be encountered occasionally on 54th Series cars equipped with the 359 cu. in. engine.

The noise is generally caused by the air cleaner silencer striking the horizontal portion of the air cleaner support bracket near the bend where it attaches to the cylinder head.

The rubber seal, Part No. 387817, used on the front suspension upper support pivot pin can be used as an insulator by slipping it over the air cleaner support bracket as shown in the illustration.



Vibration noises in the air cleaner may be encountered occasionally on 327 cu. in. engines on the 5402 model.

In most instances, the noise can be eliminated by installing a grommet type insulator under the wing nut that attaches the air cleaner silencer to the carburetor.

Part No. 465135, Carburetor Air Cleaner Stud Insulator, is available at the Central Warehouse.

Ultramatic Governor Nylon Gears—Stripped

A few reports have been received of damaged or stripped governor nylon driving or driven gears on Ultramatic Transmissions.

This condition generally results from the force used in breaking loose the two $\frac{1}{4}$ " bolts that attach the governor housing to the adapter or when the bolts are tightened during installation.

Since all the strain is exerted on the nylon gears when loosening or tightening the governor housing bolts, it is important that the governor housing be held by hand in the opposite direction of turning the bolts to reduce the strain on the nylon gears.

As a reminder the governor housing attaching bolts should be torque tightened to 70 to 75 in. lbs. during assembly.

Heavy Duty Transmission Gears

2633 - 5433

Occasionally you may encounter an owner having a 2633 or 5433 commercial vehicle who drives in the lower gears for prolonged periods due to heavy loads, or the operation of this vehicle is subjected to extremely heavy service.

Heavy duty special alloy shot peened gears are available as service replacement for the 2633, 5433 commercial vehicles. Since the cost of manufacturing these parts is higher than standard parts, the prices are somewhat higher; therefore, the heavy duty gears should be used only when extreme driving conditions exist.

The part numbers for these new parts are as follows:

- 419460 Clutch Shaft
- 419453 Countershaft Cluster Gear
- 433662 Driving Shaft, 1st and 2nd Speed Gears and Bearings Assembly (Standard Transmission)
- 410706 Driving Shaft, 1st and 2nd Speed Gears and Bearings Assembly (Overdrive)

Transmission Timing Valve Timing Pin

Ultramatic

Please refer to Service Counselor Vol. 27, No. 9, Sept., 1953, on the above subject.

Occasionally we receive reports of excessive overlap of low-range disengagement and high-range engagement causing the engine to drag or slow down during the low to high shift. This condition is more apt to occur during cold weather operation.

In cases of excessive overlap, the releasing of the low range piston can be speeded up slightly by installing a .010" smaller diameter timing valve timing pin. The standard pin (G137474) is .062" in diameter.

A new smaller pin can be made from piano wire which is available in various diameters and can generally be purchased locally.

Ultramatic Starter Safety Switch Oil Leaks

A few reports have been received of oil leaks at the starter safety switch gasket on the Ultramatic Transmissions. The reports state that installing a new gasket does not always correct the leak.

In some instances, the inside diameter of the gasket has been found to be slightly oversize. This permits the gasket to drop into the annular groove next to the shoulder on the safety switch so far that it does not provide an oil tight seal.

It is suggested that a small rubber band be wrapped around the switch in the annular groove so that the gasket can be held properly centered when installing the switch.