

SERVICE Counselor

PACKARD MOTOR CAR COMPANY



Counselor

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“ Merry Christmas ” and a Happy New Year

Here's wishing you all in "Service" a very Merry Christmas and a Happy New Year! Individual Cards are not possible with such a large "Packard Service family" but we mean these greetings to be very personal from each of us in the Factory Service Dept.

J. A. Carr

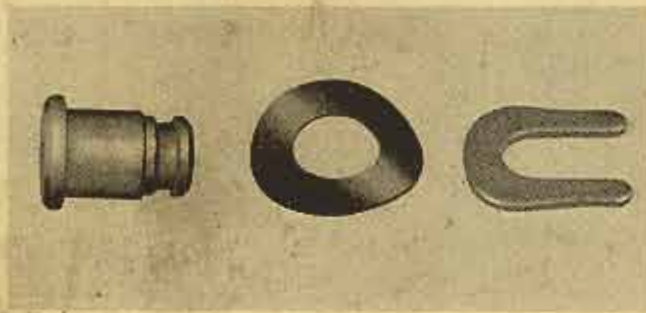


Hand Brake Shoe Strut Lever Pin and Retainer

2401 - 2501

A new hand brake shoe strut lever pin, spring washer and retainer are now used in production and, also, are available for service.

The retainer is no longer made from spring steel, but is made from a thicker stock and is designed so that the open ends can be closed with a pair of pliers after it is installed on the pin. This locks the pin in place, thus eliminating the possibility of it coming out as has been encountered with the spring steel type retainer. The spring washer keeps a tension on the pin and retainer.



The new parts are available at the Parts Warehouse and can be ordered as follows:

Part No. 433270 Brake shoe strut lever pin

Part No. 446275 Brake shoe strut lever pin retainer

Part No. 446274 Brake shoe strut lever pin spring washer.

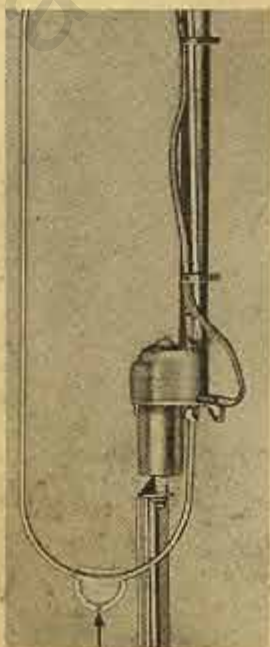
Water In Electric Antennas

24th and 25th Series

Reports have been received of water getting into the electric antennas which damaged the nylon strip and the drive rollers at the end of the motor.

Antennas returned for our inspection revealed that the drain hole at the lower section of the nylon strip retainer tube was plugged with undercoating. "Arrow on illustration indicates drain hole."

It is suggested that the drain hole be inspected and cleaned out if necessary on new car pre-delivery inspections as well as new antennas installed in service.



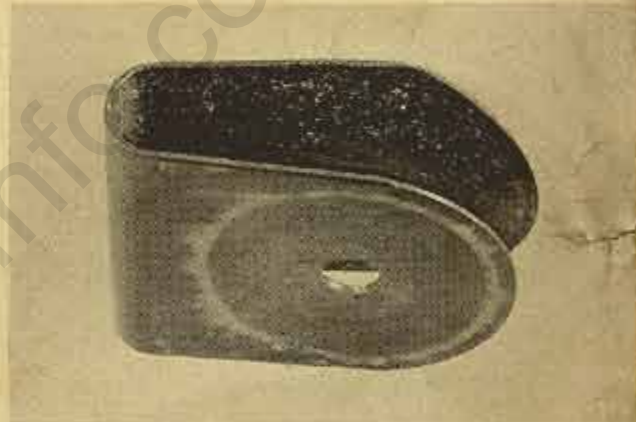
Disturbance In Reverse

Ultramatic—25th Series

A disturbing noise when driving in reverse has been reported on a few 25th Series Ultramatic equipped cars.

During reverse operation, the rear pump is rotating in reverse direction creating a vacuum on what would be the pressure side of the pump during normal forward operation. This vacuum along with air admitted by the governor vent valve causes an aerated condition of the oil at the rear pump.

To correct this condition it is necessary to supply a greater amount of oil to the rear pump to counteract the vacuum created. This can be accomplished by drilling a $\frac{3}{32}$ " hole in the rear half (flat side) of the rear pump check valve. Insert a piece of wood between the two sides of the valve when drilling so that the shape of the valve will not be distorted. Be sure to drill the hole directly in the center to correspond to the center of the bore opening. "See illustration." Remove all burrs from the edges of the hole.



The parts listing for the rear pump check valve which incorporates the $\frac{3}{32}$ " hole has been changed to Part Number 434527, Pump Check Valve (rear).

Ultramatic Direct Drive Clutch

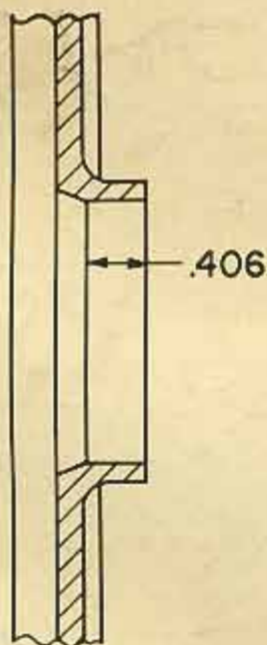
9" Converter

Reports have been received of the direct drive clutch failing to engage in cars having the 9 inch converter.

A direct drive clutch hydraulic pressure test generally shows the pressure is normal when the clutch starts to engage and then gradually drops off to approximately 20 lbs. This condition might also cause the clutch to slip when the engine is accelerated.

A change has been made in the machining of the inner bore of the clutch piston where it slides over the clutch housing hub and ring. The length of the bore has been increased from .281" to .406". "See Illustration".

Whenever this trouble is encountered and the hydraulic pressure to the direct drive clutch drops off, it will be necessary to replace the direct drive clutch piston with the new type.



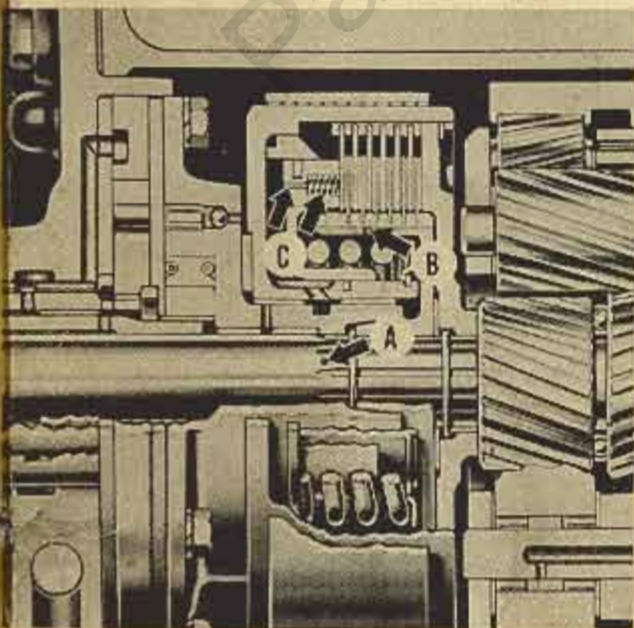
The new type piston carries the same part number as the previous design piston which has been discontinued; however, only the new type piston is being furnished by the Parts Warehouse, which may be ordered under Part No. 423413 Converter Clutch Piston.

High Range Clutch Lubrication and Operation

Ultramatic

Several changes have been made in production to improve high range clutch lubrication and operation.

1. A $\frac{3}{32}$ " hole "A" has been added in the end of one of the input shaft splines. Fluid is forced from this passage past the front pump rear extension and



input shaft front snap ring into the clutch hub where the clutch spring is located.

2. Twenty $\frac{3}{32}$ " holes "B" have been drilled through the outer portion of the clutch hub, these holes are spaced around the hub so that fluid can be forced between each plate.

3. The clutch piston vent springs and vent holes "C" have been eliminated, therefore, the venting is accomplished through the outer ring gap. This change in venting provides quicker high range clutch engagement.

NOTE: It is very important that the high range clutch piston outer ring gap be held to a .007" to .012" clearance.

These changes may not all go into production at the same time. In service replacement no harm will come from having new type and old type parts in the same transmission.

Ultramatic Transmission Oil Leaks

Ultramatic transmission oil leaking from the fly-wheel housing lower cover drain hole does not always indicate a leaking front oil seal. Other non-standard conditions in the converter and bell housing can result in leaks at the drain hole, which might easily be diagnosed as front seal leaks.

When a leak exists at the drain hole, it is suggested that the lower cover be removed and the bell housing and converter washed thoroughly with carbon tetrachloride. Jack up the rear wheels and run the car in low at about 800 RPM, then closely watch for leaks to determine where they originate.

Two leaks that may be encountered occasionally are described as they would be difficult to locate.

Two concave head self-locking bolts are used without lock washers in attaching the bell housing to the transmission and to prevent leaks past the threads. They are installed at the locations shown in Fig. 1. NOTE: The transmission in the illustration is upside down as it is mounted on an engine stand.

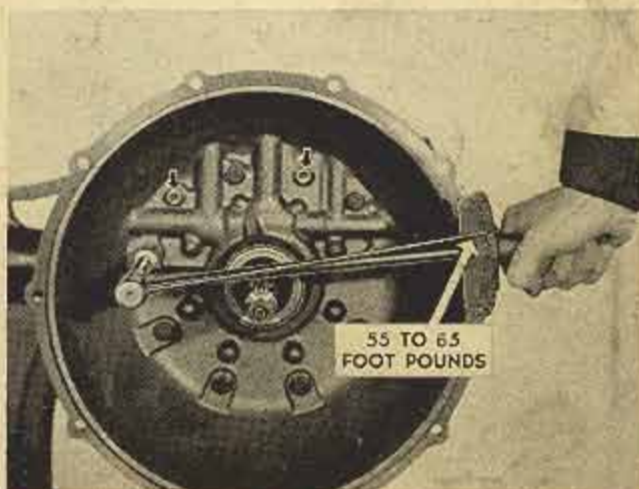


Fig. 1

The low range band lever shaft is installed through the lower right bolt opening. A self-locking bolt is used at this location to seal off any oil leakage past the threads. An oil passage in the forward section of the transmission is very close to one of the bolt holes. Another self-locking bolt is used at this location to prevent any possibility of leakage through the threads.

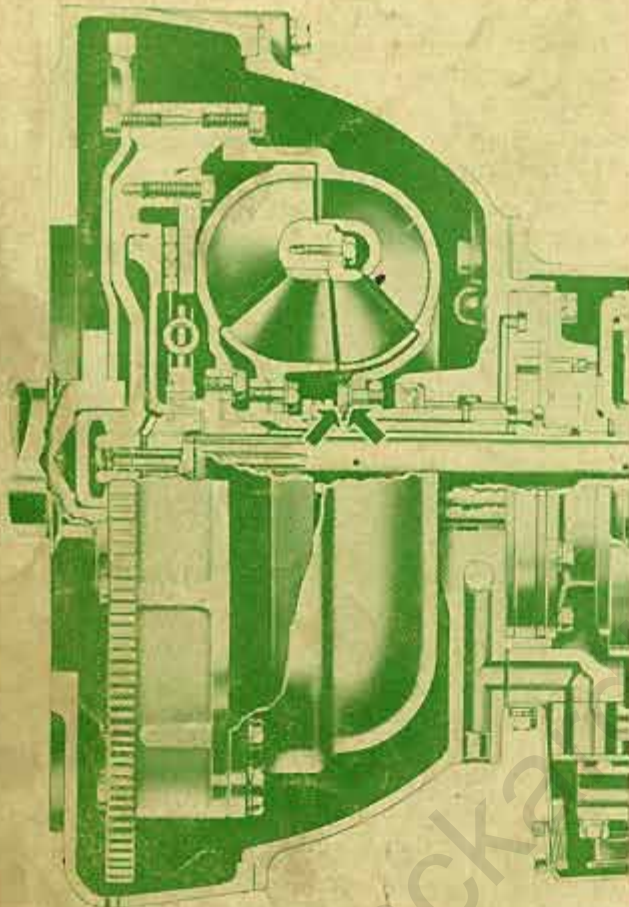


Fig. 2

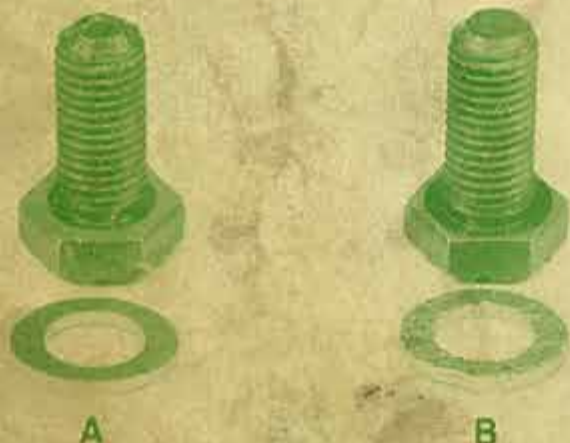


Fig. 3

Another leak that would be difficult to locate is oil leaking past the screws and washers that attach the converter pump shaft to the converter pump. See arrows, Fig. 2. A leak at this point might also be diagnosed as a seal leak.

A leak past the converter pump shaft screws and washers is generally caused by pits in the washers or incorrect machining of the recess on the bolt heads. "A," Fig. 3, shows a bolt and washer that are correctly machined and would seal properly. "B," Fig. 3, shows a bolt and washer condition that would cause leaks.

Overdrive Disturbance

24th Series

Please refer to Service Technical Bulletin 51T-49, Dealer 43, December 26, 1951, on the above subject. Since then a new improved clutch driven plate has been released for service which has further reduced the overdrive disturbance.

Part No. 446199 supersedes Part No. 443175, which has been cancelled. This clutch plate will fit any overdrive equipped 2401-2501 when equipped with a 288 cu. in. engine.

Part No. 446202 supersedes Part No. 389753 which has been cancelled. This clutch plate will fit any overdrive equipped 2401-02-13-2501-31-02-13 when equipped with a 327 cu. in. engine.

Part Number—Correction

Please make the following correction in Service Counselor Vol. 26, No. 10, October, 1952.

In the article "Rear Axle Floor Bumper," Part Number 436339 is listed for the floor bumper kit. The correct Part Number is 436399. Please correct your copy accordingly.

Delco Generator Lubrication

25th and 26th Series

Late production Delco equipped 25th Series and all 26th Series cars except 2606 are equipped with Delco generators having a non-removable commutator end housing.

In the past extreme care was necessary to avoid over lubricating the commutator end housing which resulted in sticking brushes.

The new non-removable commutator end housing is designed so that any excess lubricant cannot get on the commutator; therefore, to provide long bushing life it is recommended that the new type Delco generators be lubricated with SAE 20 oil every 1000 miles of driving.

Water In Overdrive Governors

Just a reminder that wet, slushy weather is here again, which may cause a condition where it may be impossible to get the transmission into reverse gear. This can occur on overdrive equipped 23rd, 24th and 25th Series cars which have the R-11 type overdrive.

To correct this condition, please refer to Service Technical Bulletin 52T-2, Dealer 2, January 29, 1952.