STUDEBAKER-PACKARD CORPORATION

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Studebaker and Packard Clipper

ENGINE OIL LOSS AT ROCKER ARM COVERS - 1957 STUDEBAKER AND PACKARD V-8 ENGINES

Please record this article on the Service Bulletin Reference page of your 1957 Studebaker and Packard Supplements.

Sustained high engine speed operation of supercharged engines may cause the rocker arm cover retaining nuts to loosen and result in a rapid loss of oil.

Internal star-type lock washers, Part No. G-138538, are now released for production Studebaker and Packard supercharged engines to prevent the cover retaining nuts from backing off.

The lock washers can be installed on engines in service. Where new cover gaskets and rubber stud seals are used, the rocker arm cover and nuts should be installed and tightened to compress the gasket and seal. The nuts should then be removed and there will be sufficient threads exposed on the studs so that the lock washers, Part No. G-138538, can be installed under the nut. The nut should be tightened to 20 inch pounds.

VIBRATION - 1957 PACKARD CLIPPER SEDAN AND 1957 STUDEBAKER PRESIDENT MODELS

Please record this article on the Service Bulletin Reference page of your 1957 Studebaker and Packard Supplements.

In some of the 1957 Packard Clipper Sedan and 1957 Studebaker President models, a vibration is sometimes noticeable on acceleration at 14 to 15 m.p.h. and again in the 28 to 32 m.p.h. range. A slight up-grade pull during the speeds mentioned will accentuate the noise condition.

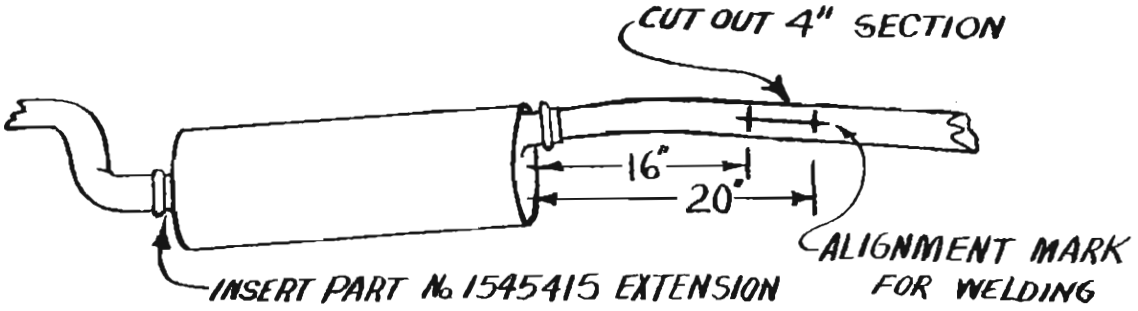
In this issue

When the disturbance is not too objectionable, a satisfactory result may be obtained by removing the U-bolt and saddle assemblies on both sides of the flywheel housing from their support brackets. Turn the U-bolts and saddles 180°, so the round part of the U-bolt will clear the flywheel housing brackets and assemble them as clamps only to the exhaust pipes where the pipes telescope.

If this does not produce a satisfactory reduction of the noise, then the following may be applied:

From the front or forward plate of the mufflers, measure forward 16 inches and scribe

Fig. 1



a mark, measure to 20 inches and scribe another mark. Scribe a straight line lengthwise on the front exhaust pipe to pass through the vertical marks at 16 and 20 inches. This will insure proper alignment for welding. The layout and markings as previously described should be applied alike to both right and left front exhaust pipes. See Fig. 1.

Remove the outlet pipes from both mufflers, remove both mufflers and front exhaust pipes, leave outlet tubes in place on the rear supports.

Cut the four inch section out of each front exhaust pipe at the 16 and 20 inches forward of mufflers as previously marked, butt the ends of the exhaust pipes together in line with the lengthwise mark, to insure alignment, and weld the front and rear sections together.

Install the two new Muffler Outlet Tube Extensions, Part No. 1545415 in each muffler rear outlet. Install the mufflers, front exhaust pipes and rear outlet pipes in place.

Install the forward U-bolts and saddles, as previously described (not attached to the flywheel housing brackets). Install the U-bolts and saddles at the front and rear of the mufflers; also attach the rear supports, which are now rearward four inches, directly to the outlet pipes. Two new U-bolts and saddles are used to secure the outlet tube extensions at rear of the mufflers.

The parts required are as follows:

2 - 1545415	Outlet Tube Extensions
2 - 521273	U-Bolt and Saddle

REAR CLUTCH FRICTION DISC - FLIGHTOMATIC TRANSMISSION

Please record this article on the Service Bulletin Reference page at the end of the Transmission-Flightomatic section of your 1956 Studebaker-Passenger Car Shop Manual.

When present stock of Rear Clutch Friction Disc, Part No. 1541201 is exhausted, the Parts Depots will substitute Rear Clutch Friction Disc, Part No. 1543088.

Part No. 1541201, is used on all 1956 Models and 1957 Champion, Commander and President models.

Part No. 1543088, is used on 1957 Golden Hawk and 1957 Packard Clipper Models.

To insure proper service, it is important that the friction discs be replaced in a complete set rather than individually.

SERVICE SUGGESTIONS FOR THE FLIGHTOMATIC TRANSMISSION

Please record this article on the Service Bulletin Reference page at the end of the Transmission-Flightomatic Section of your 1956 Studebaker Passenger Car Shop Manual and Transmission-Warner Gear Section of your 2E Series Truck Shop Manual.

1. Some of the control pressure transfer tubes are now being made of aluminum. The aluminum tubes can be damaged rather easily if they are not handled carefully. Care should be taken when removing or replacing the tubes so that they are not bent, distorted or ruptured by the use of a sharp screw driver, hammer or other tools.

2. If necessary to remove only the transmission extension housing or output shaft, we suggest that the rear band be tightened sufficiently to lock the rear drum in position. This will minimize the possibility of dropping any of the thrust washers out of position in the main shaft assembly.

3. If a front or rear clutch failure is encountered, the clutch lining particles are exceedingly hard to wash out of the transmission. If all of the particles are not

cleaned out thoroughly, sticking valves are usually the result. Therefore, we stress the importance of disassembling and thoroughly cleaning the transmission, including -

(a) Both of the clutch operating pistons and cylinders
(b) All of the passages in the shafts
(c) Disassembling and carefully cleaning both front and rear band operating servos
(d) Draining the oil from the converter as well as the transmission and discarding it.

All of the remaining parts including the control valve assembly, pressure regulator assembly and governor should be also thoroughly cleaned.

THROTTLE LINKAGE ADJUSTMENT PROCEDURE - FLIGHTOMATIC TRANSMISSION

Please record this article on the Service Bulletin Reference page at the end of the Transmission-Flightomatic section of your 1956 Studebaker Passenger Car Shop Manual.

In a great number of cases unsatisfactory Flightomatic transmission operation can be traced to improperly adjusted throttle linkage. In some instances transmissions have been found to have the throttle linkage adjusted to provide insufficient control pressure which allows slippage and early failure of bands and clutches. In other instances, transmissions have been found to have the throttle linkage adjusted to provide too high a control pressure with the results of bumpy and relatively high upshift speeds.

To improve the quality of the Flightomatic transmission operation and to prevent early clutch and band failures it is recommended that the throttle linkage, on all cars equipped with the Flightomatic transmission, be adjusted during preparation of the new car for retail delivery and, any time a linkage adjustment is required, using the following procedure.

185 CU. IN. ENGINE

Set the selector lever in the P or N position and operate the engine until it reaches operating temperature and the carburetor choke is in the wide open position. Disconnect the rod which connects the accelerator bracket (1, Fig. 2) to the auxiliary bellcrank (2) by removing the clevis pin from the clevis.

Connect a tachometer to the engine and set the engine idle speed to 550 r.p.m. by adjusting the carburetor idle speed adjusting screw.

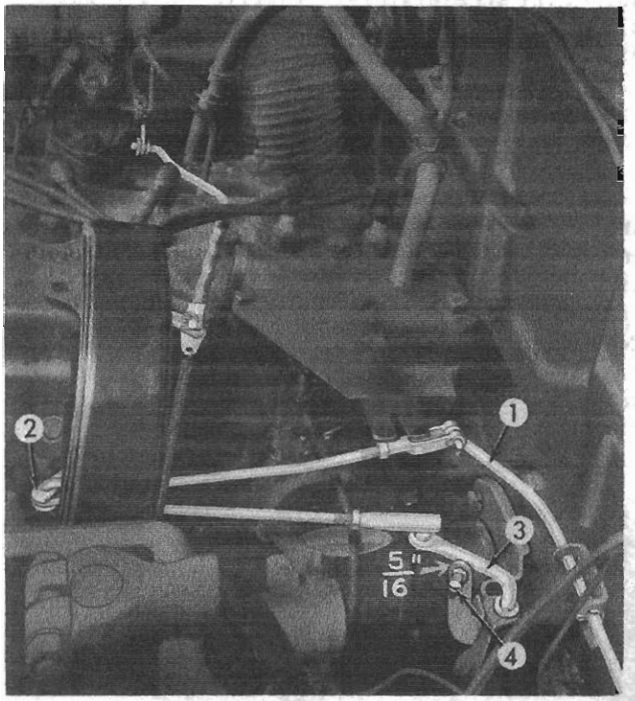


Fig. 2

1. Accelerator bracket
2. Auxiliary bellcrank
3. Main bellcrank
4. Adjusting screw

Disconnect the rod which connects the main bellcrank (3) to the auxiliary bellcrank (2) by removing the ball joint stud from the main bellcrank lever. Adjust the screw (4) to provide a 5/16" (7,94mm.) gap between the bellcrank and the pad. A 5/16" drill should be used as a gauge.

Adjust the ball joint on the main bellcrank-to-auxiliary bellcrank rod until the ball joint stud freely enters the hole in the main bellcrank lever. During this adjustment the carburetor idle speed screw must be against its stop and the 5/16" gap at the bellcrank must be maintained.

Stop the engine and remove the 1/8" (3,175mm.) located near the throttle lever and install a pressure gauge.

Place the selector in the D position and operate the engine at 1000 r.p.m. with the rear wheels held stationary by the foot brake. Adjust the length of the main bellcrank-to-throttle valve outer lever rod to obtain 80-85 p.s.i. Stop the engine and remove the pressure gauge and install the 1/8" pipe plug.

Hold the accelerator bracket arm approximately 3 7/8" (9,82cm.) from the fire wall and,

adjust the accelerator-to-auxiliary bellcrank rod clevis until the clevis pin freely enters the clevis and the bracket arm.

V8 ENGINE WITH 2-BARREL CARBURETOR (INCLUDING CARS WITH SUPERCHARGER OR H. D. TRANSMISSION)

Set the selector lever in the P or N position and operate the engine until it reaches operating temperature and the carburetor choke is in the wide open position. Make sure that the throttle return check is operating correctly. Connect a tachometer to the engine and set the engine idle speed to 550 r.p.m., with the selector lever in the N position, by adjusting the carburetor idle speed adjusting screw.

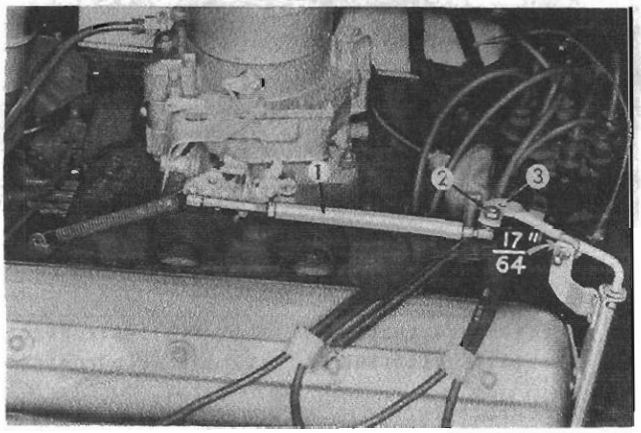


Fig. 3

1. Carburetor-to-bellcrank rod
2. Hole used with 4-barrel carburetor
3. Hole used with 2-barrel carburetor

Set the stop on the bellcrank to provide 17/64"(6.747mm.) gap between the bellcrank pads (see Fig. 3). A 17/64" drill should be used as a gauge. After the stop has been adjusted, hold in this position. Make sure that the carburetor to-bellcrank rod ball joint is in the inner hole of the bellcrank pad (toward the center line of the engine) and that the ball joint is on the underneath side of the bellcrank. NOTE: The carburetor-to-bellcrank rod ball joint should be in the outer hole of the bellcrank pad (away from the centerline of the engine) and the ball joint should be on the upper side of the bellcrank on cars equipped with a supercharger. Adjust the carburetor to bellcrank rod until the idle speed adjusting screw just begins to leave the stop.

Stop the engine and remove the 1/8" pipe plug located near the throttle lever and manual lever and install a pressure gauge.

Place the selector lever in the D position and operate the engine at 1000 r.p.m. with the rear wheels held stationary by the foot brake. Adjust the length of the bellcrank-to-throttle valve outer lever rod to obtain 80-85 p.s.i. (95-100 p.s.i. on cars equipped with supercharger or heavyduty transmissions such as used on police cars, etc.). Stop the engine and remove the pressure gauge and install the 1/8" pipe plug.

V8 ENGINE WITH 4-BARREL CARBURETOR

Set the selector lever in the P or N position and operate the engine until it reaches operating temperature and the carburetor choke is in the wide open position. Make sure that the throttle return check is operating properly. Connect a tachometer to the engine and set the engine idle speed to 550 r.p.m., with the selector lever in the N position, by adjusting the carburetor idle speed adjusting screw.

Set the stop on the bellcrank to provide 17/64"(6.747mm.) gap between the bellcrank pads (see Fig. 3). A 17/64" drill should be used as a gauge. Make sure that the carburetor-to-bellcrank rod ball joint is in the outer hole (away from the centerline of the engine) and that the ball joint is on the underneath side of the bellcrank lever. Adjust the carburetor-to-bellcrank rod until the idle speed adjusting screw just begins to leave its stop.

Stop the engine and remove the 1/8" pipe plug located near the throttle lever and the manual lever and install a pressure gauge.

Place the selector lever in the D position and operate the engine at 1000 r.p.m. with the rear wheels held stationary by the foot brake. Adjust the length of the bellcrank-to-throttle valve outer lever rod to obtain 80-85 p.s.i. Stop the engine and remove the pressure gauge and install the 1/8" pipe plug.

Studebaker

CAMSHAFT THRUST PLATE - 185 CU. IN. ENGINE - TRUCKS AND PASSENGER CARS

Please record this article on the Service Bulletin Reference page or your 1957 Studebaker Passenger Car Supplement and the 3E Series Trucks Supplement.

Starting with serial numbers 56G-1223727, 57G-74385 (Canada) and 3E5-10-12142, the 3 inch diameter spotface on the front of the 185 cu. in. engine block around the front camshaft bearing has been eliminated. The rear side of

the Thrust Plate, Part No. 194228, was undercut at both ends at the point where the cap screw mounting holes are located, to conform to this spotface. With the elimination of the spotface on the block there is no longer a need for an undercut in the thrust plate. Consequently, the undercut has also been eliminated and the plate used in production is flat. The new production plate can not be used on the block which has been spotfaced but the old plate can be used with either block. Therefore, to avoid confusion, the Parts Depots will carry only the old Thrust Plate, Part No. 194228.

IGNITION AND STARTING SWITCH - 1955 - 1957 MODEL STUDEBAKER CARS AND TRUCKS

Please record this article on the Service Bulletin reference page at the end of Electrical section of 1955 and 1956 Studebaker Passenger Car Shop Manuals and 2E Series Trucks Shop Manual.

Some time ago the ignition and starter switch as used on 1955 to 1957 models was improved for better operation. Internal changes were made and a new switch, Part No. 1544151 was substituted for the switch, Part No. 536139.

To standardize the part and make it adaptable to different models the vendor has enlarged a boss in the die cast switch housing which changes the appearance of the housing. The new switch carries Part No. 1544998 and is completely interchangeable with switch Part No. 1544151. When stock of Switch, Part No. 1544151 is exhausted, the new switch, Part No. 1544998 will be substituted.

PAINT FORMULATIONS 1957 MODELS - NOT ON SCOTSMAN MODELS

O'BRIENS #1048 INCA CREAM BAKING ENAMEL - BBX (their #S-1548)

Cadmium Selenium Pigment	3.00%
Rutile Non-Chalking TiO_2	20.02%
Alkyd Resin (50% solids)	51.92%
Melamine Resin (50% solids)	11.73%
Aromatic Solvent	8.52%
Aliphatic Solvent	3.92%
Alcohols	.62%
Stabilizers	.27%
	100.00%

SCOTSMAN MODELS

COOK'S #1051 ADMIRAL BLUE BAKING ENAMEL - BCA - (their 832-L-108)

Milori (Iron Blue)	91.5%
Non-chalking Titanium Dioxide	8.5%
	100.0%

DUPONT'S #8595 LOMBARD GREEN BAKING ENAMEL - WXP (their #289-75458)

253-0582	Milori Blue	58.1%
253-0679	Chrome Yellow	21.4%
253-0284	Black	9.6%
253-0953	White	0.9%
B-547	Base	10.0%
		100.0%

DUPONT'S #1050 HIGHLAND GRAY BAKING ENAMEL - BBZ - (their #289-75460)

253-0953	White	45.9%
253-0284	Black	36.3%
253-0527	Blue	1.6%
253-0750	Green	1.2%
B-547	Base	10.0%
B-614	Base	5.0%
		100.0%

Packard Clipper

STOP LIGHT SWITCH - 1955 and 1956 PACKARD AND CLIPPER WITH TORSION LEVEL SUSPENSION

Please record this article in the Torsion Level Suspension section of your 1955-56 Packard Service Manual.

There seems to be a problem in the field in the removal and installation of the stop light switch on the 1955 and 1956 Packard and Clipper models equipped with torsion level suspension because of its size. It is an unusual size and requires a 31/32" socket.

SERVICING THE PACKARD ANTENNA - 1955-1956-1957 MODELS

In the matter of servicing the Packard Electric Antennas, either front or rear fender type, some dealers are replacing complete units, or applying complete rear sets, when only detail parts are actually required.

In the case of warranty, when complete equipments are applied to effect a service correction, the dealer in some cases has installed only the parts required from the kit, then returned the failed part or parts along with the new unused kit parts to the Claims Department for credit.

This practice must be discontinued. Parts replacements and return material handled in this manner will result in the new material being returned to the dealer. In the repair of electric antennas, only the parts or unit required to make the necessary corrections must be installed.

All the detail parts as listed are available and carried by the central warehouse. NOTE: In the two equipments listed the single antenna is listed as a single unit and may be ordered and installed as such. All items are listed in the 1955-1956 Packard Master Parts Book as listed here with the exception of Part No. 6484683, Actuator Drive Assembly for the Casco front fender electric type antenna used only on the 1955 and 1956, Clipper and Packard models. This part is listed and illustrated in the Service Bulletin No. 319 and applies to Antenna, Part No. 439545 in the Accessory Set, PA 472078.

DETAILS OF PA472078-PACKARD 1955-1956 ELECTRIC FRONT FENDER ANTENNA

439545	Antenna Assembly
472052	Lead-In Cable
472196	Switch Assembly
439678	Switch Feed Cable
439926	Switch Name Plate - Clipper 1955-56
439922	Switch Name Plate - Packard 1955-56
439932	Switch Knob - Clipper 1955-56
439908	Switch Knob - Packard 1955-56
439910	Switch Knob Retaining Spring
6484683	Actuator Drive Assembly

DETAILS OF PA475160-PACKARD 1956-1957

469540	Antenna Assembly
469513	Antenna Dome Nut
469756	Antenna to Fender Seal
475163	Antenna Insulator
469757	Antenna Lead-In Cable
475101	Antenna Mtg. Brkt. - Clipper
469564	Antenna Mtg. Brkt. - Packard
6484430	Antenna Main Tube Assembly
6484429	Antenna Motor
472196	Operating Switch
439932	Switch Knob and Retaining Spring
339110	Switch Knob Retaining Spring
439926	Switch Name Plate - Clipper
439922	Switch Name Plate - Packard
475134	Antenna Switch to Motor Cable Assy.
6484428	Antenna Tubes and Nylon

TRUCKS

POWER STEERING - 3E SERIES TRUCKS

Please record this article on the Service Bulletin Reference page of your 3E Series Trucks Supplement.

It is possible, in some cases, that air may remain in the hydraulic system of the power steering system even though the procedure for bleeding the system as outlined in the 3E Series Trucks Supplement has been carefully followed. This is because the power cylinder piston does not travel the entire length of the cylinder when the power cylinder is attached to the anchor bracket. Therefore, it is recommended, when difficulty is encountered in removing all of the air from the system, that you disconnect the power cylinder rod at the axle anchor bracket. Remove both outer and inner steel washers and insulators from the cylinder rod. Then, just barely crack the control valve, first to the left then to the right so that the piston will travel the entire cylinder length and dispell the air which may have remained from the previous bleeding operation.

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