Group 10
BASIC ENGINE
(LOADER SERIAL No. 01072 AND BELOW)

REMOVAL

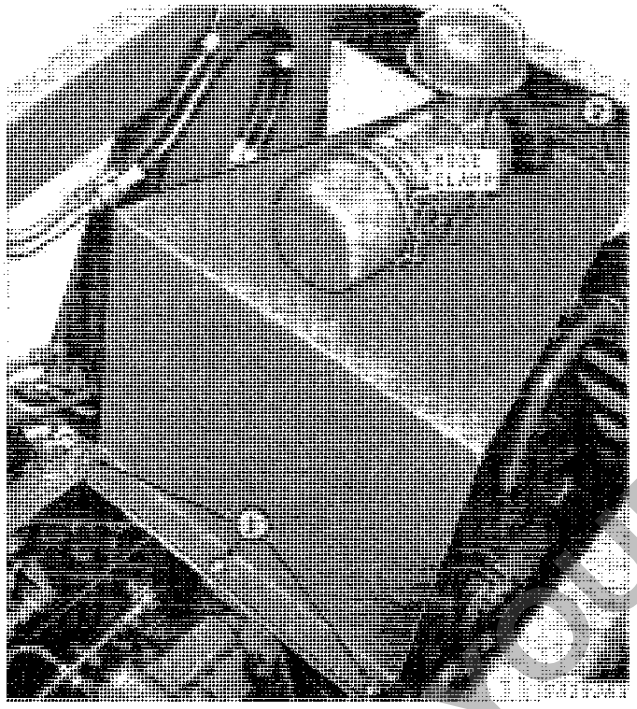


Fig. 1-Removing Heat Shield

1. To remove heat shield, remove three 5/16 x 1/2-inch cap screws with flange.
2. Remove two 5/16 x 1/2-inch cap screws with lock nut and air filter hose clamp. Remove heat shield.



Fig. 2-Removing Engine Components

3. Remove throttle and choke control cables.
4. Remove battery cable (ground).
5. Unplug wiring harness.
6. Remove drive chain coupler.
7. Remove air filter hose.

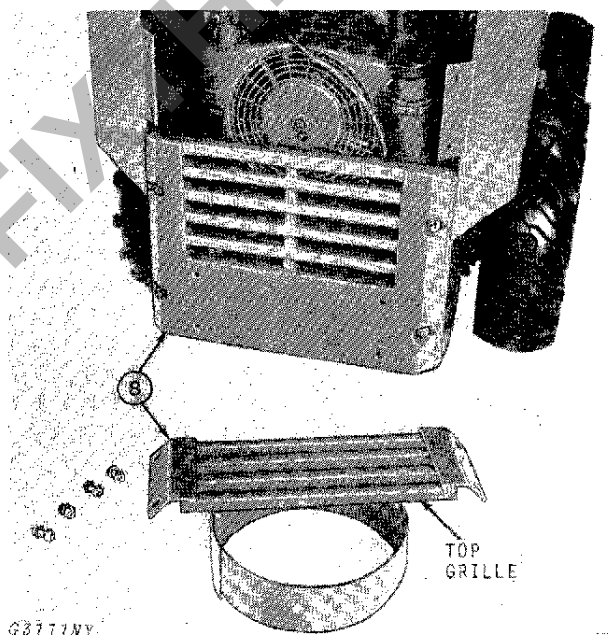


Fig. 3-Removing Upper and Lower Grilles

8. Remove top and bottom rear grilles. The top grille has four 1/2 x 1-inch cap screws and nuts with flange. The bottom grille has four 1/2-inch nuts with flange.

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Group 10
CARBURETOR

REMOVING CARBURETOR

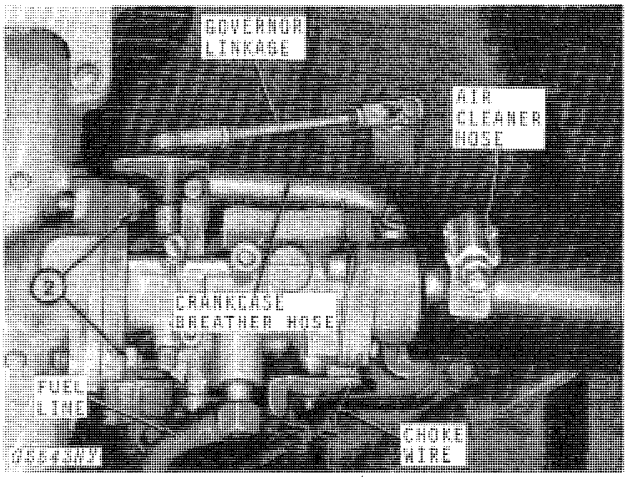


Fig. 1-Removing Carburetor

1. Remove the fuel line, air cleaner hose, governor linkage, crankcase breather hose and choke wire.

2. Remove the two carburetor mounting nuts and remove the carburetor.

DISASSEMBLING CARBURETOR

Refer to Fig. 2.

Invert carburetor and:

1. Remove the main jet assembly (17) and fuel bowl (15).

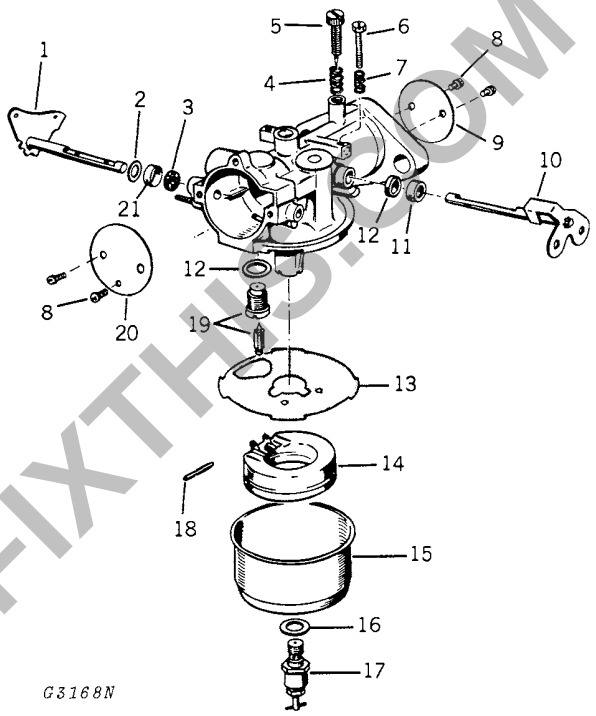
2. Remove float shaft (18) and float (14).

3. Lift out the fuel inlet valve and unscrew the valve seat of the fuel valve seat assembly (19).

4. Remove the idle adjustment screw (5) and spring (4).

5. Remove the throttle plate screws (8) and throttle plate (9). Pull out the throttle lever (10).

6. Remove the choke plate screws (8) and choke plate (20). Pull out the choke shaft (1).



1—Manual Choke
2—Choke Washer
3—Choke Felt Seal
4—Idle Needle Spring
5—Adjusting Idle Needle
6—Throttle Stop Screw
7—Throttle Stop Spring
8—Choke and Throttle Plate Mounting Screw and Washer (4 used)
9—Throttle Plate
10—Throttle Lever
11—Seal Retainer
12—Rubber Seal
13—Bowl Gasket
14—Float
15—Fuel Bowl
16—Jet Washer
17—Jet Assembly
18—Float Shaft
19—Fuel Valve Seat Assembly
20—Choke Plate
21—Felt Seal Retainer

Fig. 2-Exploded View of Carburetor

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70 SKID-STEER LOADER

Technical Manual
TM-1072 (Jan-74)

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FOR YOUR CONVENIENCE

Vertical lines appear in the margins of many of the pages. These lines identify new material and revised information that affects specifications, procedures, and other important instructions.

"All information, illustrations and specifications contained in this technical manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice."

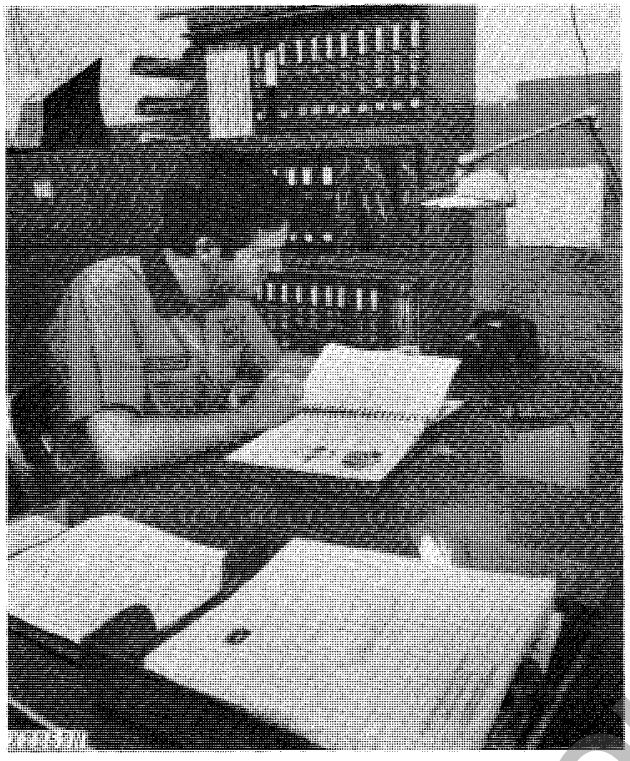
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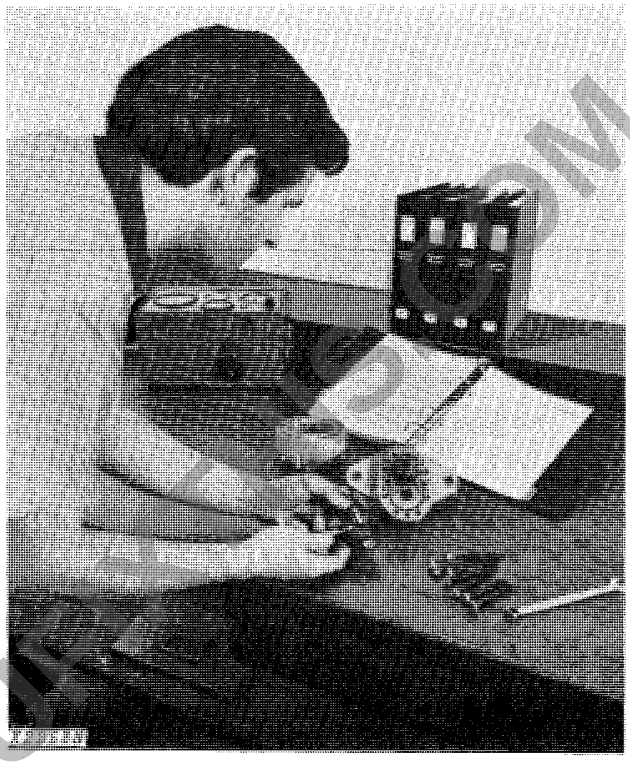
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INTRODUCTION



Use FOS Manuals for Reference



Use Technical Manuals for Actual Service

This technical manual is part of a twin concept of service:

- **FOS Manuals—for reference**
- **Technical Manuals—for actual service**

The two kinds of manuals work as a team to give you both the general background and technical details of shop service.

Fundamentals of Service (FOS) Manuals cover *basic* theory of operation, *fundamentals* of trouble shooting, *general* maintenance, and *basic* types of failures and their causes. FOS Manuals are for training new men and for reference by experienced men.

Technical Manuals are concise service guides for a *specific* machine. Technical Manuals are on-the-job guides containing only the vital information needed by a journeyman mechanic.



When a serviceman should refer to a FOS Manual for more information, a FOS symbol like the one at the left is used in the TM to identify the reference.

Some features of this technical manual:

- *Table of contents at front of manual*
- *Exploded views showing parts relationship*
- *Photos showing service techniques*
- *Specifications grouped for easy reference*

This technical manual was planned and written for you—a journeyman mechanic. Keep it in a permanent binder in the shop where it is handy. Refer to it whenever in doubt about correct service procedures or specifications.

Using the technical manual as a guide will reduce error and costly delay. It will also assure you the best in finished service work.

This safety alert symbol identifies important safety messages in this manual. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.

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DIAGNOSING ENGINE MALFUNCTIONS

Valves

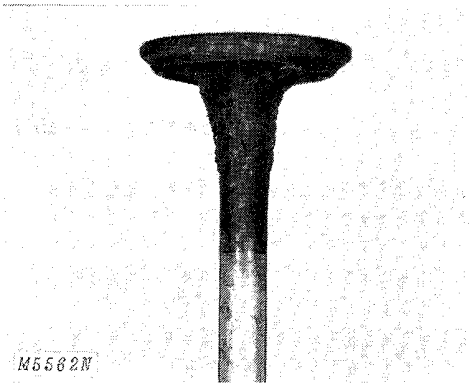


Fig. 1-Lead Deposits on Leaky Intake Valve

Lead deposits on the intake valve (Fig. 1) consist mostly of lead and some metal which comes from the lubricating oil. It is caused by a small amount of leakage of exhaust gases back into the intake port area. This indicates that the valve is not seating properly. Grind the valve and reface the seat to correct this condition.

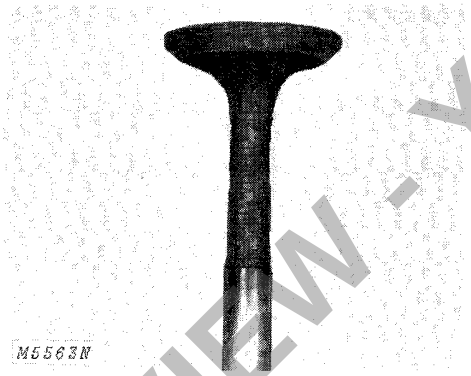


Fig. 2-Valve Stem Corrosion

Valve stem corrosion (Fig. 2) is caused by moisture finding its way into the engine. Moisture in the fuel-air mixture can condense inside the engine when engine is stopped before it has had a chance to warm up.

Valve corrosion can also occur during storage when the engine has not been run for some time. Fogging or pouring oil in the combustion chamber before storing will prevent valve corrosion.

Corroded and pitted valves tend to collect deposits which in turn causes valve sticking. Always replace badly corroded or pitted valves with new valves.

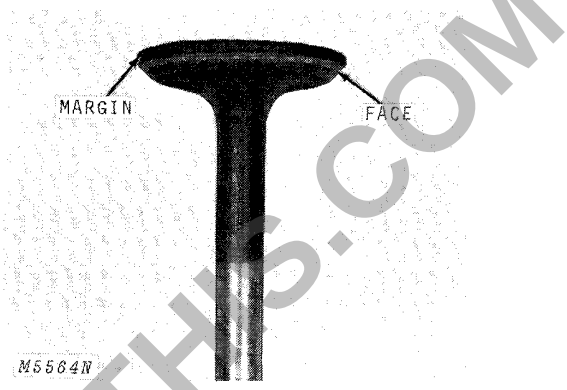


Fig. 3-Exhaust Valve Running Too Hot

Exhaust valves are designed to function in temperatures exceeding 5000°F.; however, when operating at this temperature for long periods of time, valve burning occurs. A tell-tale sign of valves running too hot (Fig. 3) is the dark discoloration of the valve stem down into the area protected by the valve guide. Another indication is disfiguration of the valve margin and valve face. Valve inserts may also begin to burn away.

The most common cause of an overheated engine and valves is poor cooling due to dirt or obstructions inside the intake shrouding. With engine off, remove and clean shrouding and all cooling fins on the engine if this condition is noticed.

CAUTION: Never run engine with shrouding removed.

Also check for improper valve timing by checking and correcting valve clearance.

Worn valve guides or valve springs can also cause overheated valves.

Valves running hot can also be caused by a lean fuel mixture, improper spark plug or overheated spark plugs which cause pre-ignition.

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Disassembly (Loader Serial No. 01073 and up)—Continued

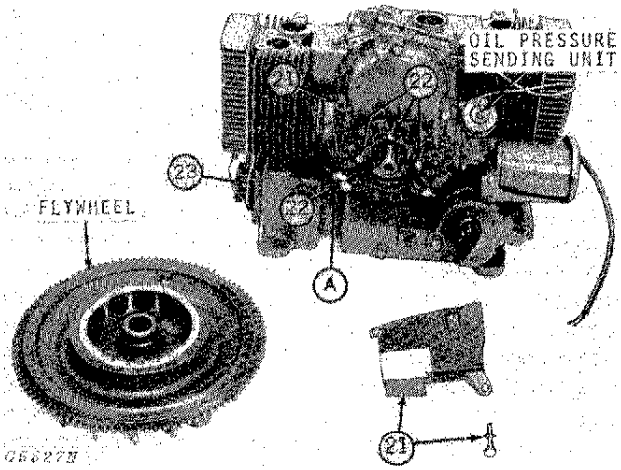


Fig. 48-Removing Shroud Bracket

21. Remove one 5/16 x 1-3/4-inch cap screw (timing cover bolt) and remove rear shroud mounting bracket.

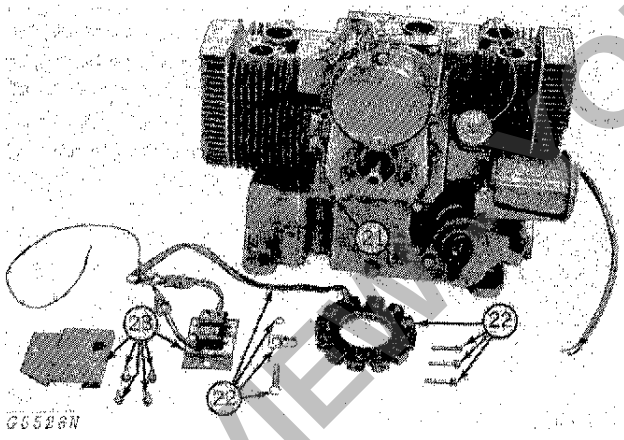


Fig. 49-Removing Regulator, Rectifier, and Stator

22. Remove one 5/16 x 1-3/4-inch cap screw at "A" (timing cover bolt) to remove cable clamp; then remove three No. 10 x 1-1/2-inch machine screws and remove stator.

23. Remove four 1/4 x 1/2-inch cap screws to remove regulator and rectifier modules and mounting.

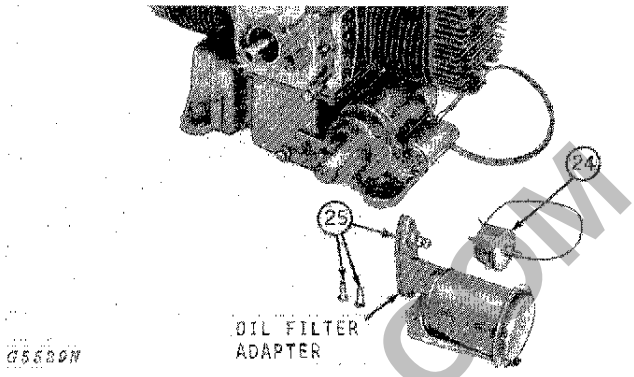


Fig. 50-Removing Oil Pressure Sender and Oil Filter

24. With a 1/2-inch wrench open and remove oil pressure sending unit.

25. Remove two 5/16 x 1-inch cap screws to remove oil filter and oil filter adapter.

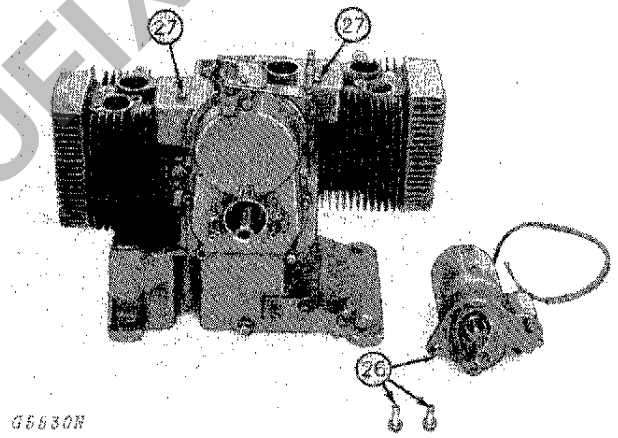


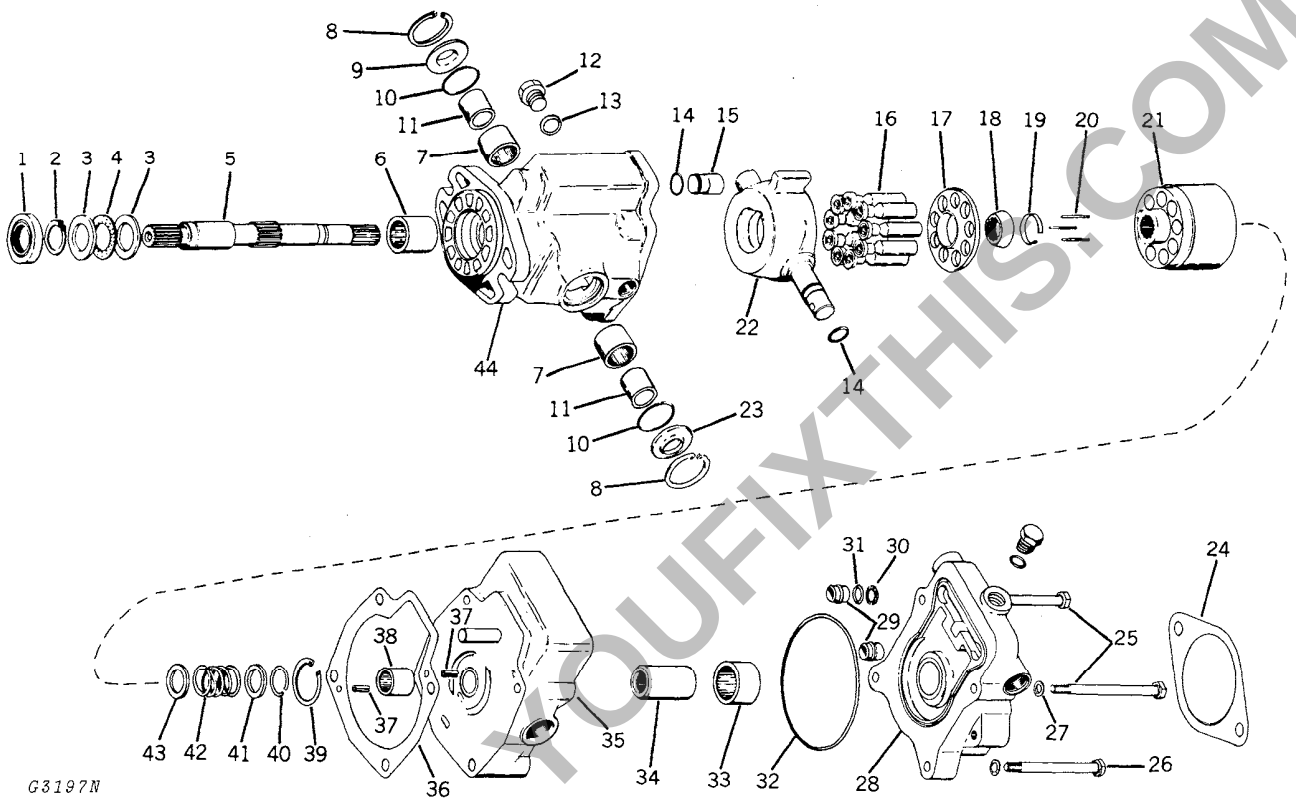
Fig. 51-Removing Starter

26. Remove two 3/8 x 1-1/4-inch cap screws and remove starter.

27. Remove two 1/4 x 2-inch cap screws and remove both valve covers.

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INSPECTING HYDROSTATIC PUMPS—Continued



1—Shaft Seal
2—Retaining Ring
3—Thrust Race (2 used)
4—Thrust Bearing
5—Drive Shaft
6—Bearing
7—Trunnion Bearing (2 used)
8—Retaining Ring (2 used)
9—Sleeve
10—O-Ring (2 used)
11—Inner Race
12—Plug
13—O-Ring
14—O-Ring
15—Front Cam Stop
16—Pistons (9 used)
17—Spider
18—Spider Pivot
19—Pin Keeper
20—Pin (3 used)
21—Piston Block
22—Cam Plate
23—Trunnion Cover
24—Gasket
25—Cap Screw (2 used)
26—Cap Screw (2 used)
27—Knurled Washer (4 used)
28—Adapter
29—Valve Check (2 used)
30—Washer
31—O-Ring (2 used)
32—O-Ring
33—Bearing
34—Coupling
35—Back Plate
36—Gasket
37—Spring Pin (2 used)
38—Bearing
39—Retaining Ring
40—Retaining Ring
41—Washer
42—Spring
43—Washer
44—Housing

Fig. 18—Exploded View of Rear Hydrostatic Pump

NOTE: Fig. 18 shows pump on loaders with Serial No. 01092 and below. Loaders with Serial No. 01093 and up have two retaining rings (2), three thrust washers (3), and no retaining ring (40).

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