

PONTIAC



Service Craftsman News

No. 3 S-281

March, 1956

PROTECTION OF BRIGHT METAL

CORROSIVE ELEMENTS QUICKLY ATTACK BRIGHT METAL FINISH

Dealers who store new cars out of doors or in buildings where high humidity exists should take special precautions to protect the bright metal parts against damage due to corrosive atmosphere.

This is especially important in industrial areas. The humidity in the air may combine with the chemical fumes of combustion from smoke stacks or similar disposal methods to form a combination that may damage the stainless steel or the chrome plated bright metal parts of the car. These elements also may cause damage of this nature when cars are in dead storage for a period of time. If a car is driven from a warehouse or other location to the dealership over roads treated with salt or calcium chloride, these elements, if not removed, will also cause damage.

It is important that all new cars received by the dealership be washed to remove any harmful materials present at that time. After the car has been allowed to dry thoroughly, the bright metal parts should be coated with wax, silicone, car polish containing silicone, or oils containing rust preventive additives. Pontiac's Chrome Protector Kit #984918 offers excellent protection for bright metal. Care must be taken when using oils not to touch the paint as it will cause discoloration which requires refinishing.

This same protection should be sold to all Pontiac owners as maintenance. Washing of the bright metal parts is important in the winter time if the car is driven where salts and chlorides are used on the streets. Frequent washing and waxing will prevent these destructive forces from damaging these parts.

NEW REAR SPRING ASSEMBLY USED IN PRODUCTION

A new spring assembly is now being used on Catalinas, sedans, and convertibles at the Pontiac Assembly Plant only. These springs are the same as the previous springs except that they have Butyl rubber liners which provide improved friction characteristics and eliminate rear spring noises. They are not being released for service. Rear springs will continue to be serviced as listed in the Master Parts Catalog.

IMPORTANT: The rear spring U-bolt torque has been reduced to 45-55 lb. ft. This torque is especially important on springs with Butyl liners.

PREVENTION OF POWER STEERING GEAR LEAKS

When reassembling a 1956 power steering gear, the counterbore in the upper end of the housing should be free of nicks, burrs, scratches, etc., before the power cylinder adapter with its "O" ring oil seal is installed in the housing. This will minimize the chance that the "O" ring might be cut during installation and cause an oil leak. Cleaning of the counterbore could be done in many ways but "stoning" has been found satisfactory.

EDITORS NOTE: The second 1956 Service Craftsman Examination is included in this issue. Remove the examination, complete and return to the Zone Office by May 15, 1956.

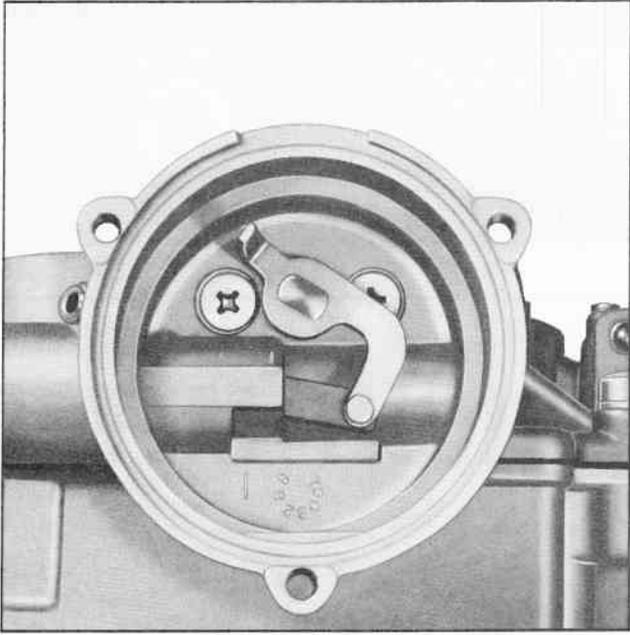


Fig. 1 Choke Piston Position Before Change

NEW ROCHESTER 4GC CARBURETOR ADJUSTMENT

As a result of Product Information Reports covering loading during warm up of the Rochester 4GC carburetor, the contour of the choke piston link has been changed to give an increased opening of the choke valve on cold idle.

Fig. 1 illustrates the position of the choke piston with the choke valve closed before this change went into effect. Fig. 2 illustrates the choke piston after the change. Note that the piston now protrudes approximately 1/16" from the cylinder and that the piston

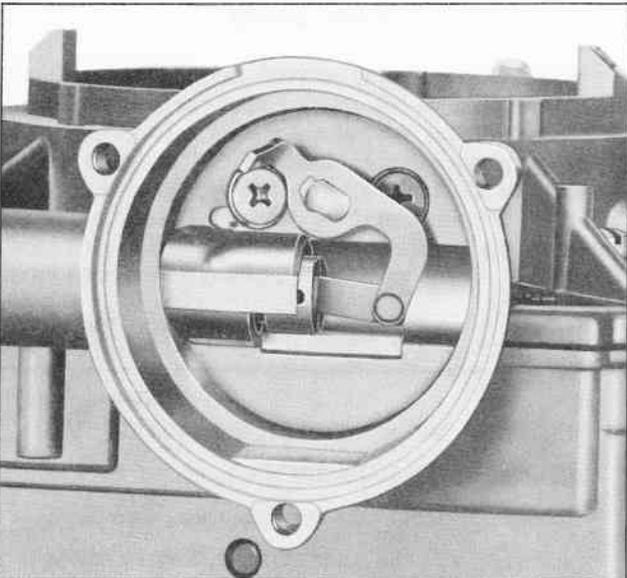


Fig. 2 Choke Piston Position After Adjustment

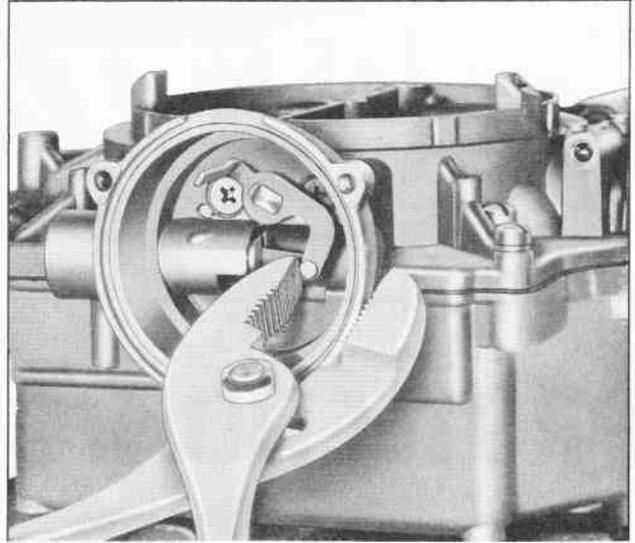


Fig. 3 Bending Choke Piston Link

pin is one-half exposed. On all cases of loading the piston link should be bent using pliers as shown in Fig. 3 to achieve the new position.

The checking and setting of the choke piston as described above should be considered in the future as a regular carburetor adjustment and should be performed as such during carburetor overhauls and adjustments. Extreme care should be used to insure that no bind exists in choke system after adjustment.

CARBURETOR CHOKE SETTING CHANGED

Several Product Information Reports have been received on hard starting of a partially warmed up engine. In order to correct this condition the choke setting on the Rochester 4-Jet and the Carter 4-Barrel carburetors has been changed from one notch rich to center index. If the center index setting does not completely eliminate the complaint, it is permissible to go to a one notch lean setting.

CARTER 4-BARREL CARBURETOR CHANGED

A new air horn casting and choke housing are now in production on the Carter WCFB 4-Barrel carburetor. Figs. 4 and 5 illustrate the differences in the new units. The new air horn and choke housing are not individually interchangeable with the earlier type.

Carburetors using the new parts will be known as model 2364SA and, with the exception of the first few produced (approximately 800 units built in late February and early March) will be so identified by the carburetor tag. Part numbers and other parts information will be released as soon as available.

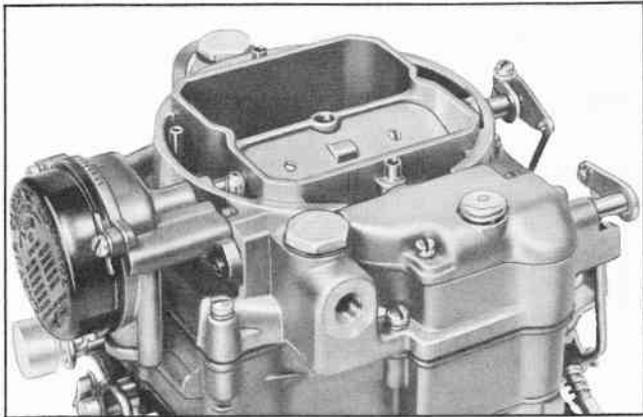


Fig. 4 Carter 2364SA Carburetor

DUAL FOUR-JET CARBURETOR CHANGES

To improve hot starting characteristics of the extra horsepower engine a new throttle body to bowl gasket is now being used in production. The new gasket is released for service under part number 7009256 and should be installed on each carburetor in cases of hard hot starting. Fig. 6 illustrates the differences between the first and second type gaskets.

Several cases of engine stalling after a fast stop have been reported. Engineering tests have shown that this condition can be alleviated by removing the air horn assemblies from both carburetors and drilling out one internal vent in each side with a 1/8" drill. Fig. 7 illustrates the vents that should be drilled. NOTE: It is important that only the two vents pointed out in Fig. 7 be drilled otherwise excessive fuel spilling may result if car is used for racing. This condition has been corrected in production.

ENGINE STALL TEST WITH EXTRA HORSEPOWER ENGINE

The stall speed obtained with the 285 horsepower engine is approximately the same as with the standard engine. This is true with both the Strato-Flight and Dual Range Hydra-Matic transmission.

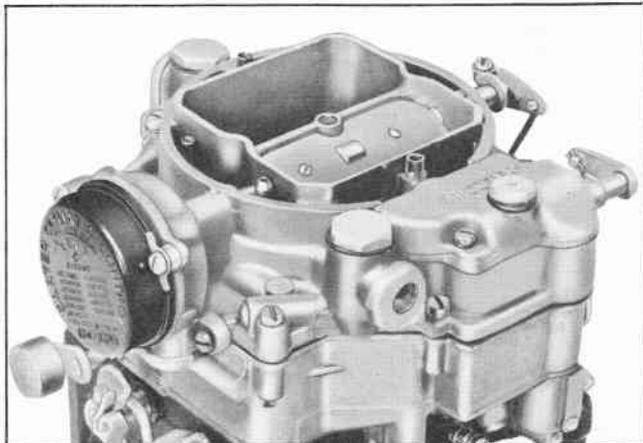


Fig. 5 Carter 2364S Carburetor

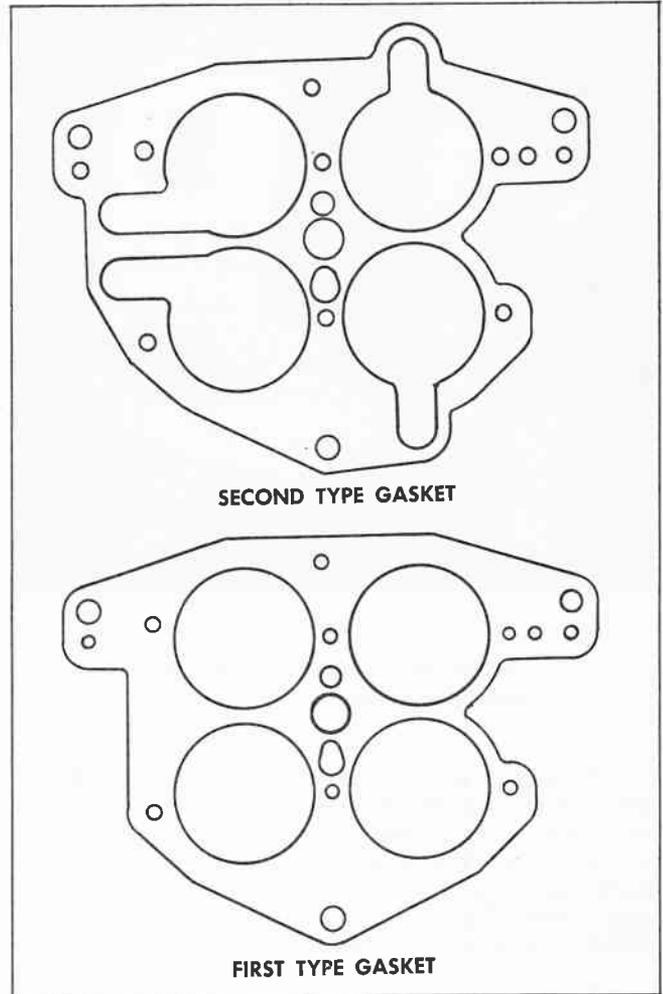


Fig. 6 First and Second Type Throttle Body To Bowl Gasket

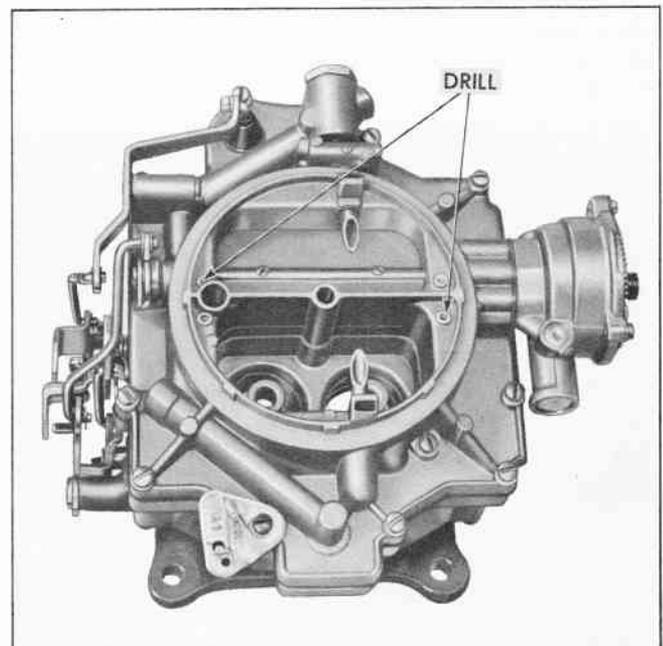


Fig. 7 Rochester Dual 4-Jet Carburetor

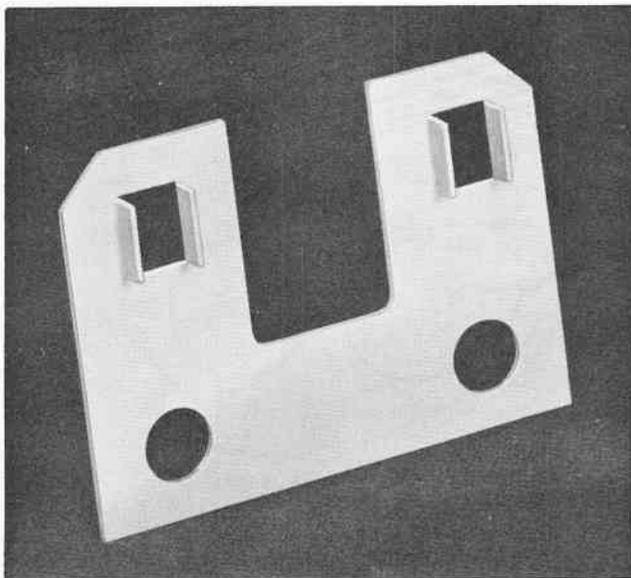


Fig. 8 Push Rod Guide

PUSH ROD GUIDE RELEASED FOR CYLINDER HEAD SERVICE

It is no longer necessary to replace a V-8 cylinder head because the guide holes for the push rods have been worn enough to cause noise or malfunction of the valve train. A new part is available to correct such cases. It is called push rod guide and is available from GMPD warehouses under part number 522937. Figure 8 illustrates the new part.

Figure 9 shows the guide in place on the cylinder head. Note that the upper edge of the guide will be held in place by the rocker arm cover. Rocker arms should be removed and replaced in accordance with shop manual instructions. Flat rate operation 6-290 should be used for establishing charges on this operation.

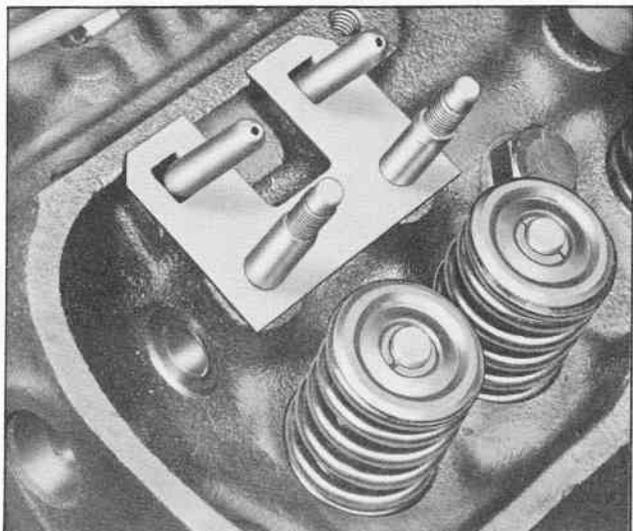


Fig. 9 Push Rod Guide Installed

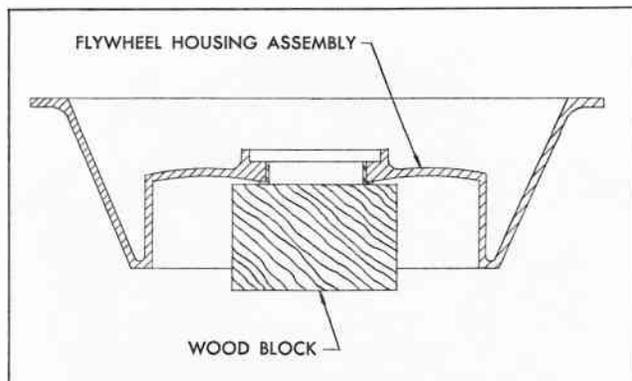


Fig. 10 Block Supporting Flywheel Housing

STRATO-FLIGHT TRANSMISSION INFORMATION

FRONT SEAL INSTALLATION PROCEDURE

Care should be exercised in the installation of the front seal assembly into the flywheel housing.

The recommended procedure is as follows:

1. Position the flywheel housing on a wooden block so as to support the housing at the oil seal hole, instead of at the outer rim. (See Fig. 10)
2. Install the front seal into the flywheel housing using K.M.O. Tool, J-6118.
3. With the front seal secure in the housing, stake the flywheel housing, using a standard screwdriver per Fig. 11.

The above recommendations are made in order to insure that the housing is not damaged when the seal is installed.

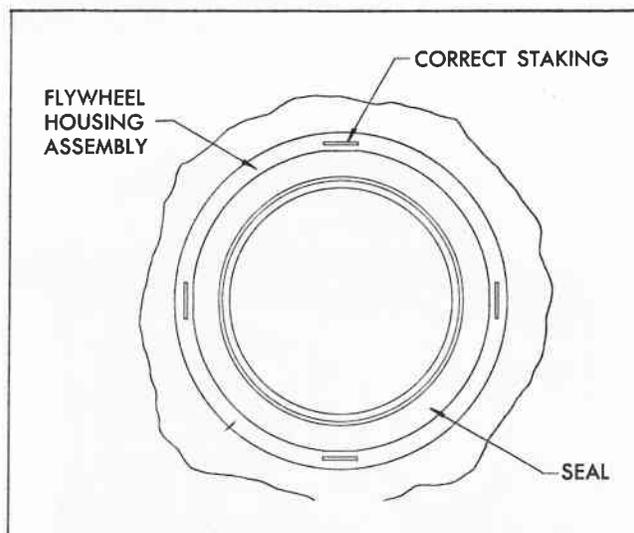


Fig. 11 Correct Staking To Retain Seal in Housing

FRONT UNIT SELECTIVE SPACERS CHANGED

The front unit selective spacers now have an optional method of manufacture on all Strato-Flight Hydra-Matic transmissions. The optional spacers incorporate an open end and are used interchangeably with the closed type.

The bright finish specification on both type spacers has been removed.

CORRECTION OF OIL LEAK AT FILLER TUBE

In case of an oil leak at the filler tube of the Strato-Flight Hydra-Matic, use the following procedure.

1. Loosen transmission filler tube to cylinder head clamp.
2. Slide filler tube up out of sleeve in transmission case.
3. Using ball peen hammer, tap on filler tube sleeve to make sure it is fully seated against shoulder in case. NOTE: If filler tube sleeve was already seated, it indicates that leakage may have been caused by damaged filler tube "O" ring seals. In this case, seal should be replaced.
4. Insert filler tube in sleeve and tap until flange on tube seats against sleeve.
5. Clamp filler tube securely to cylinder head.

REAR UNIT SUN GEAR MARKING

When reinstalling the original gears in a Hydra-Matic transmission, it is very important that they be placed in the original running position. To aid in properly installing the rear unit sun gear on the main shaft of the Strato-Flight Hydra-Matic, the rear side of the sun gear is now being indicated in production by a drill mark. If the gear is removed from the main shaft for any reason, it should always be re-installed with the side having the drill mark facing the rear.

On early production gears without the drill mark be sure to mark the gear before removal from the main shaft so it can be correctly reinstalled.

FRONT PUMP INTAKE PIPE AND PRESSURE REGULATOR PLUG "O" RING SEALS

The "O" ring seal used on the front pump intake pipe is very similar to the "O" ring seal used on the pressure regulator plug. Fig. 12 shows the difference between the two seals. It will be noted that the thickness of the rubber used in both "O" rings is exactly the same; however, the diameter of the seal used on the front pump intake pipe is approximately .06" greater.

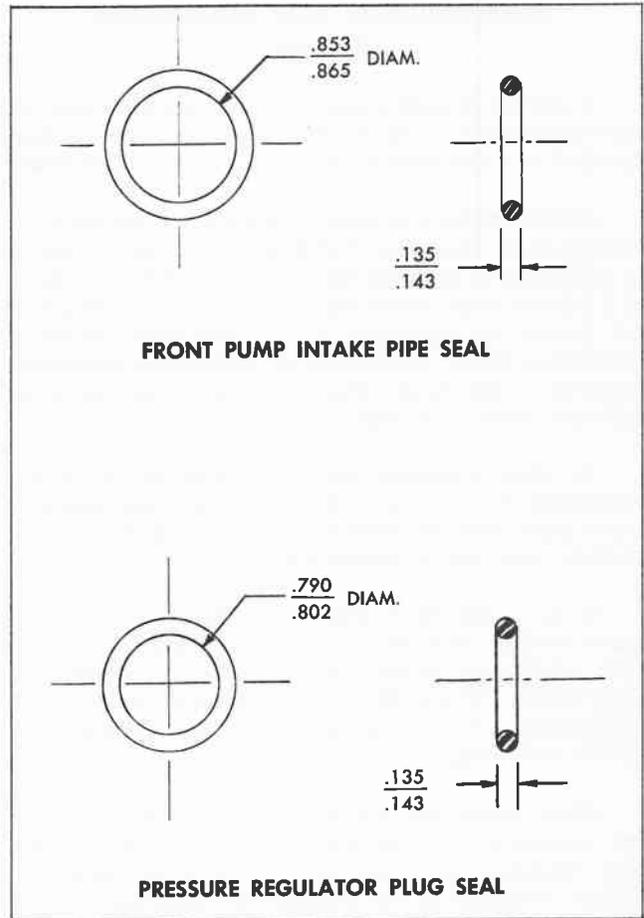


Fig. 12 Comparison of Front Pump and Pressure Regulator Seals

It is very important that these seals be used correctly. If the pressure regulator "O" ring seal is installed on the front pump intake pipe, a suction leak may occur causing oil starvation and foaming. Conversely, if the intake pipe seal is installed on the pressure regulator plug, an external fluid leak may result.

PRESSURE REGULATOR PLUG TORQUE

There has been some misunderstanding as to the proper torque to be used in tightening the pressure regulator plug on Strato-Flight Hydra-Matics. The correct torque is 5 lb. ft. Greater torque may push the pump away from the side of the case causing an oil leak between passages in pump and passages in case.

DOW CORNING LUBRICANT NAME CHANGED

The Dow Corning Silicone Lubricant recommended in earlier issues of the "News" as a weatherstrip lubricant and for other applications is now available from distributors handling Dow Corning products under the name Dow Corning 4X Compound.

STRATO-FLIGHT TIME ALLOWANCE REVISED

A survey of field reports concerning the removal and replacement of the Strato-Flight transmission has resulted in a revised time allowance for this operation.

Additional time studies conducted on Strato-Flight replacement, Operation 7-308, indicated that 3.0 hours is sufficient to perform the operation. This new time of 3.0 hours supersedes the original time allowance of 2.6 hours as published in the November Service Craftsman News. Therefore, all operations requiring removal of the Strato-Flight transmission should be adjusted upward .4 hour.

On cars equipped with dual exhausts, allow an additional .2 hour. In such cases, the right side exhaust pipe must be removed. The left side exhaust system need not be disturbed.

It has also been noted from field reports that many dealer personnel cannot understand why the time allowances differ between the Strato-Flight and Dual Range Hydra-Matic transmission replacement operations. This misunderstanding may be clarified by the following:

When replacing the Strato-Flight transmission, the operations of checking torus cover hub runout and removing the crossover pipe are not required. Easier removal of the linkage and removal of only six torus cover bolts, as compared to 30 bolts on the Dual Range Hydra-Matic, are other reasons why the Strato-Flight time allowance is less.

CORRECTION OF REAR SPRING RATTLES

The rattling, rumbling or creaking noise coming from the rear springs has been traced to the wax with which the spring liners are impregnated. Particularly in cold weather the wax causes a high coefficient of friction between the liner and the spring leaves. This results in snapping movement between the liners and leaves, rather than a smooth sliding action.

In most cases the noise can be eliminated as follows:

1. Bend spring clips outward by inserting pry bar between side of spring and spring clip. Do not bend clips by prying against ends from top of spring or damage may result. After bending clips, pry open the spring leaves.
2. Apply either of the following lubricants to the liner surfaces for a distance of six inches from the ends of each liner. The bottom and top of both ends of the liners should be coated.
 - A. Any silicone grease such as Dow Corning 4X Compound.
 - B. Flake graphite mixed with SAE 90 Multi-Purpose Gear Lubricant to a paste consistency.
3. Bend spring clamps to their original position.

This condition has been corrected in production by a change in the type of wax used to impregnate the liners.

NEW CATALINA REAR QUARTER WINDOW UPPER STOP FOR ELECTRICALLY OPERATED WINDOWS

If a condition is encountered on 2 Door Catalina Models where the rear quarter window (electrically operated) travels too far forward because the lift arm overrides the upper stop, the stop may be replaced by the stop now used for manually-operated windows (Stop - Rear Quarter Window - Upper, Part #4628952) as described below.

1. Raise rear quarter window as far as possible.
2. Remove rear seat cushion and back, rear quarter hardware and arm rest assembly. Loosen rear quarter trim assembly sufficiently so that the access hole and upper stop adjusting screw are exposed.
3. Check the rear quarter window upper stop to determine whether the window regulator lift arm has overridden it.
4. If the lift arm has overridden the upper stop, remove the upper stop and install the new upper stop (Part #4628952) to the inner panel. Adjust the stop to obtain proper alignment of the rear quarter window.
5. Check other rear quarter window adjustments.
6. Reinstall previously removed parts.

If the lift arm has not overridden the upper stop, then perform normal rear quarter window adjustments to obtain proper operating window.

NOTE: Use caution to disconnect positive battery cable when installing stop to prevent accidental operation of window regulator.

NEWS FLASH PART NUMBER CORRECTION

News Flash number 56-9 gives the wrong part number for Pontiac's Chrome Protector Kit. The correct number for this kit is 984918. Please correct your records accordingly.

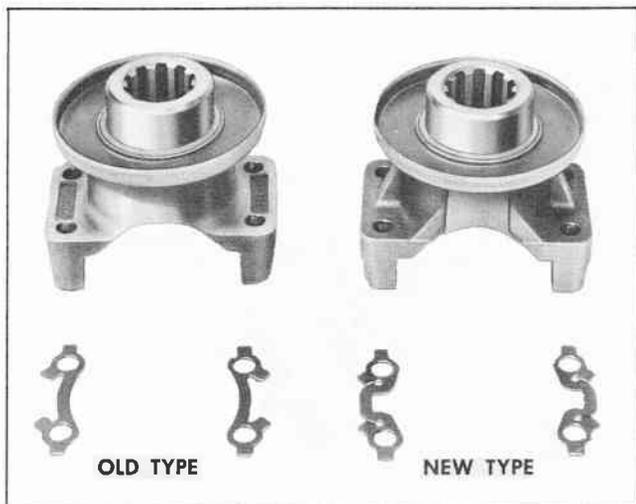


Fig. 13 Comparison of Old and New Type Companion Flange and Lock Plates

NEW COMPANION FLANGE AND LOCK PLATE NOW IN PRODUCTION

A new differential companion flange is now being used in production. The new flange is of ribbed construction and is stronger than the flange previously used. The ribbed construction of the new flange necessitates the use of a redesigned lock plate as illustrated in Fig. 13. This new lock plate is released for service under part number 5670765. The 5670765 lock plate can be used on the old type companion flange but the old type lock plate can only be used on the old type flange.

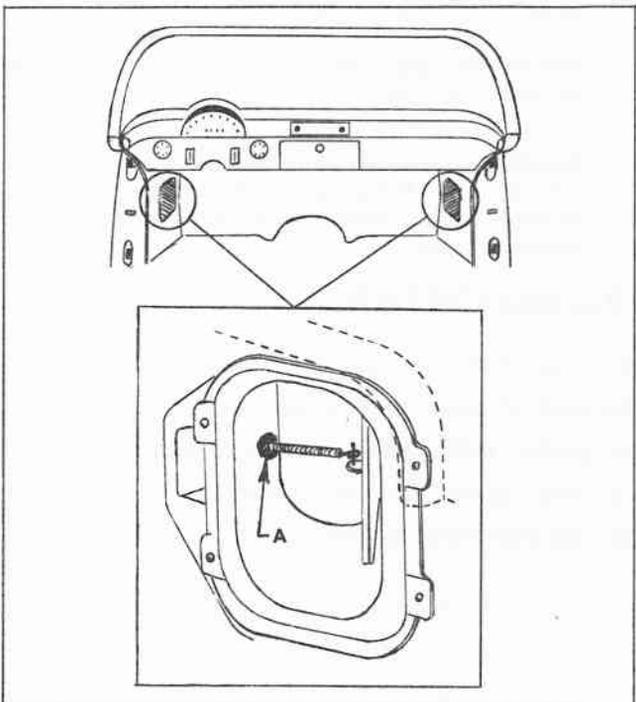


Fig. 14 Shroud Side Air Outlet Duct

CORRECTION OF AIR LEAK AT SHROUD AIR OUTLET DUCT

If cold air enters the body through the vent door control cable hole in the shroud side air outlet duct, the condition may be corrected by applying body caulking compound around the cable and hole to prevent inward leakage of air.

To apply caulking compound open the vent door and remove air outlet grille and screen, then working through the air outlet duct apply an approved body caulking compound around control cable and hole. (See Fig. 14) Work caulking compound firmly around cable and well into hole to provide a proper seal.

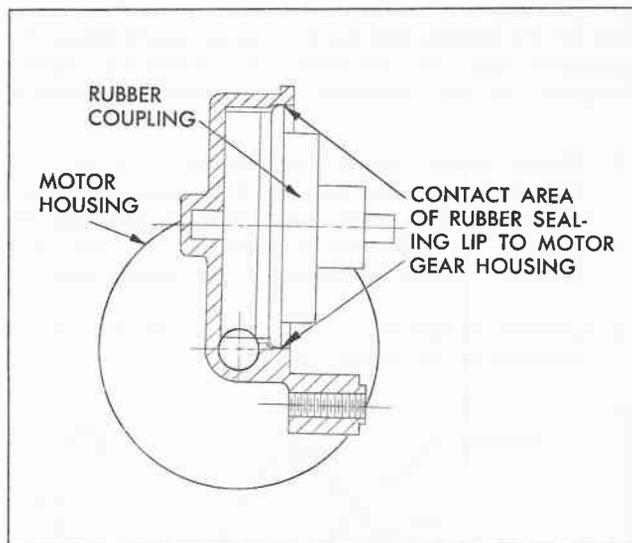


Fig. 15 Cross Section of Motor Gear Housing

CORRECTION OF SQUEAKING NOISE IN ELECTRIC WINDOW REGULATOR

If a "squeaking" noise is encountered when an electric window regulator is operated, the condition may be caused by insufficient lubrication of the motor rubber coupling sealing lip where it contacts the motor gear housing.

The "squeaking" noise may be eliminated by lubricating the sealing lip at the contact area as shown in Fig. 15. A silicone rubber lubricant or lubricant from the gear housing should be used. On some styles the sealing lip is accessible for lubrication through the door inner panel access hole. On other styles the window regulator must be removed to obtain access to the sealing lip. See Fisher Body Service News for removal and installation procedures.

NOTE: Improperly lubricated window guides and cam channels will also cause a noisy operating window. Carefully check these parts for proper lubrication.

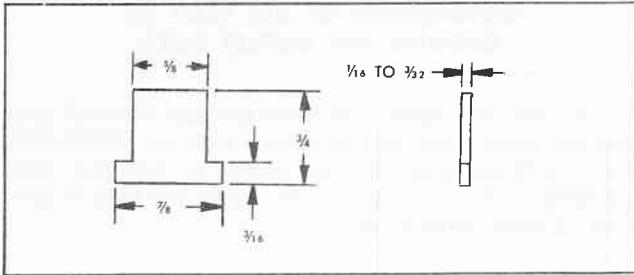


Fig. 16 Seat Back Retainer Bumper

CORRECTION OF FOLDING SEAT BACK RATTLES—1956 STATION WAGON MODELS

If excessive movement of the folding seat back causes rattles when the seat is held in the "up" position by the folding seat back retainer assemblies, the condition may be corrected by cementing rubber bumpers to the retainer assemblies as follows:

1. Obtain rubber stock (semi-hard), 1/16 to 3/32 inch thick and cut out two (2) bumpers as shown in Fig. 16. Use one bumper for right side and one bumper for left side of body. Do not use foam rubber. NOTE: Drawing is not actual size.
2. Cement bumpers to folding seat back retainer assemblies as shown in Fig. 17.

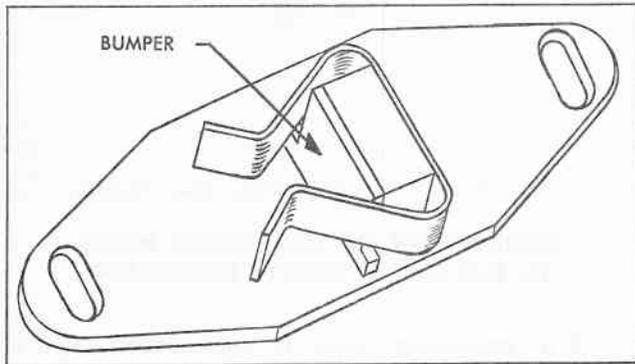


Fig. 17 Rubber Bumper Installed

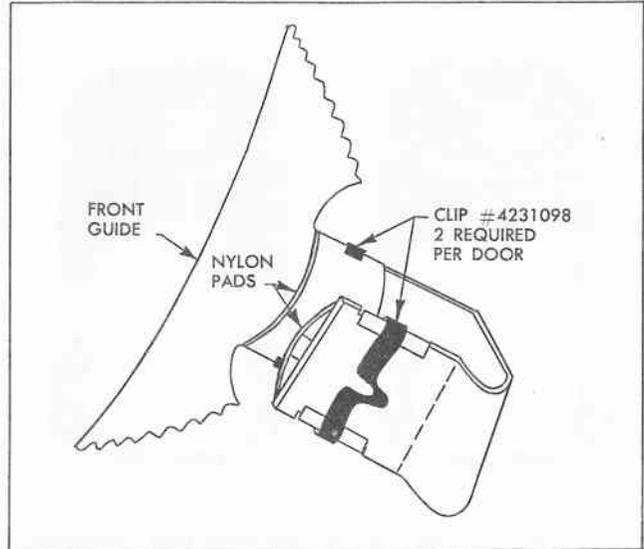


Fig. 18 Retaining Clips Installed

INSTALLATION OF REAR DOOR WINDOW FRONT GUIDE NYLON PAD RETAINING CLIP—4 DOOR CATALINA MODELS

If a rattle develops in the rear doors on 4 Door Catalina Models, it may be caused by a rear door window front guide nylon pad becoming disengaged. To provide positive attachment of the nylon pads to the guide, a Rear Door Window Front Guide Nylon Pad Retaining Clip (Part No. 4231098) may be installed. The procedure for installing these clips is outlined below.

1. Remove rear door window front guide.
2. Attach retaining clips to nylon pads on front guide as shown in Fig. 18.
3. Reinstall previously removed parts. Adjust guide "in" or "out" for proper contact of the rear door window frame weatherstrip with the front door window frame.

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.
