

PONTIAC

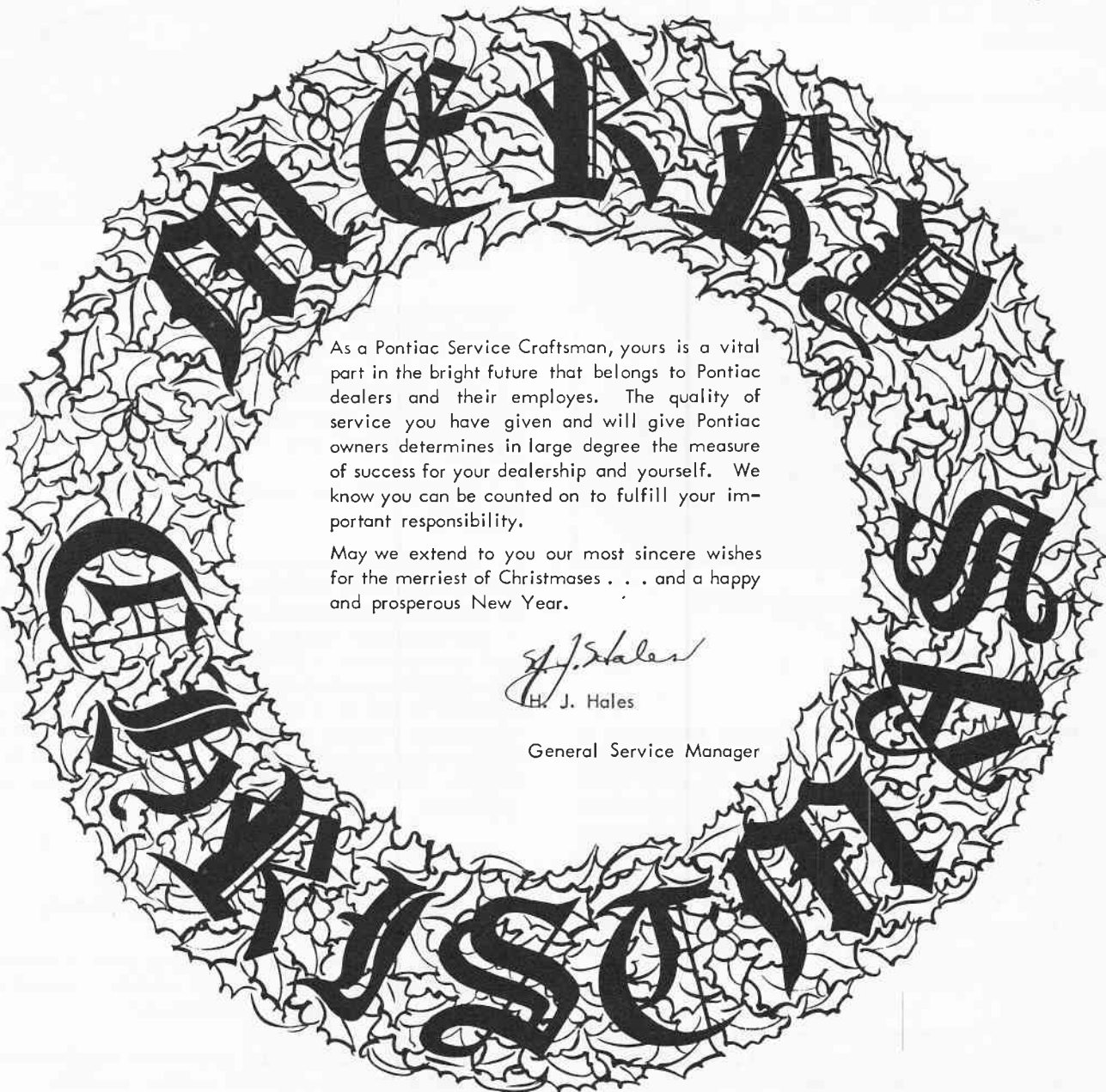


Service Craftsman News

No. 11 S-289

December, 1956

Season's Greetings



As a Pontiac Service Craftsman, yours is a vital part in the bright future that belongs to Pontiac dealers and their employees. The quality of service you have given and will give Pontiac owners determines in large degree the measure of success for your dealership and yourself. We know you can be counted on to fulfill your important responsibility.

May we extend to you our most sincere wishes for the merriest of Christmases . . . and a happy and prosperous New Year.



H. J. Hales

General Service Manager

ADDITIONAL 1957 TOOL INFORMATION RELEASED

The following is additional information on essential service tools which was not available at the time the 1957 Preliminary Service Information was published.

Blow-Gun Adapter, J-4353-12

A Blow-gun Adapter, J-4353-12, to be used with Blow-gun J-4353-3, is included in the 1957 Pontiac Essential Service Tools Package. This adapter is necessary to properly clean and check leaks in certain inaccessible oil passages (Fig. 1). However, it may be used on all oil passages in the 1956 and 1957 Strato-Flight and 1956 Dual Range Hydra-Matic transmissions.

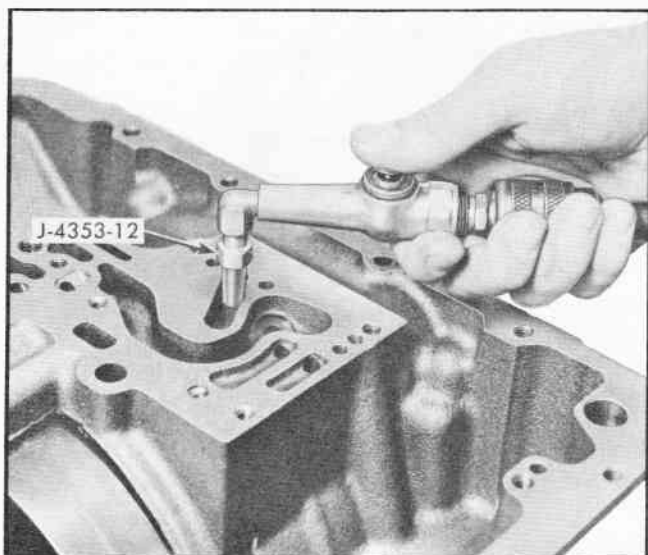


Fig. 1 Blow-Gun Adapter J-4353-12

Strato-Flight Torque Wrench Extension, J-6498

The Strato-Flight Torque Wrench Extension is included in the 1957 Pontiac Essential Service Tools Package to aid in properly tightening the bolts which attach the flex plate to the torus cover and flywheel (Fig. 2). Because of insufficient clearance between the flex plate and the engine oil pan, a standard socket attached to a torque wrench cannot be used for this operation. The extension makes possible the use of a standard socket for tightening these bolts. This tool readily adapts the proper 3/8" socket to any 1/2" Drive Torque Wrench.

In order to prevent stripped bolts or damage to the flywheel or flex plate, a new torque specification of 15 lb. ft. has been established.

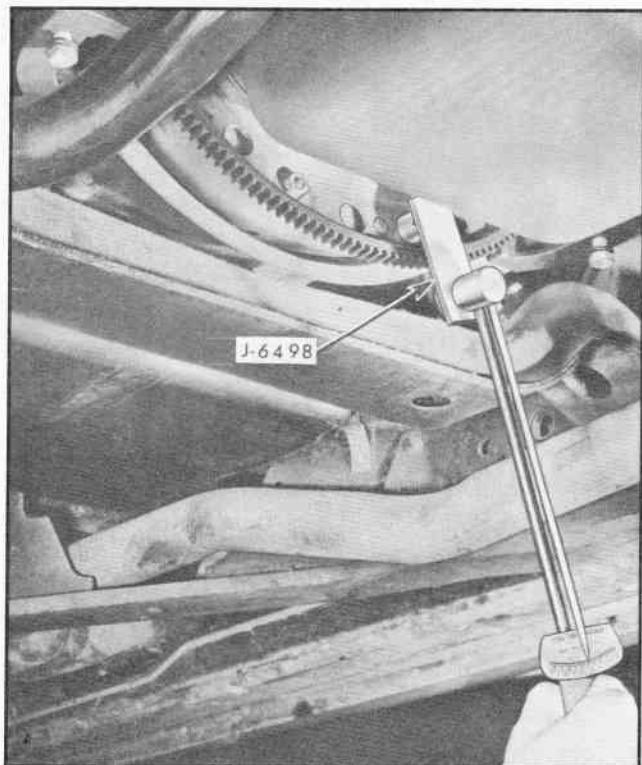


Fig. 2 Strato-Flight Torque Wrench Extension J-6498

Power Steering Over-Center Adjusting Adapter

The power steering over-center adjusting adapter, J-6281, is to be used with spring scale J-5178 to make the adjustment of load through the center high point.

Instructions for making this adjustment are as follows:

After the steering gear is completely assembled, find the center or straight-ahead position of the worm by rotating worm to full right turn and then reversing it approximately two full turns. Using adapter, J-6281, and spring scale, J-5178, to measure pull, (Fig. 3) adjust lash adjusting screw so pull on spring scale is between 1 1/4 to 1 3/4 lbs. through the center high point when rotating worm shaft through an arc of 30°. Tighten lash adjusting screw lock nut to 25-30 lb. ft. torque. Recheck preload after lock nut has been tightened.

DIFFERENTIAL RATIO 3.23:1 MADE STANDARD FOR H.M. MODELS

The 3.23:1 ratio differential has been released as standard equipment on all 1957 models equipped with Strato-Flight Hydra-Matic transmissions.

The 3.08:1 differential is optional equipment (UX) as a plains ratio for all except Safari models.

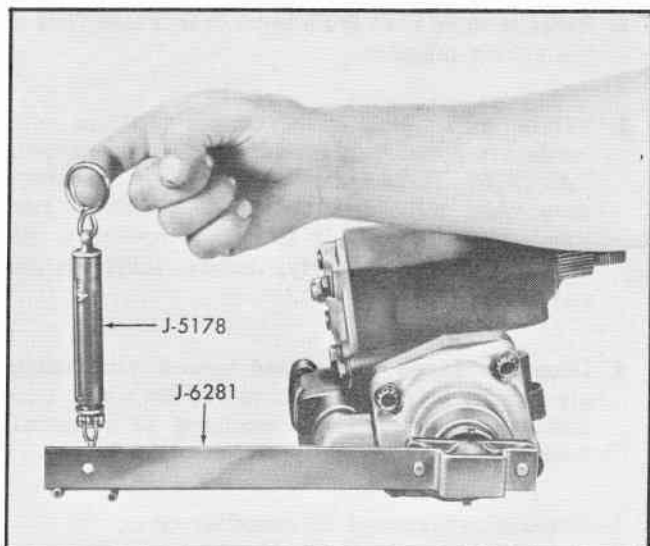


Fig. 3 Power Steering Over - Center
Adjusting Adapter J-6281

PROCEDURE FOR LUBRICATING 1957 SPEEDOMETER CABLE CHANGED

If complaints of speedometer drive cable noise on early 1957 Pontiacs are received, the following procedure should be used to lubricate the cable:

1. Remove cable from top and wipe off all old lubricant.
2. Coat lower two-thirds of cable with a generous amount of lubricant.
3. Apply limited amount lubricant to upper one-third of cable to assure adequate lubrication in area of bend at speedometer head.

CAUTION: Do not over-lubricate the upper portion of cable as lubricant may seep into speedometer head.

4. Install speedometer cable.

Use a suitable speedometer cable grease which will not become hard and stiff when cold.

WINTER SEASON BRINGS GREATER NEED FOR CARE OF BRIGHT METAL

Many areas of the country are now using highway ice melting materials that are detrimental to stainless steel and chrome plated parts. Because of this it is extremely important that all new cars be washed immediately upon their delivery to the dealership to prevent corrosive damage to the chrome.

REPLACE SEAL WHEN FUEL TANK FILLER NECK IS REMOVED

Whenever the fuel tank filler neck is removed for any reason, the seal between the neck and tank should be replaced. It is important that this seal be properly installed to prevent any fuel leakage. The seal can be ordered from G.M.P.D. Parts Warehouses under Part number 3710537.

Always inspect both the tank end of the filler neck and the flanged filler neck hole in the tank for burrs, dents, or other irregularities which might cause leaks.

It is advisable to lubricate the flanged hole in the fuel tank with SAE 50 engine oil before inserting the filler neck. This makes assembly of the two parts easier and reduces the tendency of the seal to slip out of place.

1957 STRATO-FLIGHT HYDRA-MATIC IS EASIER TO SHIFT

A new gearshift interlock plate is used on the steering column of Hydra-Matic equipped cars for 1957 to simplify movement of the selector lever by the driver. All stops have been eliminated except the one that prevents accidental shifting into the "Park" position.

This means that it will no longer be necessary to lift the lever when shifting from drive right to low, or to lower the lever when shifting from drive left to neutral.

1957 TRANSISTOR RADIO CAUTION

The 1957 Transistor (Deluxe #988671) radio must never be turned on with the speaker disconnected. Damage to transistor will result if this caution is not followed.

In the event the transistor is damaged in this manner it will be necessary to remove the receiver and speaker and take them to an authorized Delco Radio service shop for repairs.

The suggested time allowance for removing and replacing the receiver and speaker is .5 hr.

1957 ROCHESTER 4GC FLOAT DROP CHANGED

The float drop setting on the Rochester 4GC four jet carburetor has been changed to 1-13/16" \pm 1/32". Please correct your preliminary shop manual accordingly.

USE CARE WHEN CHANGING TIRE ON NEW 1957 WHEEL ASSEMBLY

The 1957 wheel assembly has a ledge-type bead seat on the outboard (valve hole) side of the rim (see Fig. 4). This design provides a tight tire fit making it necessary to use a rubber lubricant such as Ru-Glyde or a vegetable oil soap solution for tire mounting and dismounting. This design also makes it mandatory that the tire mounting and dismounting are done with the outboard (valve hole) side of the wheel up.

TO REMOVE TIRE FROM WHEEL

1. Remove valve cap and valve core. Let out all the air.
2. With valve hole side of tire up break beads away from rim. Use only conventional bead-breaker type machine. Do not use hammer or tire irons.
3. Apply a liberal amount of lubricant and remove first bead, using machine method.
4. During the entire operation of breaking beads away from rim and removing tire from rim, special care should be taken not to damage the rubber "rim-seal" ridges which are molded to the outside of tire along the beads.

TO INSTALL TIRE ON WHEEL

PREPARATION OF RIM

Check these points to prevent air loss:

1. Using a small piece of steel wool or emery cloth, clean all particles of foreign matter from rim ledges and flanges.
2. Straighten the rim if it is bent or damaged.

MOUNTING AND INFLATING THE TIRE

The general procedure for inflating tubeless tires is to mount the casing on the rim so that the beads are resting uniformly on the bead ledge and quickly apply a large volume of air. This forces the bead over the bead ledge onto the bead seat and against the flanges where the air seal for the tire is obtained. Ru-Glyde or a thin vegetable oil soap solution should be used for bead lubrication.

1. Mount the tire on the wheel with valve hole side up using the machine method.

2. Remove valve core from stem to increase flow of air during inflation.
3. Inflate with wheel in horizontal position until beads are completely forced against rim flanges. **CATUION:** Do not exceed 40 pounds air pressure when inflating tire and do not stand over tire when inflating. If 40 pounds pressure will not seat beads properly, deflate, lubricate and re-inflate.
4. Once the beads are seated against rim flange, air can be released from valve, the valve core inserted and inflation completed in a normal fashion.
5. General precautions in mounting tires:
 - a. Use tire mounting and dismounting machine.
 - b. Do not use hammer or tire irons.
 - c. Work bead over rim flange so that the section nearest valve stem will be applied last.
 - d. Do not stand over tire when inflating.

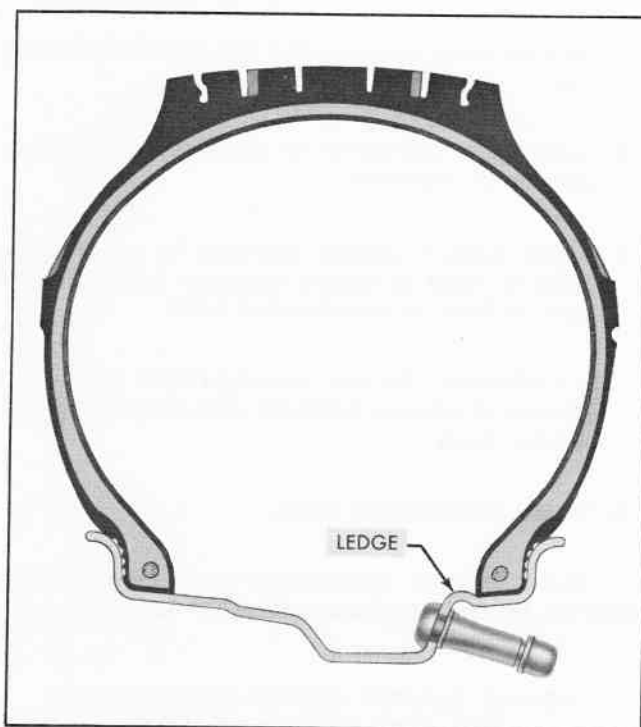


Fig. 4 Cross Section of Tubeless Tire and Rim

STRATO-FLIGHT CONTROL VALVE ASSEMBLY PART NUMBERS CHANGED

Following are the correct part numbers for the components of the 1957 Strato-Flight control valve

assembly. These numbers supersede those shown in the Master Parts Catalog for 1957. (The part numbers shown for 1956 in the catalog are correct.)

1957 Shift Valve Body	- 8618902
1957 Overrun Clutch Valve Body	- 8618910
1957 Manual Valve Body	- 8618914

Be sure to use the above numbers when ordering 1957 parts since 1956 and 1957 parts should not be interchanged.

ALWAYS SEE THAT FRONT FLOOR MAT IS INSTALLED CORRECTLY

Due to the installation of the radio speaker housing on the inside of the cowl panel near the toe board, some questions have arisen concerning the proper installation of the front floor mat. Proper positioning of mat insulation in the area under the speaker housing is of prime importance for protection against engine and transmission heat. The following steps will provide a satisfactory installation.

1. Remove all speaker housing attaching screws. Set housing aside, being careful to avoid strain on wiring connections to radio receiver.
2. Install front floor mat in the proper manner, tucking mat under rubber flap on dash liner, and under retainer plate on driver's side of heater.
3. Locate hole in lower mounting bracket through mat, using a sharp tool and mark with a crayon or pencil.
4. Install speaker housing in place and, with an awl or drift pin located into lower mounting bracket to hold housing in place, attach upper screws loosely into dash mounting brackets.
5. Locate and secure screw into lower mounting bracket.
6. Tighten upper screws to complete installation.

1957 STRATO-FLIGHT MANUAL VALVE BODY CHANGED

A change has been made in the 1957 Strato-Flight manual valve body and the channel plate-to-case spacer. The second type has a revised exhaust for neutral clutch apply oil in "Reverse". The difference between the first and second type 1957 channel plate-to-case spacers can be seen in Figure 5.

While the change in the manual valve body is difficult to recognize, the spacer plate can be identified to determine whether a control valve assembly has the first or second type manual valve body and spacer plate.

Only the second type parts will be serviced. The second type spacer plate can be used with either manual valve body. When installing a new manual valve body assembly, however, it is absolutely necessary that the second type spacer plate be used. The use of the second type manual valve body with the first type spacer would cause leakage of Lo Range oil resulting in failure of the Lo band.

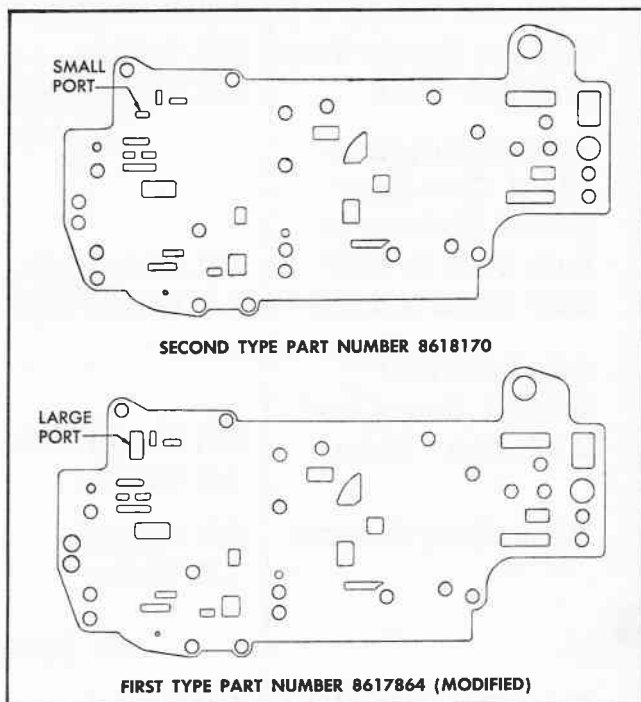


Fig. 5 Identification of Spacer-Channel Plate to Case

REAR SPRING AND BUSHING ASSEMBLY

The chart shown in Fig. 6, can be used as a guide in checking model application of production and service rear spring and bushing assemblies on 1956 and 1957 models.

It will be noted that only the left hand production spring is serviced. The left hand spring has the higher load rating and is used on both sides for service. Refer to the Master Parts Catalog for complete parts information.

Some 1957 27 models were built with left rear spring assembly number 524952 (yellow) in place of the regular production left spring, number 524953 (light green). The cars built with the 524952 spring assemblies are between serial numbers P757H-10853 to P757H-11145, and P757S-1825 to P757S-1861.

Body Style	1956 Production Color**	Service Part Number*	1957 Production Color**	Service Part Number*
27 Models				
Two-Door Catalina	RH Dark Green LH Yellow	522593	Yellow & Dark Green Yellow	524952
Four-Door Catalina	RH Yellow LH Light Green	522594	Dark Green Light Green	524953
Sedans, Except Taxi & Police Cars	RH Yellow LH Light Green	522594	Dark Green Light Green	524953
Taxi, Police, Star Chief Two-Door Safari (Refers to Both 1956 & 1957 Star Chief Safaris	RH Aluminum LH Bright Red	522595	Aluminum Bright Red	524954
All Safaris***, Except Star Chief Two-Door Safari	RH Brown LH White	522596	Brown White	524955
Heavy Duty Chassis	RH Brown LH White	522596		
28 Models				
Two-Door Catalina	RH Amber LH Light Blue	522617	Amber & Light Blue Light Blue	524957
Four-Door Catalina	RH Light Blue LH Purple	522618	Amber Purple	524958
Convertible & Four-Door Sedan	RH Light Blue LH Purple	522618	Amber Purple	524958
Heavy Duty Chassis	RH Coral LH Maroon	522619	Coral Maroon	524959

* Refer to Master Parts Catalog for parts information.

** Paint daub located on rear eye of spring - if covered with chassis black paint, wipe with gasoline soaked rag to uncover.

*** 1956 Station wagons also referred to as Safaris.

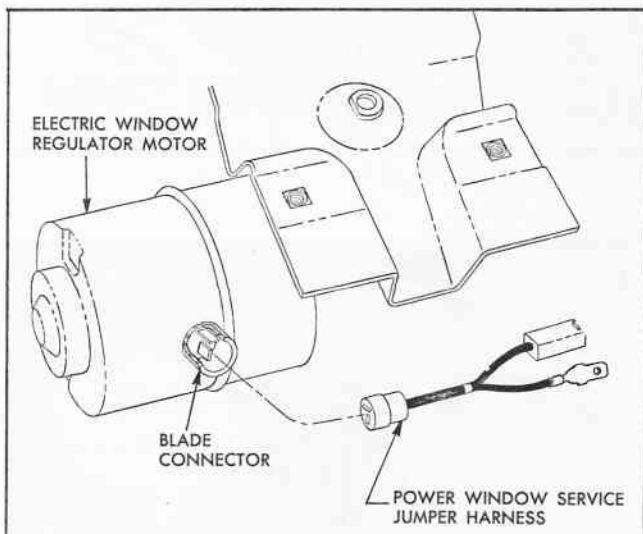


Fig. 7 Power Window Jumper Harness Assembly

POWER WINDOW SERVICE JUMPER HARNESS ASSEMBLY RELEASED

The 1957 Electric Window Regulator Motor can be installed on 1955 and 1956 models by using a newly developed Power Window Service Jumper Harness Assembly, part number 4712588. The 1957 motor incorporates a new socket and blade type connector attached directly to the motor case (Fig. 7). The Power Window Service Jumper Harness is designed to engage this blade type connector on the 1957 motors and has the necessary terminal and connector for connecting with 1955 and 1956 body wiring harness (Fig. 7).

CHANGES MADE IN 1957 STRATO-FLIGHT TRANSMISSION

Since the 1957 Preliminary Service Information was published, the following Strato-Flight information has been brought to light:

Line Drop Check Ball

On page 50 of the Preliminary 1957 Service Information Manual it was stated that the 1/4" line drop check ball and spring would not be used in 1957. However, some of the early 1957 Strato-Flight transmissions will have these parts.

Transition Valve Check Ball

The 1/8" transition valve check ball which was eliminated in late 1956 is used again in 1957. Some of the early transmissions do not have this ball. In such a case if the 2-3 shift has a 2-1-3 tendency with cold oil only (transition valve moves too fast), a 1/8" ball may be installed.

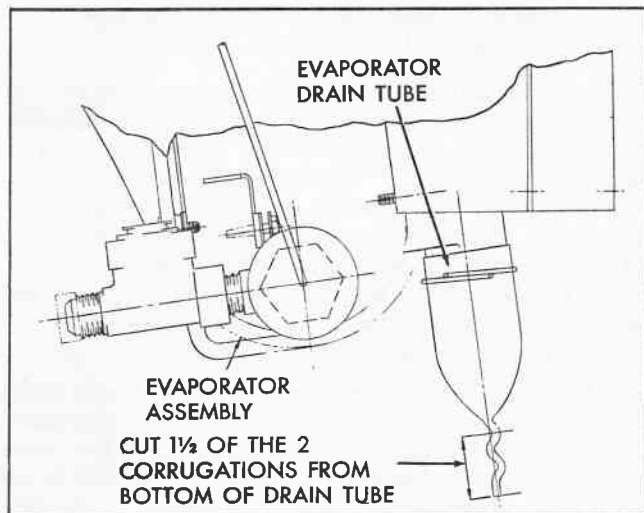


Fig. 8 Evaporator Drain Tube Modification

MODIFY EVAPORATOR DRAIN TUBE TO PREVENT FLOODING

Under heavy rain conditions or when the car is being washed, the 1957 Air Conditioning Evaporator will not discharge water rapidly enough through the Evaporator Drain tube, with the result that water fills up the Evaporator and floods over into the Blower Housing and down the face of the Dash Insulator on the inside of the car.

To correct this condition, cut off one and one-half (1-1/2) of the two corrugations from the bottom of the Evaporator Drain Tube (Fig. 8). This modification should be made at the earliest opportunity to forestall the condition and prevent any owner dissatisfaction.

The tube may be removed from underneath the car. Straight time allowance to perform this operation is .2 Hr.

CORRECTION TO NOVEMBER SERVICE CRAFTSMAN NEWS

On page 64 of the November Service Craftsman News it was stated that fuel pump eccentric bushings had been installed on 1957 cars since the beginning of production. This is incorrect. The eccentric bushing will be installed on all cars starting in the near future. Please correct your "News" accordingly.

NEW COMPRESSION PRESSURES FOR 1957 ENGINES

The compression pressure at cranking speed for the 1957 engines are as follows:

- 8.5:1 Compression ratio
 - 140 - 150 PSI @ 155 - 165 RPM
- 10.0:1 Compression ratio
 - 155 - 165 PSI @ 155 - 165 RPM

CHECK TERMINAL CONNECTIONS ON BACK-UP AND TAIL LAMPS

When a tail-lamp bulb or back-up lamp bulb is turned counterclockwise for removal it is possible for the plastic terminal of the wiring harness to loosen in the socket. Therefore, always make sure the pin on the terminal is completely engaged with the J-slot of the socket before installing a new bulb. If the terminal becomes disengaged, it will be necessary to remove the tail-lamp housing assembly and make the proper connection. If either lamp is inoperative this check should also be made.

On early production cars not equipped with back-up lamps, it is possible for the back-up lamp terminal to come loose from its socket causing a rattle inside the tail-lamp housing. This terminal is now taped double in production.

SERVICE TRAINING PROVIDES MULTIPLE BENEFITS

The finest service training in the automotive industry is available to you, the Pontiac Mechanic. A minimum of eight different schools are already available to Pontiac dealer service men for 1957. These include schools on carburetors (Rochester 2-barrel, 4-barrel, and Carter 4-barrel), distributors, power steering, power brakes, differentials, and Strato-Flight transmission. In addition, several new programs are in the development stage.

Training is now more important than ever before because each new model introduces more mechanical improvements. If you understand the function of each new unit and the method of repairing it, you can earn more by reducing the time spent on each job.

Today, car owners demand the best possible service. If they know that you have been "factory trained", they will want you to service their car instead of the guy in the garage down the street.

Pontiac is continually striving to improve its service training and facilities. Schedules are being arranged to more closely fit dealer's needs. Programs are being prepared in answer to dealer's request. Make your requests known to your dealer.

Charlie Craftsman Says-



You should use our tire mounting and distmounting machine for that operation on '57 models. See this month's Service Craftsman News for instructions.

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.
