

PONTIAC



Service Craftsman News

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NEW TYPE CAMSHAFT BEARINGS AVAILABLE FOR SERVICE

LINE REAMING NO LONGER REQUIRED

New precision camshaft bearings which are machined to size have been released for servicing the 1955 V-8 engine. These bearings eliminate the necessity for line reaming bearings and make it possible for any dealer to replace camshaft bearings provided he has Camshaft Bearing Remover and Replacer J-6173 (Fig. 1) available from Kent-Moore organization. Unfinished bearings will no longer be serviced and AFAs for engine replacement because of failed camshaft bearings, or sublet charges for line reaming bearings will no longer be accepted.

Bearings should be replaced on an individual basis if a failure occurs. There is no need or advantage to be gained by replacing the complete set when one bearing fails. Camshaft Bearing Remover and Replacer J-6173 is designed to remove or install one bearing at a time as outlined in the following procedure.

Bearings can be replaced without removing the engine from the car as follows:

PREPARING ENGINE FOR REMOVAL OF BEARING

1. Remove radiator, timing chain cover, intake manifold, push rod cover, rocker arm covers, push rods, hydraulic lifters and the camshaft as outlined under Camshaft Remove and Replace in the 1955 Shop Manual.
2. Remove crankcase ventilator lower baffle if front center, center or rear center camshaft bearing

is to be replaced. NOTE: Lower baffle is retained by case hardened drive screws. In order to remove these screws it will be necessary to carefully pry on them using a chisel and hammer and working between block and baffle until they pull loose enough to be turned out with pliers. Care should be used not to shear off the heads of screws since the case hardening makes them practically impossible to drill out if they are broken off.

BEARING REMOVAL

NOTE: The removing and replacing tools can be inserted between the banks of the block by turning them sideways and carefully lowering them into position. Men with large hands may find this simplified by using pliers to hold the tools. If dropped, the tools may pass down into the oil pan which would necessitate removing the oil pan.

EDITORS NOTE: An Index of the January through June 1955 Service Craftsmen News articles is included in this issue. Place this Index in the front of your Service Craftsmen News Binder.

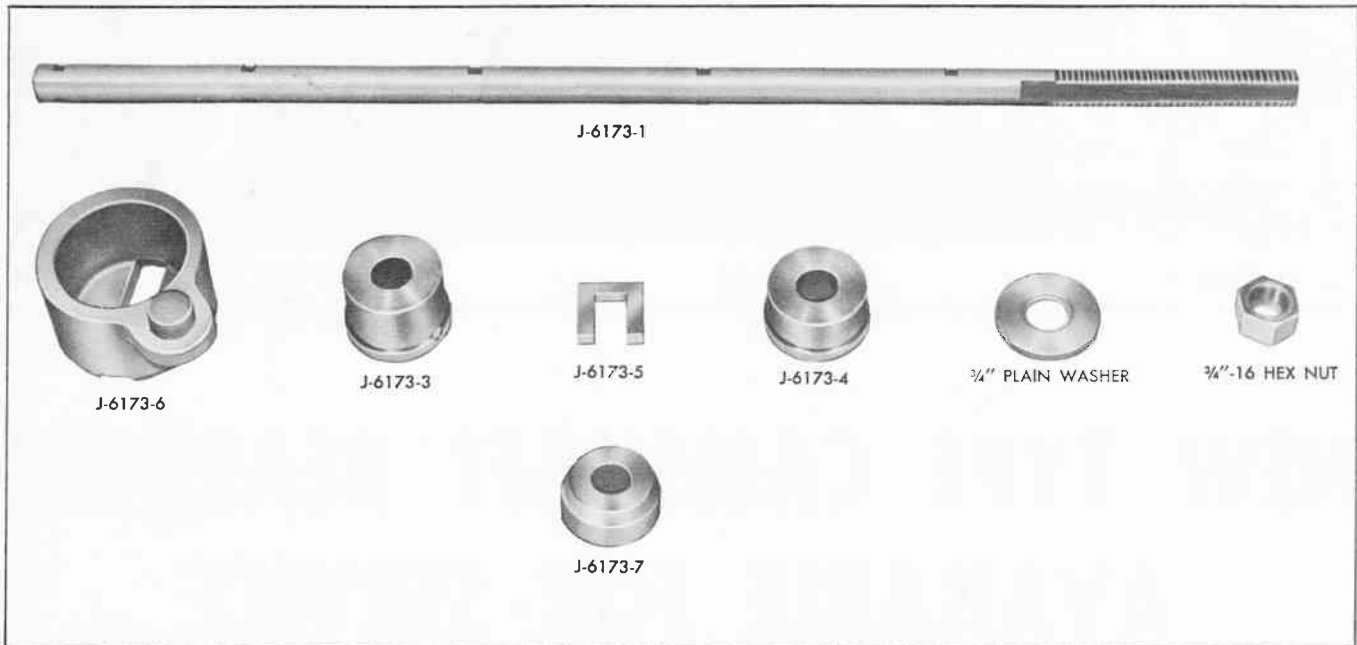


Fig. 1 Camshaft Bearing Remover and Replacer J-6173

1. Insert Replacer Adapter J-6173-3 into front bearing to act as a support for Shaft J-6173-1. If front bearing is to be replaced, insert Replacer Adapter in center bearing to act as support for shaft.

NOTE: On some early production tools the Replacer Adapter J-6173-3 (Fig. 1) was incorrectly stamped J-6173-2. The set does not normally include a detail of this number so to correct, merely remark the Replacer Adapter to J-6173-3.

2. Insert Remover Adapter J-6173-4 into rear of bearing to be removed so that shoulder on Remover bears against rear edge of bearing. **NOTE:** If rear bearing is to be removed, it will be necessary to remove transmission and camshaft rear plug.

3. Place Indexing Collar J-6173-6 on threaded end of shaft with open side toward unthreaded end and start thrust washer and nut on shaft.

4. Insert shaft and Indexing Collar through Remover and Replacer Adapters and position lug on Indexing Collar in ventilator hole in front of block (Fig. 2). This indexes the shaft so that it cannot rotate. **NOTE:** In order to more clearly show the positions of the tools in use, the pictures illustrating this procedure are taken from the bottom of the engine with the oil pan removed.

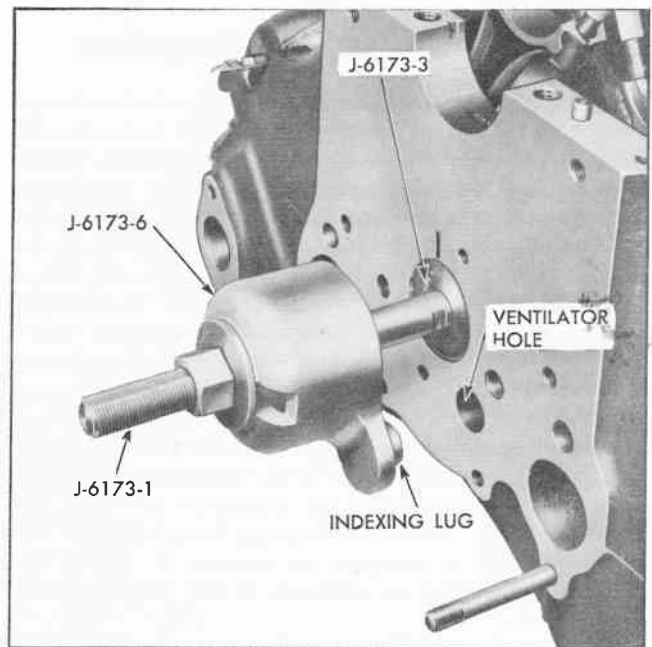


Fig. 2 Positioning Indexing Collar

5. Slip Key J-6173-5 into notches in shaft behind bearing to be removed (Fig. 3).
6. Turn nut on front of shaft to pull key against Remover J-6173-4, then continue to turn nut until bearing is pulled out of its hole.

BEARING INSTALLATION

1. Insert Remover Adapter J-6173-4 into front bearing to act as a support for the shaft and insert Pilot J-6173-7 in hole in which bearing is to be

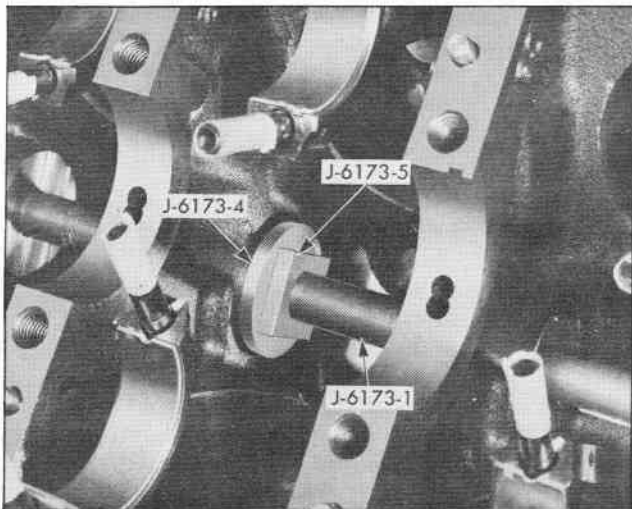


Fig. 3 Preparing To Remove Bearing

installed. Tapered side of pilot must face the front. NOTE: If front bearing is being replaced, insert Remover Adapter in center bearing to act as support for the shaft.

2. Coat outside of new bearing with oil and place it over Replacer Adapter J-6173-3, indexing notch in edge of bearing with pin on Replacer Adapter. NOTE: The notch in the edge of the bearing is used to properly position the bearing, with respect to the oil holes, when it is installed. When bearings are installed in production, the notches all face the front except the one in the rear bearing. In the field it is necessary to install all bearings with the notch facing the rear.
3. Position Replacer Adapter J-6173-3, with bearing in position against shoulder, against rear of hole in which bearing is to be installed (Fig. 4). Index mark on shoulder of Replacer must point down (toward crankshaft side) to properly position bearing.
4. Insert Shaft with Indexing Collar, thrust washer, and nut through Remover Adapter, Pilot, and Replacer Adapter and index lug on Collar with ventilation hole in front of block (Fig. 2).
5. Slip key J-6173-5 into notches in shaft behind Replacer Adapter J-6173-3 and tighten nut to start bearing into hole (Fig. 4). Continue to tighten nut until bearing has been pulled completely into its hole. When properly positioned, it will be approximately flush with both sides of the transverse number. NOTE: Rear bearing should be pulled in until front edge is flush with block. This will leave shoulder at end of counterbore for camshaft rear plug visible behind bearing.
6. Remove Remover and Replacer Tool J-6173.

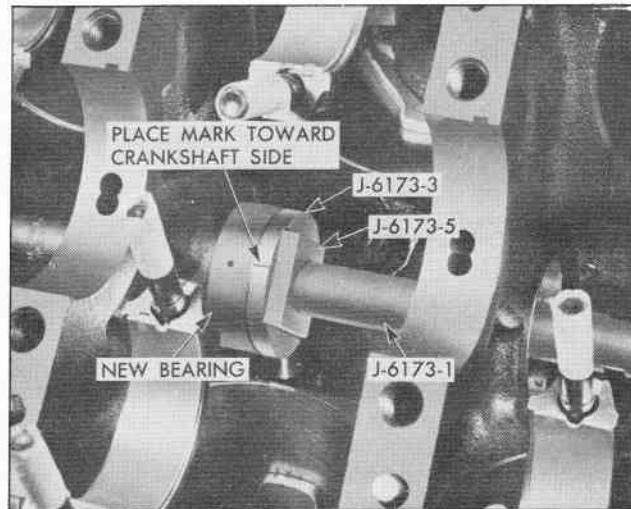


Fig. 4 Preparing To Install Bearing

7. With a small mirror (a dental mirror is excellent for this purpose) visually observe that holes in bearing line up with drillings in block. NOTE: The front center and rear bearings index with only one hole in the block, that which is drilled up from the main bearing to feed the camshaft bearing. The front center and rear center bearings must also index with the passages which feed the right cylinder head oil gallery and left cylinder head oil gallery respectively.
8. Coat inner diameter of new camshaft bearing and all camshaft journals with oil and install camshaft. Rotate camshaft through several revolutions to make sure it is completely free. If any tight spots are found, remove camshaft and very carefully polish down the center journal slightly. If still not free, polish the front and rear journals slightly. If any particular bearing causes binding of the camshaft, replace that bearing also. NOTE: Front center and rear center journals should not be polished except to remove slight roughness or scratches. Slight warpage of the camshaft is not harmful providing the journals are polished down until the camshaft rotates freely in its bearings.

REASSEMBLY OF ENGINE

1. Position crankcase ventilator lower baffle on block and install drive screws by threading them back into the block. After turning drive screws in as far as they will go using the pliers, drive them down securely with a hammer. NOTE: If drive screws were damaged during removal, new ones can be obtained from the Parts Department. They are listed under group 1.780 in the Master Parts Catalog.
2. Replace the camshaft, hydraulic lifters, push rods, rocker arm covers, push rod cover, intake manifold, timing chain cover and radiator.

12-VOLT SYSTEM BRINGS NEW PROBLEMS

Since the adoption of 12-volt systems the entire automotive service industry has been faced with new situations. Automotive service trade journals, oil company publications and battery manufacturers have all continuously emphasized the need for recognizing the new conditions brought about with the 12-volt system.

Car, truck and automotive equipment manufacturers have called attention to the new service techniques required.

When Pontiac adopted the 12-volt system on its 1955 models, a wealth of experience gained by earlier users was available. Important precautions and new techniques were written into our 1955 service literature. It is timely now, after we have had some actual experience, that we summarize this information and re-emphasize some of the most important factors. Also as a result of our experience, we are recommending certain periodic service procedures which should be carried out for the best interest of our product in the hands of Pontiac owners.

CARE AND MAINTENANCE OF BATTERY

The care and maintenance of batteries is one item which becomes more important in the 12-volt system. There are other considerations and cautions which are important but apparently our service people have not considered the care and maintenance of the battery as seriously as the other items. In this connection we wish to quote from the Shop Manual.

"The external condition of the battery and the battery cables should be checked periodically. The top of the battery should be kept clean and the battery hold-down bolts should be kept properly tightened. Particular care should be taken to see that the tops of 12-volt batteries are kept clean of acid film and dirt because of the high voltage between the battery terminals. For best results when cleaning batteries, wash first with a dilute ammonia or soda solution to neutralize any acid present and then flush off with clean water. Care must be taken to keep vent plugs tight so that the neutralizing solution does not enter the cell. Also use care that solution does not enter vent cap breather hole. The hold-down bolts should be kept tight enough to prevent the battery from shaking around in its holder so as not to damage the battery case, but they should not be tightened to the point where the battery case will be placed under a severe strain.

To insure good contact, the battery cables should be tight on the battery posts. The battery ground cable must always be connected to the battery support as well as the engine to insure a good ground circuit through the fender skirt to the regulator. If the battery posts or cable terminals are corroded, the cables

should be disconnected and the terminals and clamps cleaned separately with a soda solution and a wire brush. After cleaning apply a thin coating of petrolatum on the posts and cable clamps to help retard corrosion."

BATTERY INSPECTION AND CLEANING INTERVALS

Experience has shown that the top of the battery must be kept clean and dry. If this is not done, corrosion of the cell connectors may occur.

The corrosion may or may not appear in connection with a "bubble" or "blister" in the sealing compound above one of the cell connectors. The presence of corrosion usually is indicated by a "whitish" sulfate crust or "reddish-brown" sludge formed between the cell connector and the sealing compound.

Corrosion of the type described results from a leakage of current from the cell connector to ground (edge of the battery retainer) through a film of acid and dirt on top of the battery. Twelve-volt batteries corrode more rapidly than six-volt batteries under similar conditions because the higher voltage causes more current leakage. A film of acid may result from (1) loose or improperly gasketed vent plugs, (2) overfilling, or careless filling (3) overcharging, or (4) leaks in cell covers or sealing compound.

CORRECTIVE OPERATION

1. First remove the battery retainer from the top of the battery. Neutralize the top of the battery and the retainer with a soda solution or dilute ammonia water. After the foaming stops, use a soft brush and clean water* to rinse off both the top of the battery and the retainer. DO NOT ALLOW THE CLEANING SOLUTION TO ENTER THE BATTERY CELLS. Completely dry the battery. When excessive corrosion has occurred, repeat the above cleaning procedure at the affected area to make sure of removing all of the corrosion deposits around the cell connector. Reseal when necessary as explained below under "Resealing the Battery." (*If washing reveals cracks or leaks in the cell covers or case, the battery should be replaced.)
2. Paint the battery retainer using acid resistant paint. If not already included cement a rubber spacer (522205) in each of the four corners of the battery retainer using weatherstrip cement. These spacers will raise the retainer and break up any possible leakage path between the battery and the retainer which is grounded. Spacers are now in production at all plants. Install retainer making sure it is properly centered and just tight enough to prevent battery movement. Check the vent

plugs to make sure that they are seated and that the yellow gaskets are properly attached (cupped side up).

RESEALING THE BATTERY

When considerable corrosion of the cell connector has occurred due to a break or pin hole in the sealing compound, or the sealing compound has puffed up or ruptured, the battery should be resealed. After the battery has been cleaned properly as outlined above, the exposed cell connector should be resealed by one of the following methods:

1. Apply a layer of automobile undercoating or acid resistant paint to the affected area as required to reseal the top of the battery.
2. Use a torch with a soft flame to reseal the battery by heating and flowing sealing compound around the affected cell connector. CAUTION: Before using a torch to heat and flow the sealing compound, always remove battery vent caps and blow across cover vent wells (or use gentle air blast from a filler syringe) to remove EXPLOSIVE GASES.

PERIODIC BATTERY INSPECTION AND CLEANING

NEW CAR PRE-DELIVERY INSPECTION

Batteries in new cars should be wiped clean and dry. If the rubber spacers (522205) are not present in the retainer, they should be installed before the car is delivered.

2,000 MILE INSPECTION AND ADJUSTMENT

Inspect the battery and retainer for dampness and evidence of corrosion. If either is noted, clean, flush and dry the battery and retainer as outlined above. If rubber spacers (522205) are not present, they should be installed before the car is returned to the owner.

INSPECTION AT LUBRICATION PERIOD

Batteries should be inspected, cleaned, flushed and dried. If rubber spacers (522205) are not present, they should be installed before the car is returned to the owner.

MISCELLANEOUS INSPECTION PERIODS

Dealer service personnel should inspect the battery and retainer on all cars brought to the dealership for servicing. If corrosion is observed, the battery should be cleaned, flushed and dried. If the rubber spacers (522205) are not present, they should be installed before the car is returned to the owner.

HANDLING OF BATTERY CLEANING AND RETAINER SPACER INSTALLATION OPERATIONS

1. In cases where the four (4) retainer spacers (522205) were not in place when the car was received, a straight time allowance of .5 hours will be honored on an AFA when it is certified that the battery was thoroughly cleaned and the spacers installed in accordance with the above instructions.
2. In cases where the car was received with the spacers installed and where the battery requires cleaning either at the new car or 2,000 mile inspection and adjustment period, the cleaning will be considered a part of the "inspection" and "essential work" procedures.
3. In cases where the cleaning operation is found to be required at the time of the periodic car lubrication or servicing, the operation should be considered owner preventive maintenance. Charges should be based on flat rate operation 12-27.

CORRECTION OF CORROSION CAUSED PARKING AND SIGNAL LAMP SHORT CIRCUITS

For a short period, parking and signal lamp assemblies were used which may become corroded in the socket areas and result in a short circuit. As soon as this condition was discovered, changes were made to eliminate the entrance of moisture.

This is to advise that in cases where a short circuit occurs, and there is evidence of moisture having been in the socket or on the reflector below the socket, that the lamp body and wire assembly should be replaced. These parts, 5945817 L.H. and 5945818 R.H., are listed in Group 2.899. Flat rate operation 12-340 applies on the replacement of the body assembly.

Inspection for evidence of moisture can also be made visually through the lens at any time when a car is in for service or when a bulb is being replaced. In all cases where evidence of moisture is found, the lamp body and wire assembly should be replaced.

NEW TIRE INFLATION RECOMMENDATIONS FOR "SAFARI" STATION WAGON

The tire inflation chart given on page 21 in the Owner's Guide will be changed in the next printing to indicate that tire inflation pressure recommendation for the "Safari" is 24 lbs. front and rear, cold. While these models are equipped with 7.60-15 4-ply rating tires, it has been found more desirable to use the 24 lb. pressure than the 26 lb. given in the owner's guide. Start using the new recommendation at once.

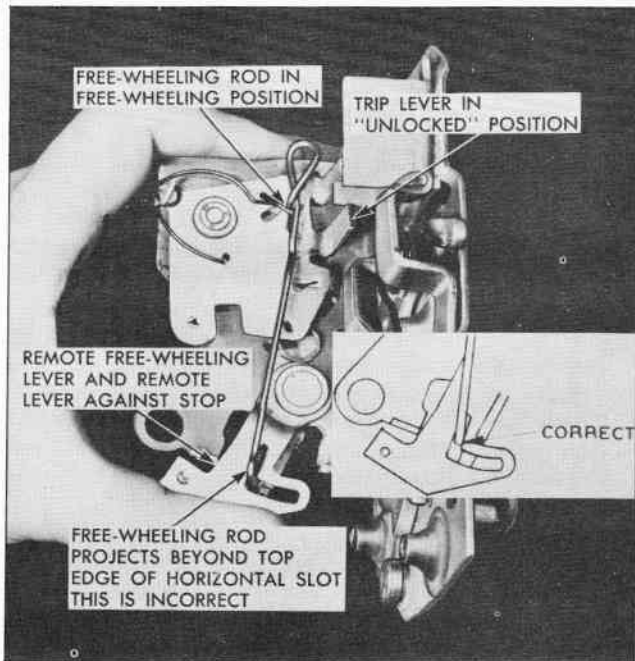


Fig. 5 Rear Door Lock in Unlocked Position

PROCEDURE FOR REPAIRING REAR DOOR LOCK

If a rear door with the lock set in free-wheeling cannot be opened with the inside remote control handle when the inside locking knob is in the up (unlocked) position, the condition may be caused by an improperly installed remote control assembly or a free-wheeling rod that is too long.

The following procedure may be used to check and repair a rear door lock having the above condition:

1. Check for correct fore and aft positioning of remote control assembly on door inner panel. If necessary, reposition remote control assembly for proper lock operation by loosening screws and moving remote control to obtain the proper adjustment. NOTE: This may be all that is required to correct condition.
2. If lock is still inoperative, remove lock from door.
3. With trip lever in the up (unlocked) position and free-wheeling rod in free-wheeling position, actuate both remote free-wheeling lever and remote lever against stop on lock frame, as shown in Fig. 5.
4. While holding levers against the stop, observe position of lower end of free-wheeling rod in relation to horizontal slot in remote free-wheeling lever (See Fig. 5). If any portion of rod projects beyond top surface of slot, lock is defective and should be repaired as follows:

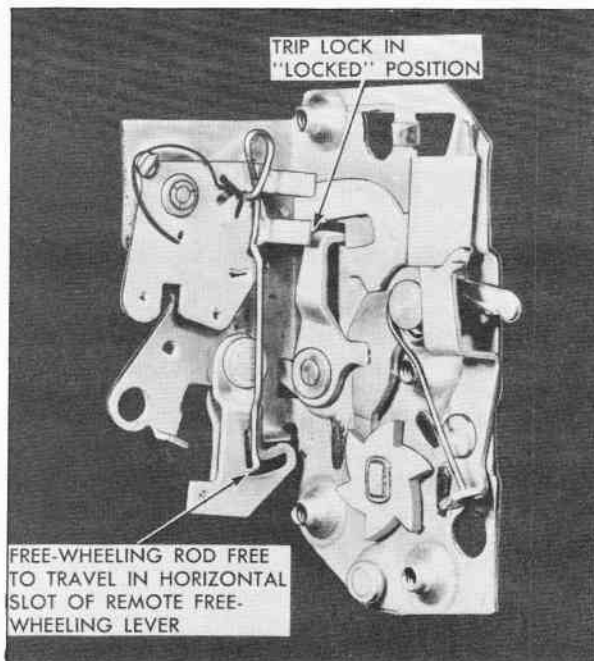


Fig. 6 Rear Door Lock in Locked Position

- a. Place trip lever in down (locked) position. In this position, the lower end of free-wheeling rod is free to travel in horizontal slot of remote free-wheeling lever. (See Fig. 6)
- b. Actuate remote free-wheeling lever only against stop in lock frame. With lever held in this position, kink free-wheeling rod with pliers, as shown in Fig. 7, until lower end of rod contacts top edge of slot (See also Fig. 8). CAUTION: Do not over-kink rod.



Fig. 7 Kinking Free-Wheeling Rod

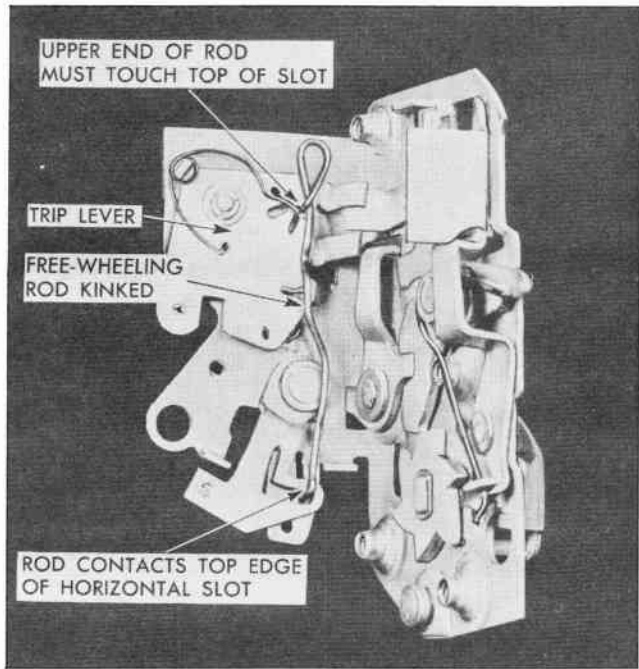


Fig. 8 Free-Wheeling Rod in Correct Position

c. Check to see that remote free-wheeling lever is free to travel in horizontal slot and that rod is still in free-wheeling position. If rod has been over-kinked (See step b), rod will not travel in horizontal slot. **IMPORTANT:** When making this check, upper end of rod must be in top of slot in trip lever as shown in Fig. 8.

d. Actuate trip lever to unlocked position and re-check as outlined in step 3 to see that no portion of rod projects beyond top surface of horizontal slot in remote free-wheeling lever.

5. Install lock in door.

6. Check door lock operation. If door lock continues to be inoperative, replace door lock.

ADDITIONAL INFORMATION ON NEW TYPE DOOR STRIKER ASSEMBLIES

Page 79 of the June Service News covered identification of the new type door lock striker assemblies by the dot of black paint on both the front and back of the striker.

Recently, striker assemblies from another source which do not carry the black dot have been received. These striker plates are also of the improved type and can be identified by a clover-leaf molded on both front and back of the striker. On the front, the clover-leaf is in the same position as the black dot would normally appear. (See Fig. 40 June SCN.) On the back side, it is located in the bottom of the long vertical depression.

ADDITIONAL FLAT RATES ON BODY REFINISH

The suggested flat rate times listed on Operation 1-16 Lower Body Refinish includes refinishing of all body except roof panel.

Amount of paint material required to refinish the Rear End Panel (operation 1-746) is 3/8 quart.

VOGUE COLOR REFINISH

The following flat rate operations and the suggested flat rate times should be used whenever it is necessary to refinish bodies having the Vogue color combinations:

1-17 (10.001)	Lower Body - Vogue Lower - Refinish	
	Includes: Mask Panels	
	55-All Except 2837SD, 2867DX (3.7)	(1-1/2 qts. Paint Material)
	55-2837SD, 2867DX (3.4).	(1-3/8 qts. Paint Material)
1-18 (10.001)	Lower Body - Vogue Upper - Refinish (Below Belt Line)	
	Includes: R & R Rear Compartment Handle and Mask Panels	
	55-2511-D, 2537-D (8.4)	(3-1/2 qts. Paint Material)
	55-2519-D (9.2).	(4-3/8 qts. Paint Material)
	55-2819D-SD (10.1).	(4-7/8 qts. Paint Material)
	55-2837SD (9.6).	(4 qts. Paint Material)
	55-2867DX (10.3)	(4 qts. Paint Material)

CORRECTION OF OIL PRESSURE GAUGE NOISE

The oil pressure gauge normally operates with a column of air in the gauge line acting as a cushion between the oil and the gauge. If, for any reason, this air leaks out a buzzing noise may be noticed coming from the gauge.

The correction for this condition is to disconnect the line at both ends and with air pressure blow the oil from the line. Examine fittings for damage that may have caused the leak and reinstall tightening securely at both ends before starting engine.

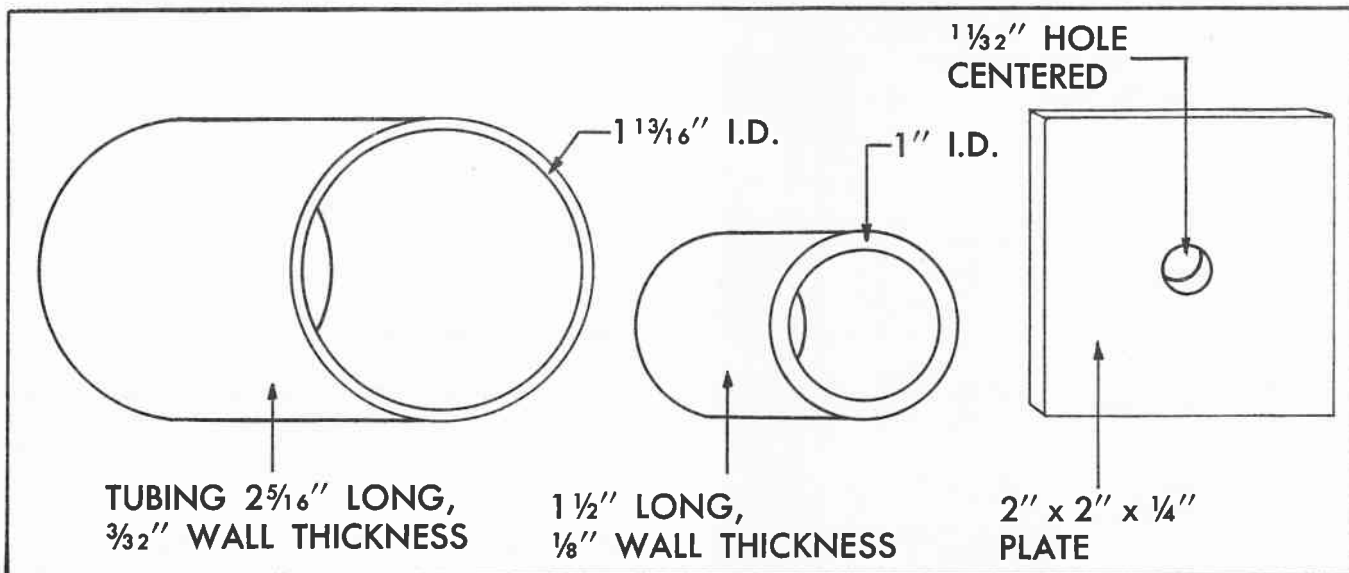


Fig. 9 Installation Tools For 1954 Compressor Seal Replacement

1954 COMPRESSOR SEAL REPLACEMENT (3135683 SEAL KIT)

A new compressor seal has been released to service all 1954 compressor assemblies which have leaking seals. The new kit is #3135683, and replaces compressor seal kit #3134106.

If you have not already made the tools for installing the compressor shaft seal explained in the October-November 1954 issue of the Service Craftsman News, and also in the March 1955 issue of this same publication, then make the three tools as shown in Fig. 9. Then install seal as follows:

1. Procure the shaft seal kit #3135683, which contains one each of the following: snap ring, shaft seal "O" ring, seal bellows assembly, seal nose, bearing housing "O" ring, bearing housing, and bearing housing gasket. Procure three 1/4-28 x 7/8" cap screws.
2. Attach manifold gauge set to compressor and pump down the compressor (refer to the 1954 Air Conditioning Shop Manual, page 30).
3. Remove magnetic coil assembly and brush and bracket assembly.
4. Clean front of compressor with a stiff bristle brush using a suitable solvent and blow clean and dry with compressed air.

CAUTION: Be sure that the front of the compressor is thoroughly clean, as the front bearing housing will be replaced.

5. Remove leaking seal assembly.

NOTE: Use #2 Truarc pliers or needle nose pliers with screw driver and remove front snap ring. Seal may be removed by prying off with screw driver.

6. Remove the eight cap screws which retain the front bearing housing. Place a cap screw in each of the threaded holes in the front bearing housing, tightening the cap screws evenly, so that the front bearing housing pulls away from the compressor body without distorting the front bearing (which is held on the compressor shaft with snap rings).

NOTE: If the front bearing housing cannot be pulled completely from the bearing, it will be necessary to pry the housing off with screw drivers (one on each side of the housing) making sure housing comes off evenly, so the bearing will not be distorted.

7. Remove front bearing housing gasket making sure that the front face of the compressor is not damaged or scored, and that this surface is free and clean of all parts of gasket material which may stick to this surface.
8. Open compressor seal kit #3135683 and lay out all parts on a clean dry surface.
9. Oil both sides of the front bearing housing gasket with compressor oil and place gasket in position on the compressor housing.
10. Oil back surface of front bearing housing and slip housing into place. Be sure that the slot in the bearing housing that goes toward the inside of the compressor is in the up position.

CAUTION: If the front bearing housing is not placed into the compressor evenly, the carbon seal nose may chip or crack, which will result in an oil leak past the seal nose.

11. Using the three 1/4-28 x 7/8" cap screws (spaced approximately 120° apart) pull the front bearing evenly towards the compressor, until the front bearing housing to compressor attaching screws can be started into the compressor. Pull the front bearing housing up to but not tight to the compressor with the proper mounting screws.

NOTE: Remove the three 1/4-28 x 7/8" cap screws and install the proper cap screw in place.

12. Position the 1-13/16" ID spacer over the compressor shaft and install the 2 x 2 x 1/4" back plate and the 5/16-24 x 1-1/4" hex head bolt and nut. Holding the head of the hexhead bolt, tighten the nut so that the back plate and spacer permits the front bearing to seat in the front bearing housing. When the screw starts to tighten up, the bearing has seated in the housing.

13. Remove the plate and spacer.

14. Place the clutch plate on the splined shaft of the compressor and turn the compressor shaft to ensure that the bearing is not bound or cocked on the shaft.

15. Before tightening the front bearing housing assembly to the compressor securely, keep turning the compressor shaft as you tighten the front housing to compressor attaching screws to 10-12 lb. ft. torque. This procedure will further ensure that there is no bind in the bearing between the compressor shaft and the front bearing housing.

16. Wipe carbon nose so it is free of dirt.

17. Oil surface of the seal bellows assembly which will contact the carbon nose, and slip the seal bellows assembly into place.

18. Position snap ring on compressor shaft so that the tangs of the snap ring will fall into the grooves of the seal bellows assembly.

19. Complete the installation of the seal and snap ring by placing the 1" ID spacer into position and install the 2 x 2 x 1/4" plate and the 5/16-24 x 1-1/4" hex head bolt and nut. Holding the head of the hex head bolt, tighten the nut so that the back plate and spacer forces the snap ring into the groove on the compressor shaft (see the 1954 October-November issue of the Service Craftsman News, page 79, Fig. 9).

20. Add oil as necessary to bring level to 7/8" from bottom of crankcase. Add only the following oil in the 1954 Air Conditioning system:

Suniso 4G	Sun Oil Company
Capella D	Texaco Company
#300	Ansul Chemical Company
#300	Frigidaire
#300 LT	Frigidaire

21. Install filler plug, and while tightening, crack suction valve slightly to allow Freon to enter the compressor. Freon, being heavier than air, will go to the bottom of the crankcase, expelling air through the loose filler plug. Tighten plug securely when it is felt that all air has been expelled.

22. Open the suction valve in order to put a charge of Freon 12 in the compressor and check for leaks around the seal assembly with a leak detector.

23. Remove the spacer, plate and the special hex head bolt and nut.

24. If no leaks are evident, replace the magnetic clutch assembly spacer, brush and bracket assembly and magnetic clutch assembly.

25. Replace compressor belt and Torque a new belt to 60 lb. ft. and a used belt to 55 lb. ft.

26. Open discharge valve and make an operational check.

27. Add Freon as necessary.

The suggested flat rate time for this operation is 1.8 hours. If it is necessary to add Freon add .5 hours.

1955 FINAL SHOP MANUAL NOW BEING DISTRIBUTED

The final 1955 Pontiac Shop Manual is now being distributed. Each Service Craftsman who maintained an active standing during 1954, by meeting the requirements listed on page 00-2 of the shop manual, will receive a personal copy of the new manual. In addition one copy is being mailed to each Pontiac dealer.

The new manual contains the latest information on servicing all parts of the Pontiac chassis except the Air Conditioning System and the Hydra-Matic transmission. These units are covered in separate manuals which have previously been distributed.

The Preliminary Shop Manuals, Books I, II, and III, should be destroyed when the new manual is received since they are superseded by later information.

1955 AIR CONDITIONING COMPRESSOR SERVICE INFORMATION

COMPRESSOR CLUTCH

Whenever it is necessary to replace a compressor seal (1955 Air Conditioning Shop Manual, page 39) the following steps should be included in the procedure for replacing this seal:

1. Upon disassembly of the clutch assembly, carefully examine all friction surfaces of the clutch parts for dirt, scoring, oil contamination or any other damage.
2. Carefully clean all dirt from all clutch parts (except clutch plates) and wipe with a clean dry cloth. If these parts are contaminated with oil, all parts of the clutch (except the plates) should be cleaned in a solvent and blown dry with compressed dry air.
3. If the friction surfaces of the clutch plates are found to be contaminated with oil, the clutch plate assembly should be replaced. This is necessary since this clutch is of the dry plate type and any oil on the clutch plate surface will tend to cause slippage (similar to the action of oil on brake shoes). Do not attempt to clean these clutch plates with a solvent, as the friction materials are porous, and will slowly exude oil and cause clutch slippage.

After a new compressor clutch plate has been installed, the engine should be started, allowed to operate at idle speed and the air conditioning control switch moved off and on a number of times. This will burnish the clutch plates, removing any high spot from the clutch plates and permit the clutch to engage properly.

COMPRESSOR REPLACEMENT

Before installing a new compressor, rotate the compressor shaft four or five times. This permits proper lubrication of the compressor seal over all its surface. Before the compressor clutch is mounted to the compressor, wipe the front face of the compressor thoroughly with a clean dry cloth and if necessary clean front of compressor with a solvent to remove any excess oil. The cleaning of the compressor in this manner will prevent any oil that may have leaked past the compressor seal (while in storage) from being thrown onto the clutch facing, which would cause slippage and eventual clutch failure.

CORRECTION TO JUNE SERVICE NEWS

Under "Pump Rod Adjustment" page 72 of the June Service News, the distance from the top of the air horn casting to the BOTTOM of the pump rod should be 1-1/16". This specification is listed incorrectly as from the air horn casting to the top of the pump rod. The same correction should be made on page 74 under "Adjustment Specifications".

This correction should also be made on pages 6B-71 and 6B-73 of the final 1955 Pontiac Shop Manual.

On page 57 of the June news the Carter 4-Barrel Carburetor is referred to as the WGD carburetor. This is incorrect. The correct model number for the 4-Barrel Carter is WCFB.

INSECTS AND FOREIGN MATERIAL REMOVAL FROM CAR FINISH, RADIATOR CORE, AND AIR CONDITIONING SYSTEM

Owners should be cautioned of the possibility of damage to the finish of the car caused by insects which are allowed to remain on the front of the car during summer driving. Any accumulation of insects should be removed as soon as possible after contact. This can be easily done without damage to finish by saturating the area with a mild solution of approximately two tablespoons of baking soda to a quart of water and washing.

Also with the advent of warmer weather it is of extreme importance that the radiator core be periodically cleaned of insects and foreign material for efficient cooling system operation.

On air conditioned cars the air filter and condenser core should also be checked and cleaned at each lubrication period, oftener when vehicle is operated in dusty areas.

USE HOLD-OPEN PROP WHEN WORKING UNDER HOOD

When doing mechanical work under the hood, it is wise to use a hood hold-open prop. The use of a prop is especially important when the engine assembly or transmission or any other part of the car is to be "jiggled" around during the course of performing the operation. Cases have been known where shaking of the car during service operations has caused the hood to slam shut when not supported. In one case where the engine was raised, the hood slammed shut causing hood and air cleaner damage.

It has come to our attention that some service people are lubricating hood hinges. This should be discontinued because normal friction in the hinges is utilized to supplement the spring action to hold hoods in the open position.

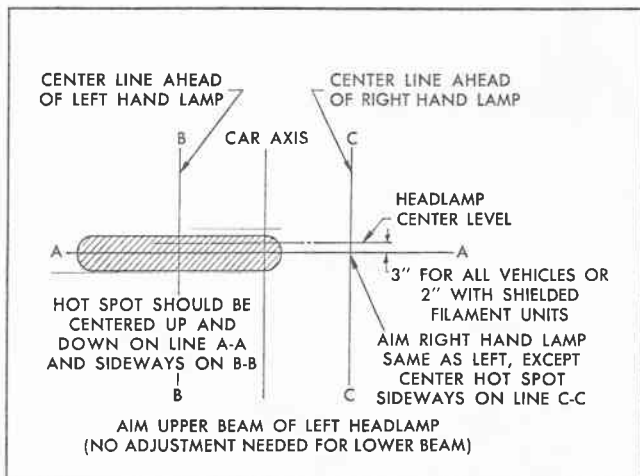


Fig. 10 Head Lamp Aiming Chart

IMPROVED SEALED BEAM HEAD LAMP UNIT NOW IN PRODUCTION

The new type sealed beam unit previously released for service (see page 37 March Service Craftsman News) is now being used in production.

The new unit is of all glass construction and has a metal shield over the low beam filament. This shield can be viewed through the lens and is a good means of identification.

With the new unit the passing beam (low beam) provides up to 80 feet more visibility along the right side and shoulder of the road and there is also a sharp reduction in upward reflected light which lessens glare in fog or dust.

Aiming procedure on the new unit is the same as previously used with the exception that vertical aim (line A-A Fig. 10) is now 2" below the headlamp center level instead of three. The correct aiming procedure for both old and new type units will be found on page 12-35 of the Final 1955 Pontiac Shop Manual. It is of utmost importance that these units be aimed correctly not only to ensure the owner will receive full benefit from the improved lighting, but also because the range and power of this new head lamp will make even slight variations from recommended aiming specifications hazardous to an approaching motorist due to glare.

The new lamps may be used in all states, but their use at the 2" aim specification is restricted by legislative requirement. This legislation is in effect in all states except as noted below.

Legislation permitting use of the new sealed beam head lamp at the 2" specification is pending in:

Alabama
California
Florida
Georgia
Pennsylvania

Laws permitting use of the new sealed beam head lamp at the 2" level have been enacted in the following states, but will not be effective until date indicated.

Idaho January 1, 1956
Texas September 5, 1955

In the foregoing states it will be necessary to re-aim to the 3" specification all vehicles received with the new type headlamps. A check with the local state traffic enforcement bureau will determine approval date on the new aiming specifications.

REMOVAL OF ROAD TAR FROM CAR FINISH

On page 75 June 1955 Service Craftsman News Prep-Sol No. 3980 is mentioned as a cleaning agent suitable for the removal of road tar. This preparation should be used by experienced service personnel only. For owner use several commercial tar removers are available which should be used as directed by and on responsibility of the supplier.

LOCATION OF ENGINE THERMO-GAUGE CHANGED

The location of the engine thermo-gauge has been changed in production to provide more accurate engine temperature readings. The new location is immediately to the left of the heater outlet at the front of the intake manifold. In conjunction with the new gauge location a thermo-gauge unit with a longer capillary tube has been released under part number 1513075. The first type, short tube thermo-gauge will no longer be serviced as the 1513075 thermo-gauge can be used on original and present production manifolds. When used with original production manifolds, coil excess tube length so it will not interfere with secondary cables or throttle linkage.

The new intake manifold will be serviced with both old and new thermo-gauge locations machined and will be serviced under the following part numbers:

520733 - (2-Barrel Carburetor)
520735 - (4-Barrel Carburetor)

OIL PUMP TO BLOCK GASKET NOW USED IN PRODUCTION

A gasket is now being used in production between the engine oil pump and the block, to insure a positive seal at this point. On early production cars the gasket should be installed if the oil pump is removed for other service. The oil pump to block gasket is serviced under part number 522103.

CORRECTION TO AIR CONDITIONING PACKAGE INSTALLATION INSTRUCTIONS

Step 1d, page 19 of installation instructions specifies marking and drilling 8 holes for the recirculation duct. These holes should be marked and drilled prior to installation of the air distributor for which installation instructions are given in step 9, page 17. Insert steps 1a thru 1d, page 19 between step 8 and 9, page 17.

ELIMINATION OF BODY TO FRAME INTERFERENCE

The following body and frame interference points have been found as contributing factors in the amplification of road, body and differential noises. These points should be carefully checked before further diagnosis or corrective action is undertaken.

1. Possible interference at the pinch weld of the rear quarter and rear deck floor to the rear bumper face bar supports and frame at kickups.
2. Insert an insulating pad between the rear deck floor and fuel tank. (See page 78, June Service Craftsman News.)
3. Possible contact of fuel line near left rear spring front hanger to both frame and floor pan.
4. Possible interference at rivet that secures the left rear spring front hanger to both frame and floor pan.
5. The right side lower engine splash apron contacting #2 crossmember.
6. Possible flexing of the right side toe board.
7. Remove #4 or #5 inner body bolt (whichever is applicable to individual body styles) from early production cars. Reference - Pontiac Service Craftsman News, May, 1955 - page 56.

Charlie Craftsman Says-



Tourists are customers too! Treat visiting Pontiac owners as you would your own.

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.
