1845 UNI-LOADER TABLE OF CONTENTS AND SERVICE MANUAL INTRODUCTION

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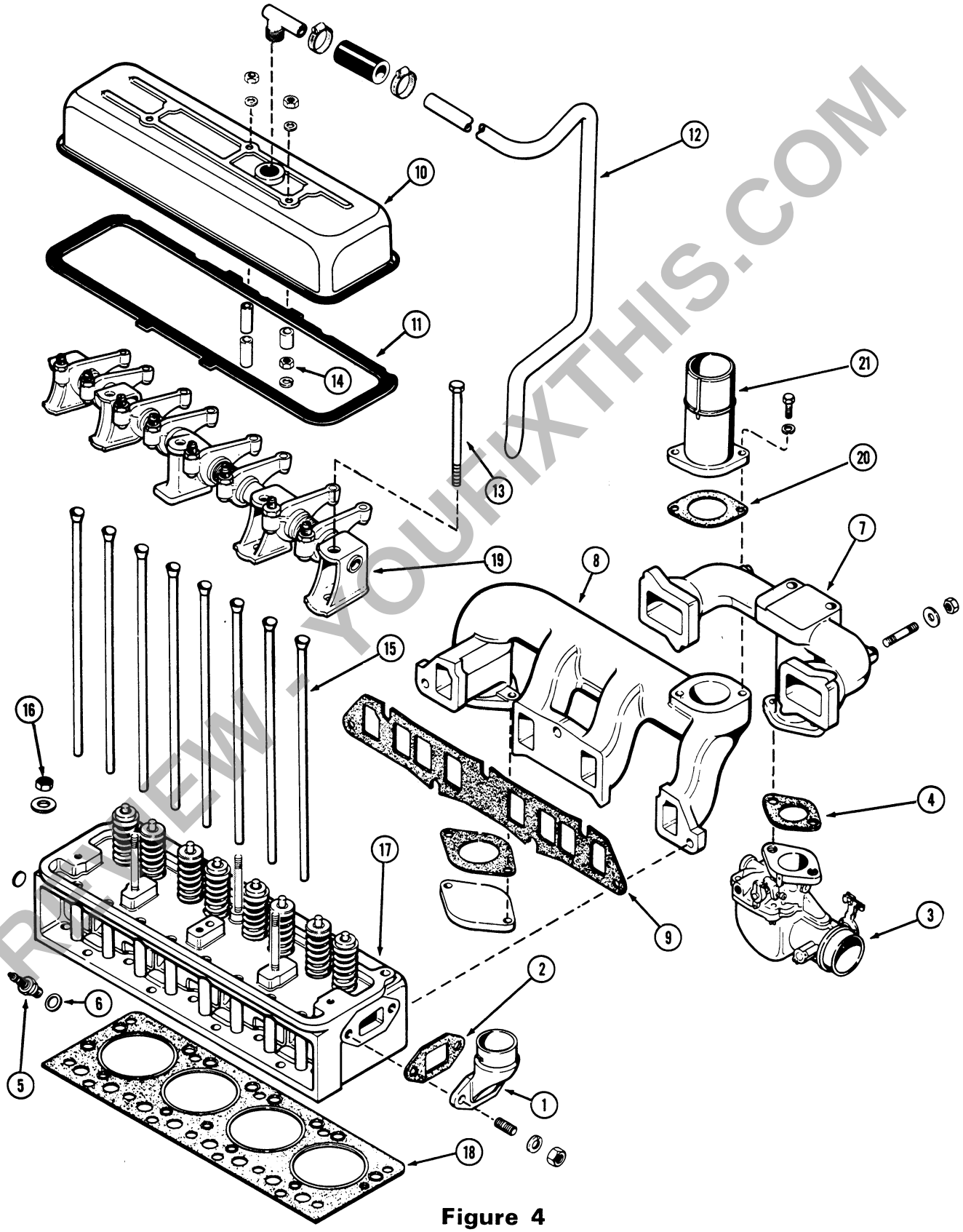


Figure 4

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Section
1027

DETAILED SPECIFICATIONS

188 Diesel Engines

FRACTION to DECIMAL to MILLIMETER CONVERSION TABLE

Fraction	Decimal	MM	Fraction	Decimal	MM	Fraction	Decimal	MM
1/64	.0156	0.397	23/64	.3593	9.128	45/64	.7031	17.859
1/32	.0312	0.794	**3/8**	**.3750**	**9.525**	23/32	.7187	18.256
3/64	.0468	1.191	25/64	.3906	9.922	47/64	.7343	18.653
1/16	.0625	1.587	13/32	.4062	10.319	**3/4**	**.7500**	**19.050**
5/64	.0781	1.984	27/64	.4218	10.716	49/64	.7656	19.447
3/32	.0937	2.381	7/16	.4375	11.113	25/32	.7812	19.844
7/64	.1093	2.778	29/64	.4531	11.509	51/64	.7968	20.240
1/8	**.1250**	**3.175**	15/32	.4687	11.906	13/16	.8125	20.637
9/64	.1406	3.572	31/64	.4843	12.303	53/64	.8281	21.034
5/32	.1562	3.969	**1/2**	**.5000**	**12.700**	27/32	.8437	21.431
11/64	.1718	4.366	33/64	.5156	13.097	55/64	.8593	21.828
3/16	.1875	4.762	17/32	.5312	13.494	**7/8**	**.8750**	**22.225**
13/64	.2031	5.159	35/64	.5468	13.890	57/64	.8906	22.622
7/32	.2187	5.556	9/16	.5625	14.287	29/32	.9062	23.019
15/64	.2343	5.953	37/64	.5781	14.684	59/64	.9218	23.415
1/4	**.2500**	**6.350**	19/32	.5937	15.081	15/16	.9375	23.812
17/64	.2656	6.747	39/64	.6093	15.478	61/64	.9531	24.209
9/32	.2812	7.144	**5/8**	**.6250**	**15.875**	31/32	.9687	24.606
19/64	.2968	7.541	41/64	.6406	16.272	63/64	.9843	25.003
5/16	.3125	7.937	21/32	.6562	16.669	**1**	**1.0000**	**25.400**
21/64	.3281	8.334	43/64	.6718	17.065			
11/32	.3437	8.731	11/16	.6875	17.462			

INCH to MILLIMETER CONVERSION TABLE

Inch	MM	Inch	MM	Inch	MM	Inch	MM
1	25.400	6	152.000	10	254.000	60	1,524.000
2	50.800	7	177.800	20	508.000	70	1,778.000
3	76.200	8	203.200	30	762.000	80	2,032.000
4	101.600	9	228.600	40	1,016.000	90	2,286.000
5	127.000	10	254.000	50	1,270.000	100	2,540.000

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SPECIAL TORQUES

Engine

	U.S. Value	Metric Value
Camshaft nut	80 to 90 ft. lbs.	109 to 122 Nm
Camshaft thrust plate mounting bolt	17 to 20 ft. lbs.	23 to 27 Nm
Connecting rod nuts	45 to 50 ft. lbs.	61 to 68 Nm
Crankshaft nut	125 to 135 ft. lbs.	169 to 183 Nm
Crankshaft pulley bolt	54 to 64 ft. lbs.	73 to 87 Nm
Cylinder head studs w/flange nuts (1/2")	90 to 100 ft .lbs.	122 to 136 Nm
Cylinder head cover stud nuts (3/8")	4 to 6 ft. lbs.	5 to 8 Nm
Cylinder head bolts (Gr. 8, 12 pt. hd.)	105 to 115 ft. lbs.	142 to 156 Nm
Cylinder head stud nuts (1/2")	95 to 105 ft. lbs.	129 to 142 Nm
Engine oil filter	Install until gasket contacts filter head, then hand tighten 1/2 turn. Loosen filter approximately 1 full turn and retighten until gasket contact is made, then hand tighten an additional 1/2 to 3/4 turn.	
Fan mounting bolts	35 to 42 ft. lbs.	48 to 57 Nm
Fuel pump drive gear nut	40 to 50 ft. lbs.	54 to 68 Nm
Flywheel to crankshaft bolt	65 to 70 ft. lbs.	88 to 95 Nm
Idler gear journal mounting bolts	35 to 42 ft. lbs.	48 to 57 Nm
Intake manifold (Aluminum) stud nuts	30 to 35 ft. lbs.	41 to 48 Nm
Intake and Exhaust Manifold stud nuts	25 to 30 ft. lbs.	34 to 41 Nm
Main bearing cap bolts	90 to 100 ft. lbs.	122 to 136 Nm
Oil pan capscrews (stamped steel)	10 to 12 ft. lbs.	14 to 16 Nm
Oil pan capscrews (cast iron)	24 to 28 ft. lbs.	33 to 38 Nm
Oil pan to seal retainer	15 to 20 ft. lbs.	20 to 27 Nm
Oil pan drain plug	29 to 31 ft. lbs.	39 to 42 Nm
Oil pump cover capscrews	6 to 8 ft. lbs.	8 to 11 Nm
Oil seal retainer bolts (Grade 8)	12 to 15 ft. lbs.	16 to 20 Nm
Oil pump suction tube nut	95 to 105 ft. lbs.	129 to 142 Nm
Rocker arm bracket bolts	25 to 30 ft. lbs.	34 to 41 Nm
Timing gear housing bolts	25 to 30 ft. lbs.	34 to 41 Nm
Water pump mounting bolts	25 to 30 ft. lbs.	34 to 41 Nm
Water pump body-to-cyl. mounting bolts	35 to 42 ft. lbs.	48 to 57 Nm

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MAINTENANCE CHART

INTERVAL	SERVICE	INSTRUCTIONS
Run-in period after first two hours	Check fan belt tension. Torque wheel nuts to 80-90 foot-pounds (109-122 N m) every two hours until stable.	Section 8016
Run-in period after first 25 hours	Perform After Delivery Checkup. Refer to operators manual for items included in After Delivery Checkup.	
Run-in period after first 100 hours	Check drive chain tension.	Section 6023
Every 10 hours or daily, whichever occurs first	Check engine oil level. Check hydraulic oil level. Check radiator coolant level and check oil cooler for obstructions. Check hydraulic filter condition. Check hydrostatic system warning lights for proper operation. Grease loader, and front and/or rear attachment pivot points. Clean air cleaner dust cup. Visually check machine for loose, broken or missing parts. Check under machine for leaks. Check tires for deep cuts, imbedded rocks, etc.	Section 4011 Section 4011 Section 6031 Section 2051
Every 50 hours of operation	Check battery fluid level. Check tire pressure. Grease control lever pivots. Grease cluster sprocket bearings.	Section 8014 Section 6024
Every 100 hours of operation	Change engine oil. Check fan belt tension. Clean spark arresting muffler if so equipped. Check gear reducer oil level.	Section 8016 Section 2051 Section 6036

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Trouble Shooting Chart

PROBLEM	POSSIBLE CAUSE	REMEDY
All pivot points appear dry	Leak in vacuum line between intake manifold and pump(s).	Check for disconnected or damaged hose and repair as required.
	Leaking diaphragm in one pump.	If a distributor tester is available, use the manometer and check for diaphragm leak. Gauge should indicate 15 inches of mercury or more.
		If a distributor tester is not available, start engine and connect a length of hose between pump and intake manifold. If engine runs smoothly after connecting hose, the diaphragm is good.
	Using wrong lubricant.	Refer to page 1050-3 for specified lubricant. Clean reservoir and lines as required.
Right or left-hand side appears dry, opposite side O.K.	Lubricant reservoir empty.	Fill with lubricant specified on page 1050-3.
	Using wrong lubricant.	Refer to page 1050-3 for specified lubricant. Clean reservoir and lines as required.
	Pump inlet port plugged.	Remove reservoir, and pump if necessary, and clean inlet port.
Some pivot points dry, others O.K.	Damaged line between pump and pivot point.	Repair line as required. Determine cause of damage, if possible, to help prevent it happening again.
	Outlet port(s) in pump plugged.	Remove and disassemble pump and clean as required.
	Passage to pivot pin plugged.	Remove pivot pin, lubrication line fitting and clean passage.
	Lubrication line not connected to pump or pivot point.	Connect line. If line is broken, repair as required.

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Servicing the Pump

Removal

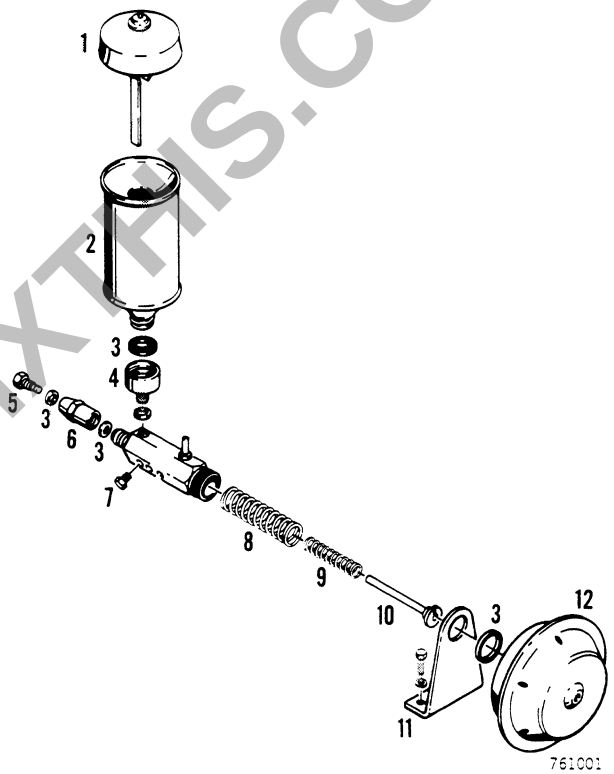
1. Remove the reservoir clamp to chassis mounting bolt.
2. Remove the two pump mounting cap screws.
3. Place small drain pan under pump and remove the reservoir.
4. Number each outlet port as illustrated in Figure 5 and tag each line. Disconnect lines from pump. Use care not to damage lines.

Disassembly

1. Secure pump in a soft jawed vise with mounting bracket up. Mark bracket and pump to assure proper bracket position during assembly.
2. Strike mounting bracket with a soft hammer to loosen the vacuum chamber.
3. Remove vacuum chamber and mounting bracket. Then remove plunger and springs.
4. Remove adapter from pump. Then remove plug from adapter.
5. Clean all parts except vacuum chamber in cleaning solvent.
6. Carefully blow air through plunger to make sure passage is open. Blow from end of plunger. Check to make sure check valve ball in end of plunger moves freely and that the spring is not broken.

Assembly

1. Install adapter on pump using a new gasket.
2. Install plug in adapter using a new gasket.
3. Secure pump in vise with alignment mark up.
4. Place springs on plunger and install plunger in pump.
5. Install new gasket, and the mounting bracket on pump with foot toward pump.
6. Install vacuum chamber. Tighten chamber by hand while keeping marks on pump and mounting bracket aligned.



1.	CAP	7.	PORT PLUG (R.H. PUMP ONLY)
2.	RESERVOIR	8.	OUTER SPRING
3.	GASKET	9.	INNER SPRING
4.	RESERVOIR ADAPTER	10.	PUSH ROD
5.	END PLUG	11.	BRACKET
6.	ADAPTER	12.	VACUUM CHAMBER

Figure 6

Installation

1. Connect lines to pump using care not to damage the lines.
2. Secure pump to chassis with cap screws and lock washers.
3. Remove clamp from reservoir and attach clamp to mounting bracket. Do not tighten nut at this time.
4. Install reservoir and tighten clamp.

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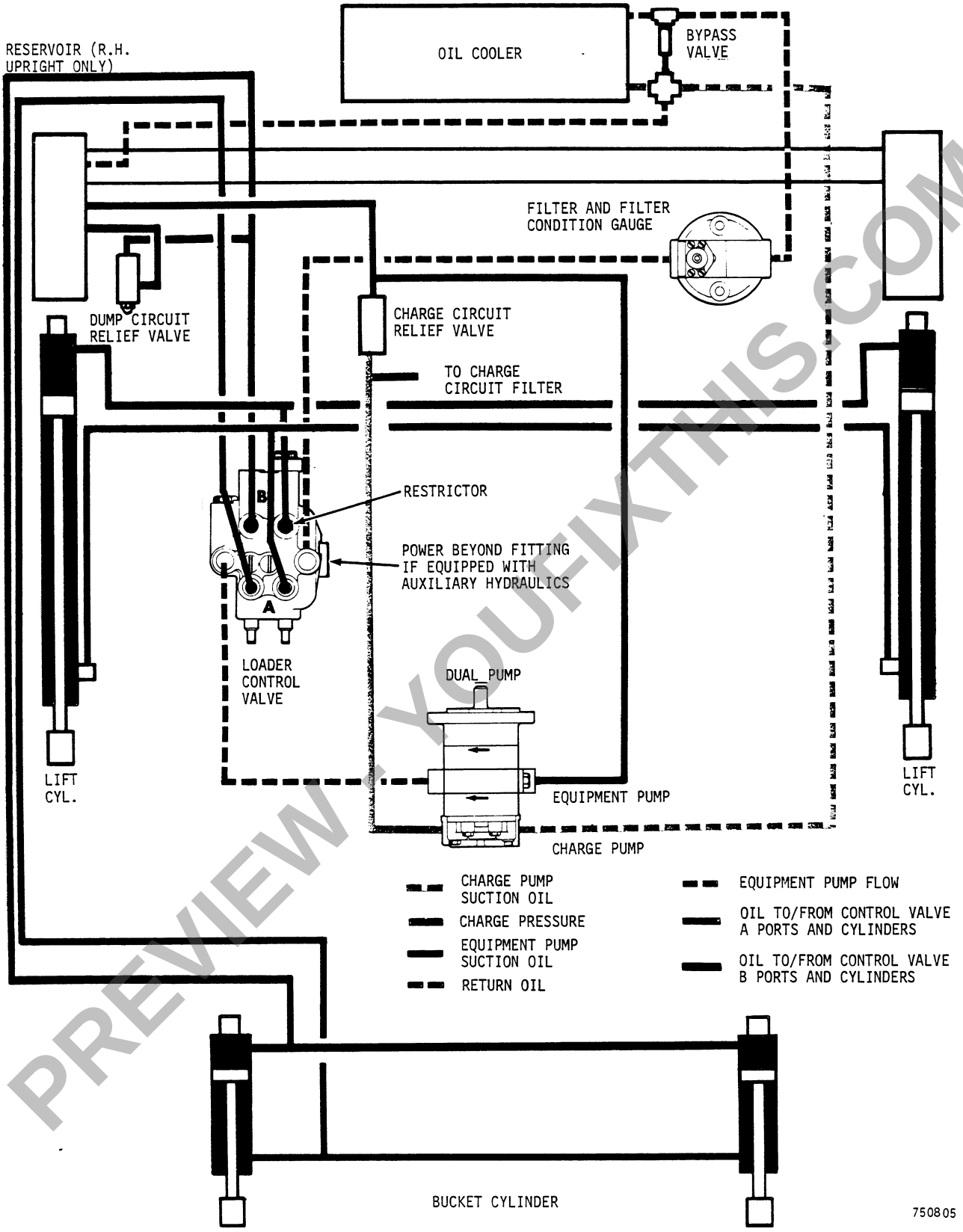


Figure 1 - Loader Hydraulic Diagram

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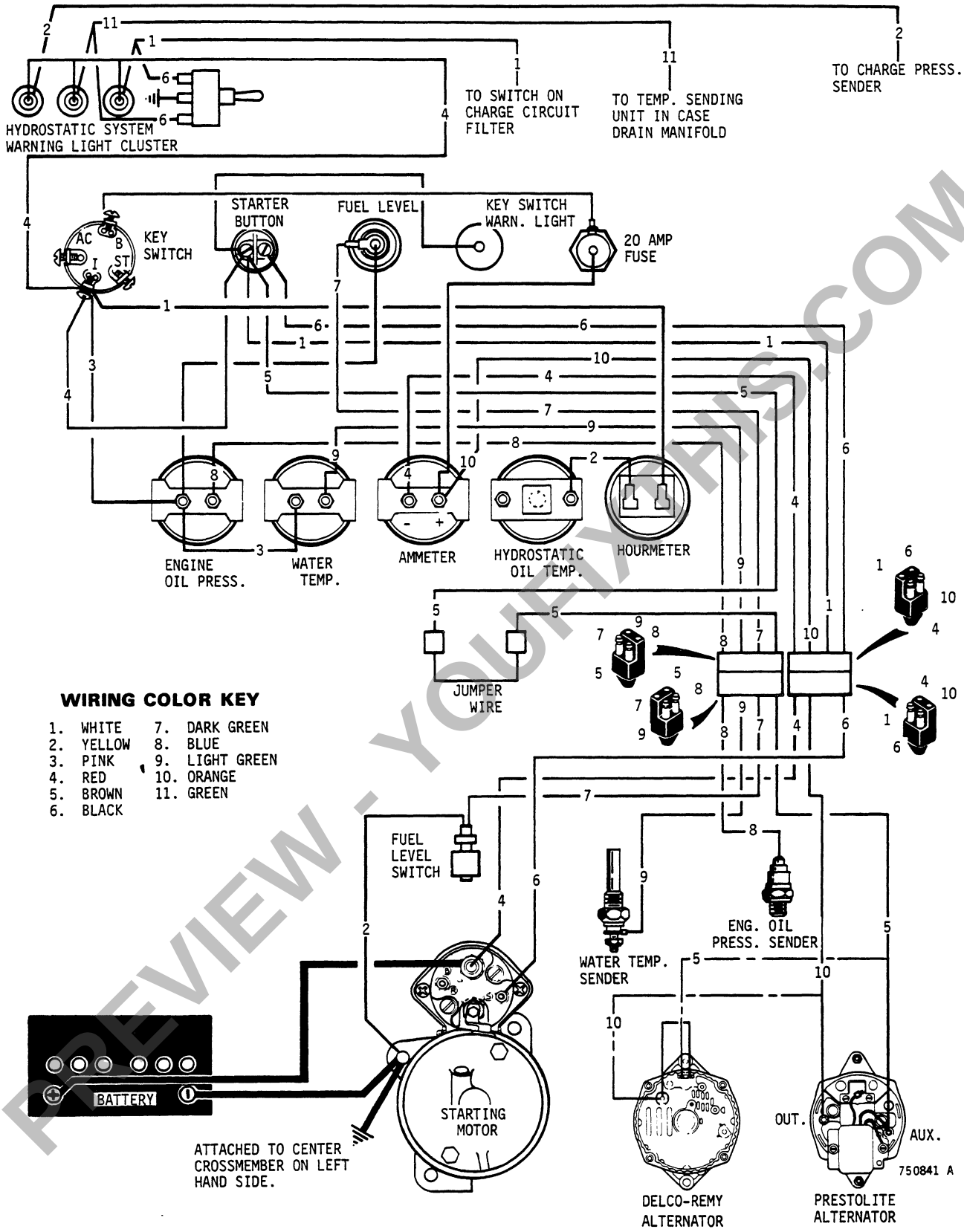


Figure 1 - Wiring Diagram, Diesel Engine

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The digits preceeding the dash identify the section. The digits following the dash represent the consecutive page number within that section. Page numbers will be found at the upper right or left of each page.

Text

If this manual covers more than one machine, or different models of component parts (planetary axles, gear boxes, control valves, etc.) the procedures will apply to all unless otherwise noted.

Illustrations

Where possible, illustrations are placed as close as possible to the accompanying text and should be used as part of the text.

Use of Loctite Products

The Loctite products refered to throughout this service manual are primarily those used to provide additional locking of nuts, bolts, cap screws and studs. They will be refered to by Loctite number and color. These products are available through the parts department; refer to the Parts Counter Catalog. Use Loctite whenever instructed to do so in this manual and according to manufacturer's instructions on the container.

Serial and Model Numbers

When requisitioning repair or replacement parts it may be necessary to furnish the parts department with one or both numbers. Serial and model numbers will be found in the following locations.

Machine - Plate fastened to instrument panel. Also stamped on frame at base of fuel tank fill tube.

Engine - Right hand side of block above oil filter.

Smaller component parts - plate attached to part or number stamped in part.

Torque References

Essentially two grades of fasteners (bolts, nuts and screws) are used on Case machinery. They are grade 5 and grade 8. Refer to Section 1051 for torque specifications and means of identification.

The specifications in Section 1051 are standard torque values and should be used on all fasteners during assembly and installation unless special torque values are noted in a particular section.

Classification of Lubricants

Oils, lubricants, and grease are classified and graded according to standards recommended by the Society of Automotive Engineers (SAE), the American Petroleum Institute (API), and the National Lubricating Grease Institute (NLGI).

Engine Oil

The SAE number indicates the viscosity of engine oils, for example, SAE 30, a single grade oil. Engine oils are also identified by dual numbers, SAE 10W-30, a multigrade oil.

The API classification (MS DS SD CA) defines oil performance in terms of engine usage. Only oils specified in Section 1050 should be used. These oils contain sufficient chemical additives to provide maximum engine protection. Both the SAE grade and API designation must be found on the container.

Gear Lubricant

The SAE grade number also indicates the viscosity of gear lubricants defined by MIL-L -2105B. An example is SAE 90, a medium viscosity lubricant.

Grease

Semi-solid lubricants such as specified for pivot points must be that specified in Section 1050.

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RUN-IN-INSTRUCTIONS

Engine Lubrication

When the engine rebuild is complete, fill the engine crankcase with Case HDM oil and install new engine oil filter/s. **NOTE:** If Case HDM oil is not used, use only an oil that fully qualifies for API engine oil service classification SE/CD and that has the proper viscosity rating for prevailing air temperature. Refer to vehicle Operators Manual.

After the first 20 hours of operation, change the engine oil while the engine is hot and replace the engine oil filter. DO NOT DRAIN OIL UNTIL THE ENGINE HAS BEEN OPERATED 20 HOURS.

Change the engine oil and filter at the recommended intervals thereafter as outlined in the Operator's Manual.

Break-In Procedure for Rebuilt Engines (With a Dynamometer)

The following procedure must be implemented when using a PTO dynamometer to break-in the engine. The dynamometer will insure control of the engine load at each speed and will eliminate over stressing new parts during break-in.

During the break-in, continually check the oil pressure, coolant level, and coolant temperature.

STEP	TIME	ENGINE SPEED	DYNAMOMETER SCALE LOAD*
1	**10 Minutes	1000 RPM	None
2	**10 Minutes	1800 RPM	None
3	20 Minutes	1800 RPM	1/3
4	20 Minutes	1800 RPM	1/2
5	***30 Minutes	100 RPM below rated speed	3/4
6	Retorque the cylinder head bolts using the procedure described in Section 2013 of this service manual.		

*Based upon normal dynamometer scale load at rated speed for the particular vehicle model. Reduce this scale load as indicated.

**The most ideal break-in procedure would be to constantly vary the throttle between 750 to 1000 RPM for the first 10 minutes and from 1000 RPM to 1800 RPM for the next 10 minutes. The purpose of this changing RPM is to vary the lubrication and coolant flow.

***30 minutes at 3/4 load is a minimum amount of time the engine should be run. It is recommended that whenever possible the engine (especially turbocharged diesels) should be run for four (4) hours or more at the above speed and load before checking the full engine horsepower or before using the engine for heavy field work.

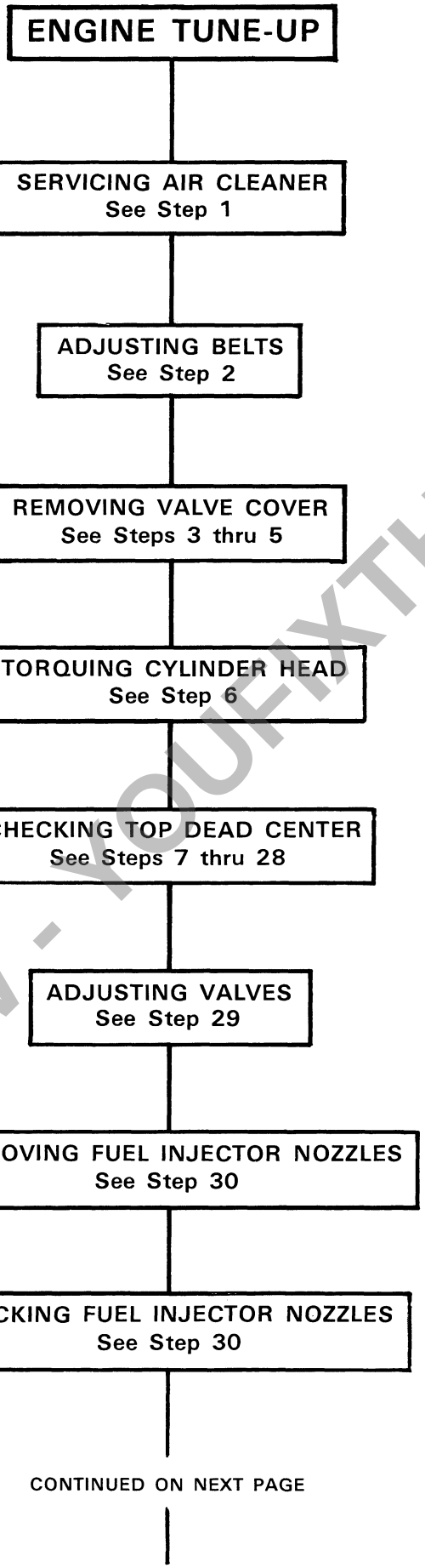
Break-In Procedure for Rebuilt Engines (Without a Dynamometer)

STEP	TIME	ENGINE SPEED	LOAD
1	*10 Minutes	1000 RPM	None
2	*10 Minutes	1800 RPM	None
3	30 Minutes	2/3 Rated RPM	Light Load
4	1 Hour	Full RPM (not over 2000 RPM)	80 to 90%
5	Retorque the cylinder head bolts using the procedure described in Section 2013 of this service manual.		

*If engine must then run at or near full load to operate the machine - for first hour remove load and run at high idle for a few minutes at 15 minute intervals.

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SPECIAL TOOLS



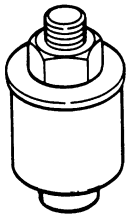
A43277 INJECTOR REAMER



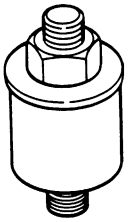
A43278 INJECTOR
REMOVAL TOOL



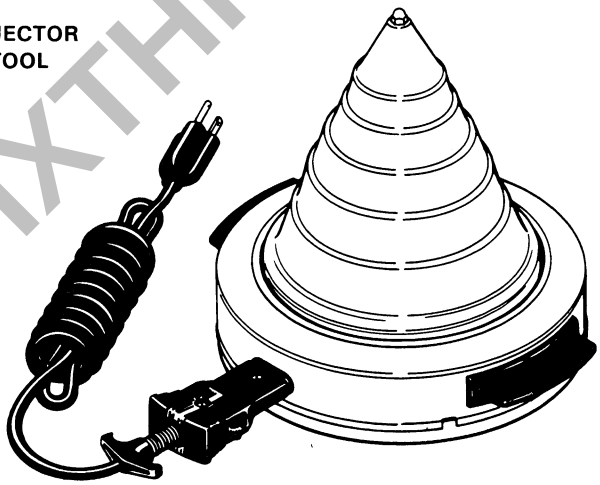
A43112 VALVE
GUIDE REAMER



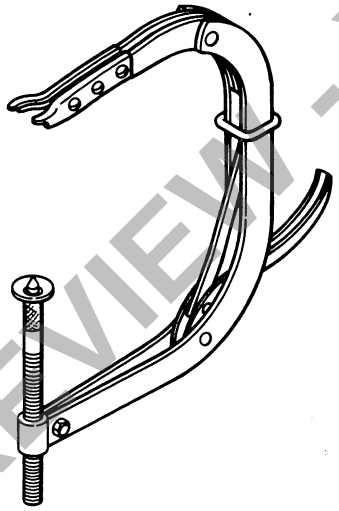
ASAE TACHOMETER
DRIVE REMOVAL TOOL
(SEE PAGE 5)



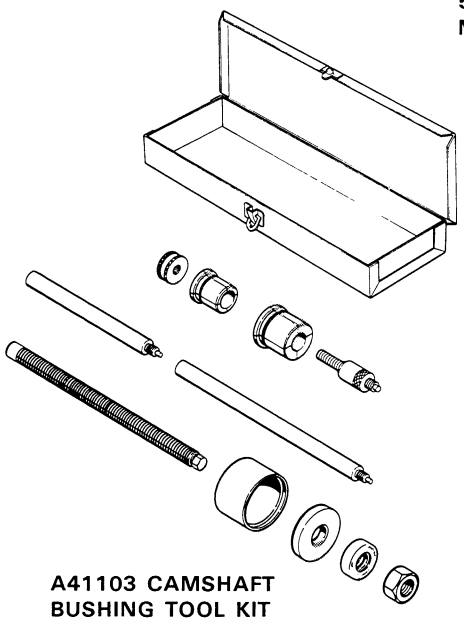
NON ASAE TACHOMETER
DRIVE REMOVAL TOOL
(SEE PAGE 5)



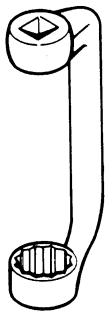
THERMO MOUNTER - MODEL "C"
ELECTRONIC DESIGNS, INC.
5164 N. 62ND STREET
MILWAUKEE, WIS. 53218



VALVE SPRING COMPRESSOR



A41103 CAMSHAFT
BUSHING TOOL KIT

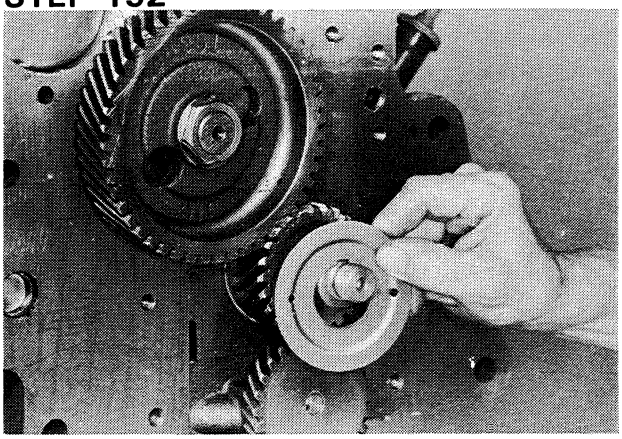


M20419 CYLINDER
HEAD WRENCH

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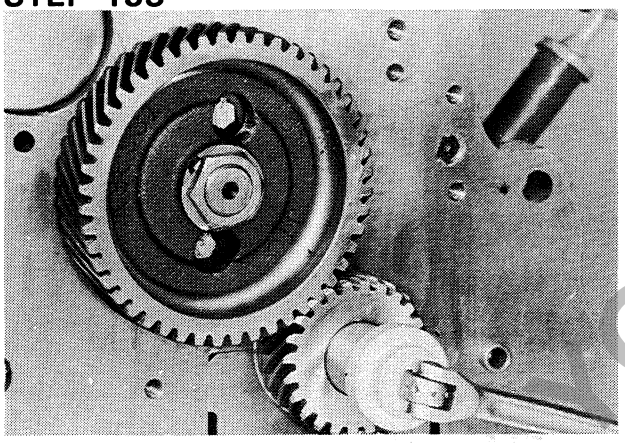
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STEP 152



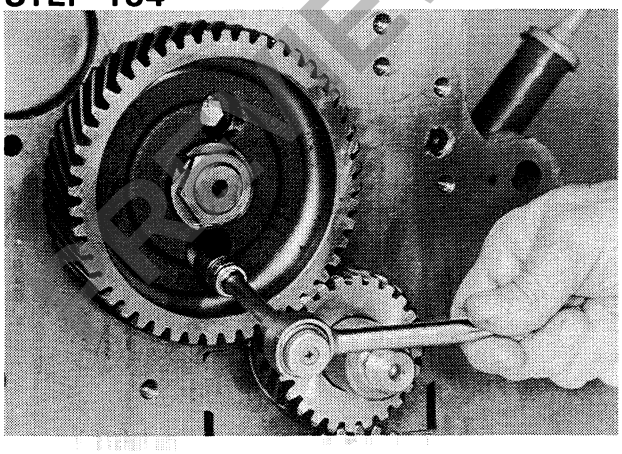
Remove oil slinger from crankshaft.

STEP 153



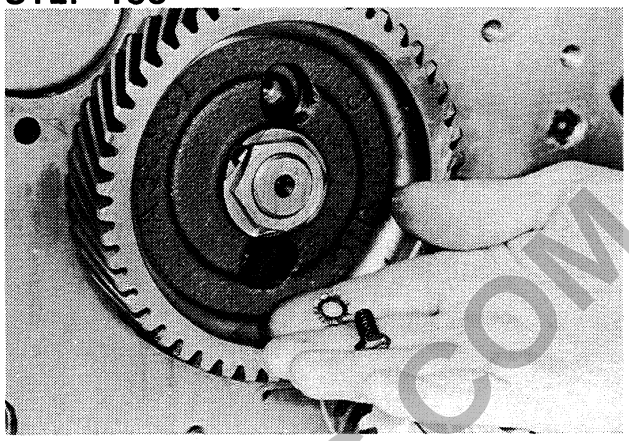
Align holes in cam gear with thrust plate mounting bolts.

STEP 154



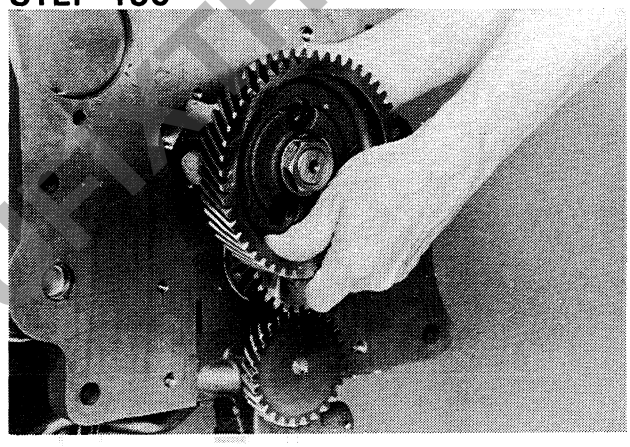
Loosen thrust plate mounting bolts.

STEP 155



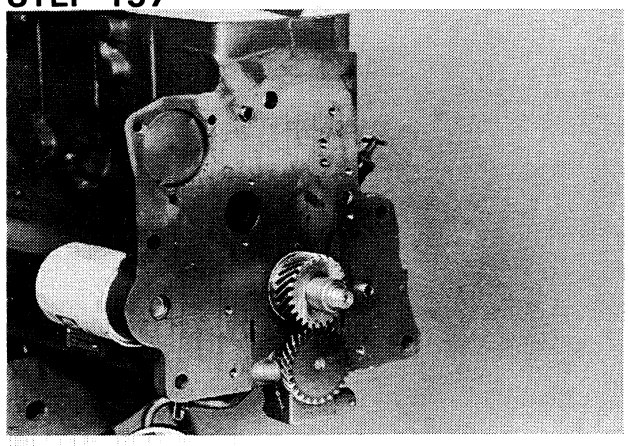
Remove bolts and external tooth washers.

STEP 156



Remove camshaft from the block.

STEP 157



Camshaft removed from block.

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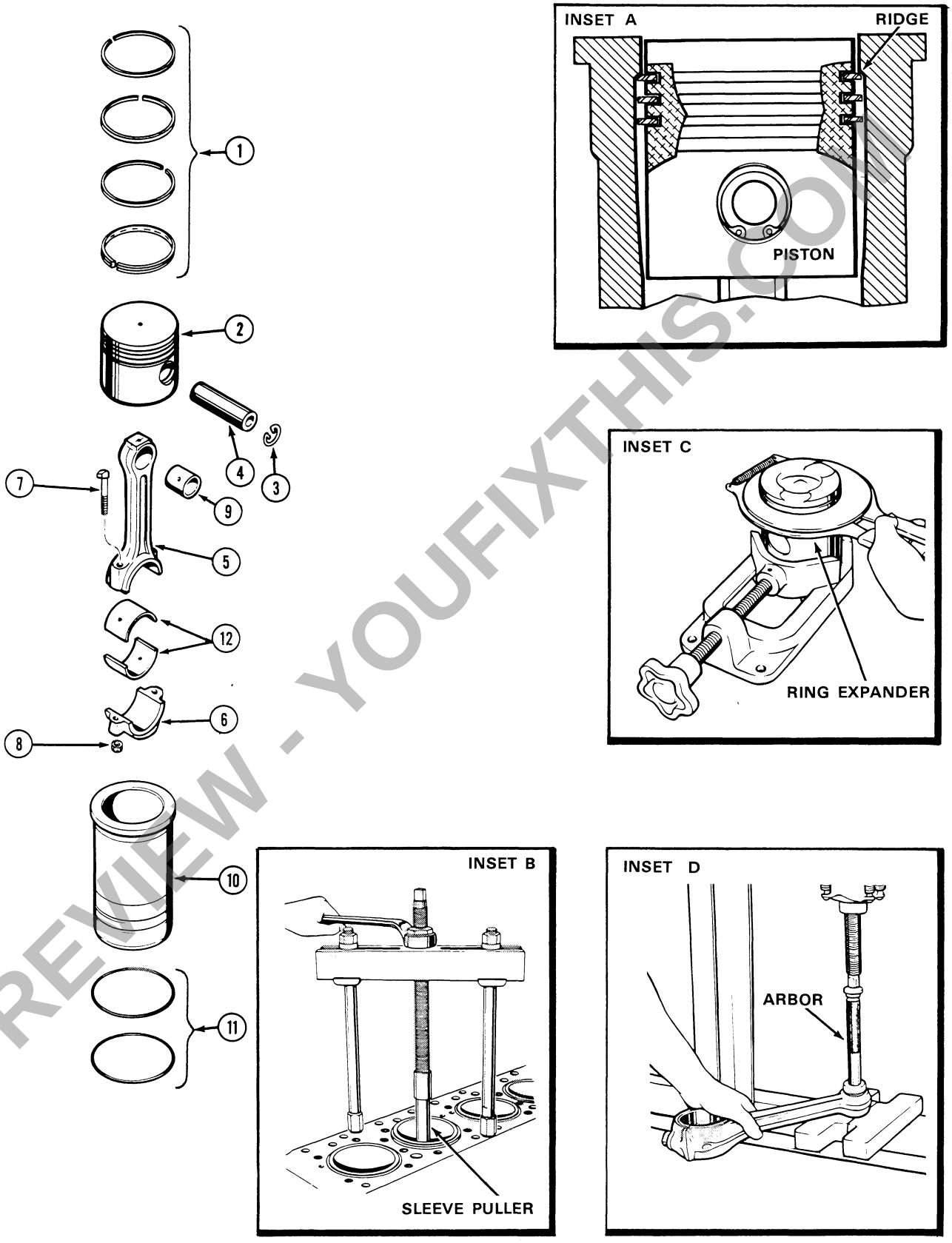
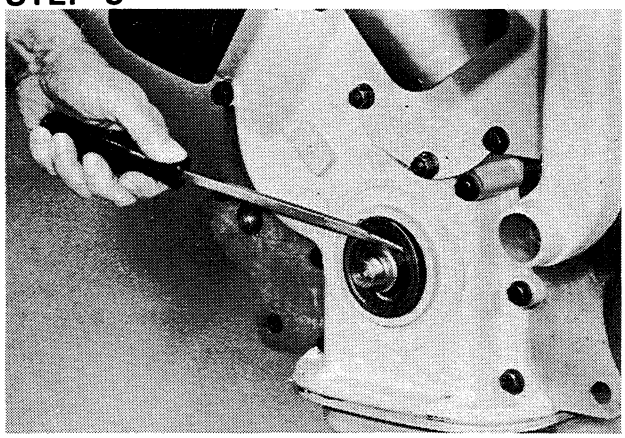


Figure 10

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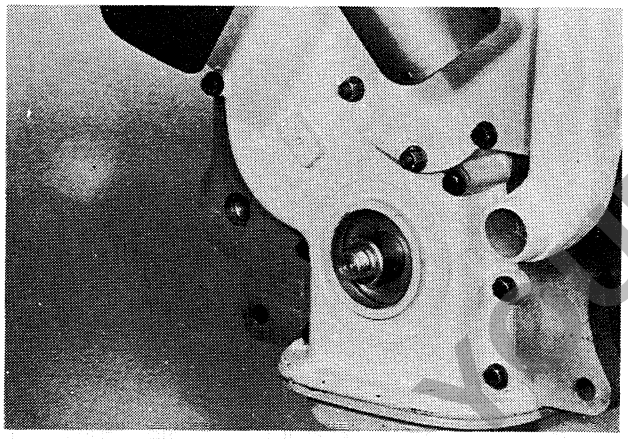
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STEP 5



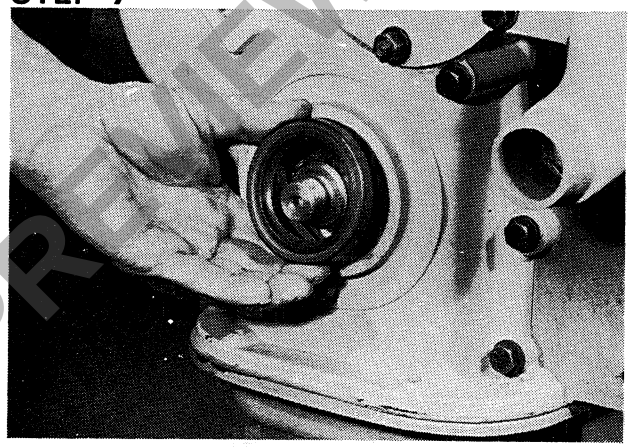
Remove front oil seal from timing gear cover.

STEP 6



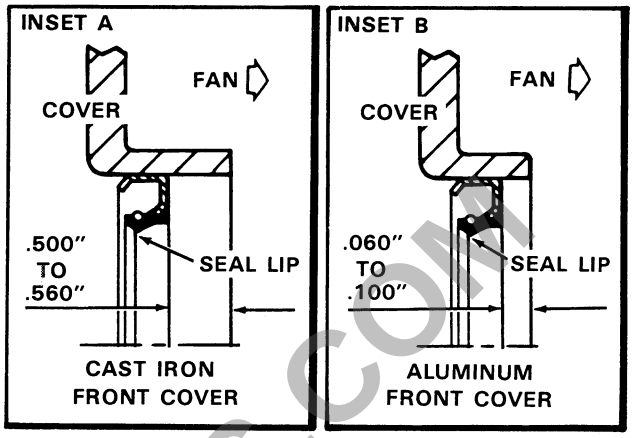
Front oil seal removed.

STEP 7

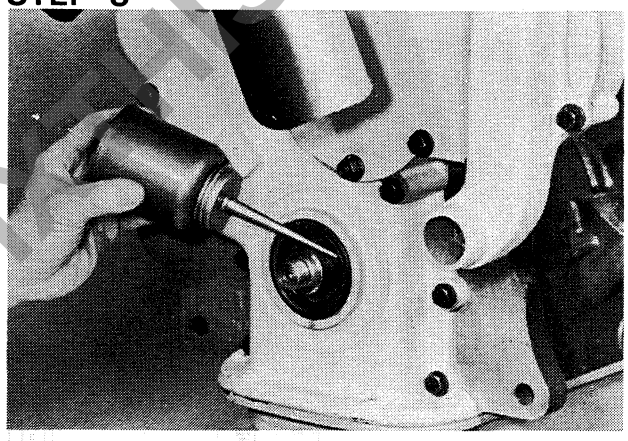


Install a new seal in the timing gear cover, with the seal lip inward, to a depth from the outer edge as shown in Inset A or B.

STEP 7 (Cont'd)

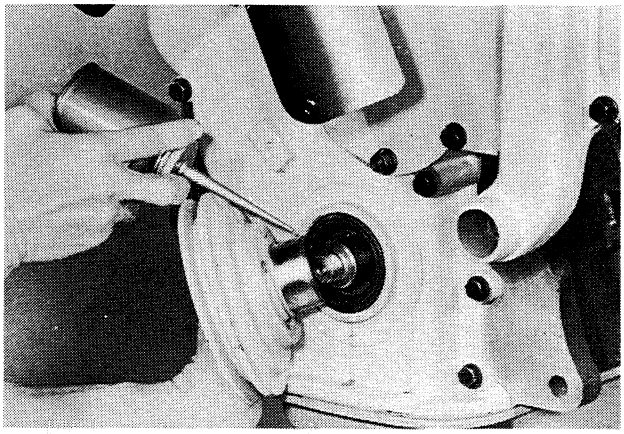


STEP 8



Apply HDM No. 30 oil to front oil seal.

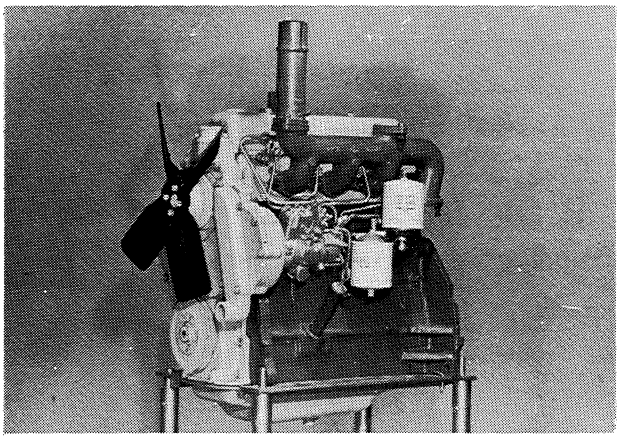
STEP 9



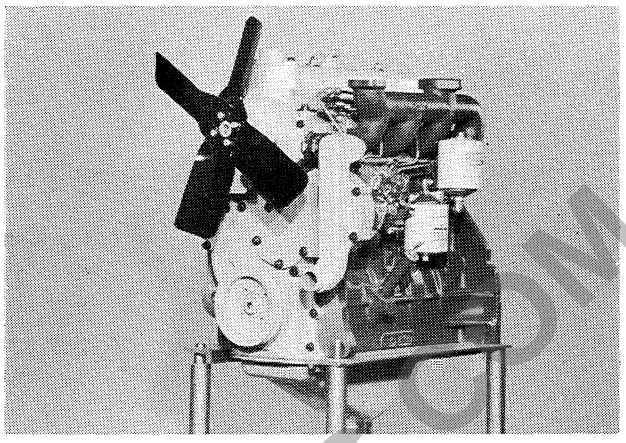
Apply HDM No. 30 oil to shaft of crankshaft pulley. Install pulley on crankshaft.

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188 DIESEL ENGINE

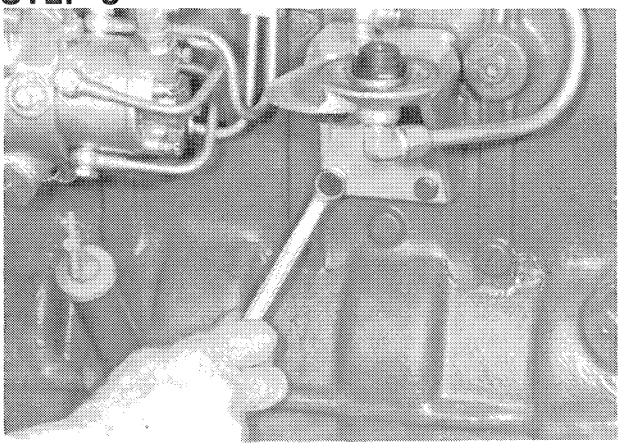


207 DIESEL ENGINE

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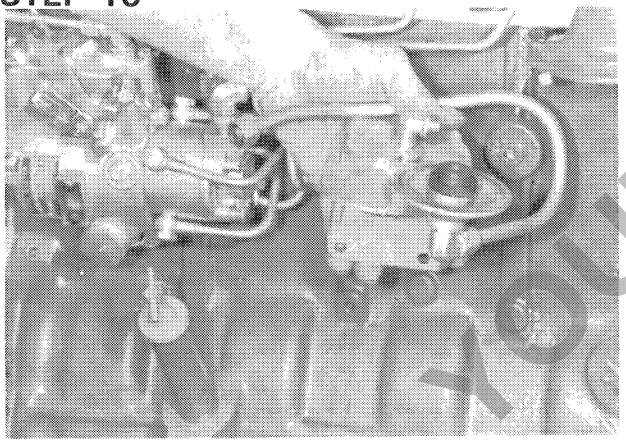
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STEP 9



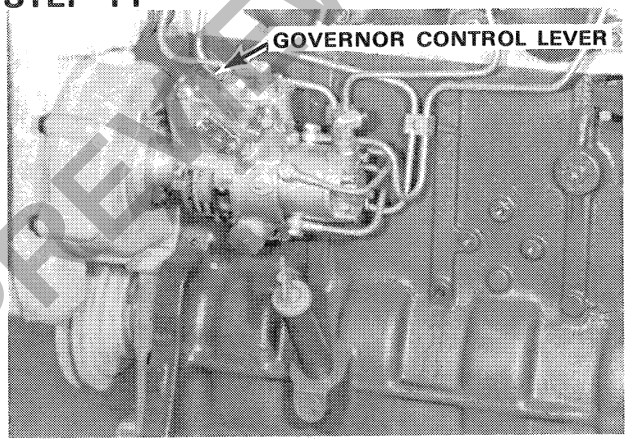
Remove filter head mounting bolts.

STEP 10



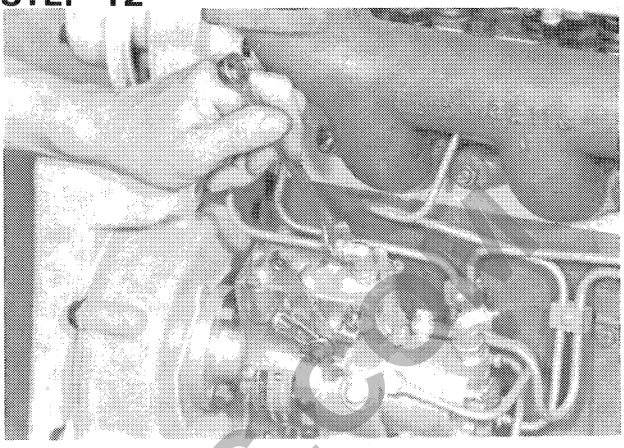
Remove filter head from engine block.

STEP 11



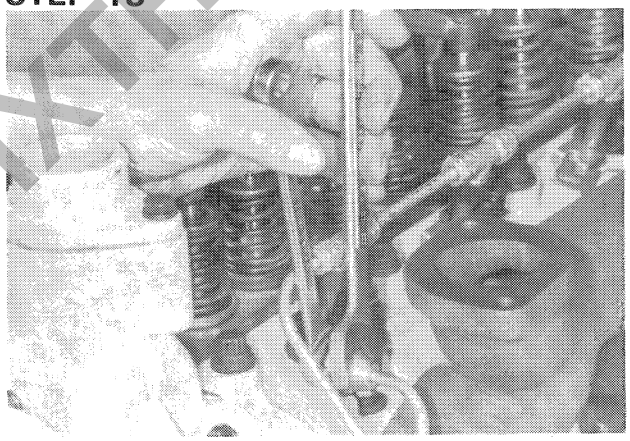
Disconnect the throttle rod from the governor control lever and the fuel shutoff cable from the shutoff lever.

STEP 12



Disconnect leakoff return line from pump.

STEP 13



Disconnect high pressure lines from fuel injectors using the one hand-two wrench method.

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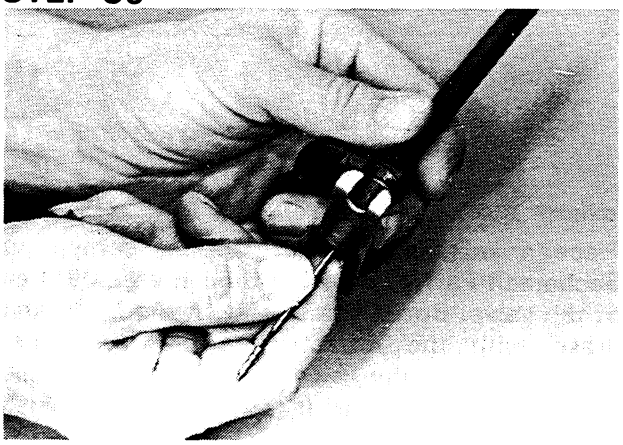
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SERVICING INJECTORS (Continued)

Assembly

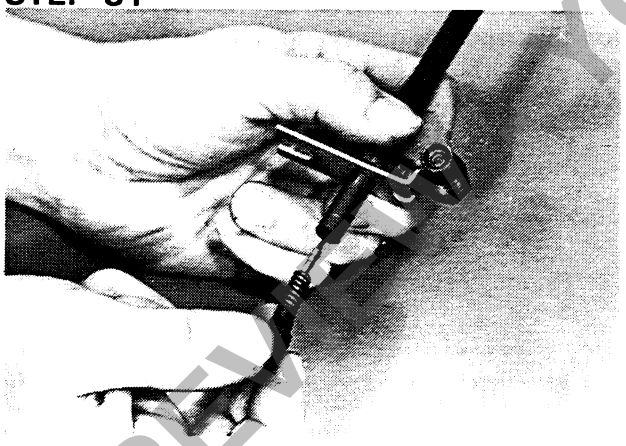
Wash and flush all parts thoroughly before assembly. Wet all injector parts and hands with clean fuel during assembly.

STEP 30



Handle the valve by its' shank and slide it partially into the body. Install the locating plate on the body before assembling the pressure adjusting screw and locknut.

STEP 31



Assemble the spring and seat (on injector A37836 assemble spring, ball washer and upper spring seat) on the lift and pressure adjusting screw assembly. Tilt the injector body and with the spring seat contacting the valve top, push the valve and spring components into the body. Exercise care not to dislodge the spring seat during this assembly. Thread the pressure adjusting screw into the body by hand until the spring is compressed sufficiently to hold all parts in place.

STEP 32



Install a new compression seal.

STEP 33

CARBON SEAL
TOOL A42449





Install a new carbon dam seal using the carbon seal tool, Case Part No. A42449.

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5. Clean housing in cleaning solvent.

6. Place filter in housing with gasket up. Lubricate housing seal with clean oil and screw housing into head. Torque housing up to 90 foot-pounds (122 N m).

7. Start engine and check for leaks. Check reservoir oil level and add oil as required.

FLUSHING THE LOADER HYDRAULIC SYSTEM

If one component in the loader system fails, the system should be flushed. This is especially true if the failure was due to contaminated oil. Refer to Section 4013, Equipment Pump, Identifying Cause of Pump Failure.

Remove accumulated dirt from the lift and bucket cylinders and fittings.

To help keep the machine clean while flushing the system, have on hand two 8 foot (or more) lengths of hose with 3/4" - 16 JIC male fitting on one end and a 3/4" - 16 swivel fitting on the other end (bulk hose A21571, male fitting 220-239, swivel fitting 220-212) to connect to the lift and bucket cylinders.

1. Drain the hydraulic reservoir and change the hydraulic system filter and the charge circuit filter. Fill reservoir with 13 U.S. gallons (49 liters) of new Case TCH Fluid.

2. Completely retract the cylinders. Block the bucket in place so it will not roll forward when hoses are disconnected from the bucket cylinders. If machine is equipped with auxiliary attachments, block the attachments in place if raised.

   NOTE: Check the reservoir oil level frequently when performing steps 4, 5 and 6 to prevent damage to the pumps from lack of oil.

3. Remove lift cylinder tube retaining clamp and tube saddle, and disconnect tubes at cylinder fittings.

4. Connect the shop made hoses to tubes to closed end of the lift cylinders and place loose ends in a suitable drain container. Start engine, run at low idle and move lift control lever to the Lower position until the lines are flushed with new oil. Repeat this step with hoses connected to tubes to rod end of cylinders and control lever in the Raise position.

5. Connect the shop made hoses to tubes to rod end of the bucket cylinders and place loose ends in drain container. With engine running at low idle, move bucket control lever to the Rollback position to flush lines with new oil. Repeat this with hoses connected to hoses to closed end of cylinders and control lever in the Dump position.

6. Connect lines to CLOSED end of all cylinders. Leave rod end of cylinders disconnected. Connect the drain hoses to lift cylinders and place loose ends in drain containers. With engine running at 1/4 throttle raise loader arm high enough so bucket can be dumped. Completely dump bucket; then raise loader arm to full height and block loader arm in place.

7. Connect lines to rod end of lift and bucket cylinders. Lower bucket to the floor and install lift cylinder tube saddle and retaining clamp.

8. If machine is equipped with rear mounted attachment, flush the lines and cylinder(s) in the same manner as the lift and bucket cylinders and lines.

9. Check reservoir oil level and add oil as required.

10. Start engine and run at full throttle. Operate hydrostatic and cylinder controls alternately for 15 minutes. Check the filter conditioner indicators often. Change filter(s) if necessary.

11. Change the hydraulic system and hydrostatic charge circuit filters. Check reservoir oil level and add as required.

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Section 4042

DUMP CIRCUIT RELIEF VALVE

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C. E. Div. 9-73926
1845 Uni-Loader
Rev. October 1976

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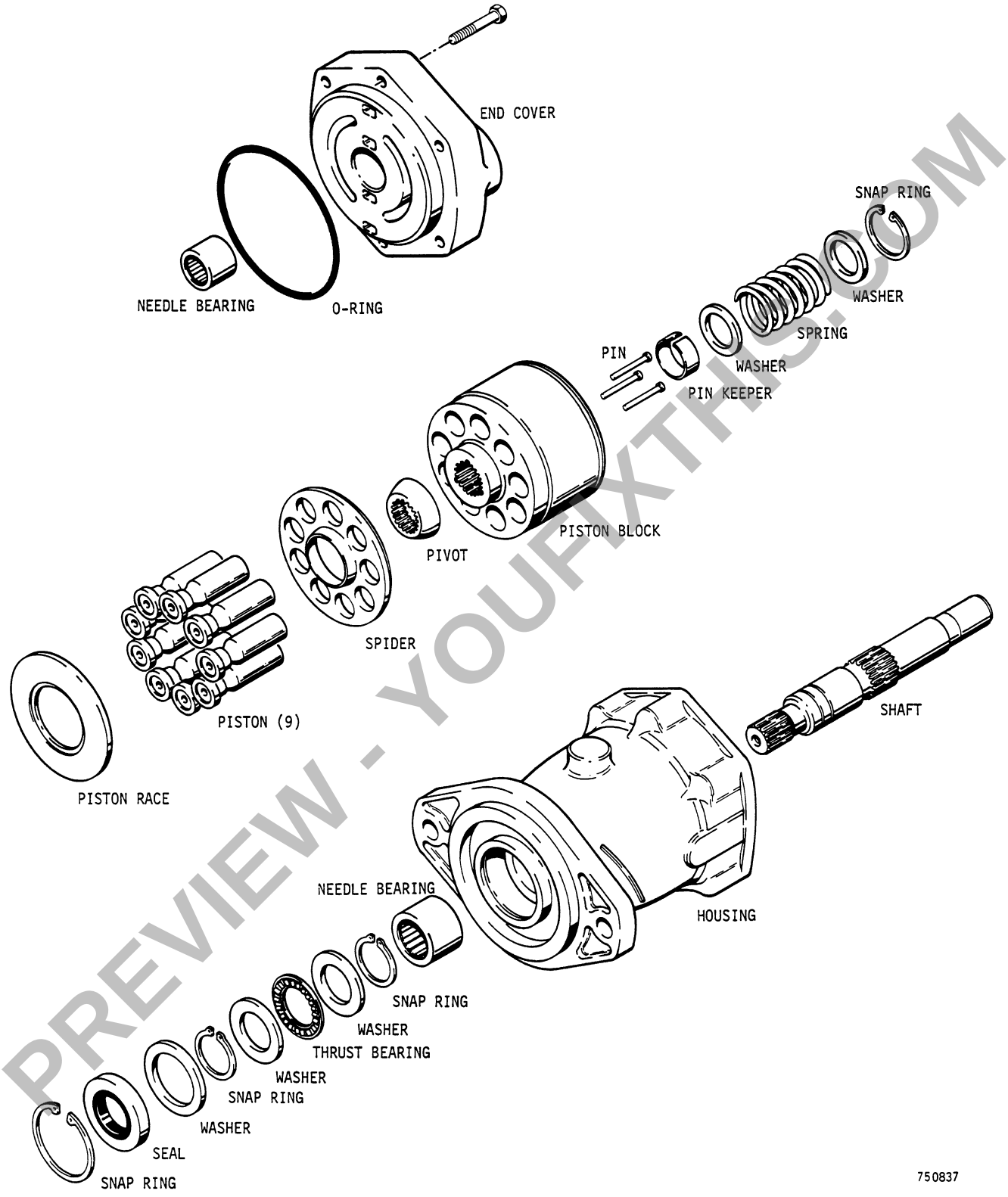


Figure 7 - Exploded View of Motor

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Section 8011

WIRING DIAGRAMS

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CASE CORPORATION

C. E. Div. 9-73926
1845 Uni-Loader
Rev. October 1976

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ACTIVATING DRY CHARGED BATTERIES

NOTE: Also refer to Nonspill Battery Caps on page 8014-4.

Dry charged batteries are activated by filling each cell with electrolyte (a solution of sulfuric acid and water) with a specific gravity of 1.260. Fill each cell until the electrolyte is even with split ring at the bottom of the cell opening.

Set the battery aside for a few minutes, then check the electrolyte level. If the electrolyte is low, add additional electrolyte, not water. Adding water when activating a dry charged battery may result in poor performance and a short service life.

Prior to putting the battery into service, complete the following tests to assure good battery performance.

1. Five minutes after adding electrolyte, check the terminal voltage. If the voltage is less than 5 or 10 volts, deperding on rated voltage, the battery is defective and should be replaced.

2. Check the specific gravity, page 8014-5. If the specific gravity shows more than a 30 gravity point drop or one or more cells gas violently after adding electrolyte, the battery should be fully charged before being put into service.

For the best performance in cold weather (below 32° F. (0° C) or if the electrolyte is not at 60° F. (16° C) or above at time of activation, warm the battery by charging.

After electrolyte has been added to a dry charged battery it should be maintained in the same manner as any other battery.

BATTERY CHARGING GUIDE

(Fully Discharged 6 and 12 Volt Batteries)

Ampere Hour Rating	Recommended Rate and Time					
	5 Amperes	10 Amperes	20 Amperes	30 Amperes	40 Amperes	50 Amperes
50 or less	10 hours	5 hours	2-1/2 hours	2 hours		
Above 50 to 75	15 hours	7-1/2 hours	3-1/4 hours	2-1/2 hours	2 hours	1-1/2 hours
Above 75 to 100	20 hours	10 hours	5 hours	3 hours	2-1/2 hours	2 hours
Above 100 to 150	30 hours	15 hours	7-1/2 hours	5 hours	3-1/2 hours	3 hours
Above 150		20 hours	10 hours	6-1/2 hours	5 hours	4 hours

NOTE 1: Amperes indicate initial rate for constant voltage taper rate charger.

NOTE 2: Reduce or temporarily halt charging rate if electrolyte temperature exceeds 125° F. (51° C) or violent gassing (boiling over) occurs.

NOTE 3: For the most satisfactory charging, the lower ampere charging rates are recommended.

Figure 9 - Battery Charging Guide

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3. D.C. ammeter, 0-100 amp scale.

4. Rheostat, 0-50 ohms resistance, 50 watts.

5. 1/4 ohm, 25 watt resistor, Sun Electric RES-1 or equivalent with leads for connection in the alternator output circuit.

6. Carbon pile, Sun Electric Y-20 or equivalent, capable of 600 amp load, knob controlled.

7. 120 volt test lamp with a 25 watt bulb.

8. 12 volt test lamp with number 57 bulb. Used during bench testing.

9. Ohmmeter, Simpson 260 or equivalent. Used during bench testing.

Prestolite Alternator Tests

Test No. 1 - Alternator Output

1. Remove ground cable from battery. Install battery post adapter, Figure 1, on negative battery post and connect cable to adapter.

   NOTE: Before completing step 2, close switch on Sun adapter or turn switch nut up several turns on Snap-on adapter.

2. Connect test ammeter to battery post adapter as indicated in Figure 1.

3. Connect voltmeter positive lead to the output terminal and the negative lead to the alternator frame.

4. Connect carbon pile (or load control) to the battery terminals. Make sure carbon pile is OFF before making connections.

5. Start engine and run at full throttle and open battery post adapter switch. Adjust the carbon pile until the voltmeter indicates 14.2 volts. The test ammeter should indicate 35 amps for all machines except fertilizer special and 20 amps for fertilizer special (1845S).

6. Turn off carbon pile and stop engine.

7. If the output was not as specified, remove alternator, disassemble and test alternator components.

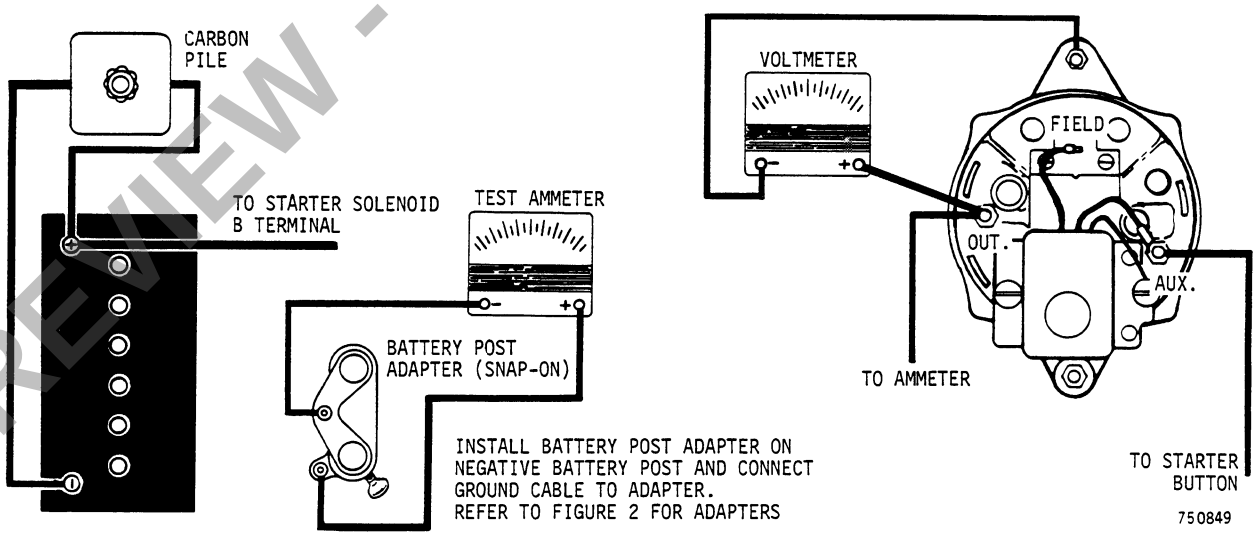


Figure 2 - Alternator Output Test Hookup

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