STUDEBAKER-PACKARD CORPORATION

Service Bulletin

DECEMBER 1959 NO. 350

SOUTH BEND 27, INDIANA

Studebaker and Packard

REAR AXLE PINION SEAL LEAKS - ALL MODELS

Oil leaks at the rear axle pinion seal may be caused by oil leaking between the seal and the axle housing.

Therefore, when it is necessary to replace a pinion oil seal, a non-hardening type sealer similar to Permatex No. 2 should be used between the outer surface of the seal and the housing.

Apply only a light film of sealer to the seal so that no excess sealer enters the differential gears and bearing.

ULTRAMATIC CONVERTER FLUID LEAKS Studebaker 56J and Packard 1950-56 Models

A transmission fluid leak through the lower flywheel housing although normally would be assumed to be caused by a defective bell housing seal may be a result of fluid leaking past the heads and threads of the pump shaft retaining cap screws.

To insure against fluid leakage at these retaining screws always check the following:

The 5/16" washer under the head of the cap screw is used to protect the aluminum converter rear pump housing from possible gouging by the head of the screw as it is tightened. These are not standard plain washers. They have a ground finish to insure smooth parallel surfaces on both faces. If these washers have been nicked, burred, or damaged in any way, they should be replaced.

It is also advisable to apply a good sealer on the threads of all converter pump shaft screws before installation. Be sure that no sealer enters the converter or transmission because this could cause valves to stick.

Always use a new converter pump shaft gasket when reassembling the pump shaft to the pump housing.

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CONTACT: VERNE PRETLING
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PAINT FORMULATIONS 1960 MODEL PASSENGER CARS AND STATION WAGONS EXTERIOR COLORS

Rinshed-Mason #1108 Colonial Red Baking Enamel.
Sym. BEF (their Code E23R036)

Pigment	% Pigment Dry Weight
Indo Red	34.0
Moly Orange	65.0
Black	.3
White Titanium Dioxide	.7
	100.0

Cook's #1104 Gulfstream Blue Baking Enamel.
Sym. BEB (their #832-1-602)

Rutile non-chalking Titanium Dioxide	66.5%
Alkali Resistance Iron Blue	30.0%
Lamp Black	3.7%
Ferrite Yellow	.3%
	100.0%

Cook's #1106 Williamsburg Green Baking Enamel.
Sym. BED (their #832-G-600).

Alkali Resistance Iron Blue	33.7%
Ferrite Yellow	44.3%
Burnt Sienna	21.0%
Lamp Black	1.0%
	100.0%

Jones-Dabney #1082 White Sand Baking Enamel.
Sym. BDF

% Pigment Composition	% Vehicle Composition
99.30 Titanium Dioxide	76.0 Alkyd Resin
.68 Ferrite	24.0 Melmaine Resin
.02 Tinting Colors	100.0%
100.00%	Non-Volatile - 56.0%

O'Brien's #1105 Oasis Green Baking Enamel.
Sym. BEC (Their S-1763)

Vehicle - Alkyd Melamine

Pigmention

Non-Chalking Titanium Dioxide	86.6%
Iron Oxide Yellow	12.6
Phthalocyanine Green	.8
Lamp Black	Trace
	100.0%

O'Brien's #1107 Sandalwood Beige Enamel.
Sym. BEE (Their S-1764)

Vehicle - Alkyd Melamine

Pigmention

Non-Chalking Titanium Dioxide	96.3%
Iron Oxide Yellow	2.4
Iron Oxide Red	1.0
Lamp Black	.3
	100.0%

Cook's #1084 Velvet Black Enamel.
Sym. BDH (their #832-B-600)

Carbon Black	100.0%

O'Brien #1109 Jonquil Yello Baking Enamel.
Sym. BEG (Their S-1548)

Vehicle-Alkyd Melamine

Pigmentation

Non-Chalking Titanium Dioxide	90.0%
Nickel Titanium Yellow	9.3
Indo Orange Pigment	.7
	100.0%

INTERIOR COLORS

O'Brien's #1111 Galway Green baking Enamel.
Sym. BEI (Their S-1769)

Vehicle - Alkyd - Melamine

Pigmentation

Non-Chalking Titanium Dioxide	37.2%
Iron Blue	6.8
Iron Oxide Yellow	54.0
Carbon Black	2.0
	100.0%

O'Brien's #1112 Arabian Brown Baking Enamel.
Sym. BEJ (Their S-1768)

Vehicle - Alkyd - Melamine

Pigmentation

Iron Oxide Yellow	20.5%
Non-Chalking Titanium Dioxide	68.5
Iron Oxide Red	8.0
Carbon Black	3.0
	100.0%

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O'Brien's #1113 Natural Tan Baking Enamel, Sym. BEK (Their S-1767)

Vehicle – Alkyd – Melamine

Pigmentation

Iron Oxide Yellow	44.7%
Non-Chalking Titanium Dioxide	52.9
Iron Oxide Red	2.4
	100.0%

O'Brien's #1120 Miami Blue Baking Enamel Sym. BES (Their #S-1782)

Vehicle – Alkyd – Melamine

Pigmentation

Non-Chalking Titanium Dioxide	98.9%
Phthalocyanine Blue	1.1
Carbon Black	Tint
	100.0%

O'Brien's #1110 Lisbon Blue Baking Enamel Sym. BEH. (Their S-1770)

Vehicle – Alkyd – Melamine

Pigmentation

Non-Chalking Titanium Dioxide	88.9%
Phthalocyanine Blue	8.8
Carbon Black	2.3
	100.0%

FRONT FENDERS - 1960 CONVERTIBLE

The current 1959-1960 Chassis Parts Catalog does not correctly list the front fenders for the 1960 Convertible models.

The Convertible model front fender includes a fender brace bracket, whereas the other fenders do not.

The correct front fender part numbers for the Convertible model are as follows:

1337304 – Front Fender, Assembly, Right
1337305 – Front Fender Assembly, Left

OIL PRESSURE INDICATOR LIGHT STAYS ON AT IDLE-59S Models with PB-50 type oil filter

Where you have a condition of the oil pressure indicator light coming on during idle, installation of Filter Inlet Pipe Nipple, Part No. 1549669, will usually provide a correction. This nipple has a .0456" restriction. Before you install the nipple make sure that the engine has the proper grade of oil and the engine idle speed is properly adjusted.

A new oil filter kit which includes the restricted nipple has been released under Part No. AC-2991.

NEW DELCO-REMY GENERATORS WITH MOUNTING BUSHINGS

When present stocks of Generator Assembly, Part No. 1546764 and 1541275, are exhausted, Generator Assemblies Part Nos. 1550292 and 1550351, respectively, will be substituted.

The two new generator assemblies include two mounting bushings, Part No. 1550294. These bushings reduce the size of the generator mounting holes from 3/8" to 5/16".

The bushings, Part No. 1550294, will also be made available as a separate service item.

GENERATOR END PLATE Delco-Remy - 1959 V8 Models

An improved design generator commutator end plate entered late production of 1959 – V8 models. The latest plate, illustrated on the left in Figure 1, can be identified by the larger oil reservoir located below the bearing area. This end plate, Part No. 1544188, available for service installation incorporates the larger type oil resevoir.

In case of commutator end plate bearing failure on early production 1959 models, in addition to installation of the end plate, Part No. 1544188, a new armature, Part No. 458827, should be installed, if there is any evidence of damage to the armature.

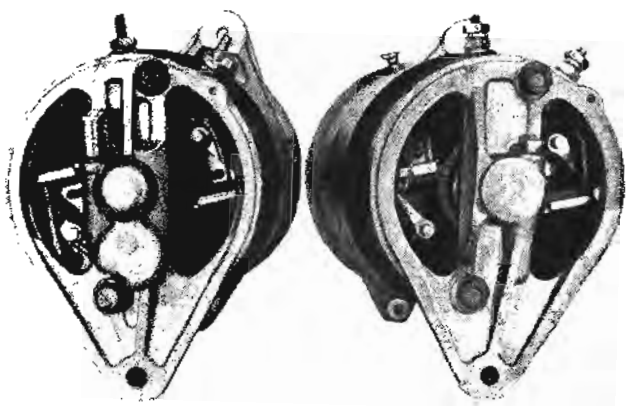

FIG. 1

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IN-LINE GAS FILTER - PART NO. AC-2987, - ALL MODELS

An in-line Gas Filter, Part No, AC-2987, has been released for service and can be ordered through your Parts Depot.

The installation of this filter between the fuel pump and carburetor is very effective in preventing dirt and foreign matter entering the carburetor, which greatly reduces the possibility of flooding due to dirt under the needle.

WINDLACE RETAINER PLATES- 1959 MODELS

Windlace metal retainer plates have been released for installation on the 1959 models. The Retainer, Part No. 1334049, effectively holds the windlace in place on the center door post of 4-door models and on the quarter panel door post on the 2-door models. Four retainers are required, two retainers at each post.

The windlace retainers are installed in present production; installation on 1959 models is as follows:

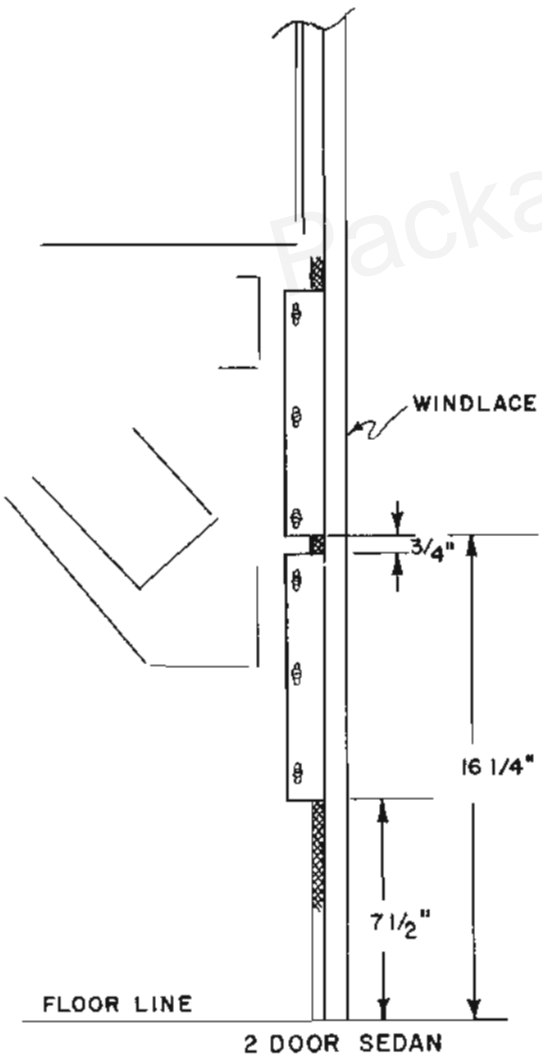
2 - DOOR MODELS

Remove the rear quarter trim panel and locate the lower edge of one plate 7 1/2" from the floor pan and the bottom of the second plate 16 1/4" from the floor pan. (See Fig. 2 .)

With the windlace properly positioned, install each retainer plate next to the windlace cord with 3 small sheet metal screws. The flanged edge of the retainer plate should face the door post. Make sure the retainer plates do not extend beyond the front edge of the door post.

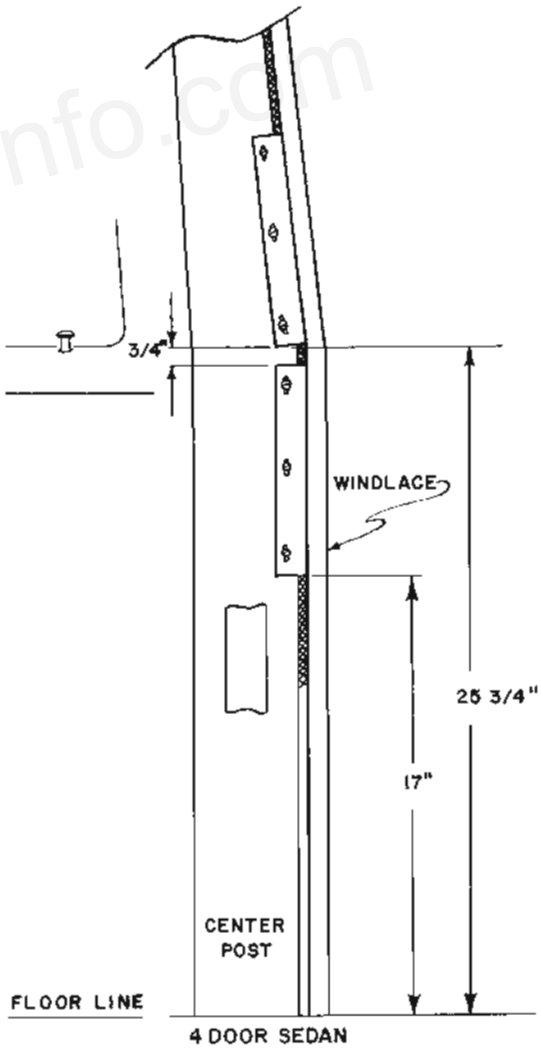
4 - DOOR MODELS

Carefully remove the door post trim panel by inserting a wide blade screw driver behind the trim panel at each drive nail location and pry the trim away from the post. The end of the screw driver should be placed between the drive nail trim retainer washers and the retainers in the post. The lower edge of one plate should be located 17" from the floor pan and the bottom of the second plate 25 3/4" from the floor pan. (See Fig. 3 .)



2 DOOR SEDAN

FIG. 2



4 DOOR SEDAN

FIG. 3

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USE OF CARTER MODEL AS-2934S CARBURETOR ON 59S MODELS

The Parts Department is now substituting carter Model AS-2934S carburetor for the Carter Model AS-2876S carburetor.

The Heat Deflector Shield, Part No. 1549003, must be used with the AS-2934S model carburetor, however, the Auxiliary Throttle Return Spring, Part No. 529300, should not be used with the AS-2934S model carburetor.

POWER STEERING PUMP BRACE KIT - 1959 V8 Models

A Power Steering Pump Brace Kit, Part No. 1550140 has been released for 1959-V8 models.

The brace kit consists of a pump brace, and fastening bracket to assist in supporting the power steering pump and should be installed if a condition of pump mounting stud breakage occurs or if mounting studs work loose.

If stud breakage occurs, the studs required are listed under the following part numbers:

1547363 - to block stud
1547364 - to head stud

Present production models are equipped with the additional brace at the powersteering pump. Power Steering Installation Kit, Part No. 1549773. includes the Brace Kit, Part No. 1550140.

INSTALLATION OF BRACE KIT

REmove the power steering pump pulley. attach the bracket to the pump as shown in Fig. 4. The offset portion of the bracket slide must be installed downward. Attach the brace to the bracket but do not tighten the retaining cap screw.

Remove the left front exhaust manifold-to-cylinder head cap screw and install the longer screw furnished in the kit, but do not tighten.

Install the pulley and drive belt and adjust belt tension. Then tighten the bracket-to-brace-to-manifold cap screws securely.

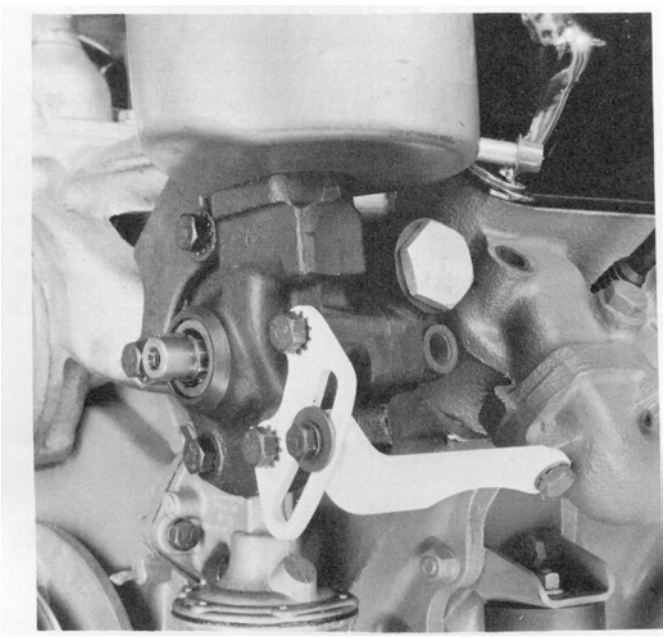

FIG. 4

CLUTCH - 1959-Yland 1960S-Y1 Taxicabs

Numerous complaints have been received concerning the effort required to release the clutch in Y1 taxicab models. For your information and guidance the following changes have been made to correct this condition:

9-1/2" CLUTCH

PART	NEW No.	Old No.
Pressure plate & cover ass'y	1550568	1547712
Release bearing shaft & leaver ass'y	'1544537	1544533
Release bearing collar wear plate	1548810	1548810
Clutch operating rod	1549474	1547230
Pressure platesprings (9)	531577	197467

Spring pressure load on old pressure plate, 1557 lbs.; on new ass'y 1377 lbs.

10-1/2" CLUTCH

(Standard in 60S-Y1 Models on and after serial No. 60S-6391

Pressure plate & Cover ass'y	1550526	1542367
Release bearing shaft & lever ass'y	1550523	536298
Release bearing collar wear plate	-1546545	1546545
Clutch operating rod	1549474	1547230
Pressure platesprings (6)	521129	(6-1542714) (3-197467)

Spring load on old pressure plate 2054 lbs.; on new ass'y 1230 lbs.

*Although the number remains the same the new parts have been electro-plated and are readily identified by their blue appearance; similar to a Parkerized finish.

When installingthenew release bearing shaft and lever assembly, and the new wear plate, be sure to coat the contact surfaces lightly, with a molydisulfide lubricant. This lubricant should also be'used to fill the recess in the

clutch release bearing collar prior to installation on the transmission flange. The special lubricant is available from the Parts Depots in one lb. cans under Part No. 474028.

There is the possibility that some clutch operating rods may have been used in product ion that were not case-hardened. Always check the rod with a file for hardness and replace if it appears to be soft.

CHECKING LUBRICANT LEVEL, DRAINING AND FILLING STANDARD ANO OVERDRIVE TRANS. - All 1958-60 Models

The following informat ion appl ies to all 1958-1960 overdrive transmissions and standard transmissions such as the T86 and T90 having drain and level plugs in the main and rear extension housings.

when draining these units, remove the drain plugs from both the main housing and rear housing. Drain and fill each housing as a separate unit.

when checkingthe lubricant level, remove the plugs, both the main and rear housing and, if necessary, add lubricant to both housings separately.

If this procedure is not followed, there is danager of operating with insufficient lubricant after the lubricant level has stablized between both sect ions.

Packard

PACKARD ENGINE AND PARTS

The information contained in the following paragraphs relates to service material available from the Zone Parts Depots or the central Parts warehouse in South Bend, orders be placed through zone Parts Depots. Export dealers order from Export Division, South Bend, Indiana.

STRA IGHT 8 CYLINDER BLOCK For Five Main Bearing Crankshaft

Part No. 1545871, Cylinder Block and Piston Assembly, is complete with pistons, piston rings and piston pins. This aseembly may be built up to a complete engine assembly, using the component parts from the old engine, for all Packard models with engine numbers in the 2000001 300000, and 500000 series, 1948 through 1954 inclusive (Series, 22,23,24,25, 26, and 54th).

STRAIGHT EIGHT ENGINES 288 Cu. In. Displacement

In the build-up of this engine from Cylinder Block Part NO. 1545871, all components from engines in the 200000 engine number series will fit. This applies to this series engine 1948 through 1954 inclusive.

NINE MAIN BEARING ENGINES Straight 8 Type

Cyl inder Block and Piston Assembly Part No. 1545871 may be used to rebuild a 400 nine main bearing engine but a five main bearing Crankshaft, Part No. 419607 Main Bearing Set, Part No. 394412, and eight connecting Rod Bearings, Part No. 394398, must also be ordered and installed.

All other component parts of the 400 Patrician engine will fit to Cylinder Block Assembly, Part NO. 1545871. This applies only to Patrician engines in the 600000 engine series numbers, used in Patrician models of years 1951, 1952, and 1953 only. These Patrician models are 24th,25th and 26th series.

To assemble an engine using Cylinder Block Part No. 1545871, with the crankshaft and bearing assemblies as listed in the first paragraph and usuable components from the old (g main bearing) 400 engine, provides an engine of the same displacement and power as the 400 engine. There is only one difference between the old and new assembly, the engine now assembled has five main bearings instead of nine.

Note: This will not apply to the Patrician models of the 1954 models, 54th Series specifically known as 5450, 5451.5452, and 5413. The cylinder block and piston assembly for these models should be ordered by Part Nos. 458219, for standard and O.D. transmission and 485220 for Ultramatic transmission.

Part No. 1545871, Cyl inder and Piston Assembly, Special Price Net $120.00 includes: Piston Pins, locks and rings.

Part NO. 419607 Crankshaft, Spec i al net $50.00

Part No, 394412 Main Bearing, Complete set - List Price	19.00
Part No. 394398 Con. Rod Bearings, 8 required, List Price each	2.30
Part No. 419609 Crankshaft, for 200000 series engines, special net	50.00

PACKARD V8 ENGINES 1955-1956 MODELS

Available, while they last are new 1955 stripped engines that will fit in 1956 models as well, at special net prices. These engines are listed under Part Nos. 458620 and 458622 at a special net price of $220.00 and 458623 special net $225.00. These engines will fit either a standard shift transmission or the Ultramatic. The only difference is the changing of the flywheel and the installation of the dowel pin when the Ultramatic is used. The clutch shaft pilot bearing is not used with Ultramatic.

Engine numbers 458622 and 458620 are engines of 320 cu. in.displacement and 456823 is a 352 cu. in. engine.

These engines provide an economical replacement when a stripped engine or costly componments are required for the 1955-56 Packard Model cars, and in most cases are as economical as an engine overhaul.

These stripped engines are complete with cylinder heads, valve covers and lower oil pan but less the accessories such as carburetors, distributers, manifolds, etc.

PACKARD REPLACEMENT CRANKSHAFTS 5560-80 and All 1956 Models

Crankshaft Part No. 440989 is supplied as a service replacement, for the 5560-80 and 1956 models, and supersedes Part No. 476009. Part No. 440989 is a drop forged shaft and does not have the large openings or holes through the connecting rod throws. All oil passages and lubrication openings remain unchanged.

In some cases, due to a stack up of tolerances, interference at the rear counterweight and cylinder block may be encountered. When this is experienced a portable grinder may be used to grind off sufficient stock from the cylinder block to provide a safe amount of clearance for the counterweight. Caution: Never remove or grind any stock from the crankshaft.

Part No. 440912 is available as a service replacement for models 5522, 5542 and 5547.

UNIVERSAL JOINT REPAIR KIT- PACKARD MODELS

When Packard (Spicer) Universal Joint Repair Kit, Part No. 436144, is exhausted it will be superseded by Repair Kit Part No, 1541448. This kit is comparable in details except that the seals are neoprene instead of cork.

The Cross Bearing Seal (Neoprene lip type), Part No. 1541451, is available when it is desirable to order seals separately.

The Snap Ring, Part No. 182540, is also available as a separate item.

FRONT SHOCK ABSORBERS- HEAVY DUTY - 1951-54 PACKARD

When present stock of Front Shock Absorbers, Part Nos. 446256 and 433560 is exhausted, Front Shock Absorber, Part No, 455319 will be substituted. The general dimensions of these shock absorbers are similar.

Because of a slight difference in valving between the Part Nos. 433560 and 455319, we recommend that a pair of Part No. 455319 shock absorbers be installed whenever replacement, of one Part No. 433560 is necessary.

GASKET SETS FOR CARTER CARBURETORS 2391S and 2112S - 1954 PACKARD

When present stock of Carter Carburetor Gasket Set Part No. 1546169 is exhausted, it will be substituted by Gasket Set Part No. 1550052. These gasket sets apply to four-barrel carburetor on models 5401-02-11 and 5406-13-26-31.

PACKARD STEERING KNUCKLE SUPPORTS

Steering knuckle supports for the 1955-56 Packard models should be ordered under the following part numbers:

Clipper Models - 5540-60, 5640-72-77
- 455883 - Steering kunckle support - left
- 455884 - Steering knuckle support - right

Packard Models - 5580-88, 5680-88
- 1550033 - Steering knuckle support - left
- 1550032 - Steering knuckle support - right

When present stocks of steering knuckle supports, Part No. 373857 and 373858, are exhausted they will be superseded by Part Nos. 373247 and 373248. These supports are the same except in one characteristics, the Part Nos.

373857 and 373858 have approximately one degree more caster angle built into them. When Part Nos. 373247 and 373248 are used on models 2206-20-22-33 and 2306-33, slightly less negative caster may result but this will not particularly affect steering operation.

PACKARD TRUNK LOCK - All 1956, MODELS

The Packard Trunk Lid (Latch) Lock Assembly, Part No. 1312354 has been superseded by Lock Assembly Part No. 1314495. These locks are identical except that lock Part No. 1314495 has a safety hook as part of the lock housing assembly.

Assembly 1314495 requires that the lock striker on the body panel be shimmed and adjusted to properly engage the latch fingers. Failure to have the striker adjusted as required will prevent lock operation.

If the lower body panel to which the striker is attached has been damaged, it must be straightened to align properly with the trunk lid when closed or difficulty may be experienced in adjusting the striker.

PACKARD DISTRIBUTOR VACUUM CONTROL ASSEMBLY

Vacuum Control Unit Part No 1550382 now supersedes Vacuum Control Unit Part No. 458862. This substitution applies to the control unit supplied for the Delco-Remy Distributor Packard Part No. 439551 (Delco No.1110854) used on the Packard 5560 and 5580 models.

ULTRAMATIC W/PUSH BUTTON CONTROL -1956 PACKARD

The Shift Assembly-to-Manual Shaft Set Screw, Part No. 6489365 is no longer available. It has been replaced by Set Screw, Part No.470106. Set Screw Part No. 470106 has a head with a screw driver slot whereas the original screw had a recessed hex head.

TRUCKS

POWER STEERING PUMP - 4E13, 4E28 and 4E40 - Truck Models.

Effective with Serial numbers 4E13-3106, 4E28-6679 and 4E40-3315 the Eaton power steering pump entered production replacing the Saginaw pump.

The Eaton Pump is mounted slightly more toward the rear than the Saginaw pump. The parts affected by this change are:

Part No.	1548202	- Eaton Pump (less reservoir)
	1547256	- Pump Support Bracket
	1691076	- Mounting Bracket Adapter Assy.
	1547257	- Pump Drive Pulley
	1691072	- Pump Drive Belt
	1691549	- Control Valve-to-Pump Return Pipe Hose
	1691550	- Pump-to-Control Valve Pipe Assy.

EXHAUST PIPE SUPPORT - 4E1 and 4E5 MODEL TRUCKS

Reports have been received concerning repeated failures of the exhaust manifold-to-exhaust pipe flange gasket. It was felt the gasket failure was, in part, caused by the absence of a supporting bracket on the exhaust pipe.

Effective with Truck Serial Nos. 4E2-3717 and 4E5-127127 an exhaust pipe support entered production. This support can be used on E1 and E5 models with serial numbers prior to those listed above.

The parts involved are as follows:

Part No.	Part
1691039	Exhaust Pipe Support Bracket
191827	" " Clamp
G-181374	" " bolt (3/8 X 24 X 1-1/2")
G-120369	Nut (3/8-24)
G-120382	Lock Washer
G-120394	Plain Washer

To Install:

Remove the bottom and center starter motor-to-clutch housing retainer bolts. Place bolts through the support bracket and reinstall bolts through starter motor housing and clutch housing. Install lock washers and nuts and tighten securely. (Clamp end of bracket should point down, and toward front of vehicle).

Spread clamp and place over exhaust pipe.

Position clamp at bracket and install 3/8" bolt, plain washer, lockwasher, nut and tighten securely.

STUDEBAKER-PACKARD CORPORATION

SOUTH BEND 27, INDIANA

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