



Service Bulletin

APRIL

1957

NO. 323

SOUTH BEND 27, INDIANA

Studebaker and Packard Clipper

AIR CHAMBER BASE - 57H-K and 57L MODELS

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

A porous section in the air chamber base between the two gasoline line fittings could result in a gasoline leak. The gasoline may leak to the outside; or inside into the air chamber. A leak to the outside could very easily be detected. But, a leak to the inside would not be found until the air chamber cover was removed. Of course, any leak results in poor gasoline mileage. However, a leak to the inside of the chamber would also upset the fuel/air ratio and directly affect the overall engine performance.

Therefore, on complaints of high fuel consumption or poor engine performance do not overlook this possibility. Replacement of the base is necessary if porosity exists. Before replacing the base make sure that the leakage is actually a case of porosity and not just a stubborn leak at one of the fittings.

OIL PAN DAMAGE - FLIGHTOMATIC (WARNER GEAR) 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 the Transmission-Warner Gear section of your 28 Series Trucks Shop Manual.

Using a conventional floor jack to support the automatic transmission during the removal and installation may result not only in damage to the oil pan but, the pan may be distorted to the extent that it will permit the weight of the transmission to rest on the valve block. This, in turn may distort the lower valve body cover and cause the 1-2 shift valve to stick.

In this issue

| | PAGE |
|---|------|
| MAY SAFETY-CHECK PROGRAM | 4 |
| STUDEBAKER and PACKARD CLIPPER | |
| AIR CHAMBER BASE - 57H-K AND 57L MODELS | 1 |
| BAND SLIPPAGE AND ERRATIC SHIFT PATTERN - FLIGHTOMATIC (WARNER GEAR) TRANSMISSION | 2 |
| INSTALLATION OF BATTERIES | 2 |
| OIL PAN DAMAGE - FLIGHTOMATIC (WARNER GEAR) TRANSMISSION | 1 |
| SEALER AND RUBBER CEMENT REMOVAL FROM NEW VEHICLES | 1 |
| SUPERCHARGER DRIVE BELT POSITION - 57H-K AND 57L MODELS | 2 |
| PACKARD CLIPPER | |
| BELT ADJUSTMENT - 57L-Y MODELS WITH AIR CONDITIONING AND POWER STEERING | 2 |
| RADIO ANTENNA - 1957 PACKARD CLIPPER MODELS | 3 |
| RADIO IGNITION NOISE PICKUP - 1957 PACKARD CLIPPER MODELS | 3 |
| TIME ALLOWANCE CHANGES - 1957 PACKARD CLIPPER TIME GUIDE | 3 |

Therefore, to avoid damage to the oil pan and possible damage internally, use the proper factory recommended transmission jack and cradle when removing and installing the transmission assembly.

SEALER AND RUBBER CEMENT REMOVAL FROM NEW VEHICLES

Sealer and rubber cement can be removed from the finish of new vehicles by using painter's naphtha. The application of naphtha will soften the cement or sealer so that it can be rubbed-off without harm to the finish. It may be necessary to repeat the process several times before completely removed. This, of course, depends on the amount of sealer present or the length of time the sealer has been permitted to remain on the finish.

**AUTOMATIC TRANSMISSION BAND
SLIPPAGE AND ERRATIC SHIFT
PATTERN**

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

Loose control valve assembly or regulator valve assembly retaining screws can result in band slippage and an erratic shift pattern. The assembly can move off its seat enough to permit the oil to escape which means a drop in oil pressure beyond these points. Obviously, with low oil pressure the servos and multiple disc clutches can not function properly. This, then, results in malfunctioning of the unit.

Therefore, it is extremely important that the screws are properly tightened to the recommended torque specifications. These specifications are as follows:

- Pressure Regulator Assembly-to-
Case Bolts. 17 - 22 ft.-lbs.
- Pressure Regulator Cover
Screws. 20 - 30 in.-lbs.
- Control Valve Body Screws
#10-24. 20 - 30 in.-lbs.
- Control Valve Body Capscrew
(1/4-20) lower-to-upper
Valve Body. 4 - 6 ft.-lbs.
- Control Valve Body-to-Case
Bolts 8 - 10 ft.-lbs.

In all cases where erratic or malfunctioning of the transmission operation is encountered, make certain that these screws had been properly tightened.

INSTALLATION OF BATTERIES

The research division of the Willard Storage Battery Company has made a study of the effect of reverse installation of batteries in automobiles. A side effect of reverse installation has come to light in this study which indicates that many dealers fail to check polarity before making an installation. Reverse polarity is always damaging to the electrical units to some degree but with the 12-volt system the effect is greatly increased. It is especially damaging to the voltage regulator, generator and radio. These parts are much more sensitive to reverse

polarity in the 12-volt system than in a 6-volt system.

As you know, Studebaker cars and trucks prior to 1956 and Packard and Packard Clipper models prior to 1955 had the positive ground, 6-volt system. But since the change to the 12-volt system, a negative ground is used. Therefore, in view of the fact that the change is rather recent and that both systems are probably encountered daily, greater care should be taken to be certain that proper installation is made.

**SUPERCHARGER DRIVE BELT POSITION
- STUDEBAKER 57H-K and
PACKARD-CLIPPER 57L MODELS**

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

You may be confronted with a condition of the supercharger drive belt not moving completely to the bottom of the pulley when the engine is stopped or running at idle. This does not necessarily mean that the supercharger is not functioning properly.

Allowable tolerances in manufacture of the belt tensioning arm spring and the air piston make possible a combination where the air piston spring tension overcomes the belt tensioning arm spring just enough to keep the belt from going to the bottom of the pulley.

If testing of the supercharger fulfils the requirements outlined in Items 2, 3, and 4 under Testing in your 1957 Supplement and the required pressure is obtained, the condition should be accepted as normal.

Obviously, if the tests indicate it responds sluggishly or not at all, check the causes listed in the Supercharger Diagnosis section and correct as necessary.



**BELT ADJUSTMENT - 57L-Y MODELS
WITH AIR CONDITIONING and
POWER STEERING**

Please record this article on the Service Bulletin Reference page of your 1957 Packard Clipper Supplement.

The following torque specifications should

be used when adjusting the compressor drive belt or the generator and power steering pump assembly drive belt on the 57L-Y models:

Compressor Drive Belt - 18 ft.-lbs.

Gen. and Power Steering Pump Assembly Drive Belt - 12 ft.-lbs.

The torque readings are taken by using a torque wrench, on the pulley retaining nut of the generator and the pulley retaining cap screw of the compressor. The pulley will slip but with a heavy drag when belt tension is adjusted to the above specifications.

If after correct adjustment the generator and pump assembly drive belt has a tendency to slip or squeals on extreme right or left turns, there may be more than a normal high pressure on the power steering hydraulic system causing an overload. Check the hose for kinks and for restriction in the pump, hoses or power steering unit.

TIME ALLOWANCE CHANGES - 1957 PACKARD CLIPPER TIME GUIDE

Please enter these changes in their respective groups of your 1957 Packard Clipper Time Guide.

Operation N60 - Crankshaft Rear Bearing Oil Seal, install new - The time allowance should be 3.1 hours instead of 2.5 hours.

Operation N110 - Engine Short Block, install new; For Power Brakes add .5 Hours.

Operation N225 - Piston Rings, install new set - Time allowance should be 13.3 hours instead of 12.8 hours.

Operation R100 - Radiator Core, R & R or install new, Time allowance should be 1.9 hours instead of .5 hours.

RADIO IGNITION NOISE PICKUP - 1957 PACKARD CLIPPER MODELS

When tuned to a powerful radio station in the immediate area, a light ignition or static noise is sometimes audible with the engine running at idle but stops when the ignition switch is turned to the accessory side of the switch. The noise corresponds with the firing frequency and varies with the engine speed.

The following checks and wire changes should be made to eliminate the noise caused by ignition:

1. Check for correct and complete installation of suppressors.
2. Spark plug cables must be pressed tightly into the distributor cap and coil.
3. Move the main 12-volt chassis cable from below the firewall cowl flange and place above or on the cowl flange.
4. Install the distributor-to-coil primary wire around the spark plug cables and not through them.
5. Move the wire to the supercharger throttle switch away from the high tension cables. It may be brought up over the small cross bar for the hood hinges.
6. Move the wire to the antenna switch from over the top of the glove box and route it below the glove box. The wire may be taped to the box.
7. If the instrument voltage regulator does not have Part No. 1540361 condenser connected to it, install one.
8. Be sure ignition cables and component parts are clean. Clean any fouled spark plugs.
9. If necessary to do so, check the operation of the regulator. The type of "spitting-sputtering" noise, often caused by a voltage regulator, does not change with the engine speed.
10. Antenna must have a good ground at the fender.

RADIO ANTENNA - 1957 PACKARD CLIPPER

Please record this article on the Service Bulletin Reference page of your 1957 Packard Clipper Supplement.

The Dual Rear Electric Antenna, Part No. PA-475160 is available for field installation. The electric antenna may be installed only in the Packard Clipper 4-door sedan models. To make an original installation, Rear Antenna Adapter Kit, Part No. PA-484647 must be included.

The Dual Manual Control Antenna Kit, Part No. PA-484651, is available for the 1957 Packard Clipper Station Wagon.



SUPPORT THE May Safety Check PROGRAM

ENJOY YOUR RIDE - DRIVE SAFELY in a SAFETY-CHECKED CAR.....CAN YOU SEE, STEER, STOP SAFELY.....CHECK YOUR CAR - CHECK ACCIDENTS.....are slogans you will hear and see many times during the month of May to promote the annual May National Vehicle Safety-check program.

This annual safety-check program is once again sponsored by the automotive and allied industries under the direction of the Inter-Industry Safety committee in the 34 states where periodic checks are not required by law.

The objective of this program is to make the motoring public aware of the need to have vehicles checked periodically and to maintain them in safe operating condition. It provides a check on brakes, lights, steering, tires, exhaust system, glass, windshield wipers, mirrors and horns--all items affecting safe vehicle operation.

Although many factors cause accidents, one of these factors, the condition of the car or truck is singled out for special emphasis during the month of May because it is one factor the vehicle owner and the vehicle serviceman can readily recognize and correct. Of the nearly

2,200,000 cars and trucks voluntarily checked during the 1956 campaign, one out of every five vehicles was in need of service in one or more parts.

Of course, the success of this program depends on acceptance and the participation of the individual vehicle owner. But, to get his participation, it must have your active support. Therefore, we urge every dealer to become a part of this campaign. Your participation in this program gives you not only an opportunity to render a public service but, at the same time, benefit from the increased goodwill and the service, parts, and accessories sales which it creates.

Take advantage of the nationwide advertising, the display and promotional material available to you. The Parts and Accessories Division letter of March 12, 1957 outlined for you in detail the Safety-Check Promotional Kit and other materials available. If you have misplaced your order blank, simply write Modern Displays Inc., 13271 Mt. Elliott, Detroit 12, Michigan, enclosing your remittance for \$16.75. Do it now--get into this program and have the cars and trucks of your area safety-checked in your dealership.

Your help in the 1957

National

VEHICLE SAFETY-CHECK

Campaign

is vitally needed!