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CLARK Melroe Division

CLARK EQUIPMENT CO.
Gwinner, North Dakota 58040

Printed in U.S.A.

FOREWORD

This manual provides instruction for proper routine servicing and adjustment of the Bobcat, and detailed overhaul instructions of the power train, loader hydraulic/hydrostatic system and general mainframe components.

Refer to the Owner's Manual for general operating instructions (Starting Procedure, Daily Checks, Bucket Operation, Minor Maintenance, etc.).

A general inspection of the following items should be made whenever the machine has undergone service or repair:

1. Check hydraulic fluid level, engine oil level and fuel supply.
2. Inspect for any sign of fuel, oil or hydraulic fluid leaks.
3. Lubricate the machine.
4. Check battery condition, electrolyte level and cables.
5. Inspect air cleaner system for damage or leaks. Check element and make replacement, if necessary.
6. Check alternator drive belt for condition and tension.
7. Check for loose drive chains by lifting the rear of the machine and turning the rear wheels by hand.
8. Check tires for wear and pressure.
9. Check the Bob-Tach attachment for condition. Inspect the wedges for damage or wear.
10. Inspect safety items for condition (ROPS Guard, Seat Belt, Safety Treads, Lights, etc.).
11. Make a visual inspection for loose or broken parts or connections.
12. Operate the loader, checking all functions.

Advise the owner if any of the above items are in need of repair.

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PREVENTIVE MAINTENANCE

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2-4 GEAR PUMP

2-4.1 Testing

- (1) Tilt ROPS forward.
- (2) Remove transmission housing cover.
- (3) Connect Y-90 to the outlet of pump (see Fig. 2-4).
- (4) Lower ROPS until steering levers are centered.
- (5) Turn the pressure control valve on the tester fully out (counterclockwise).
- (6) Start engine and run at low RPM.

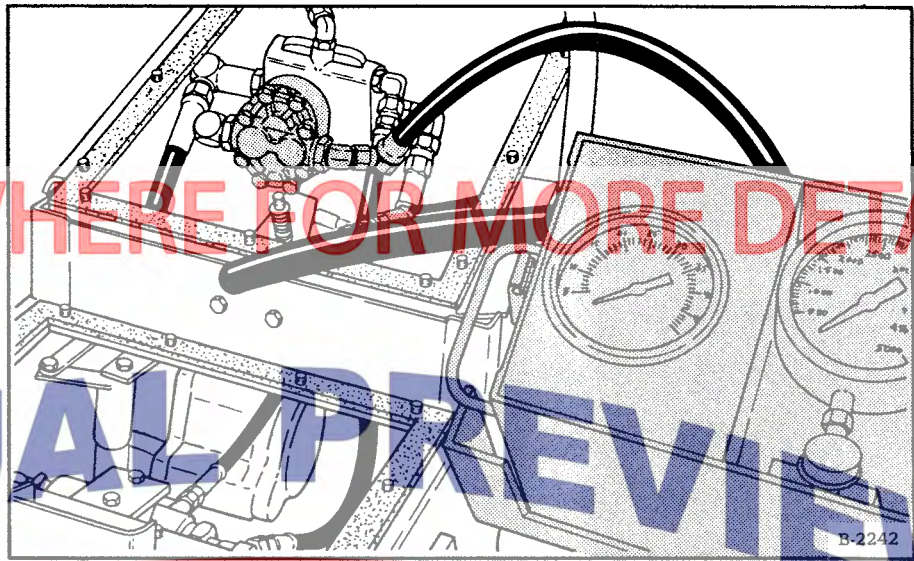


Fig. 2-4 Testing Gear Pump

NOTE: With the tester connected this way, there is no relief valve in the hydraulic circuit. Closing the pressure control valve fast can cause very high pressure and damage the pump. Turn the knob very slowly as the pressure begins to increase. Do not go over 2200 PSI.

- (7) Increase engine RPM to maximum.
- (8) Turn the pressure control valve slowly until the pressure is 2100 PSI. Correct flow is 10 GPM.
- (9) If an indication of 10 GPM and/or 2100 PSI is not present, check for air leaks. If, after checking for air leaks, there still is not 10 GPM at 2100 PSI, remove and make pump repairs.

2-4.2 Removal

- (1) Tilt ROPS forward.
- (2) Remove transmission case cover.
- (3) Remove hydraulic lines and protect them with poly bags.
- (4) Remove two fastening bolts and remove pump assembly (See Fig. 2-5). Do not force anything between the two surfaces. Use a soft hammer to loosen the pump, if necessary.



Fig. 2-5 Removing Gear Pump

Reverse the above procedure to install. Tighten the fastening bolts to 33 ft.-lbs. torque.

2-5 DISASSEMBLY OF GEAR PUMP (Fig. 2-6)

- (1) Clean outside of pump thoroughly.
- (2) Clamp pump in vise, shaft down.
- (3) Remove 4 tie bolts (Item 1).
- (4) Remove 2 tie bolts (Item 2).

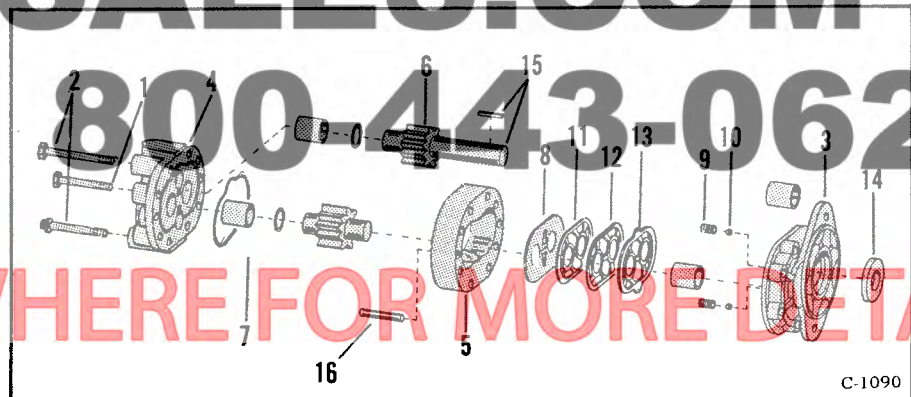


Fig. 2-6 Gear Pump Breakdown

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To remove speed-range linkage:

- (1) Remove the bolt holding linkage to arm on rear motor (Fig. 3-4).
- (2) Remove bolts holding linkage to arm of front motor and bellcrank (Fig. 3-5).
- (3) Remove bolts holding bellcrank and linkage rod (Fig. 3-3, Item 3).
- (4) Remove nuts (Fig. 3-3, Items 4 & 5) control arm (Item 6) and control lever (Item 2).

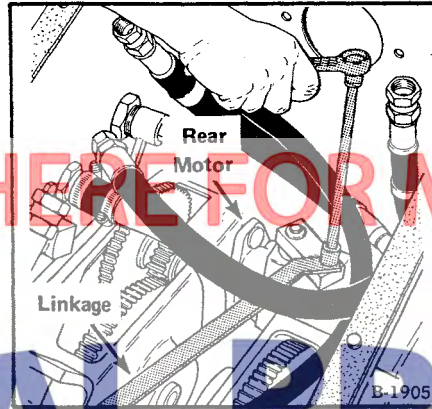


Fig. 3-4 Removing Rear Motor Linkage

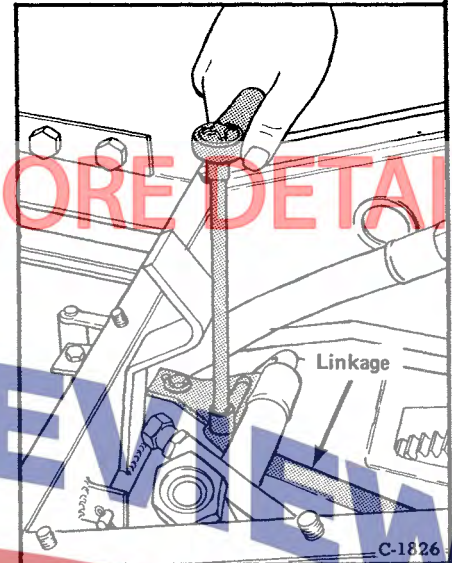


Fig. 3-5 Removing Front Motor Linkage

3-5 STEERING CONTROL LINKAGE

3-5.1 Removal

- (1) Tilt or remove ROPS (See Section 5-2).
- (2) Lift the lift arms and install cylinder support.
- (3) Clean area thoroughly.
- (4) Remove brake if equipped.
- (5) Remove steering levers (Fig. 3-6).
- (6) Disconnect linkage.
- (7) Loosen support nuts (Fig. 3-7).
- (8) Slide LH shaft over to welded bracket.
- (9) Remove LH support nut.
- (10) Remove LH rod.
- (11) Remove RH support nut.
- (12) Raise LH end of shaft and remove assembly from transmission (Fig. 3-8).

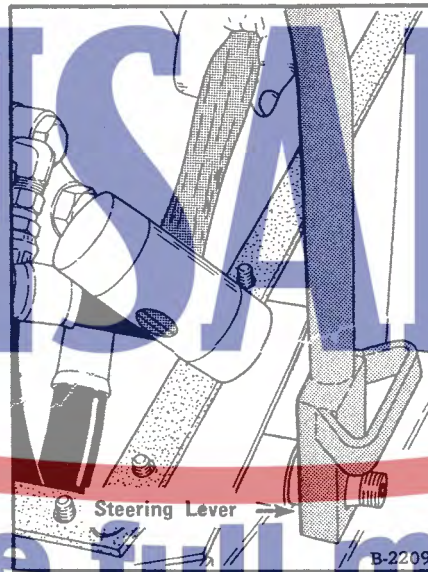


Fig. 3-6 Removing Steering Lever

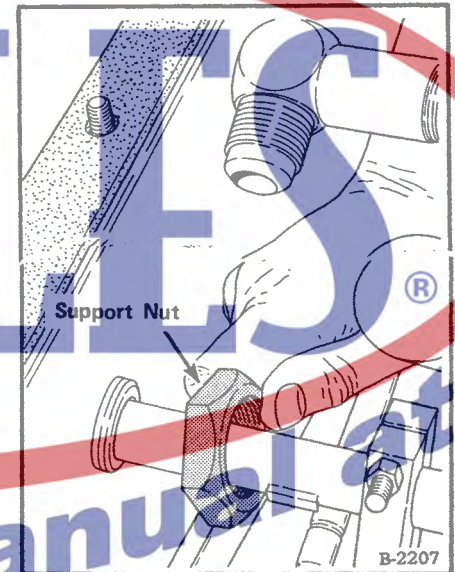


Fig. 3-7 Steering Lever Support Nuts

To install, reverse removal procedure.

NOTE: All 825 Bobcat loaders between serial number B-1000 and C-1000 have a spacer inside the steering levers (Fig. 3-8.1, Item 1). The spacers must be in place or the levers will not operate correctly.

3-6 CHECKING HYDROSTATIC SYSTEM

3-6.1 Test Kit

- (1) 0-300 PSI gauge.
- (2) 200 PSI pressure gauge.

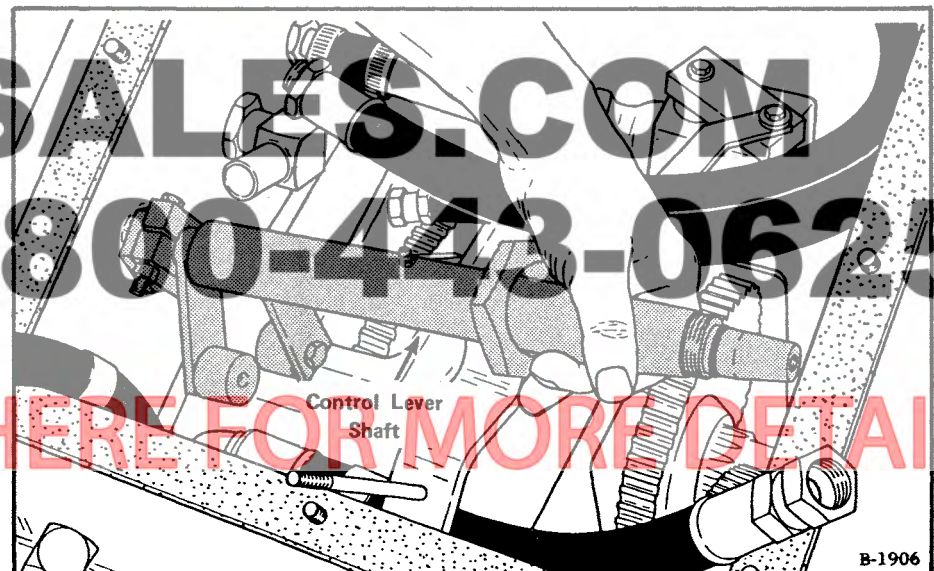


Fig. 3-8 Removing Control Lever Assembly

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