

# PONTIAC

## Service Craftsman News



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# NEW POWER GEAR SEAL USED

### POWER STEERING GEAR NEW ADAPTER SEAL

A larger power steering gear housing to adapter "O" ring seal is now used in the power steering gear starting in production with serial number 083-6. The serial number is stamped on the right side of the steering gear housing end cover and can be seen by using a mirror and light.

To permit the use of the larger "O" ring seal, it was necessary to redesign the seal groove in the adapter.

Fig. 1 shows the first and second types of adapters and "O" ring seals used, along with the "O" ring seal part numbers, and the adapters and "O" ring seal dimensions. Adapters will have to be identified by width of the seal groove since there is no change in part number.

### REAR BRAKE DRUMS

In some cases when a Motor Wheel rear brake drum is ordered, a Kelsey-Hayes drum may be shipped in its place. It has been found that the drums can be used interchangeably with no effect in performance. In the future, therefore, they will be stocked and shipped without regard to make.

### NEW FUEL FILTER

A new glass bowl, impregnated fiber element, precipitation type fuel filter is now being installed on all cars in production.

To assist in correcting carburetor flooding problems on early production cars, the filter has been released as a service package under part number 854345. It can be installed using one 90° elbow, part number 504500 or 114920.

### LUBRICATING GENERATOR BEARINGS

With the extruded frame type generator which has been in use since 1952, overlubrication is not a problem as it was in previous years. Instead of placing a few drops of oil in each oiler, add oil to each oiler until it is filled. This should be done at each chassis lubrication. The commutator end bearing should be oiled especially generously since there is no danger of over-oiling. (Do not overflow) If it is suspected that this bearing has been neglected and the oil is completely gone, fill the oiler two or three times, allowing a few minutes between fillings for the oil to soak down. This same procedure should be followed after replacing a commutator end frame.

Adapter	Adapter Groove Width	"O" Ring Inside Diameter	"O" Ring Cross Section Dimension	"O" Ring Seal Part Number
First Type	.080 - .085	3.106 - 3.118	.067 - .073	5682816
Second Type	.118 - .123	3.025 - 3.055	.100 - .106	5680593

Fig. 1 Comparison of First and Second Type Adapter Seals

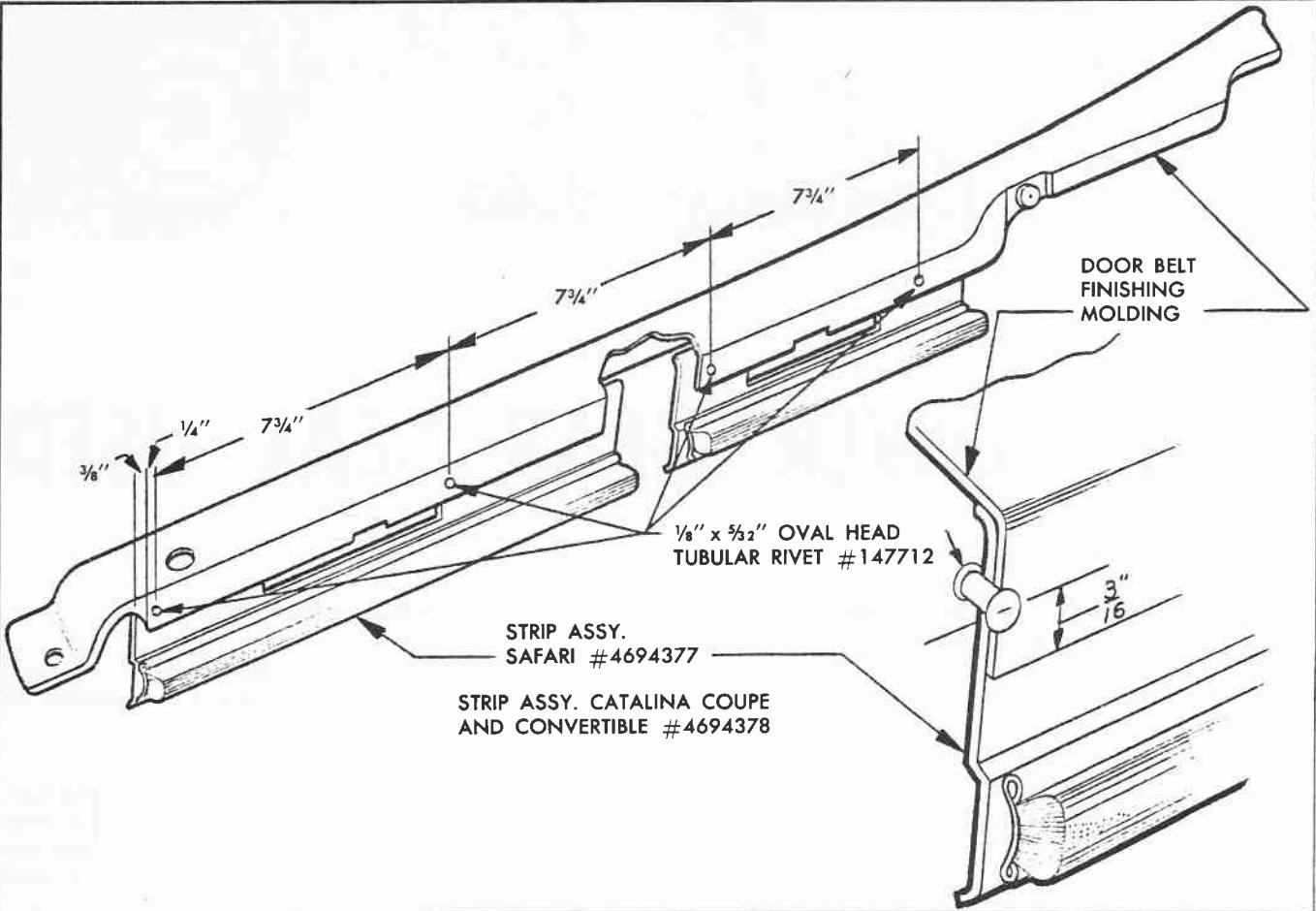


Fig. 2 Door Window Glass Run Channel Strip

### ELIMINATION OF DOOR AIR AND DUST LEAK ON CATALINA COUPE, CONVERTIBLE AND SAFARI MODELS

Some complaints have been received that excessive cold air enters 1955 and 1956 Catalina Coupe, convertible and Safari bodies between the door window and the door belt finish molding. A new door window glass run channel strip has been released for production on these bodies. The new run channel (Part No. 4694378 for Catalina and Convertible Coupes and Part No. 4694377 for Safaris) is available for service and can be installed as follows:

1. Remove door belt finishing molding and window inner bumper (roller). Window bumper is not required when strip assembly is used.
2. As a bench operation, position and clamp glass run channel strip assembly to inside of finishing molding flange so that rear edge of strip is 3/8" rearward of rear end of flange, as indicated in Fig. 2. Drill four (4) 1/8" holes through finishing molding and strip assembly, at locations indicated in Fig. 2.

3. Install strip assembly to belt finishing molding with four (4) 1/8" x 5/32" steel oval head tubular rivets (cadmium or zinc finish). Apply waterproof body tape over the part of the cut-outs in the strip assembly which are not required for the window stop adjusting plates.
4. Reinstall belt finishing molding with attached glass run channel strip assembly. Make sure that sealing strip is making proper contact with glass. Where necessary, remove finishing molding and carefully bend strip outboard or inboard to obtain proper contact with glass.

NOTE: If on the Safari the rear of the window upper frame makes too severe a contact with the sealing strip, it may be necessary to bend the strip inboard in that area sufficiently to prevent the window frame from damaging the sealing strip.

### LUCITE LACQUER

Cars painted with Lucite Lacquer have Duco code numbers in the 800 series -- examples Sun Beige 885-59892 - Tan 887-56355.

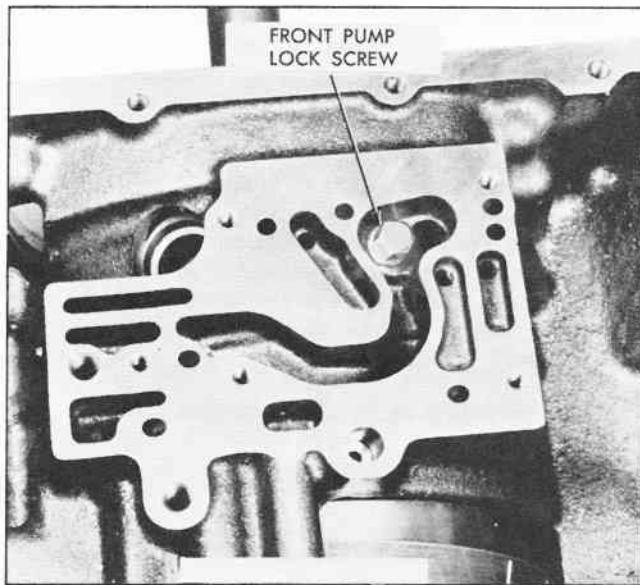


Fig. 3 Strato-Flight Front Pump Locating Screw

#### NEW FRONT PUMP LOCATING SCREW

First production Strato-Flight Hydra-Matics had a lockwasher on the front pump lock screw. It was later felt that the lockwasher was undesirable since its sharp edges could shave off metal particles which would circulate with the oil.

A new washer head screw is now being used in production in place of the original screw and lock-washer (Fig. 3). The new screw is available under part number 8617629. Any time an early type lock screw having the separate lockwasher is removed in servicing a transmission, it should be replaced with the new washer head screw.

Some transmissions will be found in which the early type screw is used with a flat washer instead of a lockwasher. These screw and flat washer assemblies were used temporarily in production until the new screws became available and can be re-used when encountered.

#### SLIPPING IN REVERSE—STRATO-FLIGHT

Several reports have been received of Strato-Flight Hydra-Matics that slip in Reverse. Such a slipping condition can be caused by loss of oil pressure in Reverse. When a reverse slip is encountered, check oil pressure as outlined on pages 105 and 106 in Part I of the 1956 Hydra-Matic Manual.

Oil pressure below 145 lbs. at half throttle in Reverse indicates excessive internal leaks in the reverse apply passage, reverse oil passage to pressure regulator, or overrun clutch apply passage; defective pressure regulator; or defective front pump.

Oil pressure in the normal range of 145-190 lbs. indicates that the reverse slippage is caused by restricted reverse apply passage or mechanical failure such as damaged reverse cone clutch parts.

After testing oil pressure in Reverse, remove the transmission and check for the cause of slippage as indicated by pressure test. (In the case of a transmission which slips only when hot, the defect may be impossible to find with the transmission on the bench. The only method of finding this type of malfunction is by substitution of parts. If the transmission operates normally in other drive ranges, the most likely part to be defective is the case or the rear pump body.)

#### STALL TESTING STRATO-FLIGHT EQUIPPED CARS

In the 1956 Hydra-Matic Manual on page 105 a procedure was outlined for stall testing the Strato-Flight Hydra-Matic. This procedure should be disregarded and stall testing of the Strato-Flight should be discontinued. There is nothing to gain from a diagnosis standpoint and in some cases damage to the differential gears may result from the stall test. Tune-up men should also discontinue the practice of stall testing to check engine performance.

References to stall testing Strato-Flight equipped cars should be crossed out of the manual or any other literature such as the TUNE-N-TEST poster.

#### 1956 HORN RELAY CORROSION

An irregular shaped opening occurs where two sheet metal panels join (left hand radiator baffle and radiator cross bar) at a point directly in front of the horn relay. Water and dirt passing through this opening can strike the horn relay base and terminals and in time will result in severe corrosion and erosion which is electrolytic in nature. The situation is further aggravated since two of the terminals are continuously "hot". In some cases electrical leakage has been sufficient to cause the horns to blow without operating the horn button.

This opening should be sealed on all new cars before they are delivered and on all 1956 cars returning to your dealership for service. Use auto body putty or similar compound which will stay in place and is waterproof for this sealing operation.

At the time the sealing operation is performed, the relay mounting screws should be removed and base inspected for corrosion (straight time one tenth hour). If evidence of corrosion is observed, the relay should be replaced.

The new flat rate operation, 12-160, Horn Relay - Replace, time allowance .2 hour, may be used.

## STRATO-FLIGHT FLYWHEEL AND TORUS COVER ASSEMBLY

A new flywheel and torus cover assembly will be used in all Strato-Flight transmissions. The new design will use 12 attaching bolts in the torus cover and a corresponding 12 hole flywheel. At the present time 24 bolts are used.

Service assembly numbers will remain the same for the 12 and 24 bolt cover and flywheel and the parts will be interchangeable.

When using a 24 bolt cover as replacement on a 12-bolt hole flywheel, it will be necessary to remove the 12 alternate bolts. When using a 24 hole flywheel on a 12 bolt cover, its functional operation will not be impaired.

## CARTER 4-BARREL VACUMETER PISTON SPRING

The December 1955 Service Craftsman News carried an article which described a new vacumeter piston spring, part number 7009746, for the Carter 4-barrel carburetor. This spring should be used in conjunction with the 1955 choke piston, part number 7008360, to correct complaints of poor cold engine operation and stalling after cold start.

Some reports have been received from the field that the incorrect spring is packaged under this number. Before using the new vacumeter spring it is important, therefore, that it be checked to see that it has the proper free length of approximately 1-1/2".

## NEW PRESSURE TAP AND PIPE PLUG ON STRATO-FLIGHT

A pipe plug will be found on the right side of some Strato-Flight transmission cars just above and to the rear of the oil cooler pipe adapter.

This pipe plug is installed in a TV pressure line drilled in the case to enable gauge checks of TV pressure.

## SERVICE MANAGER—IMPORTANT

This News contains important service information on Pontiac cars. Each subject should be cross-referenced in the space provided at the end of each section in the Shop Manual or its Supplement. **Be sure and cover every point with your entire organization.**

Each service man should sign in the space below after he has read and understands the information in this issue.

Production changes are being made to include this pressure tap in all Pontiac Strato-Flight cases. Instructions for its use will be issued in the near future.

## AIR CONDITIONING GENERATOR

A new generator, model number 1102073, is now being used in production on cars equipped with air conditioning. The test specifications for this generator are the same as published for air conditioning on page 12-52 of the 1956 Shop Manual except that the maximum output cold is reached at 2200 generator RPM instead of 2350 generator RPM as specified.

## REVISED FLAT RATE OPERATION

6-680 (3.750)	Automatic Choke - Overhaul
	Includes: Adjust Carburetor Idle, Fast Idle and Unloader on All Carburetors
	NOTE: In addition to above, R & R Air Horn and Bowl Cover, Adjust Float Level, Accelerator Pump and Choke on RPD Two-Barrel Carburetors Only.
	Two-Barrel - Carter (.7) . . . . .
	- RPD (1.4) . . . . .
	Four-Barrel - All (.8) . . . . .

## NEW FLAT RATE OPERATIONS

12-160 (2.815)	Horn Relay - Replace (.2) . . . . .
12-300 (2.727)	Headlamp Sealed Beam Unit - Each - Replace (.4)
	Includes: Aim Headlamp Using T-3 Aimer Combination
	A. Other Headlamp - Aim (.1) . . . . .
12-303 (2.725)	Headlamp - Each - Aim (.3)
	Combination
	A. Other Headlamp - Aim (.1) . . . . .