

News Flash



No. 55-29

October 17, 1955

ATTENTION: DEALER SERVICE MANAGER

ANOTHER PONTIAC "FIRST"

A new gloss finish Sandalwood and Sun Beige color paint of improved durability will be used on the Custom 2 and 4-door Catalina models built in the Pontiac Plant only. The code letters for these colors are S for the Sandalwood and T for the Sun Beige. Possible combinations then would be SS, TT, ST, and TS.

A notification label concerning this finish will be affixed to the vertical cowl surface above the body identification plate and on the inside of the glove compartment door of models so painted. The labels read as follows:

<u>NOTICE</u>	Body, hood, and fenders of this car are painted with a new gloss finish of improved durability. This paint is incompatible with lacquers and synthetic enamels presently in common use.
<u>IMPORTANT</u>	
EXTERIOR	Consult an authorized Pontiac Dealer for special technical information should repairs or service be required.
FINISH	D O N O T D E T A C H

In addition to these an "Important Notice" card will be placed in the glove compartment carrying the following message to dealers and owners:

I M P O R T A N T N O T I C E

In order to properly appreciate the maximum inherently improved durability and beauty characteristics of the finish on this car ... the use of polishes (wax or silicone) of any type is NOT RECOMMENDED for a 60 day period following factory application of paint.

Complete service information on the new finish will be released as soon as available. Until such time as information is released, contact your zone office for assistance before attempting paint repairs.

News Flash



No. 55-30

October 24, 1955

ATTENTION: DEALER SERVICE MANAGER

CAMSHAFT IDENTIFICATIONS - 1956

The two camshafts used on 1956 models can be identified by a numeral stamped on the front end of the shaft. The numeral 0 identifies the Synchro-Mesh camshaft. The numeral 4 identifies the Hydra-Matic camshaft. These are last digits of the respective part numbers.

FRONT SUSPENSION PIVOT PIN INSTALLATION - 1956

Upper and lower pivot pins in the front suspension will be installed as in the past in the left hand side, but starting with 1956 the pins will be installed from the rear on the right hand side. This makes it necessary to lubricate the pivot pins on the right hand side from the rear.

This change is to eliminate the tendency of the pin to loosen under some driving conditions. When installed from the rear (on the right) the pin tends to tighten. Some older craftsmen may remember when left hand threads were first put on wheel studs on the left hand side of the car. That was done for the same reason.

HARMONIC BALANCER BOLT TORQUE - 1956

Beginning with 1956 models the harmonic balancer bolt will be tightened to 130-160 lb. ft. torque. When less torque is used, the hub may work on the crankshaft causing damage.

COMPRESSION RATIO 1955 vs. 1956

The question has come up as to what changes were made to raise the compression ratio on the 1956 engine. To begin with, compression ratio is the total volume of the cylinder and cylinder head cavities when the piston is at the bottom of the stroke divided by the volume in the combustion chamber when the piston is at the top of its stroke.

The biggest cause for the higher compression ratio in our 1956 engine was the increase in the diameter of the bore. The decrease in the volume in the combustion chamber was less than 1/4 of a cubic inch. Therefore, it would be of no advantage to install a 1956 head on a 1955 engine in an attempt to raise the compression ratio. Furthermore, due to changes in valve lifters, push rods, rocker arm studs and other parts, cylinder heads must not be interchanged between 1955 and 1956 engines.

CHOKE SETTING - ROCHESTER 4GC (HYDRA-MATIC) - 1956

The choke setting on the 1956 Rochester 4GC carburetor for Hydra-Matic equipped cars has been changed to one notch rich instead of center index.

News Flash



No. 55-31

November 4, 1955

ATTENTION: DEALER SERVICE MANAGER

ADDITIONAL INFORMATION ON NEW GLOSS FINISH

News Flash 55-29 dated October 17, 1955 announced the new type gloss finish to be used on Custom 2 and 4-door Catalina models built at the Pontiac Plant only. Following is service information on this new type finish identified by DuPont as 882-886 lines. This information has been published by the E. I. DuPont Company.

Identification

<u>Pontiac Color Symbol</u>	<u>Stock No.</u>	<u>Code No.</u>	<u>Name</u>
S	2284	882-59891	Sandalwood Tan Metallic
T	2283	886-59892	Sun Beige

CAUTION:

"DUCO" LACQUER CANNOT BE USED FOR TOUCH UP AND/OR REPAIRS OF CARS FINISHED WITH 882 OR 886 LINES OF LACQUER OR SERIOUS FAILURES WILL RESULT. 882 OR 886 LINES OF LACQUER CANNOT BE USED FOR TOUCH-UP AND/OR REPAIR OF CARS FINISHED IN "DUCO" LACQUER OR SERIOUS FAILURES WILL RESULT.

Refinishing Instructions

1. Before any sanding is done, wipe surface with a clean cloth soaked with T-3812 DULUX Enamel Reducer to remove all traces of wax, polish, and grease. Wipe dry with a clean, dry cloth.
2. Cut down the edges of broken spots with coarse sandpaper. If large areas are to be stripped, use "Klean Strip," "Stripeeze," etc. Feather edges with 400 paper. Sand any rusty metal or new panels with a metal conditioner such as "Metalprep," "Deoxidine," etc. Wash with water and dry thoroughly.
3. Spray bare and feathered areas with 233-82381 Primer-Surfacer #90 reduced 2 parts 233-82381 Primer-Surfacer #90 with 1 part 3745 Undercoat Thinner. Apply two or more medium coats rather than heavy wet coats. Permit each coat to flash (become dull) before applying succeeding coats. Allow final coat to dry at least thirty minutes before sanding. Best results will be obtained by sanding with 360 paper and water. If dry sanding is preferred, use 400 paper. If any imperfections still show, knife out with PX Putty and allow to dry one to two hours. Sand same as Primer-Surfacer. Seal sanded PX Putty with one medium coat 233-82381 Primer-Surfacer #90, reduced as above and dry 30 minutes before sanding to smoothness.

(Over)

4. In spot repair, rub around patches with DUCO Rubbing Compound to remove overspray and scratches in old finish. Wipe clean with cloth dampened with T-3812 DULUX Enamel Reducer.

5. Dust off surface to be finished and tack wipe.

6. Spray three or four wet double coats of 882 Line or 886 Line Lacquers reduced 1 part of 882 line or 886 line lacquers with 1 1/2 parts 3619 Topcoat Thinner. Allow each coat to flash before applying succeeding coats. In spot repair extend each color coat a little beyond previous coat so as to blend into surrounding finish. Spray 3635 Mist Coat Thinner to improve leveling and gloss.

7. Allow to air dry at least four hours, preferably overnight; or force dry with infrared or oven to heat the finished area at least 10 minutes at 180 Deg. F. Then process the area by hand rubbing with DUCO Rubbing Compound No. 2 or by machine rubbing with DUCO Lacquer Machine Polishing Compound No. 14. In spot repair be careful not to compound too far out--stay within the area of the fresh color coat. Polish the entire area with DuPont No. 7 Polish or dry buff with "Amcor" Disc No. 5 or lamb's wool bonnet.

NOTE: 882 Line or 886 Line Lacquer may lose original brilliance due to shrinkage caused by loss of solvent after buffing. This shrinkage is reduced by increasing the dry or force dry time before buffing. Re-buffing after shrinkage is complete (2 weeks or longer) will permanently restore brilliance. Allow at least 2 months for lacquer to harden before applying wax or silicone polish.



News Flash



No. 55-32

November 8, 1955

ATTENTION: DEALER SERVICE MANAGER

STRATO-FLIGHT OIL LEVEL CHECK

When checking oil level on the Strato-Flight Hydra-Matic transmission always have car located on a fairly level surface. Checking oil on an uneven surface can raise or lower oil level on the dipstick and give an erroneous reading.

HYDRA-MATIC OPERATING INSTRUCTIONS REVISED

The following paragraph has been inserted in the second printing of the 1956 Owner's Guide under "Operation in Drive Range" on both the Strato-Flight and the Dual Range Hydra-Matic.

"The right hand arrow position in DR range is also recommended when starting out with a hot engine after parking or idling for an extended period during extremely hot weather. Under these conditions the transmission assists in eliminating vapor in the fuel system. After a short distance of operation the control lever can be placed in the left hand arrow position if desired."

HYDRA-MATIC FLUID RECOMMENDATIONS

As is covered in the 1955 Hydra-Matic Shop Manual only G. M. Hydra-Matic Fluid or Automatic Transmission Fluid (Type A) supplied by a reputable petroleum marketer and identified by Armour Institute Qualification Number "AQ-ATF...." should be exclusively used in Pontiac Hydra-Matic Transmissions.

Some "unauthorized" and "unqualified" fluids are being packaged in containers and under brand names that resemble "qualified fluids". These "unqualified" fluids do not actually carry an Armour Qualification number but may incorporate the initials "ATF" in a code, catalog or batch number on the lid of their containers in such a manner as to mislead the purchaser that the fluid is qualified. Extreme care should be exercised when purchasing fluid that only the "qualified" type is obtained.

POWER STEERING LUBRICATION

In answer to questions received on the lubrication recommendations for the 1956 power steering gear, the gear is lubricated by the hydraulic fluid in the gear itself. No other lubrication is required. Use the same type fluid in the gear as recommended for the Hydra-Matic Transmission.

News Flash



No. 55-33

November 10, 1955

ATTENTION: DEALER SERVICE MANAGER

REPLACE OIL COOLER WHEN HYDRA-MATIC
OIL CONTAMINATION IS ENCOUNTERED

Analysis of product information reports on 1956 Hydra-Matic transmission malfunctions shows that many of these malfunctions are either caused by or indicated by metal particles or other foreign material present in the transmission oil.

In the event that oil contamination is observed when the transmission is open for inspection or adjustments, it should be a standard practice to install a new transmission oil cooler. The internal construction of the oil cooler is such that it cannot be flushed or cleaned out in any manner. Excessive loading of the cooler can prevent its functioning properly and also can be a source of further oil contamination. This applies to both the Strato-Flight Hydra-Matic and the Dual Range Hydra-Matic equipped with an oil cooler for heavy duty service.

In addition to replacing the oil cooler, whenever the above conditions are encountered, the transmission itself and all cooler oil pipes etc. should be thoroughly cleaned before reinstalling. If the oil screen cannot be cleaned satisfactorily, it should also be replaced.

News Flash



No. 55-34

November 14, 1955

ATTENTION: DEALER SERVICE MANAGER

NEW WINDSHIELD WASHER CHECK VALVE RELEASED

A number of cases of inoperative 1956 windshield washers have been found to be caused by a defective windshield washer check valve assembly, part number 522531. This is the white plastic valve located on top of the windshield washer jar.

In order to avoid malfunctions of this unit, a new windshield washer check valve, part number 522805, has been released. The new check valve can easily be identified from the early type as it is made of red or blue plastic. The new valve should be installed during the predelivery inspection on cars which have not been delivered or at the time of the 2,000 mile inspection. Dealers should also inspect all cars coming in for other service and change to the second type valve if this type is found on the car. The new parts will be available approximately November 16 on order through G.M.P.D.

CORRECTIONS TO OCTOBER SERVICE CRAFTSMAN NEWS

On page 153 of the October News under the heading "UNDERHOOD LAMP" it is stated that the underhood lamp is so wired that it will operate only when the headlamp switch is on. This is incorrect. The underhood lamp operates at any time the hood is raised regardless of headlamp switch position.

Page 116 of the October News states that a new rear clutch drum and annular piston are used in the D-56 Hydra-Matic to accommodate the increased number of clutch plates. Actually only a new rear clutch annular piston is used, the rear drum is the same as that used in 1955.

Please correct your "Craftsman News" accordingly.

News Flash



No. 55-35

November 30, 1955

ATTENTION: DEALER SERVICE MANAGER

LEFT HAND TAIL PIPE SUPPORT

To correct left hand tail pipe rattle or interference on dual exhaust equipped cars, a front tail pipe support assembly is now in production. The support will be available for service under part number 522812 as a master warehouse item.

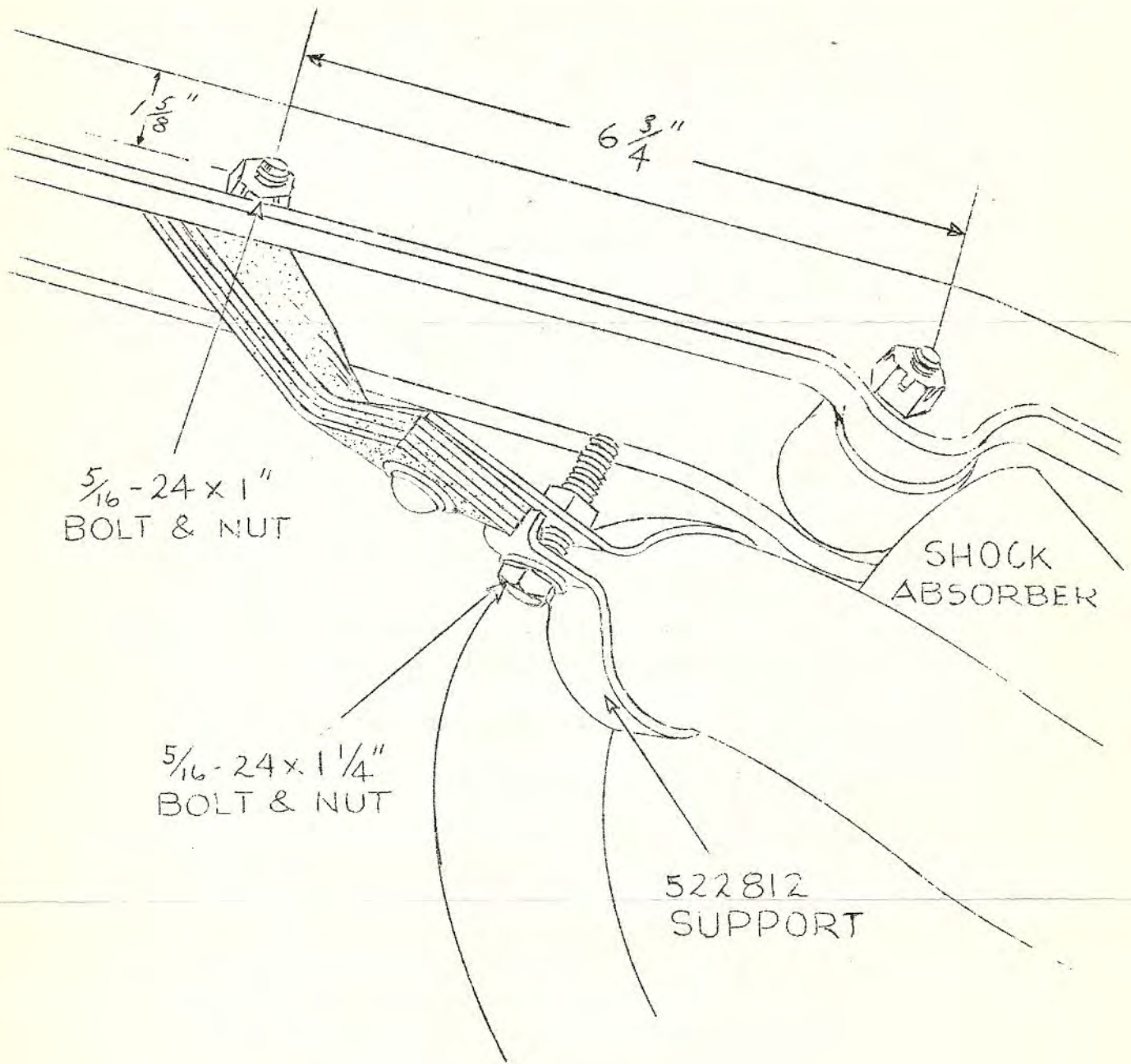
The tail pipe support should be installed on all cars which have an objectionable left hand tail pipe rattle. The illustration on the reverse side of this page can be used as an installation guide. It is necessary to drill one hole using an 11/32" drill.

Suggested time allowance for this operation is .5 hours.

NIGHT TIME RECEPTION--CAR RADIO

Since many owners say "I Can't Separate Stations On My Car Radio" we thought you would like to review an article written on this subject by the Service Department of Delco Radio Division.

We suggest that service men read this attached story and become familiar with it so that owner requests in this connection can be more completely satisfied.



News Flash



No. 55-36

December 9, 1955

ATTENTION: DEALER SERVICE MANAGER

1956 STRATO-FLIGHT TRANSMISSION

The reverse side of this page and the attached pages describe and illustrate new corrective procedures to be used in handling front sprag assembly failures and neutral clutch wear.

The last page of this News Flash is a report form concerning front sprag failures. Dealer service personnel should obtain the information needed to complete this report and call the zone office giving them the information so that they can fill out the form completely. At the same time advise them of the parts required to complete the repair.

If a front sprag failure occurs on a transmission with serial number above P56-26582, all parts damaged as a result of the sprag failure should immediately be Air Expressed (prepaid) to "Pontiac Motor Division, Pontiac, Michigan, Attention: Warranty Material Inspector". Other defective transmission parts or sprag parts from transmissions below P56-26582 should be returned to Pontiac cheapest way in accordance with previous instructions from your zone.

Repairs to Strato-Flight Hydra-Matic transmissions should be handled in the fastest possible manner. In cases where assistance is required, contact your zone office.

SERVICE PROCEDURE FOR FRONT SPRAG FAILURE CORRECTION AND NEUTRAL CLUTCH REBUILD

FRONT SPRAG

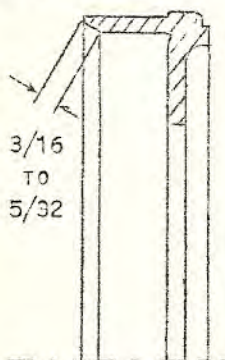
In the event of a front sprag failure it is recommended that in all cases the following parts should be replaced:

1. Front Pump
2. Front Sprag Assembly
3. Front Sprag Inner Race
4. Front Unit Driven Torus Member Assembly

Inspect all other adjacent parts such as the overrun clutch plate, washer, etc., and replace where needed.

NEUTRAL CLUTCH

In the event the neutral clutch is disassembled for any reason it is recommended that the following be done:



NEUTRAL CLUTCH
DRUM CHAMFER
Fig. 1

On transmissions below serial number P-15234 the neutral clutch drum must be checked as follows:

The drum must have a $5/32'' - 3/16''$ width chamfer measured across the chamfered surface on the inside leading edge (Fig. 1). If the chamfer is less than $5/32''$, the drum should be replaced.

Undamaged neutral clutch drive plates can be reused and durability increased by slotting as per Fig. 2. Any new plates in stock if not slotted must be slotted before use.

Inspect all adjacent parts on an individual basis and replace where needed.

FRONT PUMP

Any time the front pump is removed for any reason the clearance between the front pump bushing and the front unit driven torus shaft should be checked using the following procedure.

The clearance between the front unit driven torus shaft and the front pump bushing must not exceed $.003''$ using a $1/2''$ feeler gauge as shown in Fig. 3.

The measurement must be taken at the point shown since this is the point of greatest thrust. If a $.004''$ gauge can be inserted between the front unit driven torus shaft and the front pump bushing, the front pump and front unit driven torus member should be replaced.

If the inner race is not of the late type, which can be identified by an "O" or "S" in the recess of the tang end, it should be replaced (see back of "Front Unit Sprag Assembly Report").

All front pump assemblies replaced for any reason should be carefully packed and returned to Pontiac Motor Division, Pontiac, Michigan, Attention: Warranty Material Inspector.

CONTROL VALVE

Any time the control valve assembly is removed from the transmission the neutral clutch feed passage in the spacer plate should be drilled to $3/16''$ (Fig. 4).

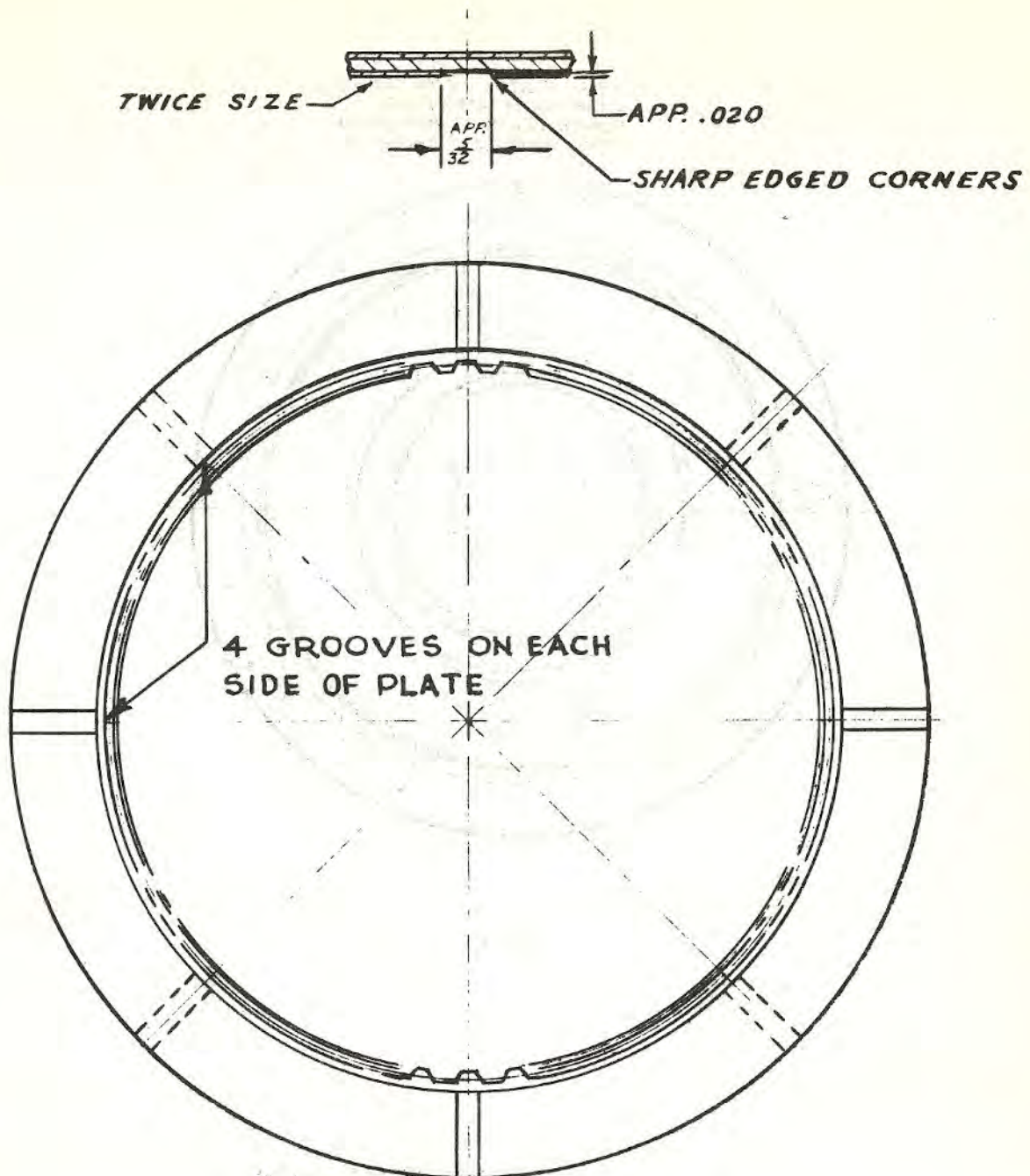


Fig. 2

NEUTRAL CLUTCH DRIVE PLATE MODIFICATION - 8616462

Cut four radial, equally spaced, sharp-edged grooves on each side of the cork facings on the Neutral clutch drive plates. These grooves must be $\frac{1}{8}$ " to $\frac{5}{32}$ " wide and have a depth of approximately $.020$. Note that grooves on one face are spaced between grooves on other face (Fig. 2). Use a square-cornered (mill) file or an end mill mounted in a drill press to perform this modification.

INSERT FEELER GAGE TO CHECK
CLEARANCE BETWEEN PUMP
BUSHING I.D. & FRONT UNIT DRIVEN
TORUS SHAFT O.D. AT THIS POINT

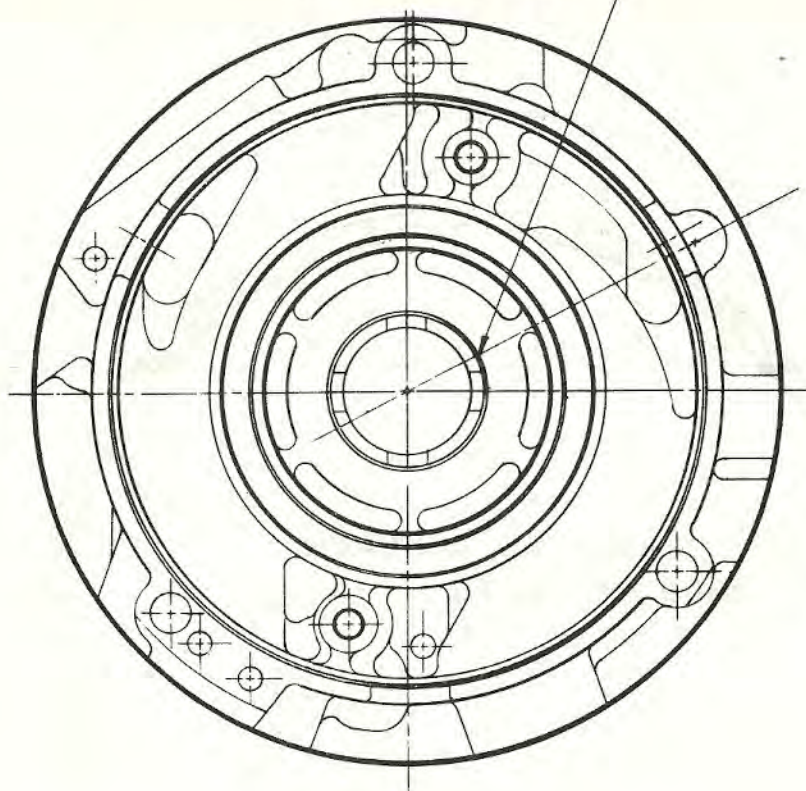


Fig. 3

ENLARGE NEUTRAL CLUTCH
FEED HOLE TO $\frac{3}{16}$ DIA.

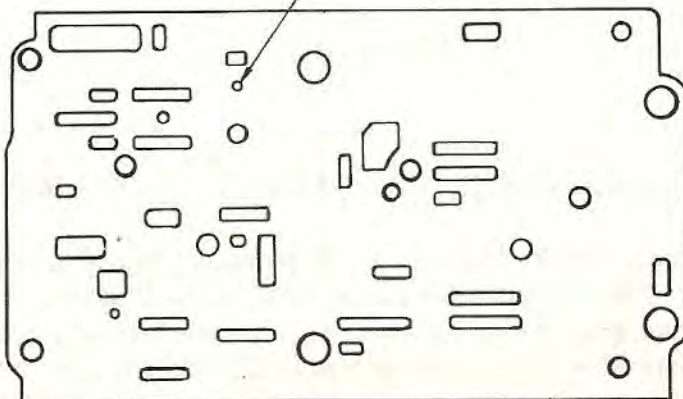


Fig. 4

Date _____

FRONT UNIT SPRAG ASSEMBLY REPORT

DEALER NAME _____

TRANS. NO. _____

LOCATION _____

MILEAGE _____

Please provide following information:

FRONT SPRAG INNER RACE

Number of tangs broken _____

Identification letter

O S

SEE
REVERSE
SIDE

FRONT SPRAG

Damaged?

Yes

No

Identification letter

BW ND

SEE
REVERSE
SIDE

FRONT UNIT DRIVEN TORUS SHAFT

Condition:

Finish OK

Scored

Scratched

FRONT PUMP BUSHING

Condition:

Good

Scored

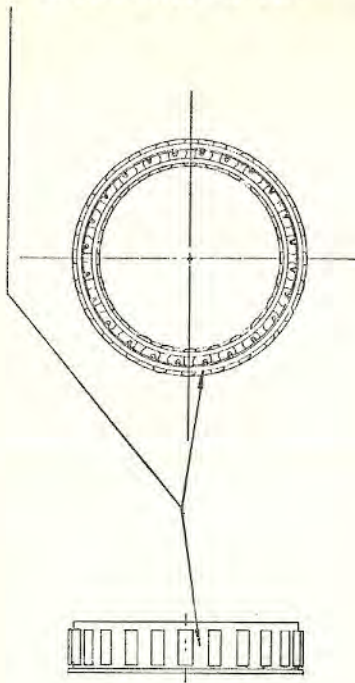
Is clearance between shaft and bushing more than .003?

Yes No

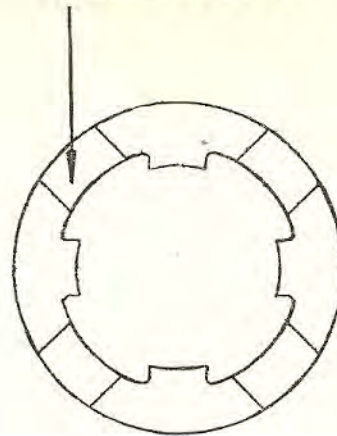
SEE
REVERSE
SIDE

OTHER CONDITIONS NOTED:

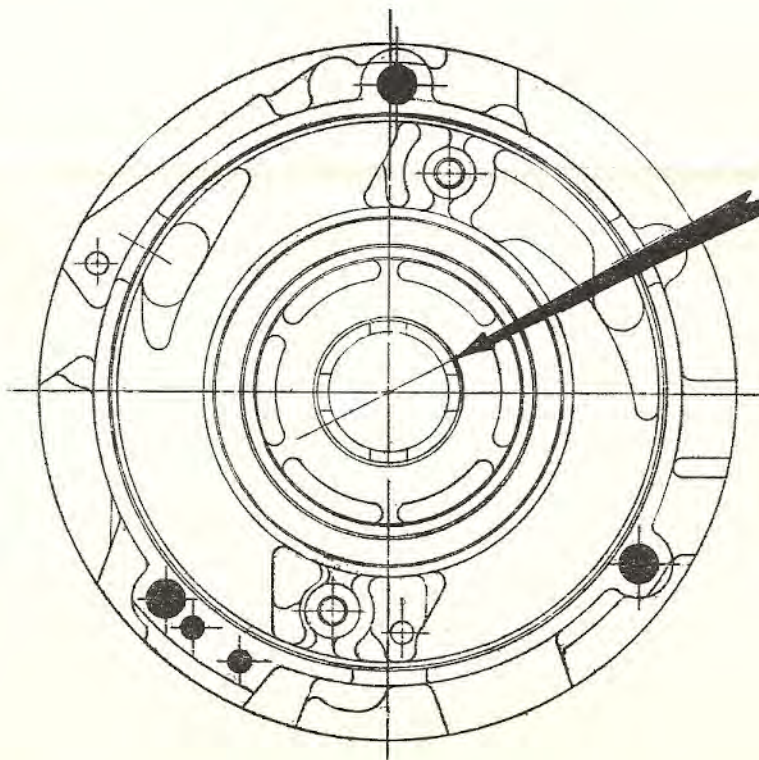
**LOCATION
SPRAG IDENTIFICATION
LETTER BW or ND**



**LOCATION
INNER RACE IDENTIFICATION
LETTER O or S**



**LOCATION FOR TAKING MEASUREMENT OF CLEARANCE
BETWEEN FRONT UNIT DRIVEN TORUS SHAFT AND FRONT PUMP BUSHING**



**INSERT 1/2" FEELER
TO CHECK CLEARANCE
AT THIS POINT**

News Flash



No. 55-37

December 15, 1955

ATTENTION: DEALER SERVICE MANAGER

ROCHESTER 4-JET CARBURETOR CHANGE

To improve cold engine operation and eliminate engine stalling after a cold start a new choke piston is now being used in the Rochester 4-Jet carburetor.

The new piston is released for service under part number 7009710 as a zone warehouse item. Carburetors with the new piston installed will be identified by the letter "F" embossed on the identification tag. A comparison of the first and second type piston shows that the first type has three lands and two holes as compared to two lands and one hole on the second type.

Installation of the new piston can be performed with the carburetor on the car by disconnecting the choke linkage, removing choke valve, choke cover and baffle plate. Use care that choke valve screws do not drop down into the carburetor and be sure to set the choke one notch rich when reinstalling as was covered in the November "News."

The suggested flat rate time allowance for this operation is .4 hr.

News Flash



No. 55- 38

December 22, 1955

ATTENTION: DEALER SERVICE MANAGER

POOR COLD ENGINE OPERATION - 1956 CARTER 4-BARREL CARBURETOR

To improve cold engine operation and eliminate engine stalling after a cold start a new choke piston and a new vacuumer piston spring are being used in the 1956 WCFB Carter 4-Barrel Carburetor. The new choke piston is the same piston that was used on the 1955 Carter 2268S carburetor and is available for service under part number 7008360.

The vacuumer spring can be identified by its red coloring and is available for service under part number 7009746. Both the spring and piston are master warehouse items. All Carter carburetors built with an identification tag of M-5 or later (A-6, B-6, etc.) will contain the new type parts.

In all cases of attempted correction of poor cold engine operation or cold stalling on Carter 4-Barrel carburetors built prior to units with tag number M-5 both the choke piston and the vacuumer spring must be installed. One part alone will not correct the condition. In addition to the above changes the choke setting on all 1956 Carter 4-Barrel carburetors has been changed from center index to one notch rich.

The easiest method of completing the installation is to remove the air horn casting with the carburetor on the car. Install new spring in the carburetor bowl then with air horn on bench install new choke piston. The suggested flat rate time for this operation is 1.0 hour and includes time for a float level, metering rod, and fast idle cam clearance adjustment.

STALLING AFTER START -- 1956 ROCHESTER 4-JET CARBURETOR

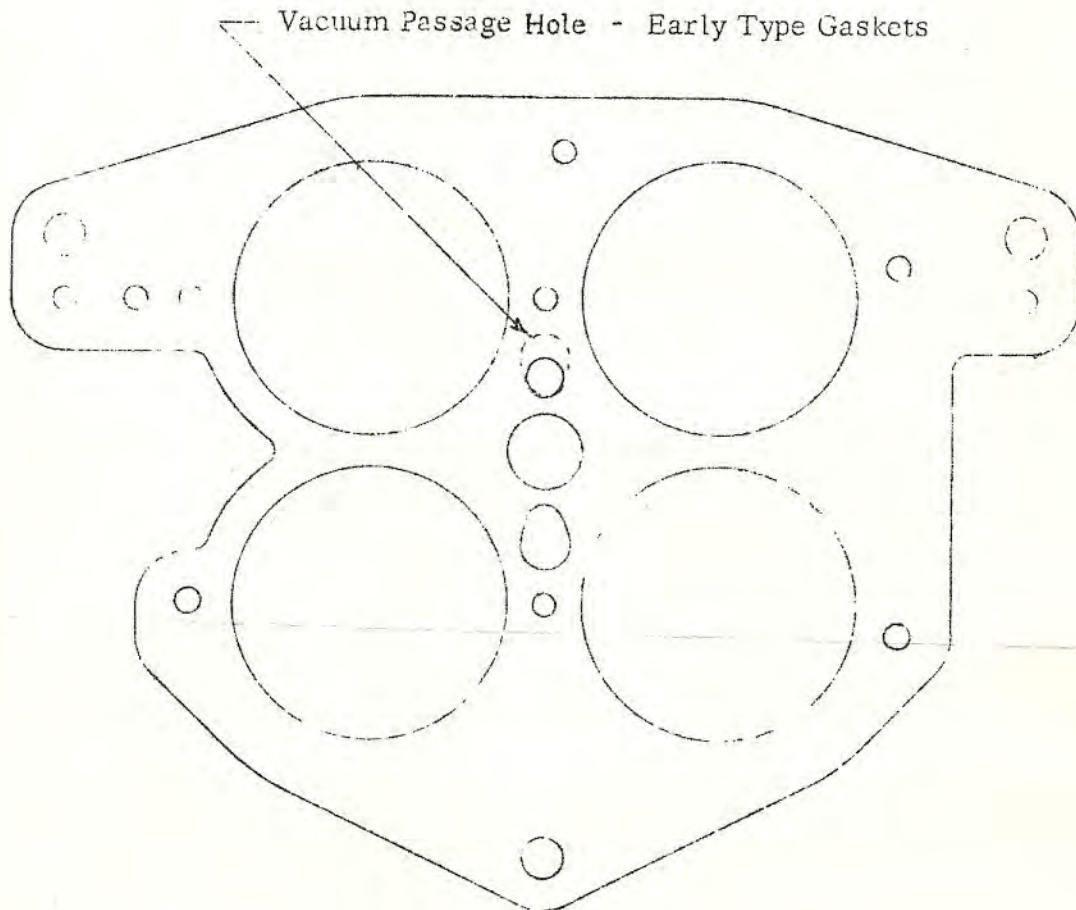
Engine stalling during warm up on cars equipped with the Rochester 4-Jet Carburetor may be due to a leak in the choke piston vacuum passage. A leak in the passage reduces the effect of engine vacuum in opening the choke thereby allowing the engine to "load-up." Investigation of cases of this nature indicates that the usual cause of the condition is a leak at the carburetor throttle body to bowl gasket. The gasket originally used was shaped in such a manner that it could cause a leak between the vacuum passage and one of the secondary throats.

A new gasket is now being used in production to eliminate the possibility of a leak. The new gasket is available under part number 7009762 through your zone warehouse. All future carburetor gasket and repair kits will contain the new gasket.

(over)

The new gasket is illustrated below. The dotted line on the illustration shows the outline of the vacuum passage hole on early type gaskets.

To test for a choke vacuum leak, remove the choke housing to manifold pipe and check the vacuum at the choke housing. If vacuum is less than 10 inches, improper choke action will result. Replace the first type gasket with the 7009762 gasket and recheck choke vacuum to be certain condition is corrected. When gasket is being installed inspect upper face of throttle body for smoothness and complete finish. The time allowance for this operation is 1.2 hours.



News Flash



No. 55-39

December 30, 1955

ATTENTION: DEALER SERVICE MANAGER

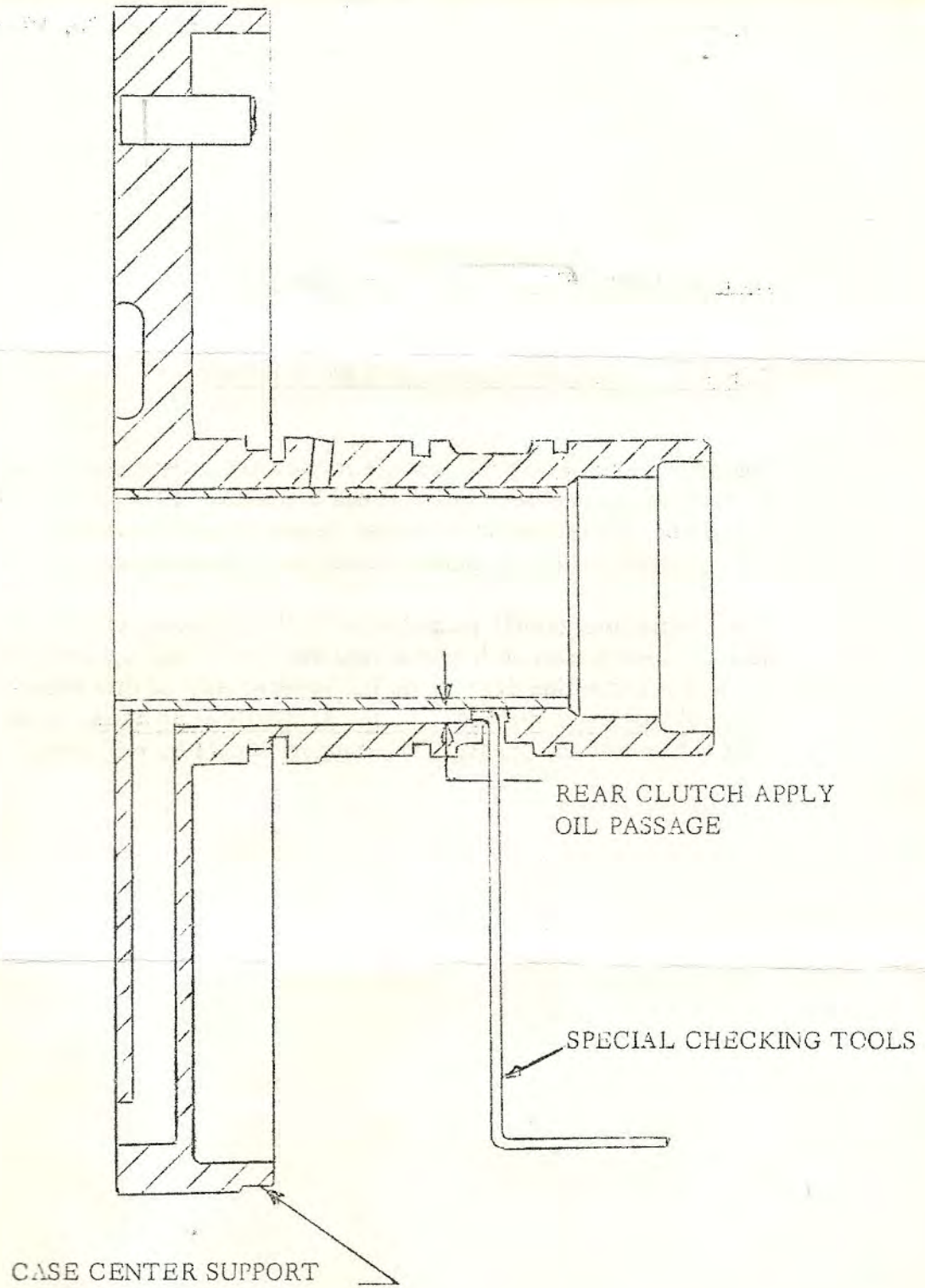
STRATO - FLIGHT CASE CENTER SUPPORT

The rear clutch apply oil passage in the case center support has been enlarged to obtain an improved 2-3 shift. This passage should always be checked before the case center support assembly is put into a transmission, to make certain the improved part is used.

The special tool (.068" gauge) which is furnished no charge attached to this sheet should be inserted into the rear clutch apply oil passage as shown in the line drawing on the reverse side of this bulletin. If the tool will enter the passage, the support can be used. If the tool will not go into the passage, the support should be replaced.



CHECKING REAR CLUTCH APPLY OIL PASSAGE



News Flash



No. 56-1

January 6, 1956

ATTENTION: DEALER SERVICE MANAGER

STRATO-FLIGHT TRANSMISSION - NEW PISTON SEALS

The inner and outer overrun clutch piston seals, neutral clutch piston seals, and reverse clutch piston seals are being changed from metal rings to composition rubber lip type. To accommodate the new seals it was necessary to redesign the seal grooves for both the inner and outer seals. These changes affect service as follows:

- a. Overrun Clutch -- The new seals for the overrun clutch piston are now in production. In conjunction with the use of new seals, a new front pump assembly and overrun clutch piston assembly went into production. The difference in design of the seal grooves in these parts can be seen in Fig. 1 on the reverse side.
- b. Reverse Clutch -- The new seals for the reverse clutch piston are now in production along with a new rear pump (to accommodate the inner seal) and a new clutch piston (to accommodate the outer seal). The seal grooves in the early and late hubs are shown in Fig. 1. The ring grooves in the early and late reverse clutch pistons are very similar and both look like the late type in Fig. 1. The only sure identification of the early and late reverse clutch pistons is to test the fit of the metal oil ring in the groove. The metal ring will not fit in the groove designed for the rubber seal since this groove is slightly narrower.
- c. Neutral Clutch -- The new seals for the neutral clutch will go into production in the near future. Along with the change in seals a new case center support and neutral clutch piston will be required in production. The difference in design of the seal grooves can be seen in Fig. 1. Also required is a new neutral clutch drum (Fig. 2 on the reverse side).

In each clutch all parts must be the same type. For example: If a late type front pump having the step type groove for the rubber seal is installed in an early transmission, the late type overrun clutch piston and rubber lip type inner and outer seals must also be installed.

If a late type case center support is installed in an early transmission, it is necessary to install the late type neutral clutch drum as well as the new piston and seals. Both the early and late type pistons, rings and neutral clutch drum will be serviced. Service front pumps, case center supports and rear pumps of both types will be serviced temporarily to be replaced by the late type only in the future.

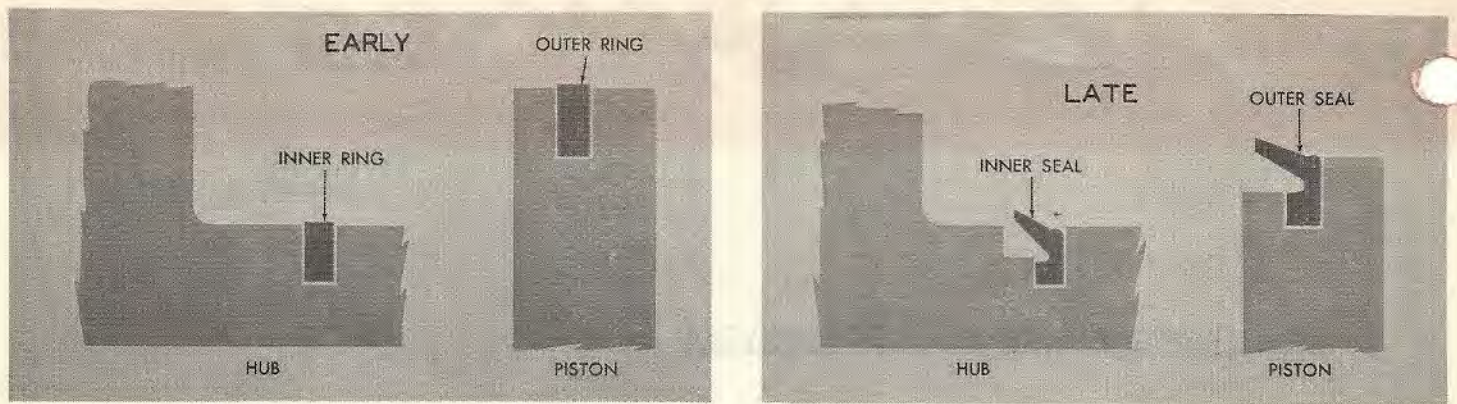


FIG. 1 EARLY AND LATE TYPE HUB AND PISTON

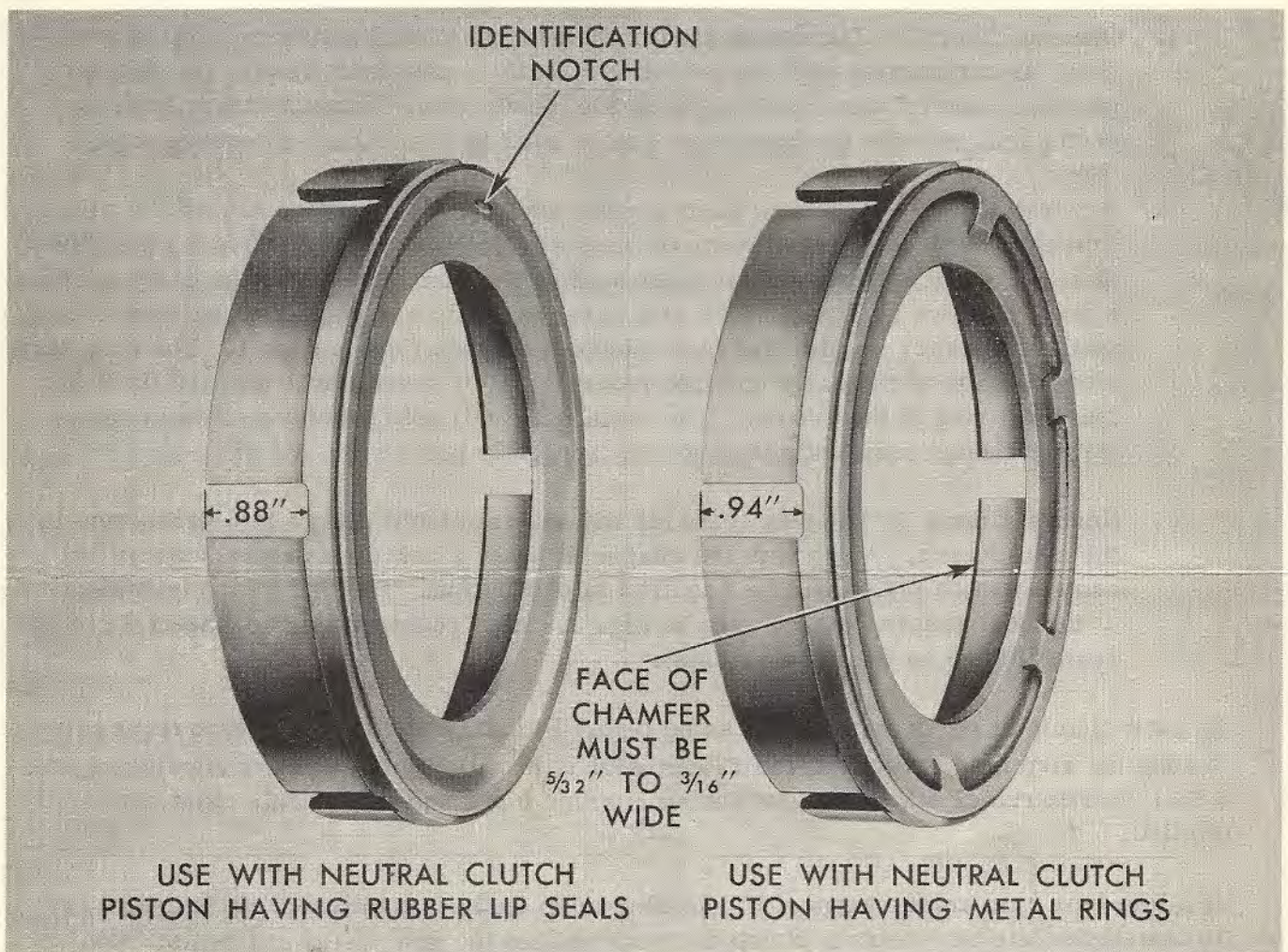


FIG. 2 EARLY AND LATE NEUTRAL CLUTCH DRUM

News Flash



No. 56-2

January 12, 1956

ATTENTION: DEALER SERVICE MANAGER

CARBURETOR UNLOADING PROCEDURE

If an engine fails to start after a reasonable amount of cranking it may be flooded. In this case forcibly depress the accelerator to the floor to open the choke. Hold firmly in this position while cranking, do not pump accelerator at any time. If this procedure does not relieve the flooding it is possible that there is interference between the accelerator pedal and the floor mat at the "hump" above the transmission. To correct this, loosen the accelerator pedal to floor bracket attaching screws and move top of pedal to the left so that when depressed it does not interfere with the floor mat at this point.

Throttle linkage adjustment should be checked to ascertain that the TV lever stop does not interfere with unloading action at the carburetor with the choke fully on.

A thick floor mat will sometimes prevent full travel of the accelerator pedal thereby interfering with choke unloading. In cases of this nature check and correct unloader adjustment as covered in the 1955 Shop Manual and instruct owners on the correct unloading procedure emphasizing that the pedal must be forcibly depressed.

In all instances service men should observe carburetor to see that it can be unloaded by using the correct procedure. This should be done before releasing car to the owner.

News Flash



No. 56-3

January 17, 1956

ATTENTION: DEALER SERVICE MANAGER

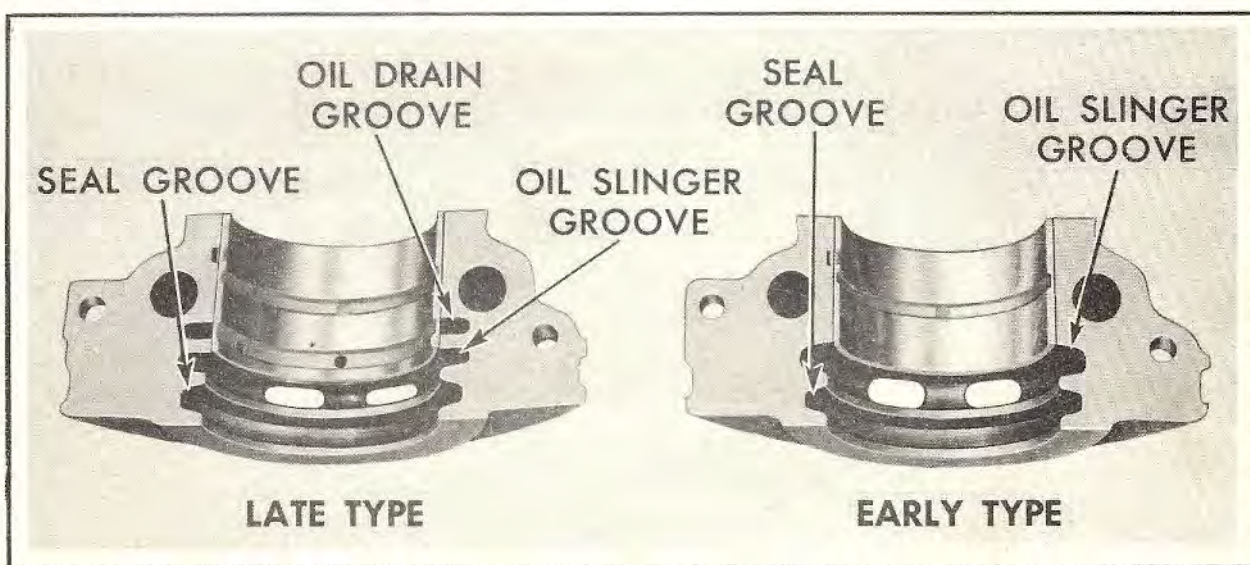
ENGINE REAR MAIN BEARING CHANGE - 1956

The illustration below illustrates the new rear main bearing design now being used to reduce the possibility of crankshaft rear main oil leaks. As shown in the illustration a groove and three oil drain holes are now incorporated in the bearing shell. These holes index with a machined oil drain groove in the main bearing cap and engine block. The new design allows oil drainage from the crankshaft journal and thereby eliminates oil getting to the packing seal under normal operating conditions. The packing seal is required for acceleration of the car on steep up hill driving.

Engines built on or after January 3, 1956 have the new type rear bearing shells, however, a number of engines were built after December 16, 1955 with the grooves machined in the block and cap but with the first type bearing shells installed. This was done because new shells were not available. If leaks are encountered on engines having the new groove and first type bearing shells, the second type shells may be installed.

When installing the new type shells it will be noted that the upper and lower shells are not interchangeable due to a difference in tang location.

The new bearing shells are released under package number 522825 (one upper and one lower) and are available as a zone warehouse item.



EARLY AND LATE TYPES MAIN BEARINGS



No. 56-4

January 18, 1956

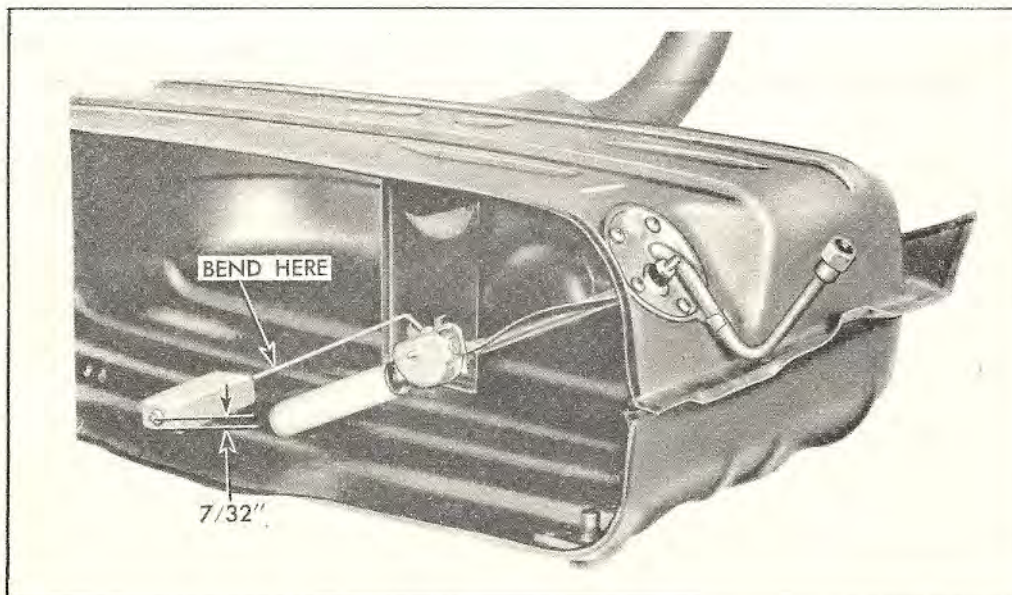
ATTENTION: DEALER SERVICE MANAGER

GAS GAUGE TANK UNIT MODIFICATION - 1956 MODELS

Product Information Reports received from the field have indicated complaints on inaccuracy of the instrument panel fuel gauge. Our investigation shows that this is caused by the tank unit rheostat float arm being positioned improperly. In these cases the instrument panel gauge would read empty although there was a reserve in the tank of 6 or more gallons. To correct the condition, remove the unit, remove the filter, place unit in a vise, and bend the float arm so that the float will be $7/32$ " lower as shown in the illustration below. This dimension should be scaled accurately.

The modification should be performed in all cases of complaints of this nature and also on gauge units in dealer stock with the exception of station wagon units which are not affected. The time allowance for removing the tank unit, bending float arm, and replacing is .5 hr.

This condition has been corrected in production and all warehouse stock has been purged. The corrected units will be marked with a daub of red paint on the gasoline tank fuel gauge unit outlet tube for a period of 90 days. Therefore, cars marked in this manner will not require this correction.



FUEL GAUGE TANK UNIT

News Flash



No. 56-5

January 19, 1956

ATTENTION: DEALER SERVICE MANAGER

AC TYPE 46 SPARK PLUG

Starting with production engine number 168065 built on January 6, 1956, engines will be equipped with AC Type 46 spark plugs. While the 44 type plug has been found to be generally satisfactory, it was decided to use the type 46 because it is a hotter plug and gives better overall performance under all operating conditions. Type 44 and 44-5 spark plugs will be available through GMPD warehouses for use under out-of-the-ordinary driving conditions. Remember that the 44-5 plug used during the 1955 model year did not have the four ribs molded in the upper insulator. The protective nipple used with these plugs is not satisfactory for use with those having the ribs.

This is not to be considered a modification as no credit will be granted by Pontiac or the AC Spark Plug Division for the exchange of type 44 spark plugs for the type 46 in any engines built prior to the production use of the type 46 plugs. "The manufacturer has reserved the right to make changes in design or add any improvements on motor vehicles at anytime without incurring any obligations to warrant same on motor vehicles and chassis previously purchased." (See page 2 of the Owner's Guide.)

Use of the new plugs will give the following advantages:

1. Prolong the mileage between cleanings due to lead fouling. This is of particular significance on cars that are rarely driven above 50 MPH.
2. Tends to eliminate the possibility of carbon fouling during break-in or ring-seating period.

The new spark plug will be catalogued under the number 1559494 and may be ordered through GMPD warehouses.

News Flash



No. 56-6

January 30, 1956

ATTENTION: DEALER SERVICE MANAGER

NEW REAR SPRING ASSEMBLY

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.

REAR SPRING RATTLES - CORRECTING

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 Compound No. 4.
 - 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.

News Flash



No. 56-7

February 14, 1956

ATTENTION: DEALER SERVICE MANAGER

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 reinstalled with the side having the drill mark facing the rear.

On early production jobs 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 - STRATO-FLIGHT

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. The illustration on the back of this sheet 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.

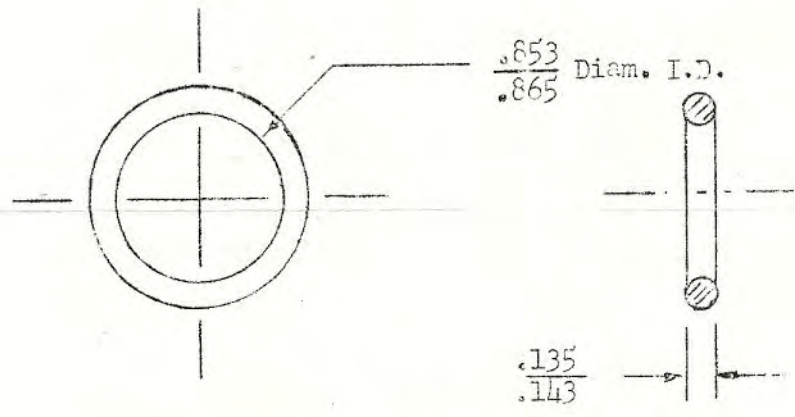
It is very important that these seals be used correctly. If the pressure regulator "O" ring seal is installed on the front pump intake pipe, a suction leak may occur causing oil starvation and foaming. Conversely, if the intake pipe seal is installed on the pressure regulator plug, an external fluid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

ENGINE STALL SPEED WITH EXTRA HORSEPOWER ENGINE

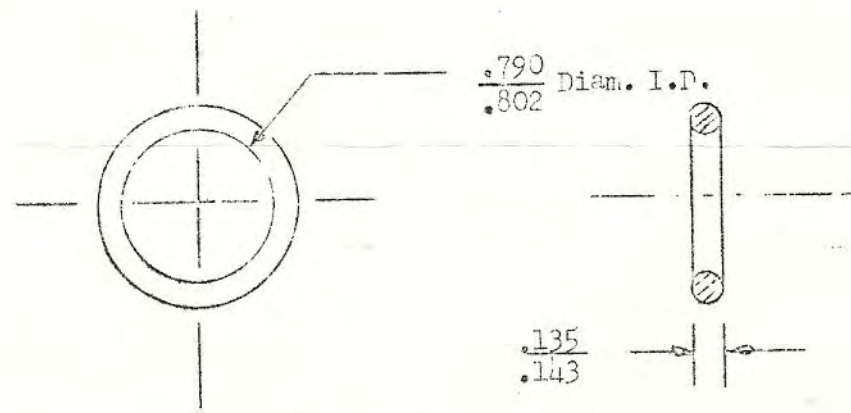
The stall speed obtained with the 285 horsepower engine is approximately the same as with the standard engine. This is true with both the Strato-Flight and Dual Range Hydra-Matic transmission.

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.



FRONT PUMP INTAKE PIPE SEAL



PRESSURE REGULATOR PLUG SEAL

News Flash



No. 56-8

March 1, 1956

ATTENTION: DEALER SERVICE MANAGER

STRATO-FLIGHT 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.

CARBURETOR CHOKE SETTING CHANGES

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.

POWER STEERING GEAR LEAKS -- 1956

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.

News Flash



No. 56-9

March 6, 1956

ATTENTION: DEALER SERVICE MANAGER

PROTECTION OF BRIGHT METAL PARTS

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 smokestacks 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 #988718 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.

WHEEL INSTALLATION

When rotating or replacing wheels make sure that the mating surfaces of the wheel and hub are clean. Tighten all nuts approximately finger tight while moving the wheel to make certain that the tapers on the nut and in the wheel are aligned, then tighten nuts in rotation until all are equally tight. This will minimize the possibility of lateral runout due to obstruction between the parts or due to unequal tightening.

News Flash



No. 56-10

April 18, 1956

ATTENTION: DEALER SERVICE MANAGER

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 extension housing.)

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.

News Flash



No. 56-11

May 10, 1956

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 (.1)). 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.

News Flash



No. 56-12

May 28, 1956

ATTENTION: DEALER SERVICE MANAGER

HEAVY DUTY AIR CLEANER OIL VISCOSITY

IF THE AVERAGE OUTSIDE AIR TEMPERATURES ARE ABOVE 32°F THE USE OF SAE 50 VISCOSITY OIL IS REQUIRED IN THE OIL BATH AIR CLEANER. Average temperatures of below 32°F require the use of SAE 20W oil.

The use of an oil "lighter" than specified will result in oil being drawn through the cleaner into the engine combustion chamber causing spark plug fouling and poor performance. Improper oil will also contribute to exhaust smudging of the bumper face bar at the exhaust outlet. The same condition will be experienced if the oil level is too high in the air cleaner. The proper level is indicated on the inside of the reservoir.

These recommendations are covered in Page 38 of the Pontiac Owner's Guide and Page 0-5 of the 1956 Pontiac Shop Manual.

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.

News Flash



No. 56-13

June 1, 1956

ATTENTION: DEALER SERVICE MANAGER

COMPRESSOR NOISE ON AIR CONDITIONED CARS

It has been reported that a low siren type noise appears to be coming from the compressor when air conditioning system is cooling. This noise is only evident when the compressor operates.

Moving the doughnut type rubber spacer which is around the discharge hose (located just behind the radiator to fender upper brace) back towards the fire wall about 9" will prevent the discharge hose from vibrating against the fender skirt, thereby reducing this noise to where it is barely audible.

After repositioning this rubber spacer, make sure that the screws protruding through the fender skirt just behind the radiator to fender upper brace do not chafe the discharge hose. Wrap retaining screws as necessary to protect from chaffing discharge hose.

Corrections have been made in Production and, in the future, cars with air conditioning will have two spacers: one as indicated above and one just behind the radiator to fender upper brace.

FLUID LEAKS AT STRATO-FLIGHT FILLER TUBE

A new "O" ring seal and a new filler tube sleeve have been released to minimize the possibility of leaks at this location. The new seal is thicker to provide more compression and the new sleeve has a .010" larger inside diameter to make sure the tube will compress the seal evenly all the way around. The new parts are serviced under package no. 8616956.

When a leak is encountered at the point where the filler tube enters the sleeve, the new sleeve and seal should be installed as follows:

1. Drain fluid and remove filler tube from transmission.
2. Remove filler tube sleeve and seal from transmission case.
3. Install new "O" ring seal from package no. 8616956.
4. Install new sleeve from package no. 8616956 and tap into case until it touches "O" ring in case.
5. Insert filler tube into sleeve until flange on tube seats against sleeve.
6. Clamp filler tube securely to cylinder head and replace fluid.

News Flash



No. 56-14

June 14, 1956

ATTENTION: DEALER SERVICE MANAGER

USE OF LEATHER SEALER ON GENUINE LEATHER TRIM

On May 2, 1956, a dealer letter, over the signature of J. H. Otis, Accessory Sales Manager, was sent to all dealers concerning the use of Leather Touch Up Paint, Part Number 988639, Leather Cleaner, Part Number 4259128, and Leather Sealer, Part Number 4259129.

These products are highly recommended for use on genuine leather trim as a means of maintaining and/or restoring appearance.

The letter stated that the Leather Sealer could only be used on genuine leather with a vinyl finish and stated that before applying sealer to trim "apply a drop or two in an inconspicuous spot and rub with finger tips". If the material is pyroxylin and not vinyl it will feel sticky and the color will come off.

It was incorrectly stated that all Pontiac genuine leather was vinyl coated.

This is to advise that under no circumstances should the Leather Sealer be used on 1952 or earlier Pontiac leather trim as this was coated with a prox- ylin finish. 1953 genuine leather was both vinyl and prox- ylin coated in mixed production and should therefore be carefully tested before the sealer is used. 1954, 1955 and 1956 genuine leather trim was vinyl coated and the sealer can be used on these models.

News Flash



No. 56-15

June 12, 1956

ATTENTION: DEALER SERVICE MANAGER

NEW STRATO-FLIGHT CONTROL VALVE

Several important changes have been made in the shift valve body and the overrun clutch valve body. These changes took effect with transmission serial no. P56-170202.

SHIFT VALVE BODY

A spring has been added in front of the governor boost valve. The spring improves the operation of the valve and assists in preventing delayed 1-2 shifts with cold oil.

OVERRUN CLUTCH VALVE BODY

The coupling valve has been redesigned to further aid in preventing delayed 1-2 shifts with cold oil. The new coupling valve assembly has two springs, and a larger diameter plug.

The overrun clutch valve is now controlled by governor boost pressure on one end working against a spring at the other end. At speeds under approximately 5 MPH the spring holds the valve to the left cutting off reverse oil to the overrun clutch (Fig. 1). Eliminating the overrun clutch application prevents starvation of the reverse clutch when shifting to reverse since it is not necessary to fill the relatively large volume behind the overrun clutch piston. A much firmer reverse clutch application results, which eliminates the grunt which was previously noticed in some transmissions. At speeds above 5 MPH the overrun clutch valve moves to the right to allow application of the overrun clutch (Fig. 2)

INTERCHANGEABILITY

There have been two types of service shift valve bodies and two types of service clutch valve bodies used since the beginning of production. The service part numbers of these assemblies are shown below:

	1st	2nd
Shift Valve Body Assembly - Service Part No.	8616920	8616963
Overrun Clutch Valve Body Assembly - Service Part No.	8616901	8616957

The 2nd type service shift valve body has the new governor boost valve with the spring which results in higher governor boost pressure than in the 1st type. If this 2nd type is installed on an assembly having the 1st type overrun clutch valve body, the spring must be removed from the governor boost valve so that it will put out the proper pressure to operate the early type coupling valves.

When the 2nd type service overrun clutch valve body is installed in place of the 1st type, the shift valve body must also be changed to the 2nd type.

(over)

IDENTIFICATION

Service parts can be identified by the part numbers listed above. Visual inspection of the shift valve body on the transmission will show whether it is the 2nd type (with spring) or the 1st type (no spring). The valve will appear as shown in Fig. 3 on the 2nd type and the spring tension can be felt. On the 1st type the valve may or may not be visible, but it will be obvious that there is no spring tension.

When it has been determined which type shift valve body is on a control valve assembly, it can be assumed that the overrun clutch valve body is of the same type. If necessary to determine the type of overrun clutch valve body, the only method is by removing the rear plate which compresses the limit valve springs. It can then be determined whether the coupling valve plug is the 2nd type and whether there are one or two coupling valve springs (Fig. 4).

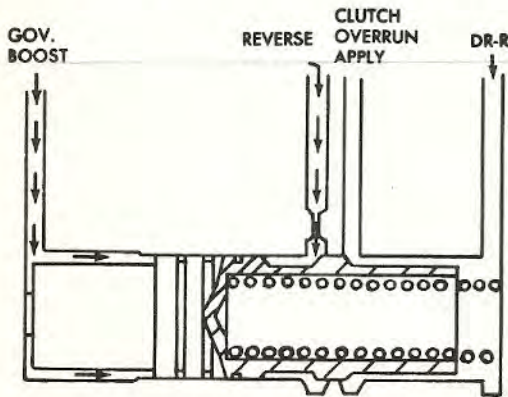


Fig. 1 Overrun Clutch Valve - Below 5 MPH

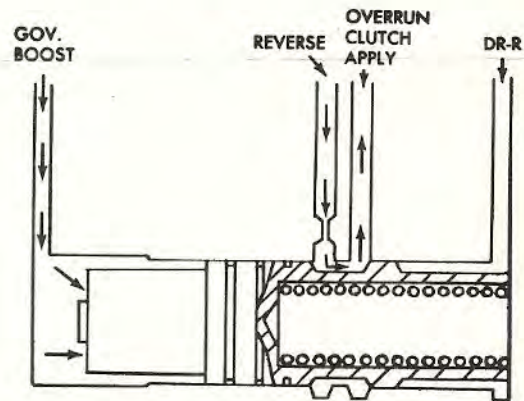


Fig. 2 Overrun Clutch Valve - Above 5 MPH

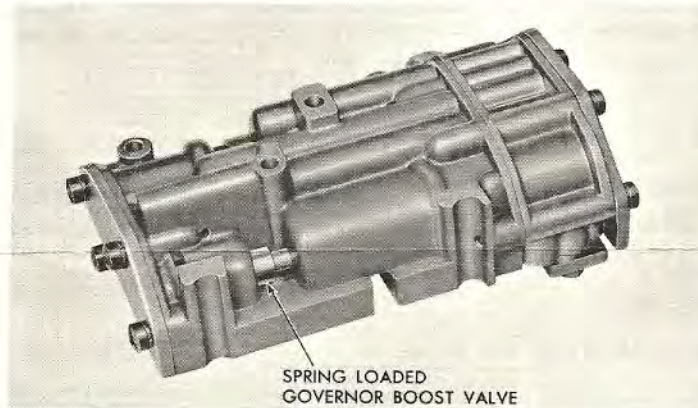


Fig. 3 Late Type Shift Valve Body

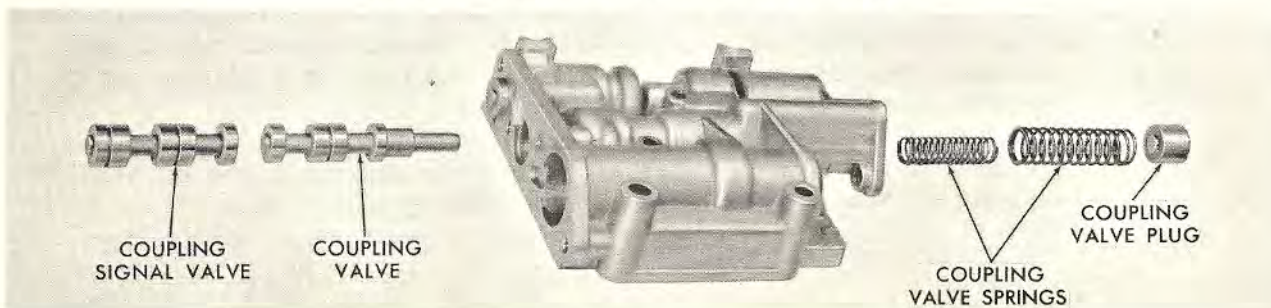


Fig. 4 Late Type Coupling Valve and Springs

News Flash



NO. 56-16

July 5, 1956

ATTENTION: DEALER SERVICE MANAGER

Reports are being received where owners complain of "Air Conditioning operates fine for a while, but then the air coming from the nozzle gets warmer". This condition is the result of the evaporator core freezing the moisture that accumulates on the surface of the core. Determine whether this "freeze-up" occurred in city or country driving.

The procedure for correcting these complaints is as follows:

1. Check for heat leak at heater.
2. Perform operational check, making sure suction pressures, discharge pressures, and nozzle temperatures are all in accordance with the specification on Page 49 of the 1956 Air Conditioning Manual.
3. If all pressures and temperatures are within specifications, turn engine off and remove the thermostat and air distributor as an assembly for the following checks:
 - a. Lift the pressed paper door on the thermostat.
 - b. Move the cam lever at the bottom of the rancostat (thermostat) towards you as you face the end of the rancostat just exposed by removing the door.
 - c. Pressing down on the plastic bar, which is in the center of the opening (Fig. 1 on reverse side), observe the distance that the rancostat points open. This distance should be a minimum of .006" and should not exceed .010". If points appear to be burned or oxidized, very light filing is suggested. (Use a thin or very fine riffler file.) If it is necessary to adjust these points, use a screw driver and turn the screw on the upper portion of the rancostat the necessary distance to give you the proper gap (1/4 turn of this screw counterclockwise will increase the point opening .004"). As the top of the screw is cemented, it will require a screw driver of the right size and properly sharpened to effectively turn it, otherwise the head of the screw will be damaged.
 - d. The lower portion of the opening exposes a temperature adjusting screw. Just below the screw is an arrow pointing in a counterclockwise direction with the letters "COLD" stamped just below the arrow.

If the owner advises that air coming from the nozzles turned warm in a relatively short period of time (1/2 hour country driving or from 15 to 20 minutes city driving), then turn the temperature adjusting screw 1/2 turn clockwise OPPOSITE TO THE DIRECTION INDICATED BY THE ARROW.

If the owner advises that an hour's driving was required to cause freeze-up, then move the temperature adjusting screw 1/4 turn clockwise.

- e. Reposition the pressed paper door on the thermostat. Replace the thermostat and air distributor assembly.
- f. Adjust rancostat control cable.

(over)

All rancostats in your Parts Department should be checked for proper point opening (.006" minimum and .010" maximum) and adjusted as necessary. The suggested straight time for performing this operation is .7 hr.

LOOKING INTO THE RANCOSTAT
WITH THE PRESSED PAPER
DOOR REMOVED

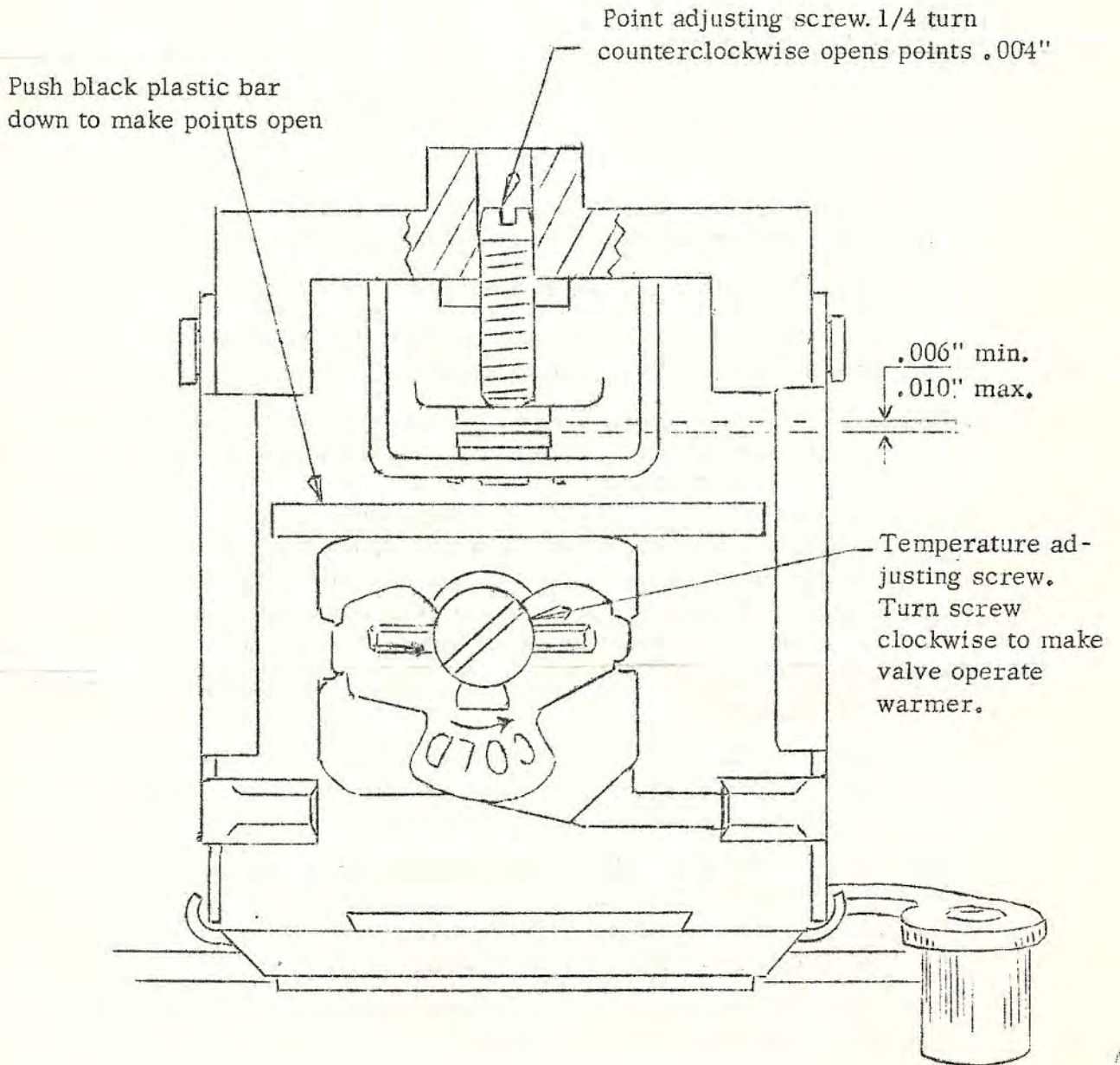


FIG. 1

News Flash



No. 56-17

July 10, 1956

ATTENTION: DEALER SERVICE MANAGER

REAR SPRING LEAF LINER PACKAGE (BUTYL RUBBER)

New service packages of butyl rear spring leaf liners for 1956 models are being prepared according to the following:

<u>Old Pkg. No.</u>			<u>New Pkg. No.</u>
522682	2764 Safari, Taxi and Police	replace with	523065
522683	2711-19-37-39	" "	523066
522684	2762-63 Station Wagon	" "	523067*
522685	28 All	" "	523068

* The only one of these packages available at the present time is 523067 for use on Station Wagons. THE OTHER THREE PACKAGES SHOULD NOT BE ORDERED AT THIS TIME AS THEY WILL NOT BE AVAILABLE UNTIL APPROXIMATELY AUGUST 1, 1956.

Butyl liners should be used for servicing Station Wagon springs in the future. When the spring is taken apart, thoroughly clean all wax from the spring leaf faces. This can be done with the use of a solvent, then wire brushed. Any wax left on the leaves will cause squeaks, especially in cold weather. Care should be used in ordering these packages as there is a difference in the width of the liner as well as the length. If passenger car liners require servicing the new butyl liners should be used when available. The use of greases or oils on butyl liners is not recommended.

CRUNCHING AND CRACKING NOISE: FRONT SUSPENSION

In most cases crunching and cracking in front suspension originates at the lower control arm shaft (inner). A satisfactory correction can be made by applying a mixture of 25% flake graphite and chassis lubricant (by weight) into the fittings on the bushings. Local suppliers of lubricants should have products that meet this requirement.

NEW REAR AXLE RATIO: 285 HORSEPOWER ENGINES WITH HYDRA-MATIC TRANSMISSION

Beginning with car serial number P756H 78919 and P856H 39536, 285 horsepower engine cars equipped with Hydra-Matic transmissions were also equipped with 3.42 rear axle ratio. The ends of the axle shafts on the ratio are painted aluminum.

News Flash



No. 56-18

July 20, 1956

ATTENTION: DEALER SERVICE MANAGER

DIAGNOSIS AND CORRECTION OF STICKING SECONDARY THROTTLE SHAFT - 1956 ROCHESTER 4GC CARBURETORS

Several reports of sticking secondary throttle valves on the Rochester 4GC carburetor have been received. Investigation reveals that this condition is caused by the secondary throttle shaft "hanging up" inside the flange casting. This shaft is made of brass and has a chrome plate which acts as a bearing surface in the throttle body. In some instances this chrome plate has been too thin and has worn away to the point where the brass shaft would become exposed and worn causing the shaft to stick in the body casting.

This condition can usually be diagnosed when driving by depressing the accelerator pedal to the floor to fully open the primary and secondary throttle valves and then slowly releasing the pedal. If the secondary throttle valves do not fully close a surge under steady throttle will usually result. Also an extremely rough idle will be noted. In cases of this nature, first check to see that the secondary throttle shaft return spring is hooked over the tang on the secondary throttle shaft lever.

If it is determined that the condition is caused by a sticking shaft it will be necessary to install a new secondary throttle shaft and lever assembly. Under no circumstances should lubrication of the shaft be attempted. The secondary throttle shaft and lever assembly, 4 throttle valve screws and a secondary shaft return spring are released for service under package number 7009960. Following are the installation instructions.

1. Remove carburetor from car.
2. Remove pump rod.
3. Remove fast idle cam and choke counterweight rod.
4. Invert carburetor and remove four throttle body attaching screws and remove throttle body.
5. Remove connecting link between primary and secondary throttle levers.
6. File ends of secondary throttle valve attaching screws and remove valves.
7. Slide secondary throttle lever out of throttle body casting.
8. Install new secondary throttle return spring over new secondary throttle shaft and insert shaft in body casting.
9. Wind return spring one turn and hook over tang on secondary throttle lever.
10. Install secondary throttle valves, using new screws, so that letters RP are visible when viewing body from the bottom with the throttle valves closed. Tighten screws securely.
11. Install link between primary and secondary throttle levers.
12. Install throttle body to bowl. Tighten attaching screws securely.
13. Install fast idle cam and choke counterweight rod.
14. Install pump rod.
15. Reinstall carburetor on car.

The suggested time allowance for this operation is 1.5 hours.



News Flash



No. 56-19

July 25, 1956

ATTENTION: DEALER SERVICE MANAGER

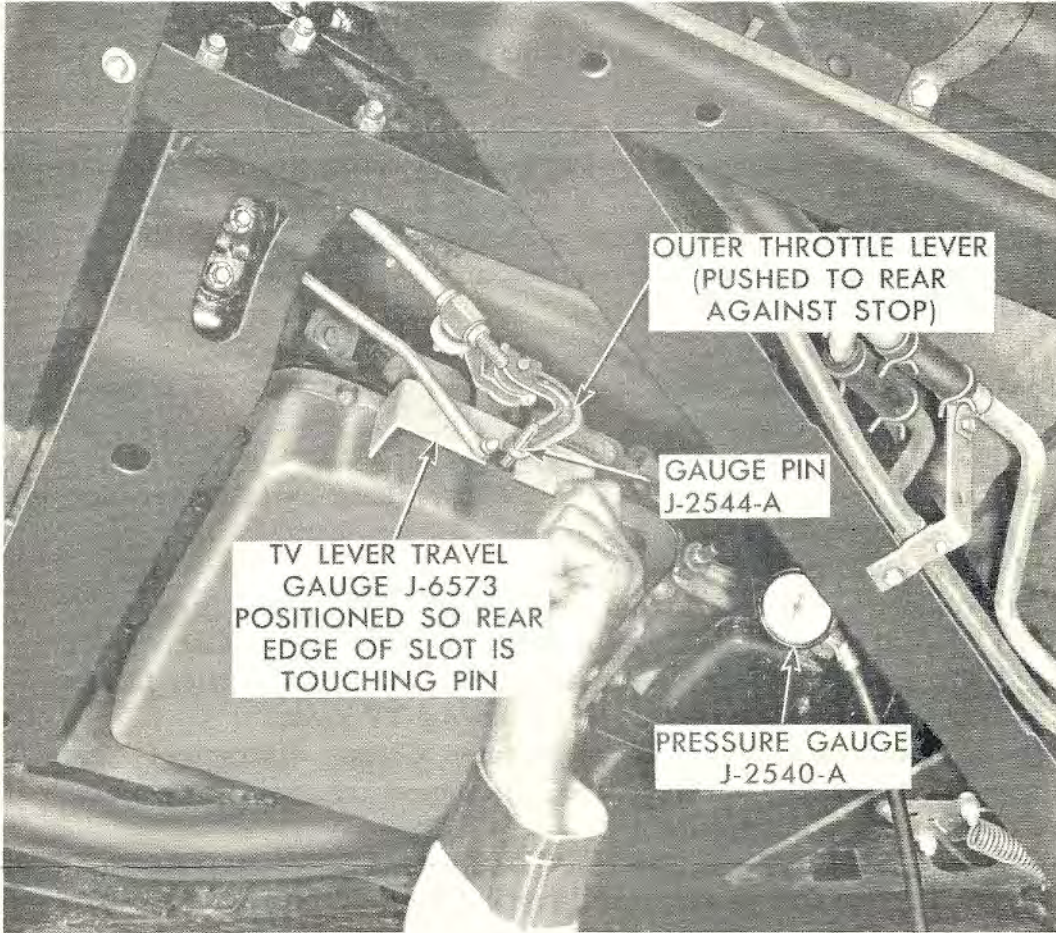
TESTING AND ADJUSTING TV PRESSURE ON STRATO-FLIGHT HYDRA-MATICS

A TV pressure take-off tap is now being included in all Strato-Flight Hydra-Matic cases. This TV pressure tap is a 1/8" pipe threaded hole located just above and to the rear of the adapter plate to which the oil cooler lines are attached.

The TV pressure tap has been added to make it possible to test and adjust TV pressure when it is a suspected cause of improper 2-3 shift action or improper shift pattern. (Insufficient TV pressure may result in slippage during the 2-3 shift - excessive TV pressure may result in harsh 2-3 shift accompanied by a metallic clunk). A new tool (TV Lever Travel Gauge J-6573) is required and is available from Kent-Moore Organization at a nominal cost.

When diagnosing a condition which may be caused by improper TV pressure, test and adjust pressure, if necessary, as follows:

1. Raise car and remove pipe plug from TV tap. (Bend lower cooler pipe up slightly to gain access to plug).
2. Connect pressure gauge J-2540-A to TV tap as follows:
 - (a) Assemble 90° elbow from hose J-5820 to 3" adapter pipe.
 - (b) Thread elbow and adapter assembly into TV tap in case.
 - (c) Connect gauge J-2540-A to hose J-5820 and connect hose to elbow. Hang gauge where it can be observed while moving TV lever.
3. Start engine and operate for several minutes to warm up transmission.
4. With engine operating and car raised, disconnect transmission throttle rod from outer throttle lever on transmission.
5. Insert gauge pin J-2544-A in TV lever and move TV lever to rearmost position.
6. While holding lever in this position, place TV lever travel gauge J-6573 against side of transmission pan so that gauge pin in lever is touching rear of slot as shown on the back of this sheet.
7. Holding gauge J-6573 securely against side of pan, move TV lever forward until gauge pin in lever touches front of slot and read TV pressure on pressure gauge J-4268-1. Pressure should be 20-22 lbs.
8. If pressure is not correct, stop engine, drain fluid from transmission and remove pan. Move TV stop pin on control valve rearward to reduce TV pressure or frontward to increase TV pressure. Moving the pin .030" will change TV pressure about 5 lbs.
9. Tighten set screw to lock TV lever stop pin securely in place and replace pan and oil.
10. Re-test TV pressure as outlined in steps 3 through 5. If pressure is still not within the range of 20-22 lbs., drain fluid, remove pan and adjust TV stop pin further.
11. When pressure has been adjusted to 20-22 lbs., remove pressure gauge, replace pipe plug, reconnect TV rod to transmission outer throttle lever, and replace fluid.
12. Adjust throttle control linkage, setting the transmission throttle rod at "two turns short", as outlined on Page #39 in Part I of the 1956 Hydra-Matic Manual.
13. Road test car and tailor linkage if necessary to provide proper 2-3 shift action.



OUTER THROTTLE LEVER
(PUSHED TO REAR
AGAINST STOP)

GAUGE PIN
J-2544-A

TV LEVER TRAVEL
GAUGE J-6573
POSITIONED SO REAR
EDGE OF SLOT IS
TOUCHING PIN

PRESSURE GAUGE
J-2540-A



News Flash



56-20

July 31, 1956

ATTENTION: DEALER SERVICE MANAGER

REVERSE PISTON - STRATO-FLIGHT

The accumulator inserts and plates have been eliminated from the reverse piston in the Strato-Flight Hydra-Matic. It has been found that the removal of these parts will reduce reverse clutch apply time thereby improving durability.

PARKING BRAKE LEVER ASSEMBLY

A hair spring retainer clip is being used to retain the parking brake bracket on the shaft in Strato-Flights. The retainer engages a groove in the shaft to assure that the bracket cannot slide toward the front.

FRONT SEAL INSTALLATION

When installing front seals, it has been found that Flywheel to Crankshaft Sealer (Part No. 512333) is more effective than Permatex.

Another effective sealer is G.M. High Compression Engine Sealer, Part No. 557622. This sealer is not presently listed in the Master Parts List. It is available through G.M.P.D. warehouses.

AC FUEL FILTER GASKET

It is possible that some AC Fuel Filter Gaskets made of improper material were installed on production engine numbers 365000 to 368540. These gaskets may react with gasoline and contribute to a leak in the fuel filter area. If failure of the above gasket is observed, a new gasket, Part No. 854361, should be installed. This gasket is available from Pontiac Factory Warehouse only. If a filter element is required, package No. 854347 may be ordered through G.M.P.D. warehouse channels.

CYLINDER HEAD INLET HOSE

If an oil leak is experienced at the front seal of the power steering pump, the water pump to cylinder head inlet hose should be checked for oil damage.



News Flash



No. 56-21

August 27, 1956

ATTENTION: DEALER SERVICE MANAGER

STRATO-FLIGHT SHIFT PATTERN AND 2-3 SHIFT

Beginning with production transmission P56-199036, a new control valve assembly provides lower 2-3 and 3-4 shift speeds and improved 2-3 shift feel. The changes were made by recalibrating several springs in the clutch and shift valve bodies and by removing the 1/8" check ball at the transition valve.

A service kit, part number 8616966, is available for making this modification in the field. The kit consists of a new 2-3 shift valve outer spring, a new 3-4 shift valve inner spring and a new transition valve spring. In addition to changing these springs when modifying valve bodies in the field, the transition valve check ball (1/8") and the 3/4 shift valve outer spring should be removed and discarded.

The field modification can be summarized as follows:

Clutch Valve Body Assembly

1. Remove Transition Valve Spring (black) and replace with new spring (gray).
2. Remove Transition Check Ball (1/8").

Shift Valve Body Assembly

1. Remove 3-4 Shift Valve Outer Spring and discard.
2. Remove 3-4 Shift Valve Inner Spring (copper) and replace with new spring (black).
3. Remove 2-3 Shift Valve Spring (black) and replace with new 2-3 spring (black-daubed with white paint).

The time allowance for this operation will be a straight time of 1.6 hours.



News Flash



No. 56-22

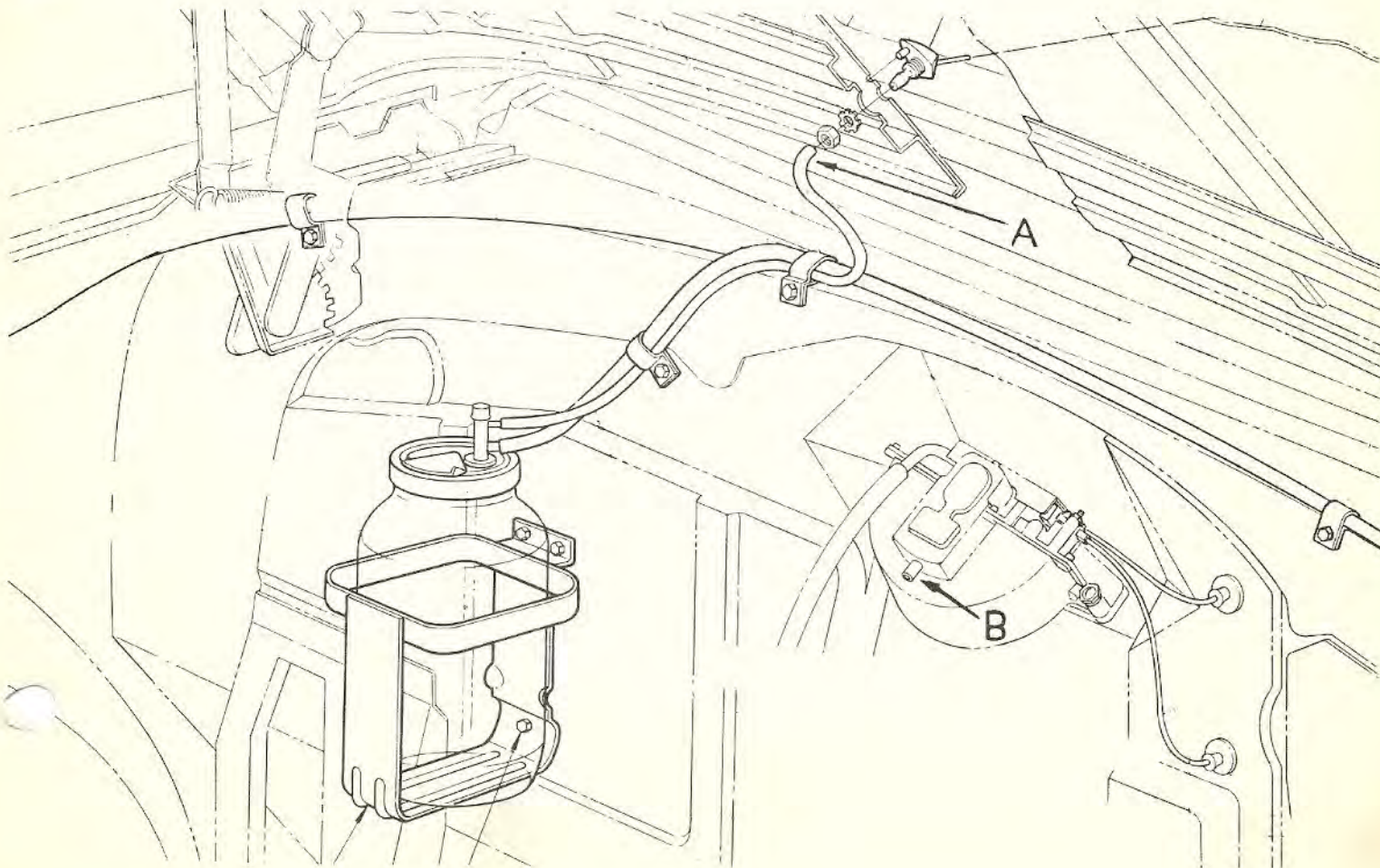
August 31, 1956

ATTENTION: DEALER SERVICE MANAGER

FUEL PUMP DIAPHRAGM

Product Information Reports received recently advise of ruptured vacuum pump diaphragms. Our investigation of these cars has shown that the windshield washer outlet hose has been connected in error to the air intake pipe on the bottom of the windshield wiper motor. When the hose is connected in this manner and the windshield wiper is turned on, the water in the washer bottle is drawn into the engine combustion chamber by way of the vacuum pump. In passing through the pump the water causes a rupture of the vacuum pump diaphragm.

Hose "A" on the drawing below should be attached to the spray nozzle connection on the underside of the hood. Do not connect it to the air inlet pipe, "B", on the windshield wiper motor.





News Flash



No. 56-23

October 3, 1956

ATTENTION: DEALER SERVICE MANAGER

NEW NEOPRENE WATER PUMP TO CYLINDER HEAD INLET ELBOW HOSE

In all cases of power steering pump oil seal leak, inspect the hose between the water pump and the left hand cylinder head inlet elbow for oil damage. If the hose is damaged, replace with the new neoprene hose, part No. 524631. The neoprene hose is impervious to hydraulic fluid and therefore will not be damaged by fluid which may spill or leak from the power steering pump. It will fit all 1955 and 1956 cars.

Stock of the former hose can be used on cars without power steering or on the right hand side of cars with power steering.

ROCHESTER 4 GC SECONDARY THROTTLE VALVE ADJUSTMENT

Several cases of rough hot idle on the Rochester 4 GC carburetor have been traced to a sticking action of the secondary throttle valve. To eliminate this condition a carburetor adjustment has been released which will ensure a positive closing of the secondary throttle valve on idle. This adjustment establishes tension of the secondary lock spring (see illustration on the reverse side) against the secondary throttle operating lever, holding the secondary throttle valves closed. The adjustment will apply to all 1956 Rochester 4 GC carburetors as outlined below.

This is an on the car adjustment only. Following is the adjustment procedure:

1. Adjust carburetor idle speed and mixture. (Be sure secondary valves are closed during this adjustment.)
2. Shut off engine and manually close choke valve.
3. Position idle speed screw on the second step of the fast idle cam.
4. Measure clearance between the secondary lock spring and the secondary throttle operating lever. This clearance should be .042". Bend lock spring to adjust.

It is important that this adjustment be made accurately. .042" clearance ensures the proper amount of tension when car is on hot idle. Too much tension (less than .042" clearance) could interfere with the idle speed adjustment. Another possible cause for secondary throttle valve sticking was covered on page 48 of August, 1956 Service Craftsman News.

(Over)

