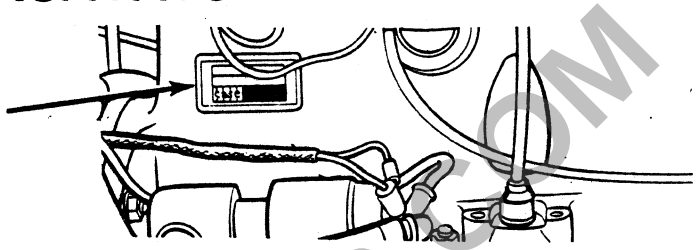
Section 1010

GENERAL ENGINE SPECIFICATIONS 880R EXCAVATOR

THE MODEL AND ENGINE SERIAL NUMBER IS STAMPED ON A PLATE LOCATED ON THE SIDE OF THE ENGINE ABOVE THE CRANKING MOTOR.



General

Type	4 Cylinder, 4 Stroke Cycle, Valve-in-Head Turbo-Charged
Firing Order	1-3-4-2
Bore	4-5/8 Inches
Stroke	5 Inches
Piston Displacement	336 Cubic Inches
Compression Ratio	15.8 to 1
No Load Governed Speed	2330 to 2370 RPM
Rated Engine Speed	2200 RPM
Engine Idling Speed	700 to 750 RPM
Exhaust Valve Rotators	Positive Type
Valve Tappet Clearance (Exhaust)	(Cold) .025 Inch
(Intake)	(Cold) .015 Inch

Piston and Connecting Rods

Rings per Piston	3
Number of Compression Rings	2
Number of Oil Rings	1
Type Pins	Full Floating Type
Type Bearing	Replaceable Precision, Steel Back, Copper-Lead Alloy Liners

Main Bearings

Number of Bearings	5
Type Bearings	Replaceable Precision Steel Back, Copper-Lead Alloy Liners

Engine Lubricating System

Crankcase Capacity	10 Quarts
with Filter Change	11 Quarts
Oil Pressure	45 to 60 Pounds with Engine Warm and Operating at Rated Engine Speed
Type System	Pressure and Spray Circulation
Oil Pump	Gear Type
Oil Filter	Full Flow Spin on Type

Fuel System

Fuel Injection Pump	Robert Bosch, Type PES Multiple Plunger
Pump Timing	30 Degrees Before Top Dead Center (Port Closing)
Fuel Injectors	Pencil Type (Opening Pressure 2800 PSI)
Fuel Transfer Pump	Plunger Type, Integral Part of Injection Pump
Governor	Variable Speed, Fly-Weight Centrifugal Type, Integral Part of Injection Pump
1st Stage Fuel Filter	Full Flow Spin on Type
2nd Stage Fuel Filter	Full Flow Spin on Type

CASE

Rac. 9-45781

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MAINTENANCE

To obtain maximum service from your Case Excavator keep a regular schedule of inspection, servicing and lubrication. Read the hourmeter to determine maintenance intervals. Use only lubricants with specifications recommended in this manual.

Run-In Period

The items listed in the run-in section are performed during the run-in period only.

Scheduled Maintenance

These items listed in this section are separated into maximum hourly intervals. These intervals are based on "average" operating conditions. When operating under "severe" conditions, such as excessive heat, cold, dust, mud or water, shorten the interval.

Run-In Maintenance Chart

NOTE: The following charts are based on maximum intervals. If the machine operates in severe conditions, service more often.

NOTE: See page 1050-5 for a listing of fluids and lubricants.

SCHEDULED MAINTENANCE CHART

Interval	Service	Instructions
Run In: Every two Hours	Torque wheel nuts 450-500 ft-lbs. (610-678 Nm), dry threads.	Section 6128
Units Stabilized	Torque axle mounting bolts.	Section 6128
Run In: After First 20 Hours	Change engine oil Change engine oil filter. Replace 20 micron inline filter element Clean 100 mesh inline screen Check drive belt tension Change forward/reverse unit and torque converter oil and filter. Change transmission oil	 Section 4201 Section 4201 Section 8016 Section 6101 Section 6101
Every ten hours or daily	Grease boom fittings. Lubricate turntable open gear. Check tire pressures Check engine oil level. Check oil reservoir level Check radiator coolant level Clean air cleaner dust cup. Drain air reservoir	 Section 9216 Section 4201

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Special Torques

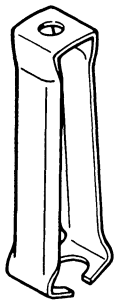
	U.S. Value	Metric Valve
Camshaft Nut - With Lock Washer	95 to 105 ft. lbs.	129 to 142 Nm (12.9 to 14.2 kgm)
- With Hardened Washer	195 to 205 ft. lbs.	264 to 278 Nm (26.4 to 27.8 kgm)
Connecting Rod Bolts (Add Lubrication to Threads and Under Bolt Heads with 30W Oil)	95 to 105 ft. lbs.	129 to 142 Nm (12.9 to 14.2 kgm)
Crankshaft Pulley Bolt	100 to 110 ft. lbs.	136 to 149 Nm (13.6 to 14.9 kgm)
Crankshaft Pulley Nut	125 to 135 ft. lbs.	169 to 183 Nm (16.9 to 18.3 kgm)
Crankshaft Main Bearing Bolts	145 to 155 ft. lbs.	197 to 210 am (19.7 to 21.0 kgm)
- With Hardened Washers	200 to 210 ft. lbs.	271 to 285 Nm (27.1 to 28.5 kgm)
Oil Cooler Outlet Cover Screws	35 to 42 ft. lbs.	48 to 51 mm (4.8 to 5.1 kgm)
Cylinder Head Bolts	200 to 210 ft. lbs.	271 to 285 Nm (27.1 to 28.5 kgm)
Cylinder Head Cover Stud Nuts	8 to 10 ft. lbs.	11 to 14 Nm (1.1 to 1.4 kgm)
Flywheel to Crankshaft Bolts Without Hardened Washers	180 to 190 ft. lbs.	244 to 258 Nm (24.4 to 25.8 kgm)
With Hardened Washers	230 to 250 ft. lbs.	312 to 339 Nm (31.2 to 33.9 kgm)
Intake and Exhaust Manifold Studs	25 to 30 ft. lbs.	34 to 41 Nm (3.4 to 4.1 kgm)
Exhaust Manifold Hex Nuts	25 to 30 ft. lbs.	34 to 41 Nm (3.4 to 4.1 kgm)
Intake Manifold Hex Nuts - Standard	25 to 30 ft. lbs.	34 to 41 Nm (3.4 to 4.1 kgm)
- Heavy	35 to 42 ft. lbs.	48 to 57 Nm (4.8 to 5.7 kgm)
Oil Pan Capscrews	15 to 20 ft. lbs.	20 to 27 Nm (2.0 to 2.7 kgm)
Oil Pan Drain Plug	29 to 31 ft. lbs.	39 to 42 Nm (3.9 to 4.2 kgm)

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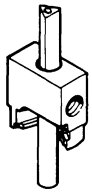
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INSTALLATION INSTRUCTIONS FOR M20614 TEFLON VALVE SEAL KIT

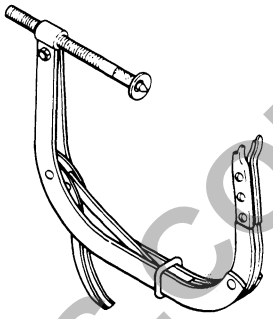
Special Tools Required



M20624 SEAL INSTALLATION TOOL



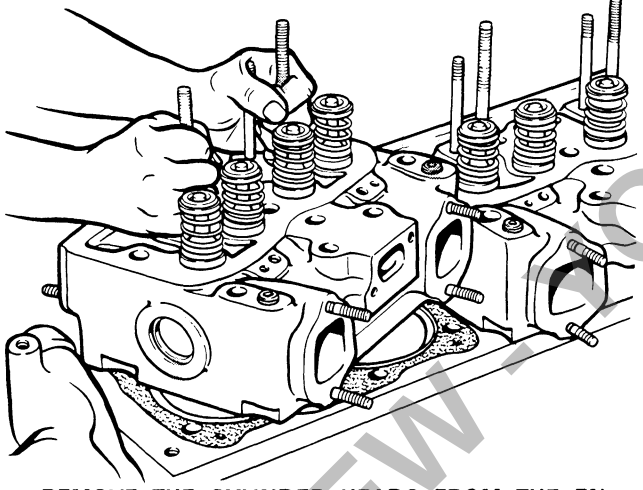
M20617 VALVE GUIDE CUTTING TOOL



VALVE SPRING COMPRESSOR

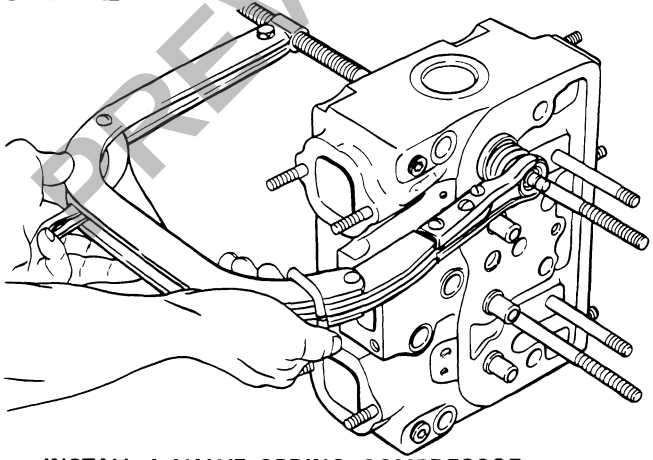
NOTE: FOUR CYLINDER ENGINES REQUIRE TWO M20614 KITS AND SIX CYLINDER ENGINES REQUIRE THREE M20614 KITS.

STEP 1



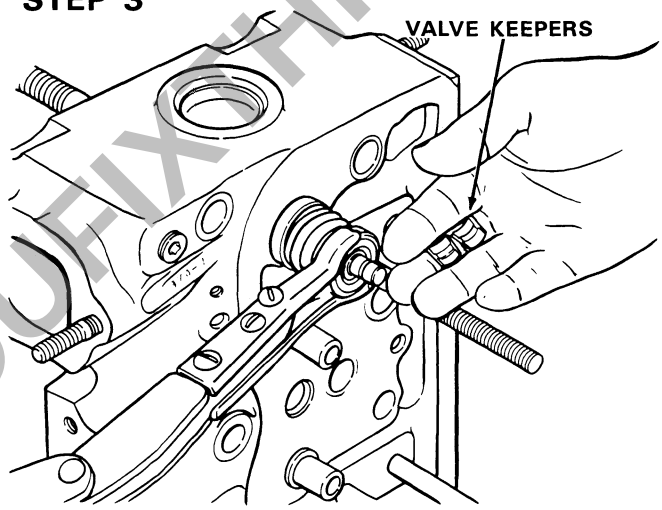
REMOVE THE CYLINDER HEADS FROM THE ENGINE, REFER TO SECTION 2015 FOR HEAD REMOVAL.

STEP 2



INSTALL A VALVE SPRING COMPRESSOR.

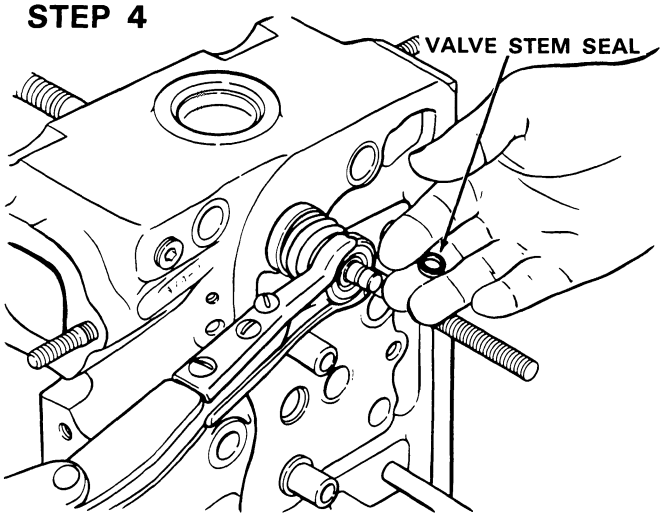
STEP 3



COMPRESS VALVE SPRING AND REMOVE VALVE KEEPERS.

IMPORTANT: VALVES, VALVE RETAINERS OR ROTATORS AND VALVE KEEPERS SHOULD BE MARKED WHEN REMOVED, TO INSURE THAT THEY WILL BE REINSTALLED IN THEIR ORIGINAL LOCATION.

STEP 4

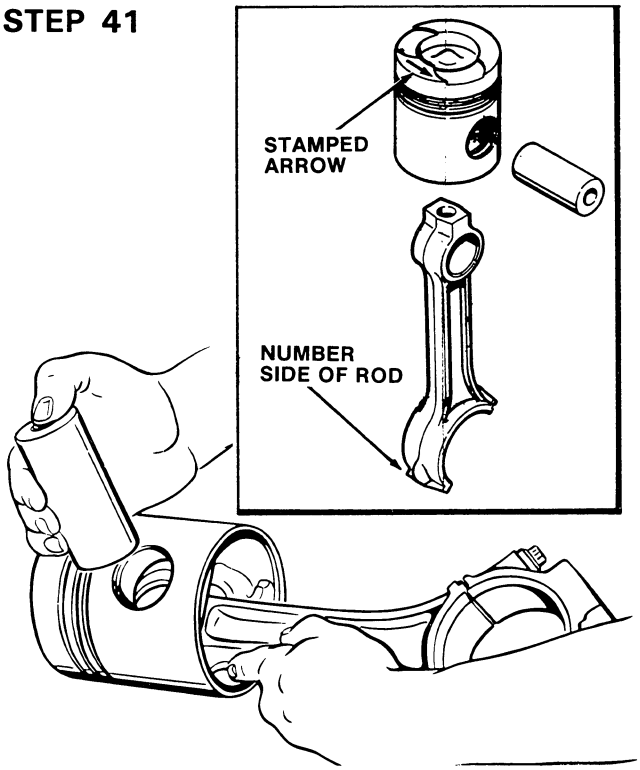


REMOVE VALVE STEM SEAL.

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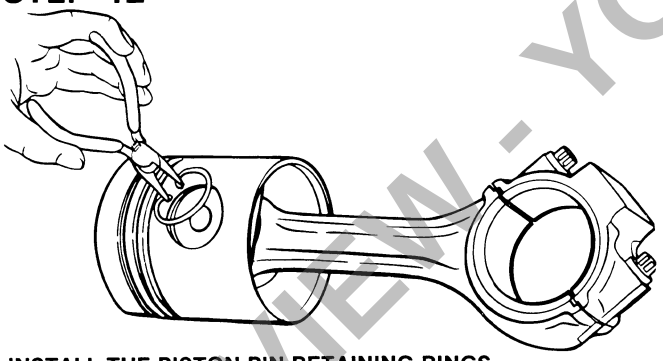
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STEP 41



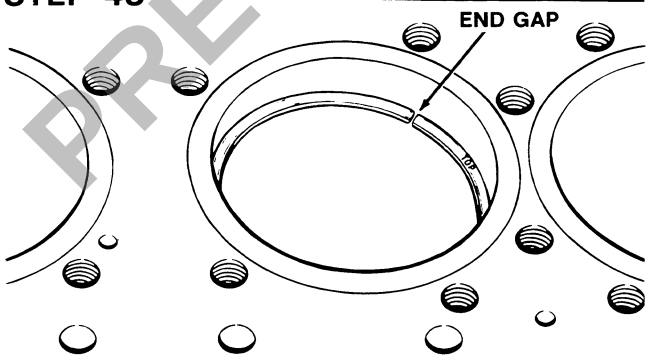
ASSEMBLE THE CONNECTING ROD TO THE PISTON. MAKE SURE THE NUMBERED SIDE OF ROD IS TOWARDS THE ARROW SIDE OF PISTON.

STEP 42



INSTALL THE PISTON PIN RETAINING RINGS.

STEP 43



PLACE THE PISTON RINGS IN THE CYLINDER SLEEVE AND CHECK END GAP. END GAP MUST BE AS SPECIFIED IN SECTION 1020.

STEP 44



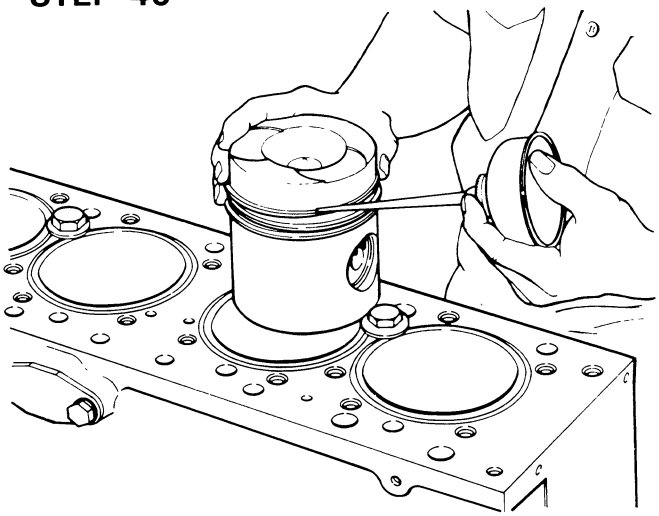
INSTALL THE PISTON RINGS ON THE PISTON.

STEP 45



ROTATE THE PISTON RINGS SO THAT RING END GAP IS 120° APART.

STEP 46



LUBRICATE THE PISTONS, PISTON RINGS AND CYLINDER SLEEVES WITH CLEAN ENGINE OIL.

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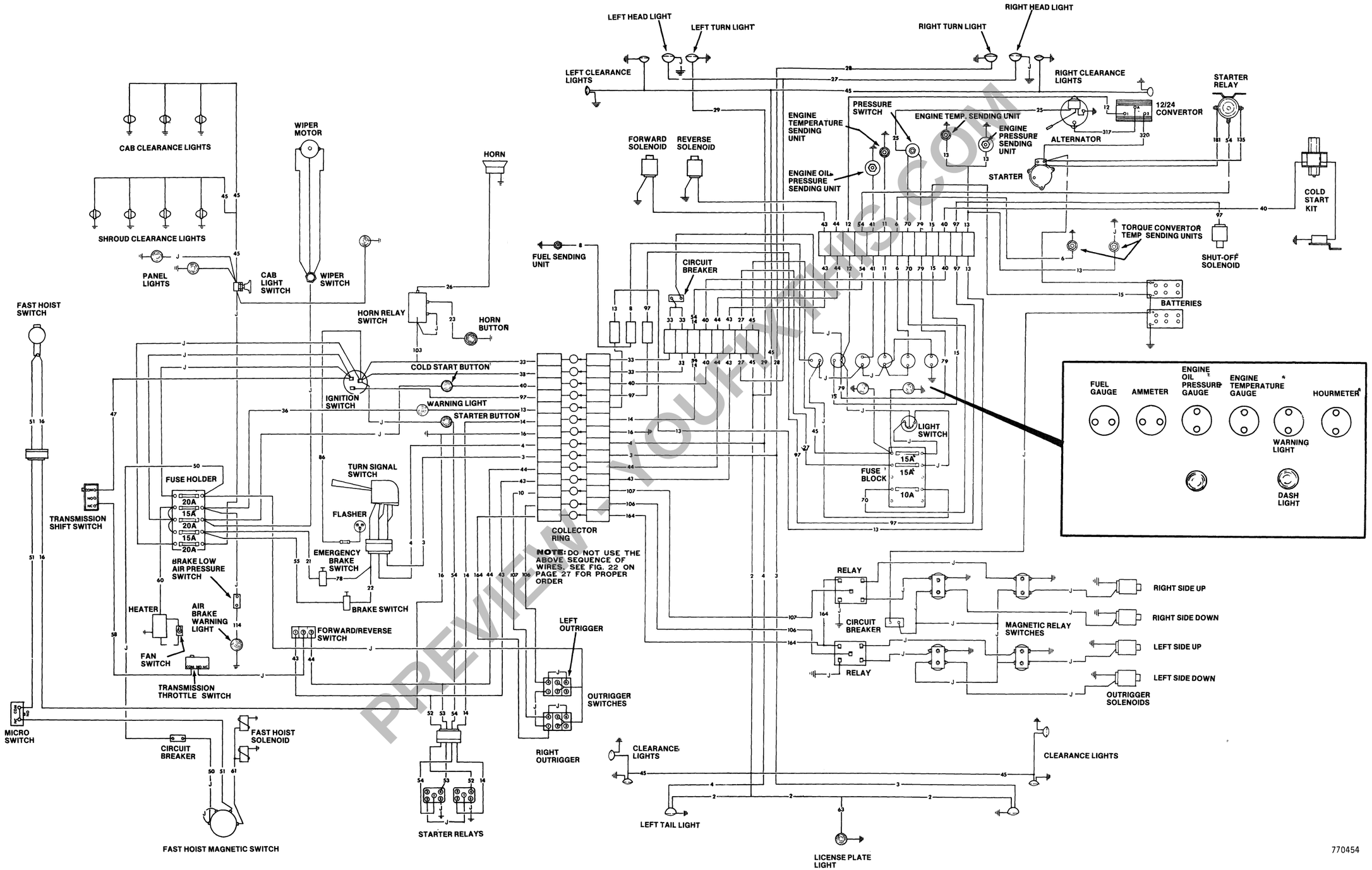
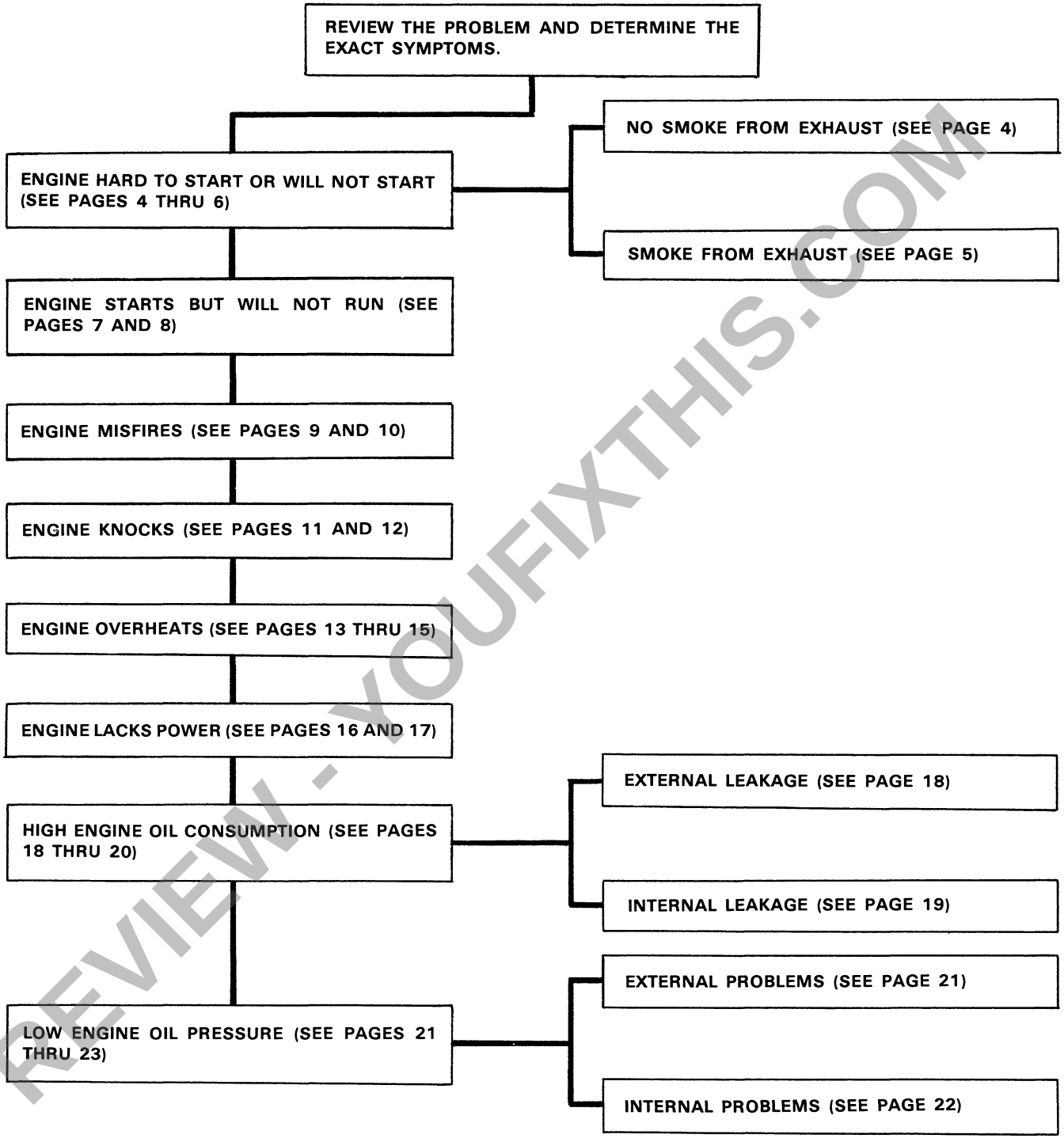


Figure 1. Electrical Schematic

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ENGINE DIAGNOSIS CHART



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ENGINE STARTS BUT WILL NOT RUN (Cont'd)

14. Valves Sticking

Sticking valves can be caused by improper replacement of valve guides, no lubrication, rust vapors, bent valves, or carbon. A sticking valve will cause an engine miss and the valve could also hit the piston causing internal damage.

15. Injection Pump Malfunction

A malfunctioning injection pump will usually under-fuel the engine. Adjust or replace the injection pump.

16. Fuel Injector Line Cracked

A cracked, chaffed or damaged fuel injector line will allow the fuel to escape externally and not inject fuel into the cylinder. This will cause an engine miss and low horsepower. Leaking fuel from a damaged injector line can easily be seen.

17. Injection Pump Timing Incorrect

A fuel injection pump timed at wrong degrees, wrong stroke, or marks moved on pulley, will inject fuel into the cylinders at the wrong time, causing rough running, detonation, preignition, low horsepower and other damage to the engine. Check for proper pump timing.

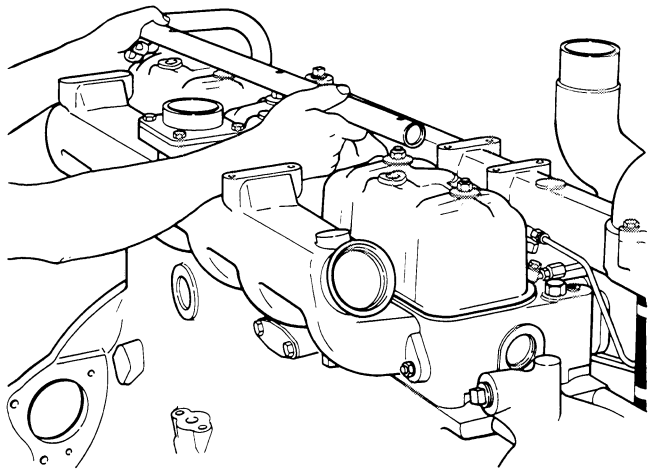
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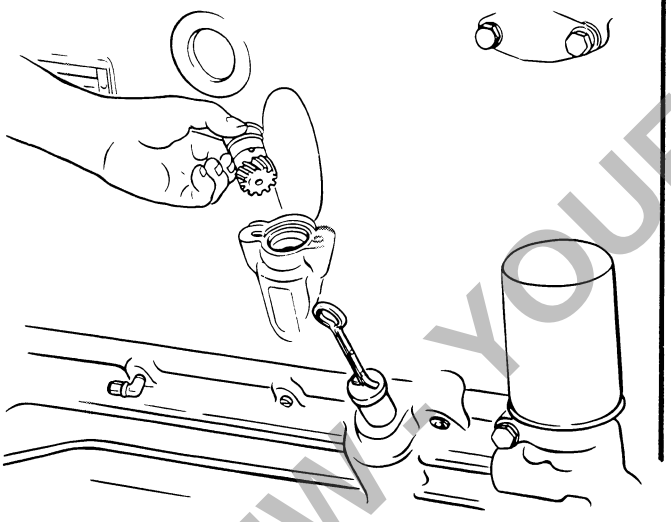
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STEP 80



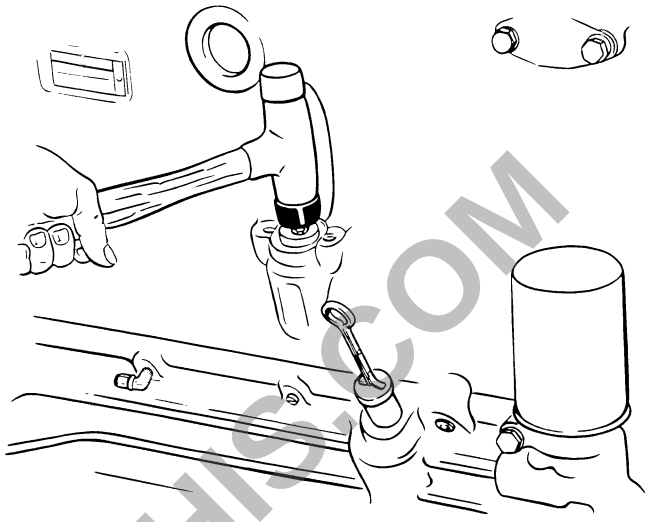
INSTALL BREATHER TUBE AND NEW GASKETS

STEP 81



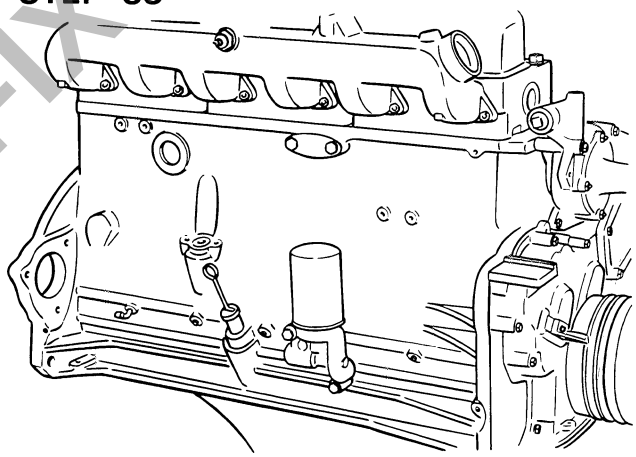
INSTALL TACHOMETER DRIVE.

STEP 82



CAREFULLY TAP DRIVE INTO ENGINE BLOCK UNTIL TOP OF DRIVE IS FLUSH WITH BLOCK.

STEP 83

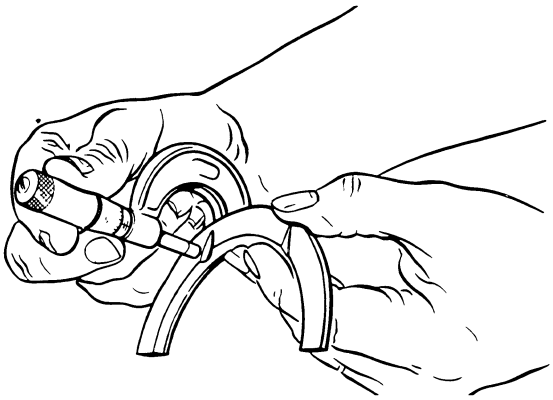


TACHOMETER DRIVE INSTALLED.

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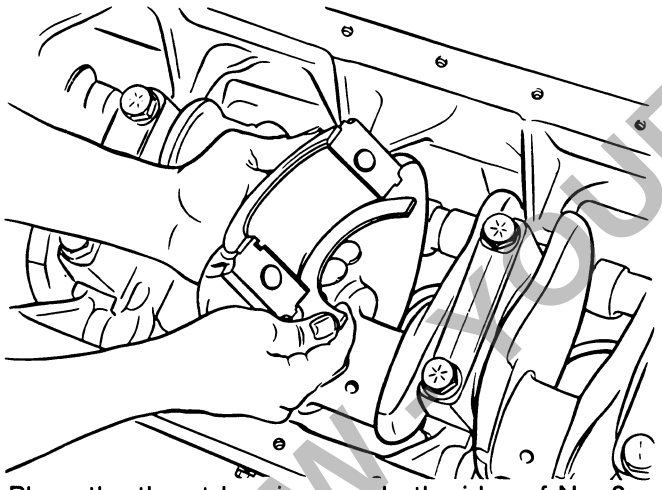
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STEP 39



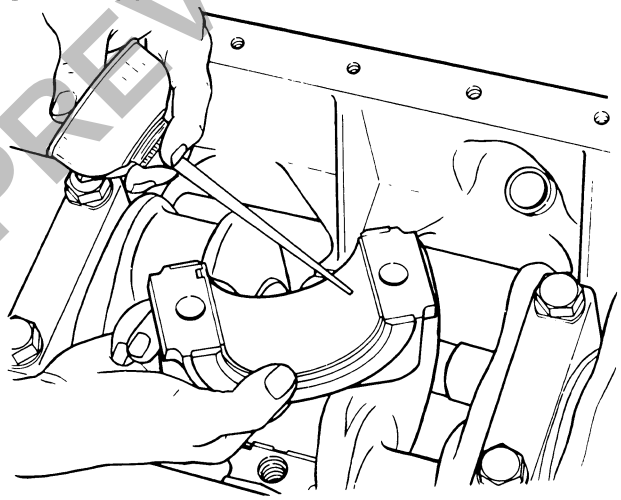
Measure thrust bearing thickness. If thickness is less than 0.178" on 267B, 301B, 401B and 451B engines or 0.147 on 336B and 504B engines, the thrust bearing must be replaced.

STEP 40



Place the thrust bearings on both sides of No. 3 bearing cap on 4 cylinder engines and No. 5 bearing cap on 6 cylinder engines.

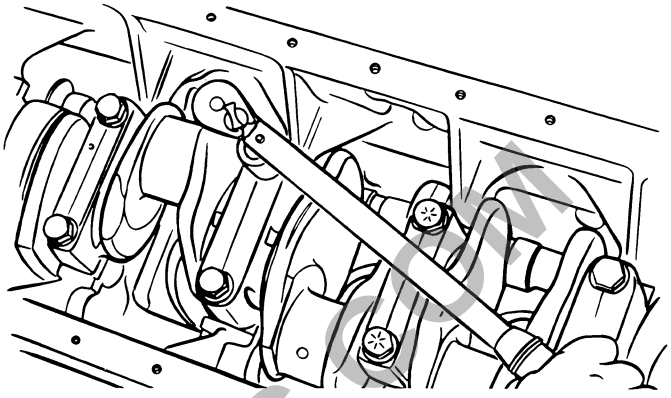
STEP 41



Lubricate bearing liner and install bearing cap and thrust bearings.

Rac 9-76187

STEP 42



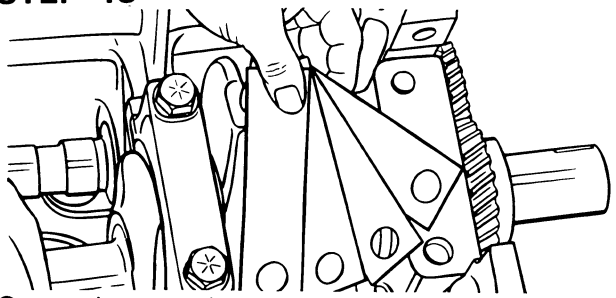
Tighten all the bearing cap bolts to the following torques:

Without hardened washers - 145 to 155 ft. lbs. (197 to 210 Nm)(19.7 to 21.0 kgm).

With hardened washers - 195 to 215 ft. lbs. (264 to 292 Nm)(26.4 to 29.2 kgm).

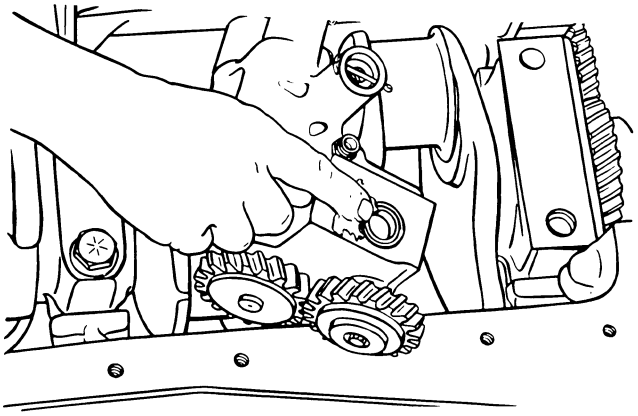
NOTE: *Add lubrication to threads and under bolt heads with 30W oil.*

STEP 43



On engines equipped with a front mounted oil pump, install the identical number of shims that were removed on No. 1 main bearing cap. See Step 48.

STEP 44



Install a new o-ring in oil pump and lubricate o-ring with lubriplate.

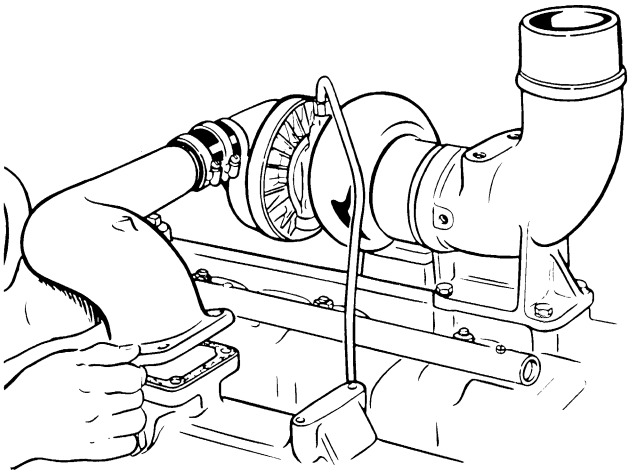
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WATER MANIFOLD REPLACEMENT

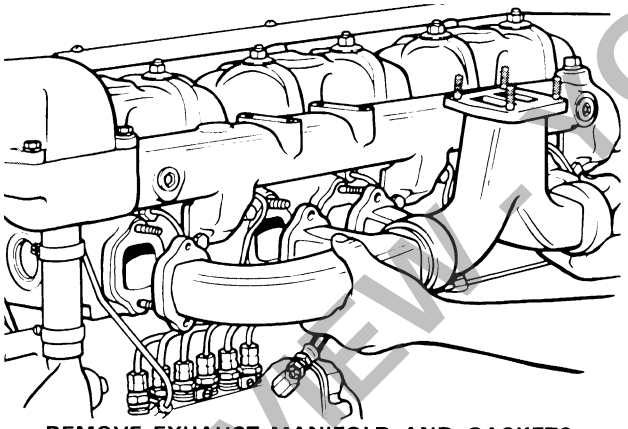
Removal

STEP 1



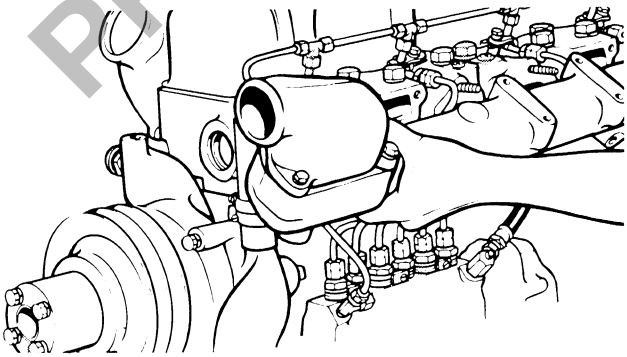
REMOVE TURBO-CHARGER AND INTAKE ELBOW (IF EQUIPPED).

STEP 2



REMOVE EXHAUST MANIFOLD AND GASKETS.

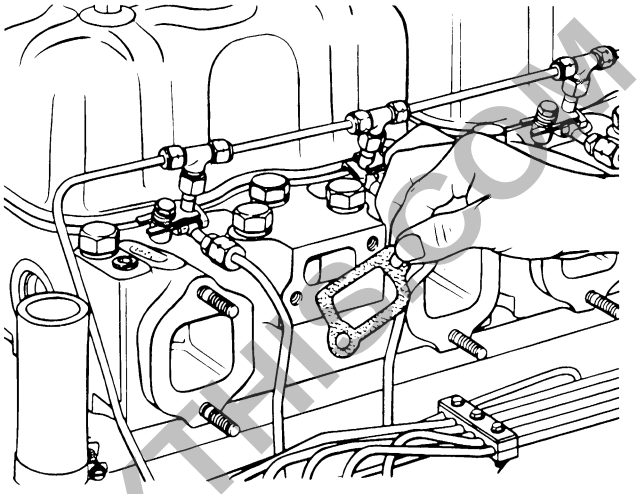
STEP 3



REMOVE WATER MANIFOLD AND GASKETS.

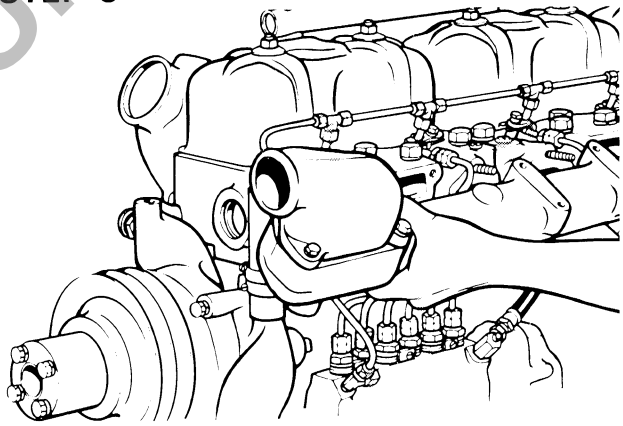
Installation

STEP 4



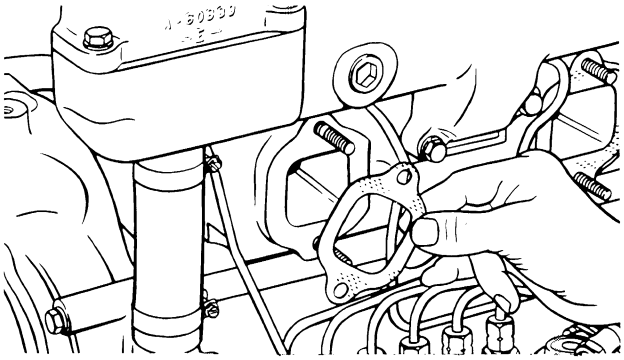
INSTALL NEW WATER MANIFOLD GASKETS.

STEP 5



INSTALL WATER MANIFOLD AND TORQUE RETAINING BOLTS 35 TO 42 FT. LBS.

STEP 6



INSTALL NEW EXHAUST MANIFOLD GASKETS.

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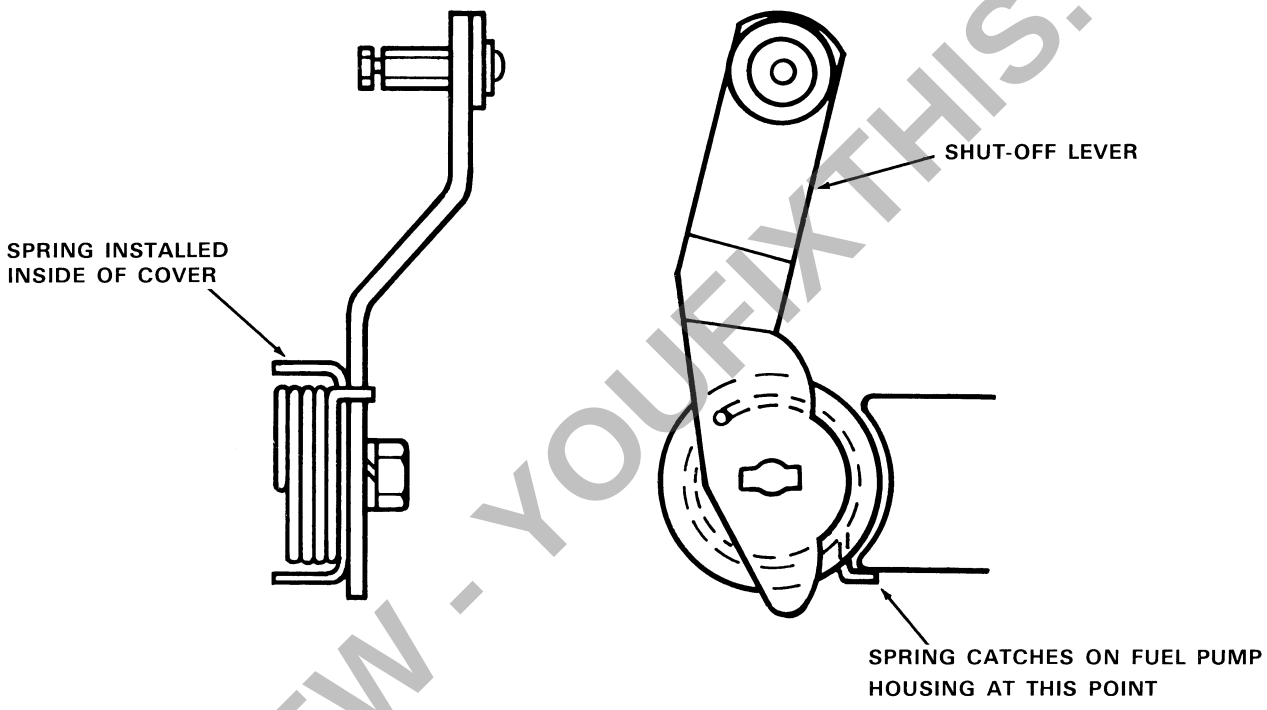
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MANUAL FUEL PUMP SHUT-OFF CABLE ON 2470 TRACTORS

Occasionally, the fuel shut-off cable will work out and as a result, fuel flow is restricted and a decrease in horsepower is noted.

If this problem is experienced, it can be corrected by installing A45277 torsion spring inside the pump spring cover and a new A45273 shut-off lever with bowden wire connector as illustrated below:

NOTE: Spring and lever were install on fuel pumps starting with tractor S/N 8763129.



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KEY

- PUMP SUCTION LINE
- RETURN TO RESERVOIR
- RETURN TO OIL COOLER AND PUMP SECTION NO. 2
- "A" PORT PRESSURE LINES
- PUMP PRESSURE
- "B" PORT PRESSURE LINES
- RIGHT TURN
- LEFT TURN

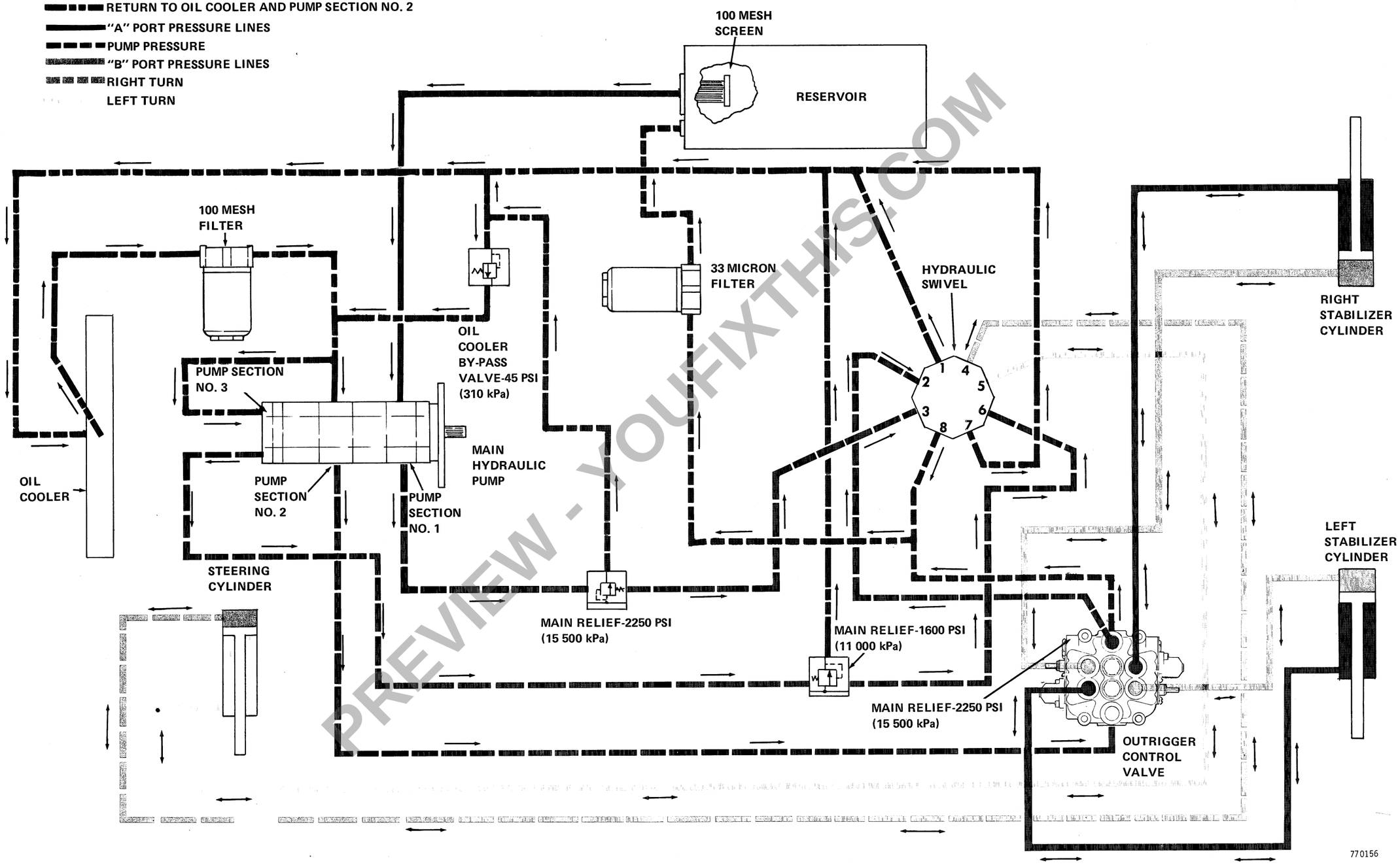


Figure 1. Hydraulic System Diagram, Reservoir to Hydraulic Swivel

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3. Pressure pushes the gears against the housing on the low pressure side. As the hubs and bearings wear, the cutout becomes more pronounced. Excessive cutout in a short period of time indicates excessive pressure or oil contamination.

4. Where cutout is moderate, .005 inch or less, the gear housing is in good condition and may be reused. The 1-1/4 inch gear housing may be flopped over to present a new surface to the pressure.

Gears

1. Any wear on gear hubs detectable by touch or in excess of .002 inch indicates parts replacement. Scoring, grooving, or burring of the outside diameter of the teeth or nicking, grooving, or fretting of teeth surfaces also indicates parts replacement.

Drive Shaft

1. Replace if there is any wear detectable by touch in the seal area .002 inch wear is the maximum allowable.

2. Wear in the shaft seal area indicates oil contamination.

3. Replace if there is damage to the shaft splines.

4. Also inspect the shaft connector and replace if damaged or worn.

Thrust Plates

1. The thrust plates seal the gear sections at the sides of the gears. Wear here will allow internal leakage of oil from the high pressure side back to the low pressure side of the pump.

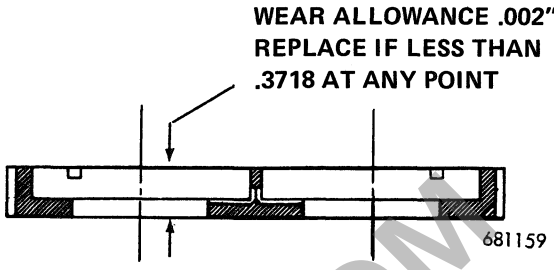


Figure 3.

2. .002 inch is the maximum wear allowable. Figure 3. Replace thrust plates if they are scored, eroded, or pitted.

3. Check the center of the thrust plates where the gears mesh. Erosion here indicates oil contamination.

4. Pitted thrust plates indicate cavitation or oil aeration.

5. Discolored thrust plates indicate overheating, possibly from insufficient oil.

Bearings

1. If gears are replaced, bearings must also be replaced. Bearings should fit into the bore with a light press fit. A neat hand fit is allowable. If bearings can fall out, bore may be oversized.

Seals and Gaskets

1. Replace all rubber and polymer seals whenever disassembling pump. Include all o-rings, pocket seals, shaft seals, and gasket seals.

Plug

1. Make sure plug is installed on the high pressure (outlet) side of the shaft end cover.

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INSTALLATION

1. Mount cylinder on unit using the correct mounting hardware. See Sections 9211 and 9212 which show mounting hardware in order of installation.

   NOTE: Be sure grease fittings are installed in their original position. They must not be hidden or hard to get at.

CAUTION: Cylinders used on this machine are heavy and may be awkward to handle. Use suitable lifting equipment (a hoist is recommended) to install cylinders.

2. Connect hoses and tubes.

3. Torque all fittings to specifications on page 4390-3.

4. Lubricate cylinder grease fittings with No. 2 moly-disulfide grease.

5. Check hydraulic reservoir oil level and add Case TCH Fluid as required.

6. Start the engine and operate the cylinder(s) through several complete cycles to bleed air for leaks. Operate cylinders slowly and do not bottom out the cylinders until movement is positive in both directions. After the circuit is filled with oil, the cylinders may be operated normally.

NOTE: If the cylinder(s) fail to move when a control lever is actuated, check for switched hose connections.

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NOTE: The CASE CORPORATION reserves the right to make improvements in design or changes in specifications at any time without incurring any obligation to install them on units previously sold.

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PROBLEM	POSSIBLE CAUSE	REMEDY
Difficult to change gear ratios (Con't.)	Malfunctioning clutch	Disassemble clutch stack and inspect parts in clutch for wear, damage, etc. See Section 6110
Foaming oil breather	Improper oil level, oil and air leaks, pump suction tube leaks, worn pump parts or water in oil	Check and correct as necessary
	Broken converter hub gear seal ring	Break unit at engine flywheel housing. Pull unit off engine and inspect, seal ring, replacing if necessary. Refer to Section 6118 for instructions
Wet converter housing	Broken converter hub gear seal ring	Refer to "Foaming Oil Breather"
	Loose bolts where hub gear bolts onto the converter	Retorque to specifications in Section 6110
	Leaking oil seal inside converter housing	Replace if defective
Leaky oil tube	O - ring not seated properly	Using a pair of channel - lock pliers rotate tube back and forth. This will generally seat the o - ring

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4. The differential bearing cone on the other case half can be pressed off, Figure 15.

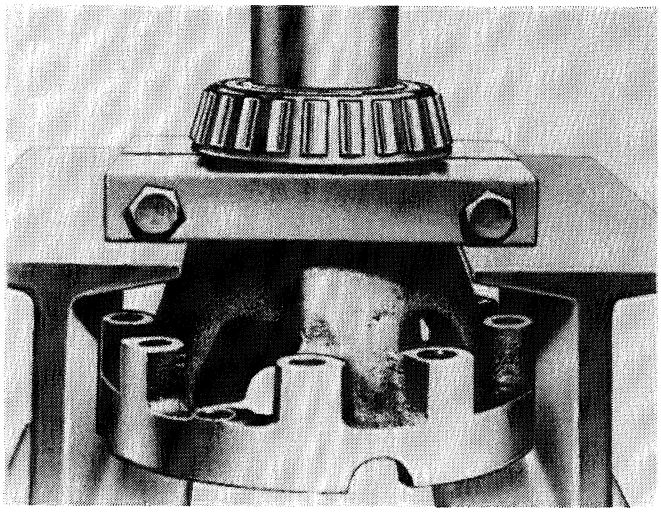


Figure 15. Removing Bearing Cone

Ring Gear Removal and Replacement

Rivet Removal

1. Carefully center punch rivets in the center of the rivet head.

2. Use a 1/32" smaller drill than the body of the rivet, drill through the rivet head, Figure 16.

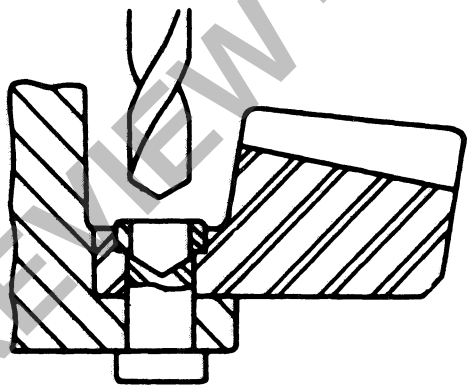


Figure 16. Removing Rivets

3. After drilling the head punch out the rivets.

   IMPORTANT: Never try to chisel off rivet heads to remove the ring gear.

4. Clean up the rivet holes if required to present a smooth, flat surface for the replacement bolt heads and nuts, Figure 17.

Bolt Installation

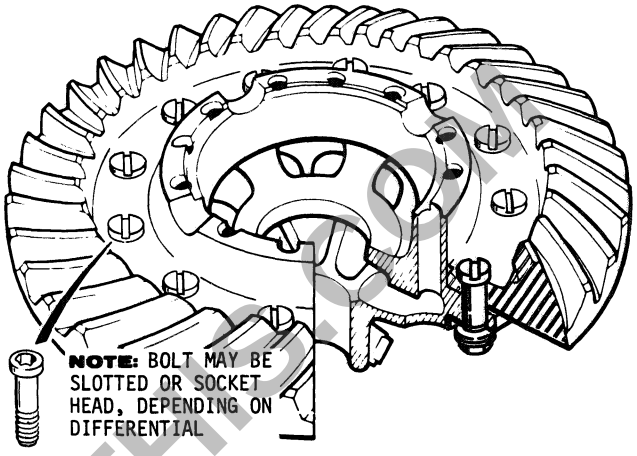


Figure 17. Ring Gear Bolt Installation

1. Whenever the ring gear rivets are removed they are to be replaced with special bolts. When installing the special bolts make sure the bolt head is on the tooth side of the ring gear, Figure 17.

2. Install the nuts and torque. See Specifications on page 6126-3.

NoSpin Assembly

1. If removal of the center cam is desired, expand the snap ring outward into the spider with small screwdrivers or tapered wedges. The center cam can then be pressed through the spider.

Inspection

Before inspecting parts thoroughly clean them. Refer to Section 1055.

It is impossible to overstress the importance of careful and thorough inspection of the drive unit parts prior to reassembly. Thorough visual inspection for indications of wear, stress, pitting and the replacement of such parts as are necessary. It will eliminate costly and avoidable failures at a later date.

Bearings

Inspect all bearings, cups and cones, including those not removed from parts of the unit, and replace if the rollers or cups are worn, pitted or damaged in

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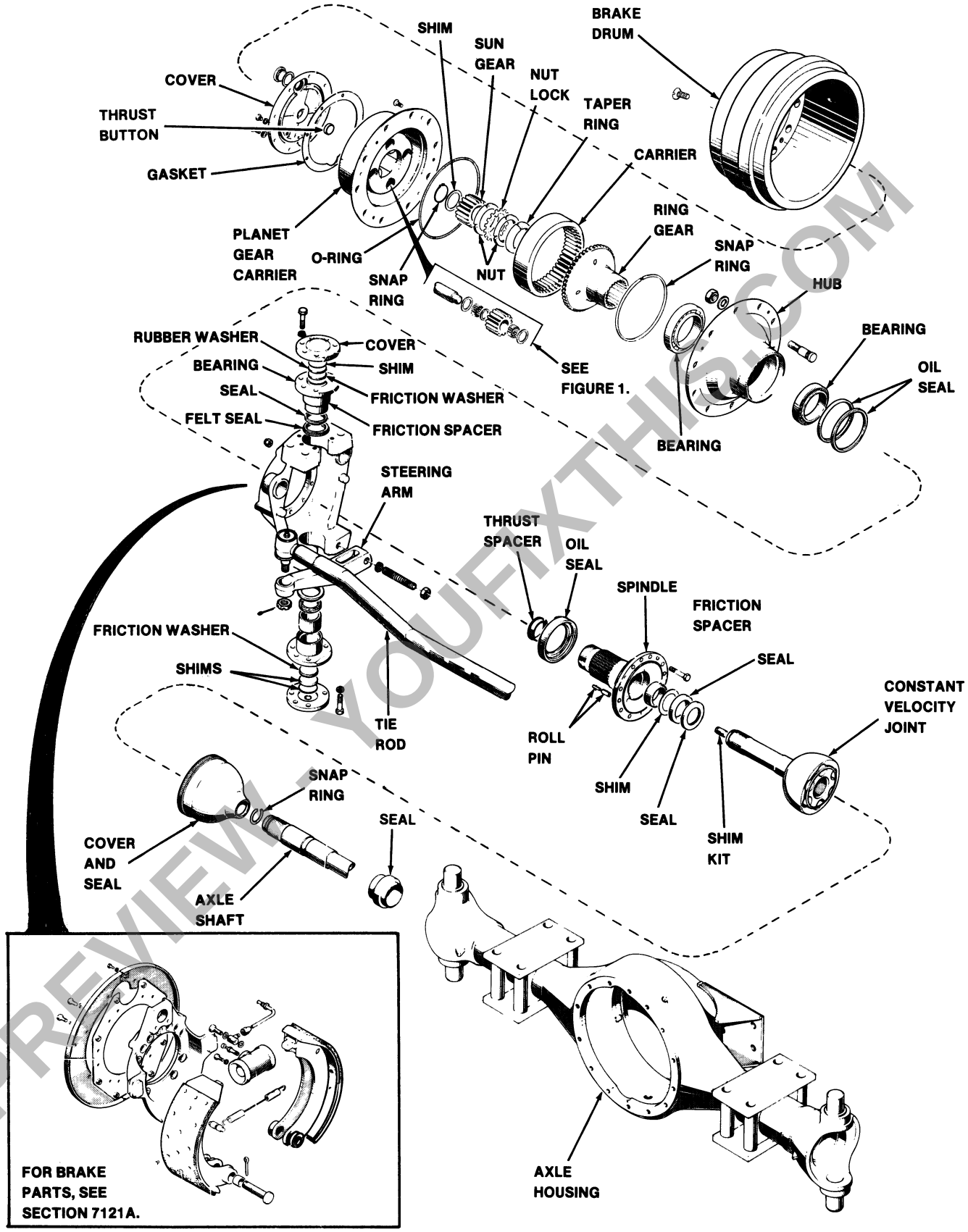


Figure 2. Exploded View of Front Drive Planetary and Steering Knuckle Assembly

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RESERVOIR

General

The reservoir is a storage tank. The function of the reservoir is to provide a place to store compressed air so there will always be an ample supply available for immediate use in brake operation. It also provides storage for sufficient compressed air to permit several brake applications even after the motor has stopped.

Another function of the reservoir is to provide a place where the air, heated during compression may cool and oil and water vapors condense.

The total reservoir volume used on the vehicle is based on the quantity of the compressed air required and on the size of the compressor being used.

The reservoir has no moving parts and could hardly be said to operate, nevertheless, things normally happen inside it which are not always understood.

All compressors, must pass a certain amount of oil in order to lubricate the cylinder walls and piston rings, otherwise, rapid wear or even seizing will result. Also, depending on the humidity, the atmosphere entering the compressor contains a certain amount of water. This oil and water normally passes into the reservoir in the from of vapor because of the heat generated during compression. After they reach the reservoir, the vapors cool and condense in the from of an oil and water emulsion and are drained off before entering the brake system proper.

The drainage is often referred to as oil, but in most cases analysis will show it to be practically all water. An easy way to check the amount of oil and water in such drainage is to put it in a clear glass, sealed container and set the container away in a place where it will not be disturbed for a few days. At the end of this time, the oil and water will separate and a visual inspection will show the percentage of oil and water in the mixture.

Removal

1. Apply parking brake.
2. Open drain cock on the bottom of the reservoir.
3. Remove accumulated dirt and grease from air lines and fittings and disconnect the following air lines:
   a. Air line from compressor to check valve on the left end of the reservoir.
   b. Air line from the air compressor governor to the tee fitting on the top of the reservoir.
   c. Air line from the 3-port air swivel to the tee fitting on the right end of the reservoir.
4. Provide a support for the air reservoir. Remove mounting clamp nuts, lockwashers and bolts. (Two bolts per clamp) and remove the air reservoir.

Reservoir Service

1. Drain the reservoir daily. Drain cock should be left open until all drainage has stopped.
2. Inspect the reservoir for corrosion and external damage.
3. Depending on operating conditions and the condition of the air compressor excessive sludge may accumulate in the reservoir. When this condition occurs steam clean the inside of the reservoir or have a radiator repair shop clean the reservoir.
4. If the reservoir is suspected of leaking and the leak cannot be located with normal operating pressure (60 to 125 psi) the reservoir should be sent to a repair shop that can safely test the reservoir.

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PROBLEM	POSSIBLE CAUSE	REMEDY
Uneven Brake Lining Wear	Improper circle grinding or linings not circle ground.	Remove brake drum and circle grind brake linings.
	Warped or cracked brake drum.	Replace brake drum.
	Warped or cracked brake shoe.	Remove brake drum and replace brake shoe.
Parking Brake		
Brake Will Not Release	Air leak in line between valve and brake actuator.	Locate leak and repair.
	Defective actuator piston.	Disassemble and replace piston seals. Refer to Section 7107.
	Defective or damaged inlet/ exhaust valve in control valve.	Disassemble control valve and repair. Refer to Section 7107.
Brake Will Not Hold	Broken spring(s) in brake actuator.	Disassemble actuator and replace spring. Refer to Section 7107.
	Broken spring in control valve.	Disassemble valve and replace spring. Refer to Section 7107.
	Worn brake linings.	Reline brake shoes.

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SPECIFICATIONS

Number and size	Two 12 volt batteries connected in series, negative ground
Capacity	180 amp. hr. at 20 hr. rate
	10 second voltage - 9.2V 5 minutes to 1.0 volt per cell
90 second diesel rating	.750 amp draw for 90 seconds at 0° F (-17° C) to 1 volt per cell
Capacity (load) test draw	200 amps
Full charge specific gravity	1.260 + .005 (original equipment or Case replacement batteries only)
Plates per cell	23
Slow charging rate	8 amps

SAFETY RULES

This Safety Alert Symbol Indicates Important Safety Messages In This Manual. When You See This Symbol, Carefully Read The Message That Follows And Be Alert To The Possibility Of Personal Injury Or Death.

WARNING: Never operate the alternator on an open circuit. With no battery or other electrical load on the circuit, a voltage buildup will occur within the alternator. This voltage buildup could be extremely hazardous to anyone touching the alternator "BAT" terminal.

POISON DANGER: BATTERY ACID CAUSES SEVERE BURNS. BATTERIES CONTAIN SULFURIC ACID. Avoid contact with skin, eyes, or clothing.

Anti-dote: EXTERNAL: Flush with water. INTERNAL: Drink large quantities of water or milk. Follow with Milk of Magnesia, beaten egg or vegetable oil. Call physician immediately EYES: Flush with water for 15 minutes and get prompt medical attention. KEEP OUT OF REACH OF CHILDREN.

WARNING: Never check battery charge by placing a metal object across the posts - the sparks could cause an explosion. Use a voltmeter or hydrometer.

CAUTION: Think out the circuit before making or breaking a connection. A wrong connection can be painful and expensive.

CAUTION: Disconnect both leads from the batteries when working on the engine or electrical system. Always disconnect the ground lead first.

WARNING: Batteries produce explosive gases. Keep flames, sparks and cigarettes away. Ventilate when charging or using in enclosed space. Always shield eyes when working near batteries.

WARNING: This machine is equipped with a 24-volt starting system. Sparking will occur across greater distances than with a conventional 12 volt system. NEVER WEAR RINGS OR OTHER METAL OBJECTS that may ground a live circuit.

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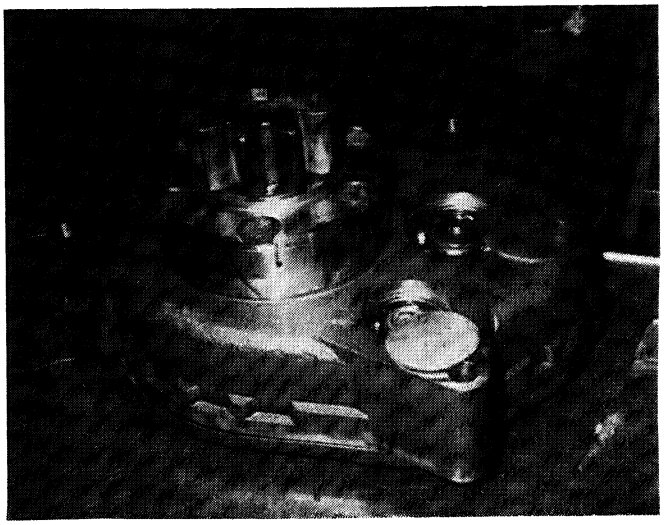


Figure 12. Expansion Plugs

16. Reinstall brake housing on top of gear case.

Removal and Disassembly

WARNING: Do not disconnect brake unless machine is level and turntable securely blocked to prevent it from swinging.

1. Remove swing motor mounting bolts. Remove motor and gasket.
2. Remove brake cover capscrews and lockwashers. Remove brake cover.
3. From inside housing, disconnect actuating yoke from brake actuator.
4. Lift out the brake assembly and splined coupling. Remove splined stud.
5. In order to replace the oil seal at base of brake housing, the housing must be removed from the gearbox. Disconnect brake linkage, remove brake housing mounting capscrews, then remove brake housing. Remove oil seal from housing bore.

Installation

1. Check shims that mount between swing gearbox and mounting plate for possible damage. Replace if damaged. See Section 9216 for proper procedure for checking shim allowance.
2. Using a lift or suitable device lower swing gearbox into position on mounting plate.
3. Install the mounting capscrews and washers.
4. Fill gearbox with 11 pints (5.2 liters) of Case FDL final drive fluid.
5. Mount swing motor to house brake and connect house brake linkage.
6. Check swing for proper operation.

HOUSE BRAKE

Cleaning, Inspection and Repair

Use compressed air to blow dust and debris from brake parts. Metal parts should be cleaned according to instructions in Section 1055.

CAUTION: When using compressed air keep stream from direction of face. Use only low air pressure.

Disassemble the brake actuator and inspect the balls, springs and actuating disc for damage and wear.

If there is oil on brake discs, the oil seal in the swing motor should be replaced. If brake facings are soaked with oil, they cannot be re-used.

Inspect the splined coupling for broken splines and scoring on bearing surfaces.

Replace all damaged or worn parts.

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