PACKARD
Service Counselor
PARTS ★ ACCESSORIES ★ PRODUCT ★ PROFITS
INSTITUTIONAL PROMOTIONAL
APPROVED Packard SERVICE

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Service Product Report Forms

The Service Product Report form V-482-1 is designed and used for the purpose of obtaining quick reports of product failures. At the factory they are reviewed and immediately referred to the Engineering, Manufacturing or Inspection Departments for the attention indicated. They are summarized each two weeks and once a month those requiring such attention are reported to a Management Committee. Thus it can be seen that the number of reports on a given item and the promptness with which they are received definitely determines when and what corrective action will be taken.

If a more or less chronic condition develops in the field and the reports are not sent in promptly and in quantity, this unsatisfactory condition can continue in production to such an extent that it would be entirely possible for several thousand cars to be built with a condition that could easily have been corrected had the reports been received promptly.

Service Product Reports to properly serve their purpose must be received quickly after the condition reported is found in the field. Product reports may be cross referenced to RFA's, but the original copy of the report should *never* be held until the RFA is made out; otherwise, a lapse of 30 to 60 days could easily occur.

All corrections or improvements made in Packard cars as the result of Product Reports are written up in either Service Technical Bulletins or in the Service Counselor. Practically all technical articles are published as a result of some dealer's Product Report. The answer, therefore, to a better product is more and better Product Report forms.

Front Wheel Bearing Adjustment All Models

How tight is "tight" when we say "the front wheel bearing adjusting nut should be drawn up tight, backed off part of a turn, and the cotter pin installed?" Our Engineering Department has answerd that question for us when the "tight" referred to pertains to front wheel bearings.

A physical check conducted by Engineering revealed that the degree of tightness in this particular instance is 20 foot pounds measured with a torque wrench. It then was found that this 20 foot pound torque could be approximated by drawing the nut up fairly snug with a 10-inch adjustable wrench.

On models which use a single adjusting nut, the nut should be tightened to a torque of 20 ft. lbs., or snugly tightened with a 10-inch wrench, backed off one hex, and the cotter pin installed. If the cotter pin slot in the nut and the hole in the spindle do not line up after the nut is backed off, the nut

should be turned either forward or back to line up the slot closest to the hole in the spindle.

On models which use an inner and an outer adjusting nut and a locking washer, the inner nut should be torqued or snugly tightened, backed off 2 to 3 holes measured on the locking washer, the outer nut tightened, and the cotter pin installed.

Your Service Staff

This is another in a series published to acquaint members of the Packard Field Organization with individual members of the Factory Service Department

Byron R. Horsley, Service Merchandising Manager, started with Packard on December 15, 1911, as a stock record clerk in the office of the Service Parts Division.

His ability for greater responsibility was soon recognized and within a short time he was assigned to various jobs in the department which required re-organization. He fulfilled many special assignments in the Service Parts Division from 1911 until 1916 when he became Assistant Manager of the division. In 1920 he was appointed Manager of the entire division with full responsibility of all phases of service parts operations. This involved the complete responsibility of all parts merchandising activities, parts ordering and procurement, warehousing, shipping, billing and every other phase of service parts operations.

He remained in charge of the division until June 1943, when due to his long experience and efficiency in managing service car parts operations, he was appointed to take over the Aircraft Engine spare parts operations in the Aircraft Engine Division. For the duration of the war he supervised the shipment of millions of dollars worth of Aircraft Engine spare parts to the United States Army Air Forces and to England to keep Packard built aircraft engines flying as Packard's contribution toward winning the war. Because of his complete knowledge of the government contracts, materials and equipment to be disposed of under government contract termination regulations, he was given the responsibility of handling termination and property disposal activities.

He returned to the Sales and Service Division as Service Merchandising Manager in June 1947.

He is married and the father of two sons. He enjoys bowling, golf and fishing and while he has never become an expert at any of them, he enjoys these activities from the standpoint of friendly associations and good sportsmanship.

Parts Men Note:

When ordering .020 oversize crankshaft bearings for Crankshaft, part No. 190503, after grinding, the following part numbers should be used:

.020 crankshaft bearing

394215 ※1	394219 ※5
394216 ※2	394220 ※7
394217 ※3	394221 ※8
394218 ※4 & 6	394222 ※9

Service Counselor Vol. 23, ※4, states that R-9 transmission and overdrive assemblies are no longer available. This is not correct on the Super Eight assembly for 20th and 21st Series. The R-9 transmission and overdrive assembly, part ※901147, is still available.

We show part ※395280 transmission case used on R-11 whereas the correct number is ※412234.

Part ※317541 motor cylinder and piston assembly for Model 115C is still available.

When ordering front door panels for body types 2280 and 2286, be sure to specify car trim for part ※254038, front door panel right and ※254039, front door panel left. For 2286, specify either 514-516 or 519. For 2280 partition type bodies, specify black trim. For 2280 non - partition type, specify ※516-Red.

Preliminary Parts Books were issued for 22nd Series parts and later the Master Book was issued including additions and corrections. Some dealers are still using Preliminary Parts Lists for ordering 22nd Series parts. This practice should be discontinued. Please use only the Master Book for 22nd Series parts.

In 23rd Series Parts List, Code No. 14.100, part number shown is 512533; should be 412533.

Eliminate three part numbers under Code 14.113.

Code 19.000, part No. 403-100, models read 2302-06-22-32-33; should read 2306-22-32-33.

Gearshift Linkage Kits

22nd and 23rd Series

382838—2000-01-10-11-2100-01
-11-30-2201-02-11-20
-22-32-40-23-1-22

410649—2302-32

382839—2103-06-26-2206-26-33
-2306-33

410555 Transmission Gasket Set
Models:
120-B-115c-1600-1-2
-1700-1-2-3-5
120c 18th, 19th, 20th,
21st, 22nd Series
1 333629 Gasket
1 300820 Gasket
1 302507 Gasket
1 367182 Gasket
6 354310 Gasket

410556 Transmission and Overdrive Gasket Set 1700 through 22nd Series
1 333629 Gasket
1 300820 Gasket
1 347638 Gasket
1 338504 Gasket
1 412247 Gasket
6 354310 Gasket

410557 Transmission Synchronizer Repair Kit 1951 through 23rd Series
1 300820 Gasket
1 333629 Gasket
3 360463 Spring
3 360300 Plunger
3 360324 Spring
6 354310 Gasket

These numbers should be added to your records.

Changes in "Mechanical Specifications and Adjustments"

23rd Series

The following changes should be made in your copy of the May 1 Specifications issue of your Service Counselor.

1. Under "Brakes" at "Wheel Cylinder Size," for the Custom Eight 2306-2333: front cylinder size should be $1\frac{1}{8}$". Rear cylinder size should be 1".

2. Under "Front Suspension" at "Wheel Bearing Adjustment" for the Eight 2301 and Super Eight 2302-2332. This should read, "Tighten Nut to 20 ft lbs, Back Off One Hex and Lock."

Under this same heading for the Custom Eight 2306 - 2333, this should read, "Tighten Inner Nut to 20 ft lbs, Back Off Two to Three Holes on Locking Washer and Lock."

3. Under "Gasoline System" at "Air Cleaner and Silencer" for Super Eight 2302 - 2332: this should read, "Oil Bath Std. Equipment" only.

4. Under "Rear Axle" at "Tread" for the Super Eight, $60\frac{23}{32}$" tread is now for 2302 only. $61\frac{7}{32}$" is the new dimension for the Deluxe and 2332.

5. Under "Springs" at "Stabilizer, Rear" for the Eight 2301 only, this should read "Direct Acting" —delete the word "Hydraulic."

Electro-Hydraulic Fluid Replacement

In the Service Manual, Section I, under "Fluid Replacement," we recommend changing the hydraulic fluid and cleaning the reservoir at 5,000-mile intervals or each spring and fall.

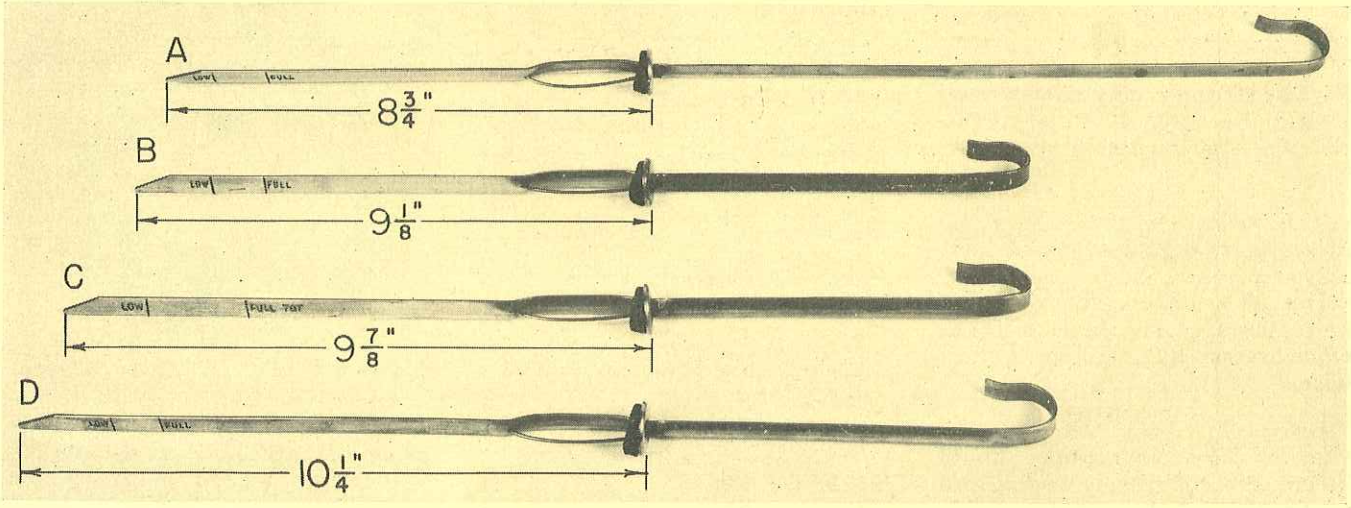
Normally, changing the fluid as recommended will keep the system free from dirt and corrosion; however, more frequent changes are recommended if the vehicles are washed daily or oftener such as those in commercial service. Dirt and water may find their way into the fluid and be carried through the system and the water especially may cause trouble through corrosion of the zinc and aluminum parts.

The fluid in the system of those vehicles which receive these frequent washings should be changed four or five times a year. Following this recommendation will reduce the possibility of having to replace hydraulic cylinders or other parts at a later date.

Oil Level Indicators

22nd Series—All Models

The accompanying illustration will serve as a ready reference to identify the oil level indicators used in 22nd Series engines. The dimensions shown are approximate since the cup shaped washer may be shifted slightly, which results in a slight variation in the measurement.



A—Taxicab and Export Six
B—Eight and Super 8 with Suffix Letters A-C or None
C—Eight and Super 8 with Suffix Letters CD-CE-D-E
D—Custom 8

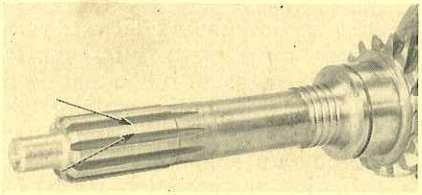
Clutch Fails to Release Properly

22nd Series

Failure of the clutch to release properly, resulting in clutch spin and gear clash when shifting into first and reverse, sometimes may be traced either to rough or burred corners on the splines of the clutch shaft or to an accumulation of rust in the splines.

When clutch spin is reported, the clutch pedal free play first should be checked before removing the transmission since excessive free play will cause this condition. If the clutch spins when the pedal free play is within the specified limits ($1\frac{1}{4}$" to $1\frac{1}{4}$"), the splines on the clutch shaft should be checked since the clutch may be partially engaged if the driven plate is not free to slide to its fully released position when the pedal is depressed.

If rust is evident, it should be removed completely and the rusted areas should be worked over with a knife-edged stone.



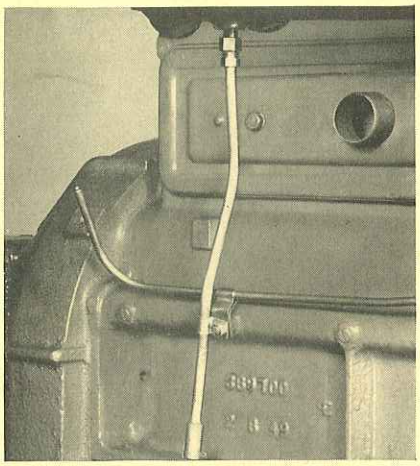
The corners of each spline, as indicated in the accompanying illustration, should be stoned to smooth out any roughness or burrs. If the corners are chamfered only slightly or show no chamfer, they should be stoned to obtain a chamfer approximately .015 inch wide.

The splines in the hub of the driven plate should be cleaned out using a clean cloth and screw driver. The driven plate need not be replaced unless the facings are worn excessively or the plate otherwise damaged.

Before installing the transmission, the clutch shaft splines should be covered completely with a thin coating of lubriplate to provide lubrication and to prevent the formation of rust.

Intake Manifold Drain for Custom Eights

An intake manifold drain valve is now being installed on all Custom Eight engines in production. This valve may be installed on 22nd Series Custom Eights and all prior model Super Eights. It is located at the rear of the manifold for the purpose of draining accumulated fuel from the manifold. In some cases of hard starting fuel settles and accumulates at the rear of the manifold ad jacent to numbers 7 and 8 intake ports.



When this condition exists this fuel sometimes enters the cylinder and since it is not compressible causes damage to the piston or connecting rod on the compression stroke.

The valve may be installed on cars not so equipped by drilling the manifold at the point shown in the illustration and tapping with a standard $\frac{1}{8}$ pipe tap. The manifold should not be tapped deeply since the connector should be as near flush with the inside of the manifold as possible.

The valve is supported by a clip attached to a special pipe plug stud installed in the second oil gallery plug hole from the rear of the gallery.

The necessary parts for this installation are as follows:

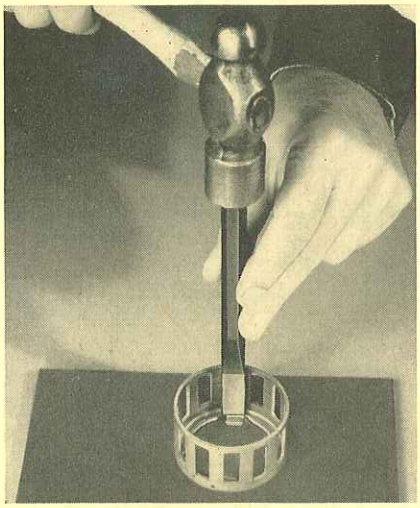
G137406	Connector	1
418493	Tube Assembly	1
213505	Ball	1
213493	Retainer	1
4282	Cotter Pin	1
G120522	Clip	1
395713	Plug	1
7004	Nut	1
5502	Lock Washer	1

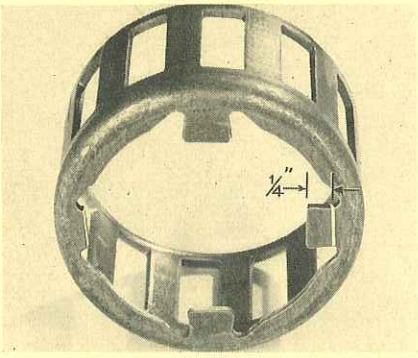
Overdrive Free Wheel Roller Retainers

Free wheel roller retainers for the R-11 overdrive now are being shipped from the Factory as service replacement retainers for R-9 overdrives of the four pinion type. These retainers are carried under part number 347580.

Retainers for the four pinion type R-9 overdrives also were carried under part number 347580 before the adoption of the R-11 unit. However, these retainers differed from those now being shipped in that four stops or tabs were used whereas the present retainer has only two.

These early (four tab) type retainers in Dealer stock may be used in R-11 overdrives after removing the two tabs which are near the retainer spring holes.





To remove the tabs, place the retainer on a hard, flat surface and, using a cold chisel, cut the tab off ¼ inch from its end and repeat the operation on the opposite side. The sharp edges in the retainer then should be filed flat as shown.

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