

# PONTIAC



## Service Craftsman News

No. 7 S-296

July, 1957

# USE RECOMMENDED PROCEDURES FOR SERVICING AIR CONDITIONING UNITS

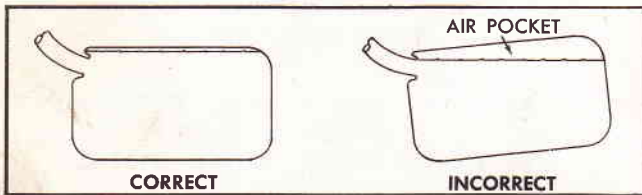


Fig. 1 Filling Fuel Tank

## DO NOT REPLACE FUEL GAUGE DASH UNITS UNNECESSARILY

Reports of inaccurate gasoline gauge dash units have been received. The following information is given to allay these reports and eliminate unwarranted replacement of units.

Fuel gauge readings should be made from the five marks on the face of the gauge, the left-hand dot indicating empty, the center dot half full and the right-hand dot full; the letters "E" and "F" point out direction of indicator travel only and are not fuel level marks. Always take reading directly in front of gauge.

The gauges are sensitive to voltage and temperature and are calibrated to give an accurate reading with the generator charging at 14.5 volts (engine running at fast idle) and car setting level. The reading can be as much as one-eighth of a tank off if taken with the engine not running or at slow idle with generator not charging. Also, the gauge indicator may drop half a needle width when the generator is charging at only 12.5 volts.

To fill tank to capacity, make sure car sets level and fill slowly to reduce air pocket since tank is not vented. (See Fig. 1) Do not bend float arm of tank unit to remedy low reading dash unit; this may result in quarter tank reading when tank is empty. If trouble actually exists, first determine if it is caused by one of the following: the dash unit, tank unit, the wiring or a faulty terminal connection.

## PERFORM AN OPERATIONAL CHECK BEFORE CORRECTING

Product information reports have indicated that some irregularities are being experienced on 1957 models equipped with air conditioning. Whenever the following complaints are brought to your attention, perform the corrections outlined under the respective complaint.

Before attempting to make any corrections, perform an operational check of the refrigeration system to be sure that the system is properly charged and that suction and discharge pressures are proper for the existing ambient temperature and humidity.

With a proper freon charge in the refrigeration system and the pressures proper for the existing ambient temperature then the freezing condition can only be caused by a rancostat not operating properly, a sticking compressor clutch or a warm air leak between the evaporator core and the rancostat capillary tube.

Operation of the rancostat and clutch can be quickly checked when the evaporator core is completely defrosted by moving the air conditioning control lever midway in the "cooler" band and blower switch to Lo position. The compressor shaft nut will spin as the compressor operates to pump the refrigerant thru the system and stop spinning when the air

(See Air Conditioning Service, Page 56)

**EDITOR'S NOTE:** The fourth 1957 Service Craftsman Examination is included in this issue. Remove the examination, complete and return to the Zone Office by August 15, 1957

This issue also contains an index of the January through June 1957 Service Craftsman News Articles. Place this index in the front of your Service Craftsman News Binder.

## NEW FLAT PAINT RELIEVES INSTRUMENT PANEL GLARE

The following information may be helpful in handling owner inquiries regarding relief of instrument panel highlights, reflections, and glare. Two suppliers have a non-glare finish material available: E. I. du Pont de Nemours & Company, Inc., "No-Glare Finish 1672"; and Ditzler Color Division, Pittsburgh Plate Glass Company, "Ditzlac Non-Glare Clear #DCL-451". This paint may be applied on the upper instrument panel to reduce reflections and glare.

Since the procedures for preparing the surface and finishing may not be included on the label of these products, this procedure should be followed:

1. Clean surface thoroughly. (Use 3919 new PREP-SOL or equivalent.) Sand lightly, just enough to break the gloss with 400 or finer sandpaper. Care should be taken not to sand through the original color coat. Blow off dust.
2. A simple masking of parts immediately adjacent to the upper instrument panel is necessary in order to protect them from over-spray. The placing of a cloth or newspaper over the steering wheel will insure protection of it, the adjacent shift and directional levers and steering column housing from spray dust.
3. Apply 2 double coats of Flat Clear Lacquer.

The original finish on many of the instrument panels may be in acrylic lacquer as well as "Duco" lacquer. However, both of these products are compatible with the flat clear lacquer for this use.

Refinishing the instrument panel to reduce glare is considered owner maintenance.

## REPLACE ONLY H-M BUSHINGS INSTEAD OF ENTIRE ASSEMBLIES

In rebuilding used car Hydra-Matic transmissions (except Strato-Flight Hydra-Matics) a considerable saving may result from replacement of bushings as compared to replacement of entire component assemblies. Precision bushings suitable for this type of repair procedure are listed in the Pontiac Master Parts Catalog Groups:

4.158	4.179	4.193
4.162	4.184	4.226
4.172	4.190	4.408

Tools for this operation are available through the Kent-Moore Organization, 28635 Mound Road, Detroit, Michigan under kit No. J-6494. Application information and Tool instructions are included in the kit.

## Flat Rate Time Changed

Some misunderstanding has been reported regarding Operation 1-962. The operation has been restudied and completely rewritten as follows:

1-962 Quarter Panel Fender Rear Section, From Approximately Center of Wheelhouse Rearward - Replace and Refinish  
Includes: R & R Compartment Trim and Moldings

Chassis: R & R Bumper (.3), Filler and Retainer (.1), Tail Light (.2), Gas Tank (.4) and Wheel at Hub (.1).

### Right Side

55-56-57 - 2511-D, 2711, 2537D, 2737-D, 2837SD, 2867DTX . . . . (8.6)  
55-56-57 - 2519-D, 2719-D, 2739-D, 2819-D-SD, 2839SD . . . . (7.9)  
(1/2 qt. paint material - 1.1)  
(Metal time - 4.9)

### Left Side

55-56-57 - 2511-D, 2711, 2537D, 2737-D, 2837SD, 2867DTX . . . . (9.1)  
55-56-57 - 2519-D, 2719-D, 2739-D, 2819-D-SD, 2839SD . . . . (8.4)  
(1/2 qt. paint material - 1.1)  
(Metal time - 5.6)

The above supersedes the operation shown in the 1955-56-57 Flat Rate Manual.

The following new flat rate combination has been released for 1957 models.

#6-295

### Combination

B. Rocker Arm Stud - Each Additional - Other Head - Replace  
Right Bank . . . . . (1.6)  
Left Bank . . . . . (1.9)

## CONGRATULATIONS, CRAFTSMEN!

CONGRATULATIONS!! --to the 82 Service Craftsmen who have achieved the 16 and 17 year awards.

A total of 7,620 participated in this training program during 1957 which is now in its twenty-first year.

Listed below are the participants by year:

1-Year	2,139	7-Year	488	13-Year	58
2-Year	1,008	8-Year	401	14-Year	50
3-Year	690	9-Year	262	15-Year	50
4-Year	744	10-Year	232	16-Year	41
5-Year	608	11-Year	252	17-Year	41
6-Year	524	12-Year	66		

See Page 55 for a complete list of 16 and 17 year award winners.

**82 SIXTEEN & SEVENTEEN YEAR SERVICE CRAFTSMEN HONORED**

Pontiac honors the following Service Craftsmen who have achieved 16 and 17 year awards

**BOSTON ZONE**

James Mangano (16)  
Portsmouth Mtr. Mart, Portsmouth, N. H.  
Thomas A. Fabrizio (17)  
A.C. Hine Co., Hartford, Conn.  
George H. Vanier (17)  
A.C. Hine Co., Hartford, Conn.  
Carlton J. Russell (17)  
Warriner Pontiac, Springfield, Mass.

**NEW YORK ZONE**

Jack Galik (16)  
Mallon Suburban Mtrs., East Orange, N. J.  
Charles H. Lance (16)  
Mallon Suburban Mtrs., East Orange, N. J.  
Thomas Mayer (16)  
Mallon Suburban Mtrs., East Orange, N. J.  
Gus Eckert (16)  
Queens Vehicle Corp., Jamaica, N. Y.  
Kenneth McChesney (16)  
Knowles Pontiac, Inc., Troy, N. Y.  
John B. Collins (17)  
Mallon Suburban Mtrs., East Orange, N. J.  
William Wooley (17)  
Mallon Suburban Mtrs., East Orange, N. J.

**PHILADELPHIA ZONE**

James Connor (16)  
E. E. Brumbaugh, Lansdowne, Pa.  
Emil Yaggi (16)  
Russell Motors Car, Scranton, Pa.  
Chester Jezierski (16)  
Kelleher's Pontiac, Scranton, Pa.  
Mahlon R. Alderfer (17)  
J. L. Freed & Sons, Lansdale, Pa.  
Raymond Synder (17)  
Dunkle Pontiac, Lewisburg, Pa.  
Charles Fuller (17)  
Russell Motors Car, Scranton, Pa.  
Henry L. Puhl (17)  
Russell Motors Car, Scranton, Pa.

**WASHINGTON ZONE**

Henry Buser (17)  
Marbert Motors, Annapolis, Md.  
Roy Tucker (17)  
H. J. Brown Pontiac, Arlington, Va.

**BUFFALO ZONE**

George Guest (16)  
Valley Cadillac Pontiac, Rochester, N. Y.  
David Selbig (17)  
Justice Mtrs. Inc., North Tonawanda, N. Y.

**PITTSBURGH ZONE**

Roy Durrett (16)  
Spoerl's Garage, Cumberland, Md.  
Paul Cowher (16)  
Mark Motors Co., Philipsburg, Pa.  
O. K. Grove (17)  
Nearhoof Pontiac, Inc., Altoona, Pa.  
Frank Hull (17)  
Ray E. Weaver, Etna, Pa.  
Jack Bauer (17)  
C. A. Clark, Inc., No. Braddock, Pa.

**PONTIAC ZONE**

Howard Neeb (16)  
Neeb Motors Sales, Elmore, Ohio  
Floyd Reimers (16)  
Garber, Saginaw, Mich.  
Lewis White (16)  
Garber, Saginaw, Michigan

**CLEVELAND ZONE**

Gerald Fox (16)  
Tillman Motor Co., Cleveland, Ohio

**CINCINNATI ZONE**

Al Evans (16)  
Gusweiler's Pontiac, Inc., Cincinnati, Ohio  
Ed. Feller (16)  
Gusweiler's Pontiac, Inc., Cincinnati, Ohio  
Robert Wooton (16)  
Scott-McGaw Motor Co., Henderson, Ky.  
Isaac Newcomb (17)  
Auto Supply Co., Campbellsville, Ky.  
Orville Pardieck (17)  
Pardieck's Garage, Jonesville, Ind.

**CHICAGO ZONE**

Harry Harthshorne (16)  
DeMet Pontiac, Inc., Chicago, Ill.  
Axel R. Nielsen (16)  
Grossinger Motor Sales, Chicago, Ill.  
H. C. Oberbroeckling (16)  
Anthony Auto Sales, Inc., Dubuque, Iowa  
Albert Peters (16)  
Shaver Motors, Inc., Hammond, Ind.  
Walter Stump (16)  
Shaver Motors, Inc., Hammond, Ind.  
Louis Hartman (17)  
Community Motors-Stony Island, Chicago, Ill.

**MILWAUKEE ZONE**

Truman N. Olin (16)  
Olin & Ayres, Brodhead, Wis.  
Arnold Ayres (17)  
Olin & Ayres, Brodhead, Wis.  
Herbert Pierstorff (17)  
Waters Motor Company, Madison, Wis.  
A. R. Hintz (17)  
King-Hintz, Inc., Watertown, Wis.

**ST. LOUIS ZONE**

Howard Statler (16)  
Barton-Davis Pontiac, Inc., St. Louis, Mo.  
Ray Wieduwilt (16)  
Chas. E. Vincel Pontiac Co., St. Louis, Mo.  
E. L. Gill (16)  
Grobely Motor Co., Mattoon, Ill.  
L. Miller (16)  
Travis Cad.-Pontiac Co., Peoria, Ill.  
Byron R. Speagle (17)  
Grobely Motor Co., Mattoon, Ill.  
Art Evermon (17)  
Thompson Sales Co., Springfield, Mo.  
Jim Gardner (17)  
Thompson Sales Co., Springfield, Mo.  
Ray Rauch (17)  
Thompson Sales Co., Springfield, Mo.

**KANSAS CITY ZONE**

W. H. Sharpe (17)  
Peterson Pontiac, Salina, Kansas

**OMAHA ZONE**

Joseph Hojka (16)  
Culver Motors, Cedar Rapids, Iowa  
Ward E. Foster (16)  
Summer Pontiac Co., Des Moines, Iowa  
Jerry James (16)  
Summer Pontiac Co., Des Moines, Iowa  
Louis Sliiter (17)  
Fred Schneider Pontiac, Inc., Omaha, Nebr.

**MINNEAPOLIS ZONE**

Evert Bents (17)  
Bents Motor Service, Comstock, Wis.  
S. M. Susag (17)  
Hansord Pontiac, Minneapolis, Minn.  
Herman Seidel (17)  
Malmson Pontiac, St. Paul, Minn.

**MEMPHIS ZONE**

A. A. Caldwell (17)  
Douthit-Carroll-SanChez Co., Memphis, Tenn.  
Lester Stewart (17)  
Douthit-Carroll-SanChez Co., Memphis, Tenn.  
Ted Jackson (17)  
Chief Pontiac Co., Pine Bluff, Ark.

**OKLAHOMA CITY ZONE**

Johnnie Brotherton (16)  
Milner Pontiac, Inc., Tulsa, Okla.

**DALLAS ZONE**

Bud Sharpless (17)  
Frontier Pontiac, Ft. Worth, Texas

**HOUSTON ZONE**

A. M. Henderson (16)  
Frank Gillman Pontiac Co., Houston, Texas

**SAN FRANCISCO ZONE**

Otto E. Barr (16)  
Doten Pontiac, Berkeley, Calif.  
Erwin Kuenzler (16)  
Weltner Pontiac, San Francisco, Calif.  
Clair B. Sheets (17)  
Creswood Pontiac, Palo Alto, Calif.

**LOS ANGELES ZONE**

Howard Day (16)  
Antoyan Pontiac, East Los Angeles, Calif.  
John Jansen (16)  
Greer Haldeman, Los Angeles, Calif.  
Murray Leasure (17)  
Tom Ray Pontiac, Glendale, Calif.  
Carl Preston (17)  
Greer Haldeman, Los Angeles, Calif.  
J. B. Brown (17)  
Utter Pontiac, Los Angeles, Calif.

**PORTLAND ZONE**

James Batchelor (16)  
Central Pontiac, Inc., Seattle, Wash.  
Glen E. Parker (16)  
Central Pontiac, Inc., Seattle, Wash.  
Earle Zander (16)  
Central Pontiac, Inc., Seattle, Wash.  
W. C. Mize (16)  
Rowland Pontiac-Cadillac, Tacoma, Wash.  
Ralph Herman (17)  
Roseburg Motor Co., Roseburg, Ore.

**DENVER ZONE**

Doug Bean (16)  
Seifert Pontiac-Cadillac, Inc., Denver, Colo.



## AIR CONDITIONING SERVICE

(Continued from Page 1)

coming from the evaporator is cool enough to cause the points in the rancostat to open. Opening of the rancostat points breaks the electrical circuit to the compressor clutch causing a breakdown of the magnetic field. This results in release of the compressor clutch and the compressor ceases to operate.

The above check should be made immediately after the air conditioning system is turned on. One or two cycling operations is sufficient to check the rancostat and clutch.

If the system does not cycle (clutch engaging and disengaging), then disengage the compressor coil wire at the compressor coil. If the compressor does not operate, the clutch did release indicating the clutch does not stick. If the compressor continues to operate, the clutch did not release and the clutch should be overhauled.

A system that did not cycle even though the clutch was not sticking may have a rancostat that does operate properly. In order to check for proper rancostat point operation, perform the following operations:

1. Remove blower shield.
2. Remove blower motor and impeller assembly by removing five (5) phillips head attaching screws. Note: Lay assembly over to right side leaving blower ground wire attached.
3. Disconnect rancostat cable from rancostat.
4. Remove blower housing and air distributor assembly by removing five (5) screws which attach blower housing to blower to dash adapter.
5. Lift pressed paper door on rancostat. With cam lever at the bottom of rancostat pushed to rear as you face end from which door was removed, press down on the plastic bar which is in the center of opening and observe distance rancostat points open. This distance should be a minimum of .006" and should not exceed .010". If it is necessary to adjust these points, use a screw driver and turn screw in upper portion of rancostat necessary distance to give proper gap (1/4 turn of this screw counterclockwise will increase the point opening .004") As top of screw is cemented, it will require a screw driver of proper size and properly sharpened to effectively turn it, otherwise, head of screw will be damaged.
6. Reposition the paper door in the rancostat. With the compressor clutch and rancostat operating properly, warm air leaks between the evaporator core and rancostat capillary tube would cause the rancostat to keep its points closed calling for more cooling (because the warm air would expand the gas in the capillary tube to keep its points closed). Continuous operation of the com-

pressor would continue to reduce suction pressure. As the suction pressure lowers, the surface temperature of the evaporator core is lowered to a temperature below the freezing point of water. As the warm outside air loses its heat to the evaporator core surface, any moisture in the air is also deposited on this surface and will freeze to restrict air flow through the core.

Warm air leaks may be stopped as follows:

- a. Tighten adapter to evaporator bolts.
- b. Using body sealer, reach inside blower to dash adapter and thoroughly seal joint (or space) between adapter and dash, (See Fig. 2) Note: The dash adapter has four (4) 1/16" legs at end of bolt holes which hold adapter from dash to compensate for any rough or irregular dash surface in this area. In some cases this air gap permits enough warm air to be pulled into air flow system to cause a "freeze-up" complaint.
- c. Place a bead of body sealer around front face of adapter to provide a seal between adapter and rancostat plate. Note: Do not place any body sealer in slot of adapter which is provided for rancostat capillary tube. This slot is in left side of adapter.
- d. Replace blower housing and air distributor assembly by installing five (5) screws which attach blower housing to blower to dash adapter.
- e. Attach and adjust rancostat cable. (When air conditioning control lever on instrument panel is to the full right position, rancostat cam should be to full left position.)
- f. Replace blower motor and impeller assembly by installing five (5) screws. Perform operational check and road test car under same driving condition owner drove when he noticed insufficient cooling or evaporator freezing-up.
- g. Replace blower shield.

The suggested time of this operation will be a straight 1.1 hrs.

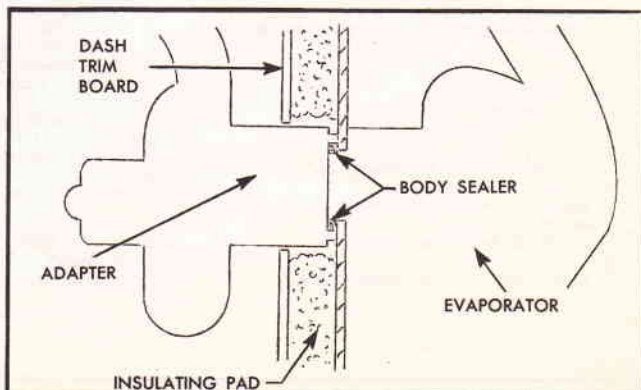


Fig. 2 Sealing Airconditioning Adapter

**WATER COLLECTING IN EVAPORATOR**

To correct this condition be sure the drain tube is not covered with mud or undercoating material. If the tube is of the early type, cut 1-1/2 of the 2 corrugations from the bottom of the drain tube (Service Craftsman News, December 1956, Page 71). The suggested flat rate time for this operation is a straight .4 hr.

**INSUFFICIENT COOLING**

Review "cause" and "remedy" under "Insufficient Cooling" in the 1957 Air Conditioning Manual, page 46. In addition, the sealing procedure explained under "Evaporator Core Freezes-Up and Water Collecting in the Evaporator" will also assist in reducing nozzle temperature.

Check for proper sealing of the thermostatic expansion valve bulb at the evaporator outlet tube. Seal as necessary.

**COMPRESSOR ROAR**

A noisy compressor pulley bearing may cause this complaint. To check for a noisy pulley bearing, remove the compressor drive belt. With one hand on the compressor body, spin the pulley with the other. If a rough sensation is felt coming from the compressor body, then replace the pulley bearing. Be sure to provide the necessary clearance of .008" - .013" between the compressor clutch front plate and the pulley as a new bearing may disturb the original clearance.

Check the suction and discharge hoses to insure that they are not twisted or kinked and that they do not contact the fender skirt.

Other conditions that may cause these noises are explained under "Vibration - Between 18 to 25 MPH and 25 to 35 MPH". If the roar still exists after performing all these checks, and the corrective measures under "Pumping or Growling Noise from the Compressor" do not remove this noise, then replace the compressor.

The suggested flat rate time for this operation is a straight 1.1 hr.

**VIBRATION BETWEEN 18-25 AND 25-35 MPH**

The vibration experienced at speeds between 18 to 25 MPH can be greatly reduced by proper alignment of the exhaust system from the exhaust manifold back through the tail pipe.

The vibration experienced at speeds between 25 to 35 can be reduced to a minimum by seeing that:

1. The receiver dehydrator filter assembly is held tightly by the clamps.

2. The compressor drive belt does not contact receiver dehydrator filter assembly to sight glass pipe.
3. There is sufficient clearance between compressor and fender skirt. NOTE: The oil test outlet may vibrate against lower edge of hole in fender skirt if clearance here is very slight. Enlarge hole to eliminate any contact at this point.
4. The oil cooler lines are held securely by clamp which attaches these lines to frame.
5. The compressor suction hose from evaporator is properly aligned and does not contact the fender skirt.
6. The engine cross-over-pipe is in proper alignment to the exhaust pipe.
7. The heater pipe to the lower radiator tank does not contact or vibrate against the left fender skirt.

Therefore, check all of the above and correct as necessary. If necessary, the compressor may be aligned as follows:

1. Loosen compressor drive belt tension.
2. Loosen compressor to rear brace rear bracket and front brace attaching screws.
3. Tighten compressor rear bracket at cylinder head and rear brace at intake manifold.
4. Tighten brace and brackets to compressor attaching screws, starting with screws at front bracket.
5. Apply 35 lb. ft. torque to compressor belt.

NOTE: Alignment of compressor is done in this manner to remove any bind in compressor rear brace or compressor rear bracket.

Should the above checks fail to remove the objectionable vibration, insulate the compressor rear brace from the intake manifold as follows:

1. Obtain two shock absorber front bushings, part number 5325788, two shock absorber bushing retainers (043468), one manifold clamp washer (501215) and one bolt 3/8-16 x 2-1/4" (180132). As an alternate to the bolt use a piece of electrician's threaded hanger rod 3/8-16 x 3" long, a 3/8-16 nut and a spring lock nut. (All parts except the 180132 bolt and the 501215 washer are in the front stabilizer link package.)
2. Remove compressor rear brace.
3. Using a rubber bushing as a guide, open end of compressor rear brace that attaches to intake manifold so that boss on bushing just enters hole in brace.

(Continued on Page 58)

#### 4. Replace compressor rear brace using procedure below:

##### a. If the hanger rod is used as the stud, perform the correction as follows:

1. Install threaded stud (section of threaded hanger rod) into intake manifold and place manifold clamp washer over stud.
2. Place a bushing retainer onto flat washer with dished side up.
3. Place a rubber bushing onto flat washer with flat side of bushing down and boss side facing up.
4. Holding compressor rear brace intake manifold attaching flange over boss end of rubber bushing, place another bushing on top of brace with boss down.
5. Place bushing retainer over upper bushing and hold parts together with nut. Tighten finger tight.
6. Start compressor rear brace bolts into compressor rear bracket and secure and tighten finger tight.
7. Tighten nut on stud until bushing begins to barrel out, then an additional full turn. Lock with spring lock nut.
8. Tighten securely the compressor rear bracket to brace bolts.

**NOTE:** Compressor rear brace should not contact rocker arm cover. If it is necessary to provide clearance grind only enough to obtain a clearance of no more than 1/16".

##### b. If the 180132 bolt is used, insulate the rear brace as follows:

1. Place a manifold clamp (flat washer) onto intake manifold boss.
2. Place a bushing retainer onto manifold clamp dish side up.
3. Place a bushing onto bushing retainer with boss on bushing facing up.
4. Place a bushing retainer onto 2-1/4" bolt so head of bolt will fit into hex depression of retainer.
5. Place a bushing onto the bolt so boss of bushing faces end of bolt.
6. Holding compressor rear brace in position over rubber bushing on intake manifold, thread bolt bushing and retainer assembly through brace bushing, retainer and manifold clamp and secure bolt finger tight. Start compressor rear brace to rear bracket screws and tighten finger tight.
7. Tighten bolt at manifold until rubber bushings barrel out and tighten one full turn.

#### 8. Secure compressor rear brace to compressor rear bracket bolts.

**NOTE:** Compressor rear brace should not contact rocker arm cover. If it is necessary to provide clearance grind only enough to obtain a clearance of no more than 1/16".

The suggested flat rate time for this operation is a straight .8 hr.

#### **PUMPING OR GROWLING NOISE FROM COMPRESSOR**

This noise is only heard when the compressor is operating. In this case, check the suction and discharge hose to insure that they are not twisted or kinked and that they do not contact the fender skirt. Should the noise continue, replace the suction hose with a 1955 suction hose (3134491).

Install 2 spacers (3134293) around the 1955 suction hose to space away from right frame and fender skirt junction.

The suggested flat rate time for this operation is a straight 1.9 hrs.

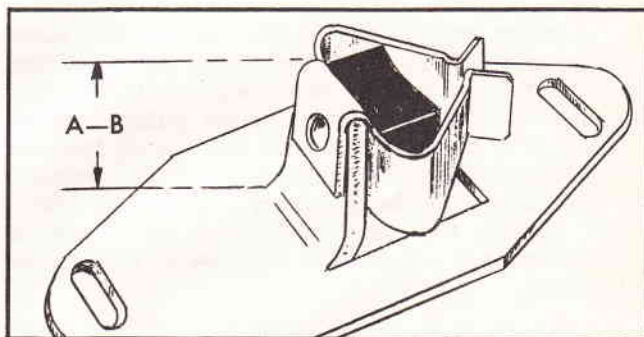


Fig. 3 Safari Rear Seat Back Retainer

### **CORRECT SAFARI REAR SEAT RATTLE WITH NEW RETAINER**

The folding rear seat back on a two seat Safari is held in the "up" position by retainer assemblies on each side of the seat. Production Information Reports have been received stating that these retainers squeak and rattle. Investigation reveals that retainers on early production Safaris were too long (distance A-B, Fig. 3) causing them to rub against the cover.

If this condition is encountered, the retainer should be replaced with a current production part having the correct clip length, 55/64 inch. Lubricate the clip with DC #4 Compound (silicone) or glycerine.

After the new assembly is installed, check to see that there is enough clearance between the retainer and cover to prevent squeaks. Also, see that there is clearance between the stops on the sides of the seat back and the slots in the retainer covers. Retainer assemblies may be ordered under part Number 4650413.



## FUEL INJECTION ADJUSTMENT

To insure correct functioning of the fast idle system on fuel injection equipped cars the relationship between the fast idle cam and the cold enrichment assembly must be within prescribed limits. This relationship is maintained by the length of the fast idle link and can be checked and adjusted as follows:

1. While holding the throttle valve open manually move the choke trip lever clockwise to its full travel.
2. With trip lever in full clockwise position and in contact with tang on cold enrichment lever, check point at which fast idle adjusting screw contacts cam.
3. As shown in Fig. 4, the screw should be on the high step of the cam and from flush to .050" from the step.
4. Bend link where shown to adjust.
5. After setting on high step, check that with trip lever in full counterclockwise position (hot idle), screw is entirely clear of cam as shown in illustration.

The above information supplements that found in the Fuel Injection manual and it is suggested that reference to this adjustment be incorporated in the manual.

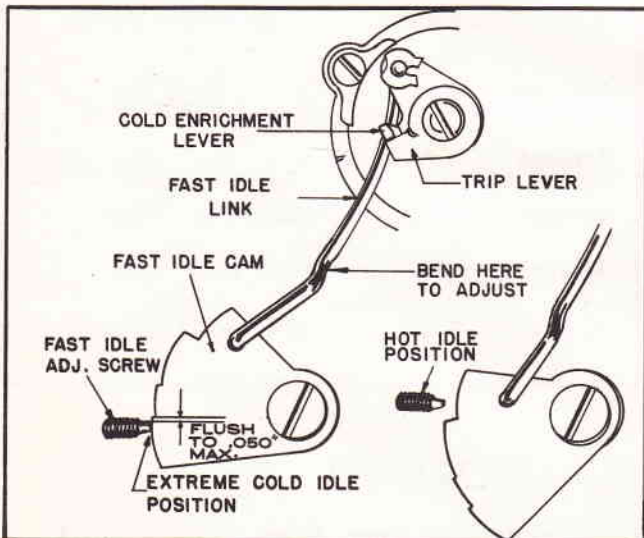


Fig. 4 Fuel Injection Fast Idle Link Adjustment

## PROPER BURNISHING OF LININGS ENSURER LONGER BRAKE LIFE

At the time of new car delivery owners should be advised of the importance of proper brake "break-in". In explaining the burnishing of brakes it should be made clear that the procedure involves a minimum of 40-50 stops from moderate speeds (not more than 40 mph) at one mile intervals insofar as is possible. Attempting stops from higher speeds and/or at lesser intervals will only duplicate the type of early brake

damage that the burnishing procedure endeavors to avoid. Another point that should be stressed is that while a 40-50 stop burnish minimum procedure is helpful a greater number of stops are even better. Additional brake life will be obtained from a proper and longer break-in period.

This information is supplemented on pages 4, 27 and 28 of the 1957 Pontiac Owner's Guide.



Approximately 20,000 Strato-Flight transmissions beginning with serial number P57-219289 are equipped with a new governor incorporating an additional groove in both primary and secondary plungers for self-flushing action. Also, the primary weight is crimped, instead of threaded, to a grooved end primary plunger. Old and new governors are interchangeable as assemblies.

### ENGINE OVERRUN

Engine overrun is a condition where the engine continues to operate for a period of time after the ignition key has been turned to the "off" position. The three main causes of engine overrun are; improper ignition timing, poor quality gasoline and an overheated engine. It is imperative that engines with 10.0 to 1 compression ratio use PREMIUM FUEL from a reputable marketer. Ignition timing should never be set above the 6 degree BTDC mark as other engine failures may occur in addition to engine overrun if timing is set to a higher mark than is specified.

### NOZZLE BLOCK TORQUE CHANGE

The torque specification on the fuel injection nozzle block screws has been changed to 40-50 in. lbs. Please correct step 29, page 21, of the Fuel Injection Manual accordingly.

## RE-ROUTE BATTERY CABLES ON POWER STEERING EQUIPPED CARS

It is important that the battery cables on cars equipped with power steering be routed so that they do not contact the power steering flexible coupling. If the battery cable is not positioned correctly, the flexible coupling may rub against the cable when the steering wheel is turned. This could cut through the insulation and cause a serious short.

Therefore, it is advisable to check the routing of the battery cables and solenoid wires on power steering cars when they are brought into your dealership for service. The correct routing of the cable and wires is as follows.

The battery cable should be connected to its terminal on the starter solenoid so that it and the

solenoid wires leave the solenoid together in a downward direction (approximately 4 o'clock). The battery cable and solenoid wires must be directed under the steering column, upward between the fender skirt and heater tube and to their connections on the junction block. In addition they should be immediately to the rear of the rubber connecting hose on the heater tube. In cases where the cable and wires are improperly routed, reroute them according to these instructions.

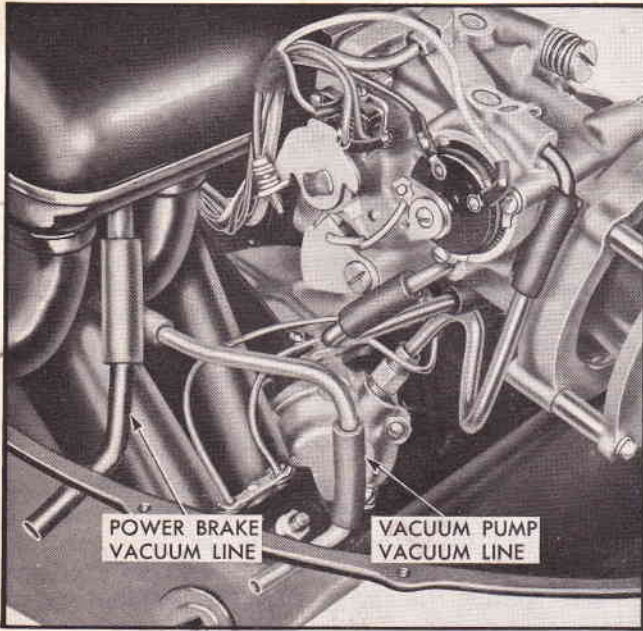


Fig. 5 Corrected Fig. 27 and 55 in Fuel Injection Manual

### MAKE THESE CORRECTIONS IN 1957 FUEL INJECTION MANUAL

On the inside front cover of the 1957 Fuel Injection Shop Manual is a correction to the float level and drop procedure. To avoid confusion this correction should also be noted in its proper place on page 21 of the manual.

Fig. 27 and 55 show an incorrect location of the signal modifier and enrichment vacuum lines. Fig. 5 is a corrected illustration. Please correct your manuals accordingly.

### NOZZLES RELEASED FOR SERVICE

Fourteen different size nozzles are used in fuel injection production. The nozzle size is carefully calibrated with the other components of the fuel injection system to ensure satisfactory performance. Each nozzle carries a letter-number code which is marked on the side of the nozzle for identification purposes. All eight nozzles on a specific unit will be of the same size and code number.

To simplify service requirements, four service nozzles have been released. They should be used as replacements only as outlined in the table below. The first column in the table gives the part number and code number of the service nozzle and the second column gives the code numbers of the production nozzles it replaces.

Failure to replace nozzles as outlined in this table will result in uneven mixture control and resultant loss of efficiency and performance.

Nozzle and Line Assembly		For Replacing Production Nozzle
<u>Part No.</u>	<u>Code No.</u>	<u>Code No.</u>
7014820	O-9	N-8, N-9, O-8, O-9
7014821	P-10	O-10, P-9, P-10
7014822	Q-11	P-11, Q-10, Q-11
7014823	R-12	Q-12, R-10, R-11, R-12

## 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.
