

SERVICE Counselor

PACKARD MOTOR CAR COMPANY



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Zones Across Nation Acclaim Brake and Easamatic Schools

Easamatic Power Brake Training Schools have recently been held in New York, Chicago and San Francisco, under the direction of Alex L. Elkins, Service Training Manager, who was assisted by H. G. Langston, Service Technician, at the New York and Chicago schools.



The two-day sessions were attended by the Zone Parts and Service Managers, the Assistant Zone Parts and Service Managers and the Service Representatives, who thoroughly covered the service, diagnosis and adjustment of the Packard Easamatic Power Brake as well as the servicing of the conventional braking system.

The training program was especially noted for its methodical procedures with sound slide films, Service Training booklets (to accompany the visual aids), and large cutaway-view charts with colored detailings showing functional operations of all working parts.

Bench demonstrations were made with actual car-working models.



In addition, the Ultramatic transmission engineering changes in production were conveyed to the field personnel. The hydraulic system of the transmission was reviewed with reference to diagnosing trouble, and a general discussion of troubles and corrections followed.



The practical approach in training at all five schools was received with enthusiasm by everyone who attended. The Service Representatives are now conducting similar Training Schools in their respective zones for their dealers' mechanics.

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Converter Relief Valve

25th Series

Engineering has found that the converter relief valve is no longer necessary.

Ultramatic Drive transmissions in production now

incorporate a plug, Part Number 423548, which has replaced the valve, Part Number 423380, valve spring, Part Number 423302, and the spacer, Part Number 423381.

In service, if it is necessary to replace a valve or spring, the new plug, Part Number 423548, should be used and the valve, spring, and spacer discarded.

New Universal Joint Dust Cover Kit Installation Instructions

(24th and 25th Series Ultramatic Equipped Cars)

The new universal joint dust cover kit, Part Number 436426, which obsoletes for service Parts Numbers 436103 and 436102, can be installed without removing the universal joint pin.

To replace universal joint dust covers that are damaged, remove the propellor shaft assembly from the car and clamp lightly in a vise. One end of the shaft should be resting on the bench so that the shaft is approximately horizontal. Then proceed as follows:

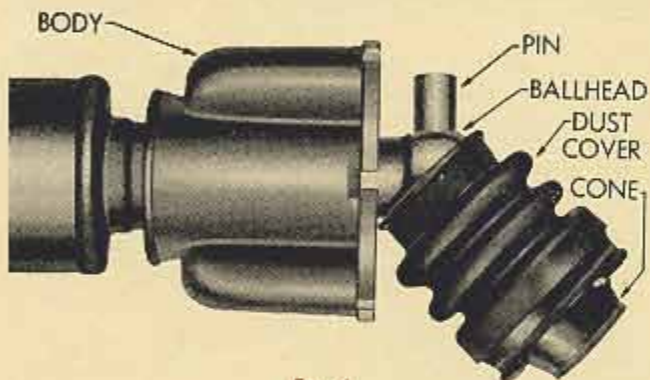


Fig. 1

(1) Disassemble joint, removing all parts except the body and pin.

(2) Clean the body, ballhead and pin.

(3) A complete coating of clean grease must be put on the outside and inside of the new dust cover, the entire surface of the ballhead and pin and the inside of the body. (*This operation is very important.*) You cannot install the new synthetic rubber dust cover if these instructions are not followed.

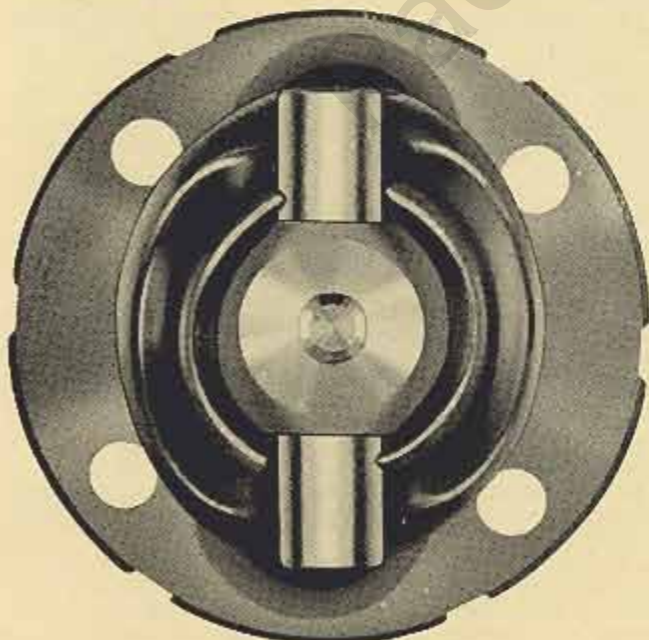


Fig. 2

(4) Stretch and thread the grease-soaked cover over the pin and ballhead, Figure 1, and work the dust cover into the body as far as possible by hand, Figure 2. (Use no tools for this.) With the body in position so the pin can enter the ball channels, pull the body sharply over the pin, thereby forcing the dust cover into the body.

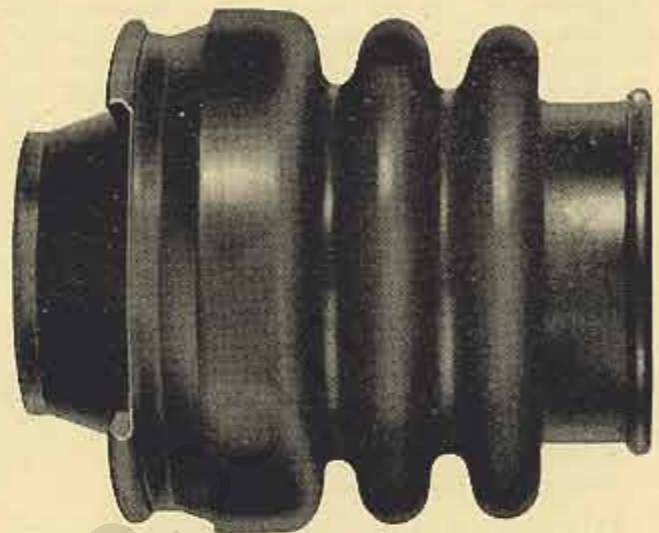


Fig. 3

(5) With one hand, grip the end of the dust cover which protrudes through the back end of the body. With the other hand pump the body back and forth until the entire dust cover has passed through the body.

(6) During the above operation, the inner cone may have reversed itself inside the dust cover. If so, pull it out to its normal position.

(7) Slide the dust cover in the ballhead groove at the rear and over the neck of the body and secure with the clamps provided.

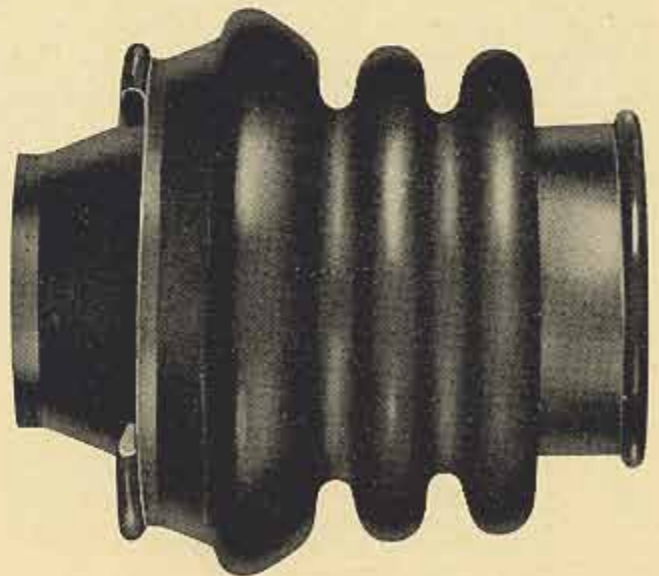


Fig. 4

(8) Be certain that all the parts are clean when reassembling the joint. Then put $1\frac{1}{2}$ to 2 ounces of long fiber universal joint grease into the joint and install the gasket and cover.

(9) Use new lockwashers when installing the shaft and torque tighten the flange bolts to 25 to 30 foot-pounds.

CAUTION: Do not try to force lubricant into the dust cover on the universal joint. This might result in too much grease being forced into the boot and the shaft could be thrown out of balance. Furthermore, the lubricant would tend to pull the boot off during operation at high speeds.

Figure 3 illustrates the dust cover that is supplied in the kit which can be installed through the body (note flat surface at the larger diameter).

Figure 4 illustrates the dust cover that is used in production and cannot be installed through the body.

The new Universal Joint Dust Cover Kit (Part Number 436426) is available at the Parts Warehouse and consists of the following items:

| Part Number | Description |
|-------------|------------------------------------------|
| 436102.. | Universal Joint Dust Cover |
| 436104.. | Universal Joint Dust Cover Clamp (Short) |
| 436105.. | Universal Joint Dust Cover Clamp (Long) |

Differential Carrier Assemblies

22nd, 23rd, 24th, 25th Series

All of the differential carrier assemblies for the above models, except 2206-22-26-33-13—2306-33-13—2413—2513, are identical except for the gear ratio and the universal joint flanges.

To reduce and simplify the stock inventory at the Dealer, Zone and the Factory Warehouse, it has been decided to furnish only four differential carriers for service.

The four differential carriers that are furnished for service are the most commonly used with reference to gear ratio and type of universal joint flange.

If the new carrier does not have the correct universal joint flange for the car it is being installed in, a new flange of the correct type or the flange from the old carrier should be installed on the new carrier. Some dealers may want to carry a supply of new differential flanges which can be ordered from the Parts Warehouse as listed in the Parts Book.

When it is necessary to change a universal joint flange on a carrier the procedure is as follows:

(a) Remove the universal joint flange from the new carrier. Install a new flange from stock or the flange from the old carrier.

(b) Tighten the universal joint flange nut *finger tight*. Using preload indicating wrench, adapter J-2571-B and socket J-2571-A, notice the amount of torque required to rotate the pinion and gears. This indicates the amount of drag caused by the pinion oil seal and the differential side bearings.

(c) Using the flange holding tool J-2659 and socket and wrench J-2571-A, tighten the universal joint flange nut until the correct pinion bearing preload is obtained. When the pinion bearing preload is correct, the amount of torque reading on the preloading indicating wrench will read $2\frac{1}{2}$ to 3 foot-pounds plus the amount of torque that was required to overcome the oil seal and the differential side bearings drag. (For example, if the oil seal and side bearing drag was 2 foot-pounds, the reading on the indicating wrench should be $4\frac{1}{2}$ to 5 foot-pounds.)

(NOTE: See Fig. 16, Page 6, "Rear Axle" in your Service Manual for proper method of using the indicating wrench.)

Obsoleted differential carriers and superseding numbers for your ready reference:

| Obsolete | Superseded by |
|----------|---------------|
| 901836} | 901830 |
| 901837} | |
| 901839} | |
| 902362} | 902405 |
| 901846} | |
| 901847} | |
| 902406} | |
| 901843} | 901825 |
| 902407} | |
| 902408} | |
| 901821} | 901820 |
| 901823} | |

Clutch Shaft Pilot Bearing 2201-11

When installing Part Number 410490 crankshaft and bearing kit in models 2201-11, it will also be necessary to install Part Number 421731 clutch shaft pilot bearing.

Part Number 421731 clutch shaft pilot bearing has a larger outside diameter than the one used in the original 2201-11 crankshaft. Therefore the clutch shaft pilot bearing from the original crankshaft cannot be used with the new crankshaft, and Part Number 421731 pilot bearing should be ordered with the crankshaft and bearing kit.

Ultramatic Valve Body—Upper

Please refer to Service Technical Bulletin 52T-1, Dealer 1, January 28, 1952, on the above subject.

A new valve body (upper), Part Number 423551, now used in production, does not have the bore line-reamed for the cylindrical type pump check valve which has been discontinued.

Therefore, the two spring type pump check valves, Part Number 423547, must be used with this new upper valve body.

This new upper valve body (Part Number 423551) will be shipped from the Parts Warehouse, in place of valve body (Part Number 423111), as soon as the present stock is exhausted.