

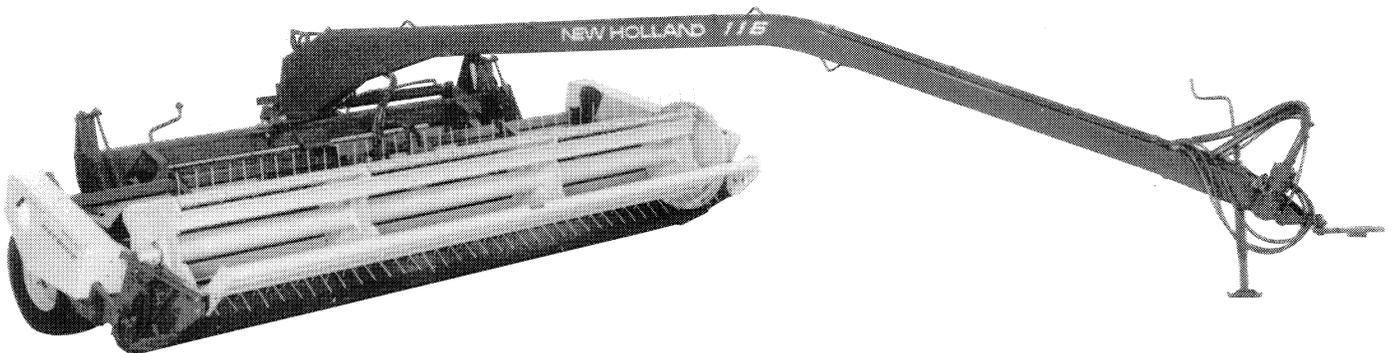
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NEW HOLLAND

PIVOT TONGUE MOWER-CODITIONER 116

SERVICE MANUAL

40011610



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INTRODUCTION

This manual provides service and maintenance information for repairing or rebuilding a New Holland Model 116 pivot tongue mower-conditioner. The operator's manual issued with each machine should be used in conjunction with this manual, as much of the information contained here is condensed or supplementary in nature.

The first section details a step-by-step procedure to troubleshoot the hydrostatic system. Each component must be tested separately to isolate a problem. Detailed information to rebuild each component is provided separately.

This manual details the procedures for removal, disassembly, and reassembly that have been found to be the easiest and least time-consuming. Modifications to these procedures are not recommended.

GENERAL INFORMATION

On New Holland equipment, left and right are determined by standing behind the unit, looking in the direction of travel.

Install a lock washer on all bolts unless a jam nut or self-locking nut is specified. Install a flat washer on all slotted holes except under the heads of carriage and truss head bolts.



CAUTION! THIS SYMBOL IS USED THROUGHOUT THIS BOOK WHENEVER YOUR OWN PERSONAL SAFETY IS INVOLVED. TAKE TIME TO BE CAREFUL!

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SAFETY PRECAUTIONS

- 1. ALWAYS DISENGAGE THE PTO, LOCK THE TRACTOR BRAKES, AND SHUT OFF THE TRACTOR ENGINE BEFORE:**
 - a. LEAVING THE TRACTOR SEAT.**
 - b. LUBRICATING.**
 - c. CLEANING OR UNPLUGGING ANY PART OF THE MOWER-CONDITIONER.**
 - d. ADJUSTING THE MOWER-CONDITIONER.**
- 2. ALWAYS LOWER THE HEADER TO THE GROUND OR ENGAGE THE TRANSPORT STOPS WHEN PARKING THE MOWER-CONDITIONER.**
- 3. ALWAYS USE THE HEADER TRANSPORT STOPS AND TRANSPORT LOCK PIN WHEN TRANSPORTING THE MOWER-CONDITIONER.**
- 4. NEVER WORK UNDER A RAISED HEADER UNLESS IT IS SECURELY LOCKED WITH THE HEADER TRANSPORT STOPS.**
- 5. ALWAYS BLOCK THE WHEELS BEFORE WORKING ON OR UNDER THE MOWER-CONDITIONER.**
- 6. DO NOT START THE MOWER-CONDITIONER UNTIL YOU KNOW THAT EVERYONE IS CLEAR OF THE MACHINE AND HAVE MADE SURE NO TOOLS ARE LYING ON IT.**
- 7. KEEP ALL SHIELDS IN PLACE. NEVER WORK AROUND THE MOWER-CONDITIONER IN LOOSE CLOTHING THAT COULD CATCH IN A MOVING PART.**
- 8. DO NOT MODIFY ANY SHIELDS OR OPERATE THE MOWER-CONDITIONER WITH ANY SHIELDS REMOVED.**
- 9. ALWAYS USE ADEQUATE LIGHTS AND SAFETY WARNING DEVICES WHEN TRANSPORTING THE MOWER-CONDITIONER ON PUBLIC ROADS OR AFTER DARK. CHECK WITH YOUR LOCAL LAW ENFORCEMENT AGENCIES FOR SPECIFIC REQUIREMENTS.**
- 10. LIMIT TOWING SPEEDS TO 25 MPH (40 KM/HR) MAXIMUM.**
- 11. NEVER STAND BEHIND THE MOWER-CONDITIONER WHILE IT IS RUNNING.**
- 12. OPERATE THE MOWER-CONDITIONER ONLY AT THE PTO SPEED FOR WHICH IT IS DESIGNED. ATTACH A 540 RPM IMPLEMENT ONLY TO A 540 RPM PTO AND A 1000 RPM IMPLEMENT TO A 1000 RPM PTO.**
- 13. LONG EXPOSURE TO LOUD NOISE CAN DAMAGE YOUR HEARING. WEAR A SUITABLE HEARING PROTECTIVE DEVICE SUCH AS EAR MUFFS OR EAR PLUGS IF YOU ARE EXPOSED TO UNCOMFORTABLE NOISE LEVELS.**
- 14. BEFORE RAISING OR LOWERING THE HEADER, BE SURE NO ONE IS STANDING NEARBY OR TOUCHING THE MOWER-CONDITIONER.**
- 15. USE OF THE OPTIONAL SAFETY CHAIN IS RECOMMENDED WHEN OPERATING ON A PUBLIC ROAD.**

SECTION 1

HYDROSTATIC SYSTEM



FIGURE 1-1

The hydrostatic system consists of a pump and gearbox assembly, relief valve, motor, and filter. The high pressure oil from the pump goes through the pressure relief valve and then to the motor. Return oil is filtered between the motor and the tongue reservoir.

If a unit loses hydraulic power, use the following procedure to troubleshoot the system.

1. Check the hydrostatic oil level in the tongue as detailed in the operator's manual.
2. Change the oil filter, A, Figure 1-1.
3. Remove the relief valve, A, Figure 1-2, from the housing. Clean the valve and inspect for wear or contamination. Inspect the O-rings for possible wear and replace them if worn or damaged. Reinstall or replace the valve and then test the machine.



WARNING: GAUGES, GAUGE FITTINGS, AND HOSES MUST HAVE OPERATING PRESSURE RATINGS AT LEAST 25 PERCENT HIGHER THAN HIGHEST PRESSURES OF THE SYSTEM.

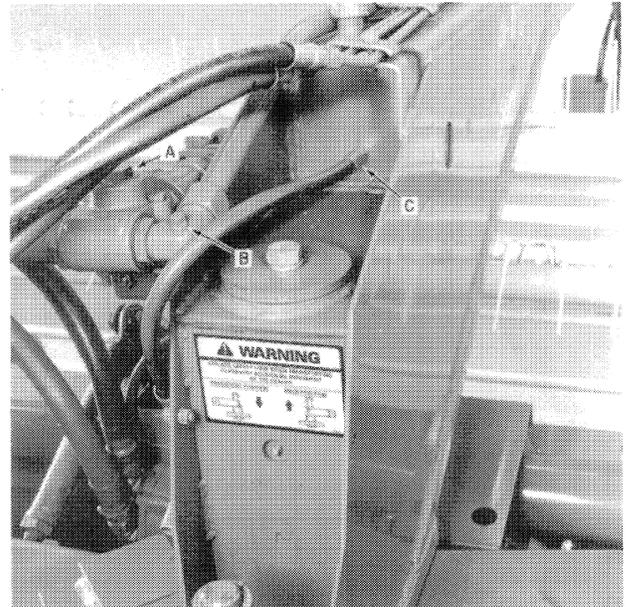


FIGURE 1-2

NEVER ADJUST RELIEF VALVES TO HIGHER PRESSURES THAN THOSE SPECIFIED BY THE EQUIPMENT MANUFACTURER.



WARNING: ALWAYS PROTECT THE SKIN AND EYES FROM ESCAPING FLUID UNDER PRESSURE. FLUID UNDER PRESSURE CAN HAVE SUFFICIENT FORCE TO PENETRATE THE SKIN, CAUSING SERIOUS PERSONAL INJURY.

IF INJURED BY ESCAPING FLUID, OBTAIN MEDICAL ASSISTANCE AT ONCE. SERIOUS INFECTION OR REACTION CAN DEVELOP IF MEDICAL TREATMENT IS NOT ADMINISTERED IMMEDIATELY.

BEFORE DISCONNECTING LINES OR FITTINGS, BE SURE TO RELIEVE ALL PRESSURE. BEFORE APPLYING PRESSURE TO THE SYSTEM, BE SURE ALL CONNECTIONS ARE TIGHT AND THAT LINES, PIPES, AND HOSES ARE NOT DAMAGED.

4. Remove 1/4" NPT plug, B, Figure 1-2, and install a high pressure gauge.

NOTE: The relief valve is set for 3500 PSI (24,133 kPa) and is nonadjustable.

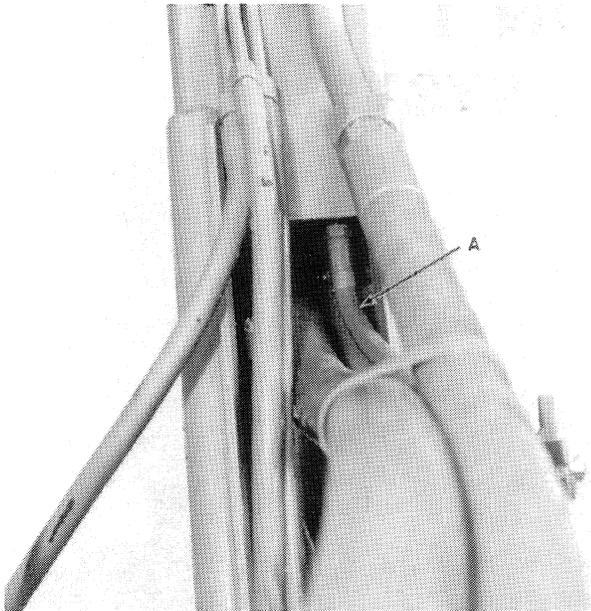


FIGURE 1-3

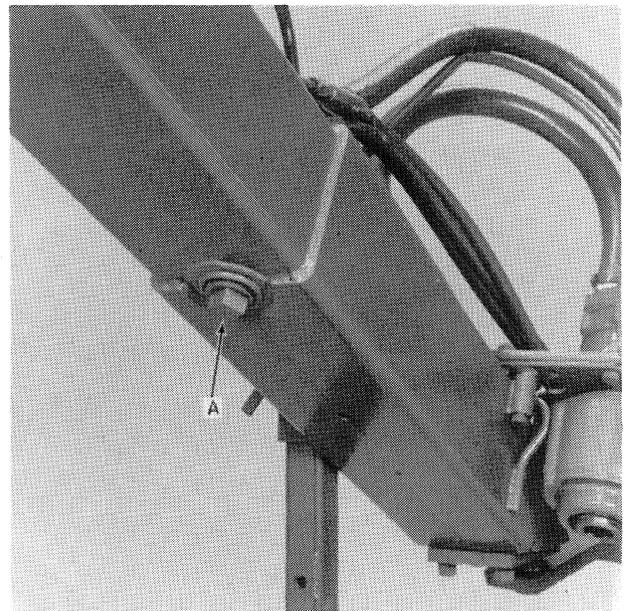


FIGURE 1-4

5. Block the machine by placing a wooden wedge between the rolls.



WARNING: MAKE SURE THE WEDGE IS PROPERLY SECURED BEFORE STARTING THE TRACTOR TO CHECK THE PRESSURE.

Start the tractor and engage the PTO. The pressure should be 3500 PSI (24,133 kPa).

IMPORTANT: Do not bypass oil through the relief valve for any length of time as tremendous heat will build up in the valve. If the pressure is normal, the relief valve is functioning properly and leakage must be checked at the pump and motor.

6. If a flow meter is not available to check case drain oil volume at the pump, oil can be collected in a measurable container. Disconnect the case drain return line, A, Figure 1-3, and install a $\frac{3}{8}$ " pipe plug in tongue.
7. Start the tractor and time a certain volume of oil collected. Normally the flow should be approximately $1\frac{1}{2}$ gallons (5.5 L) per minute. Any amount over 2 gallons (7 L) indicates worn internal pump components and the pump must be rebuilt.

8. If the pump oil volume is normal, check the volume at the motor case return line. Remove the line at C, Figure 1-2. Normal flow should be approximately $1\frac{1}{2}$ gallons (5.5 L) per minute. Any amount over 2 gallons (7 L) indicates worn internal motor components and the motor must be rebuilt.

HYDROSTATIC OIL

The hydrostatic oil must be kept free of dirt, dust, water, rust, etc., or hydrostatic components could be severely damaged. If a catastrophic failure occurs with a pump or motor, the system must be drained.

To drain the oil, lower the front of the tongue as low as possible. Remove drain plug, A, Figure 1-4. Remove the lines from the pump and the motor. Clean the hoses and tubing with air and solvent.

Flush the tongue by spraying solvent under pressure into the rear of the tongue so metal chips, etc., will be moved to the front of the tongue. Clean chips and foreign material from the front of the tongue through the drain port.

Install the pump, motor, hose, tubing and drain plug. Install a new filter and add five gallons (19 L) of hydraulic oil. Refer to the operator's manual for approved oils.

Start the tractor and run it at about $\frac{1}{2}$ throttle to allow full flow through the filter. This procedure will help clean the system if any contamination was left in it.

Drain the oil again and add hydraulic oil to dipstick marking shown at A, Figure 1-5. Make sure the tongue is level when checking the oil. Approximately 25 gallons (94.6 L) of oil are required to fill reservoir to recommended level.

Install a new oil filter after the system has been cleaned and again after the first 50 hours of operation.

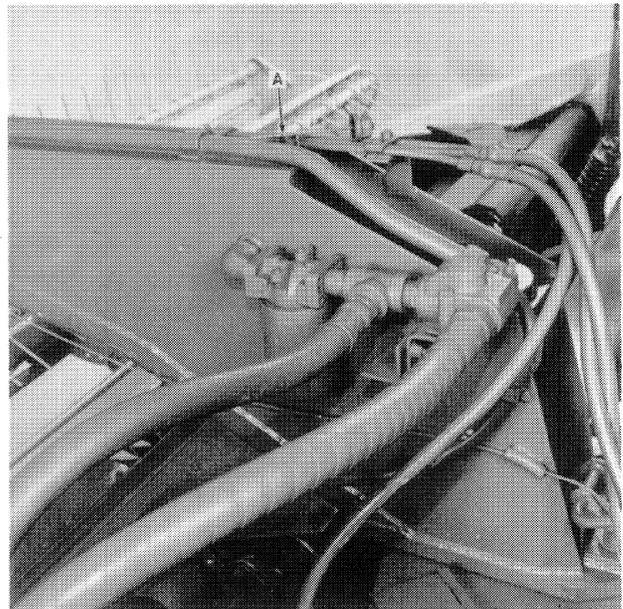


FIGURE 1-5

HYDROSTATIC PUMP AND GEARBOX

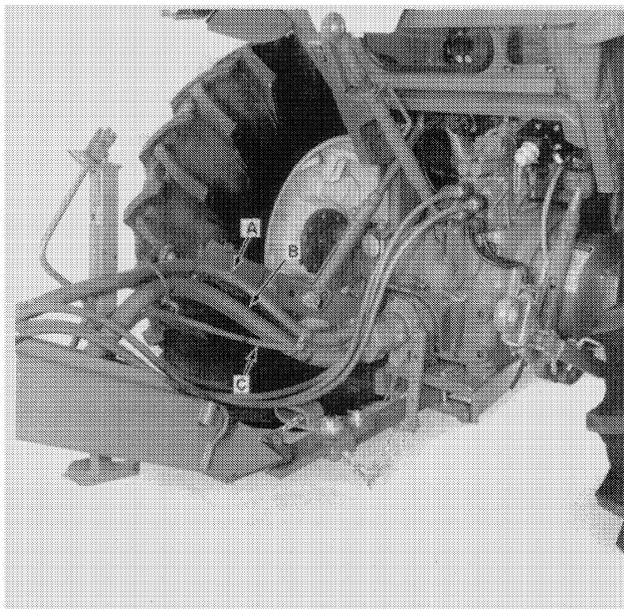


FIGURE 1-6

1. Remove the three hydraulic oil lines, A, B, and C, Figure 1-6.

NOTE: To remove the pump assembly without draining the oil level, the front of the tongue and pump must be raised to a level where the end of suction hose will be higher than the oil level in the tongue when disconnected. If the oil filler cap is



FIGURE 1-7

2. Remove the torque arm and bracket from the pump. The bracket is secured with the two bolts, A, Figure 1-7, that also secure the gearbox to the pump.
on tightly and the tongue is level, approximately 5 gallons (18.9 L) of the 25 gallons (94.6 L) of oil will drain through the suction hose. The pressure line will drain only the volume of the oil in the line.

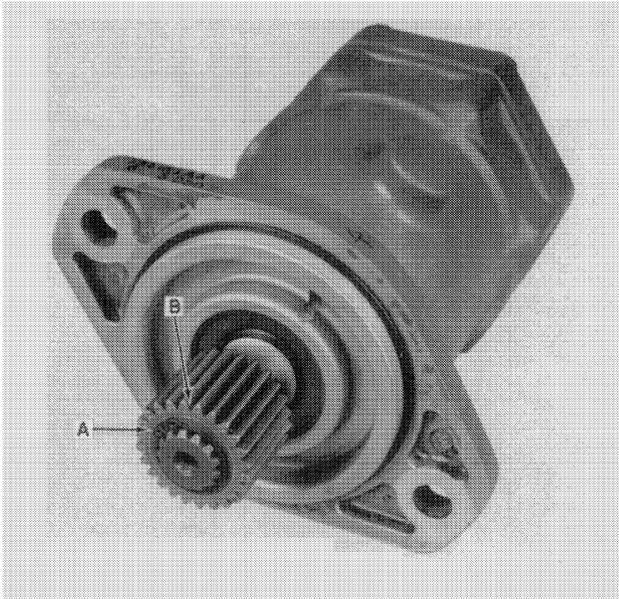


FIGURE 1-8



FIGURE 1-10

PUMP

Disassembly

1. Clean the outside of the pump thoroughly before disassembling.
2. Remove snap ring, A, Figure 1-8, and remove gear, B.
3. Remove the rear snap ring after the gear is removed.
4. Remove the six cap screws to remove back plate, A, Figure 1-9, from housing assembly, B. Use a soft hammer to loosen the back plate and then pull the back plate straight out.
5. Remove O ring, C, Figure 1-9.
6. Remove the complete piston block assembly, A, Figure 1-10, from the housing.
7. Lift the piston plate, pivot, and shoe assemblies, B, Figure 1-11, out of the rotating block. Lay these parts on cardboard to avoid damage to them.
8. Remove cam plate, B, Figure 1-10, and place it on cardboard.

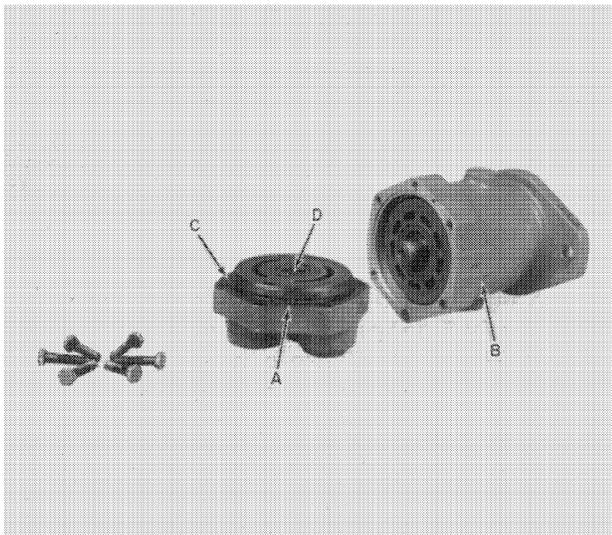


FIGURE 1-9

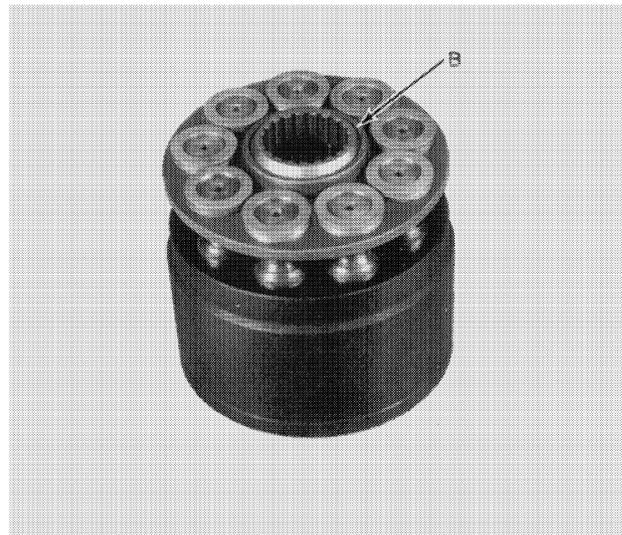


FIGURE 1-11

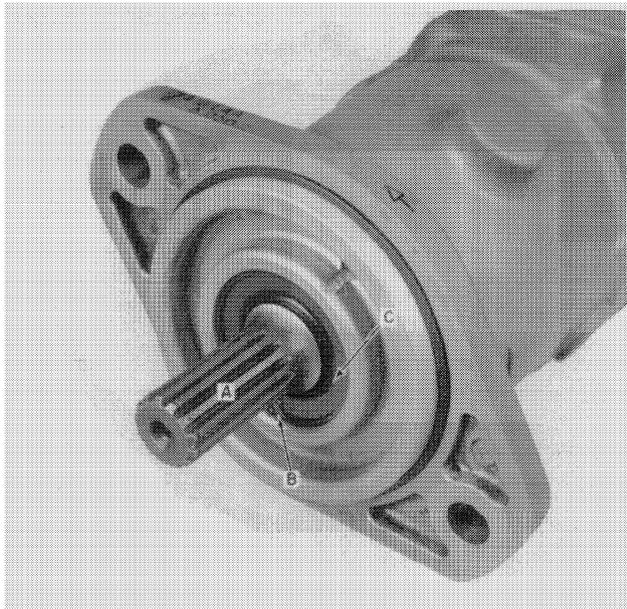


FIGURE 1-12

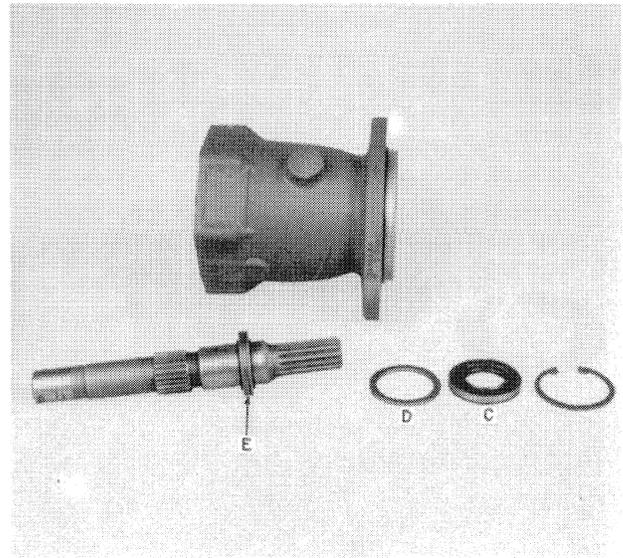


FIGURE 1-13

9. To remove drive shaft, A, Figure 1-12, first remove retaining ring, B.
10. Remove shaft seal, C, Figure 1-13, from the housing. Remove washer, D, and then remove drive shaft from housing.
11. Remove the snap rings, thrust washers, and thrust bearing at E, Figure 1-13.
12. Remove needle bearings, D, Figure 1-9, and A, Figure 1-14, if they show wear or excessive play.

Inspection

1. Wash all the parts thoroughly in a cleaning solvent.
2. Examine all the parts for wear or fretting. The shoe assemblies should be smooth and free of scoring, and fit snugly in the rotating block. The face of the shoes should be flat and free of scoring and flaking. Do not lap shoes.

NOTE: The rotating group is only serviceable as a complete kit. Refer to the Service Parts Catalog.

Assembly

1. Lubricate all the moving parts with STP before assembly.
2. Install the snap rings, thrust bearing, and thrust washers, E, Figure 1-13, on the drive shaft.
3. Install the drive shaft in the housing and install washer, D, Figure 1-13.

4. Lubricate the inside (ID) of the oil seal and install as shown at C, Figure 1-12. Install retaining ring, B.
5. Make sure the pivot and shoe assemblies are installed in the rotating block as shown in Figure 1-11.
6. Lubricate cam plate, B, Figure 1-10, and install in the housing.
7. Install the piston block assembly, A, Figure 1-10, in the housing assembly. The shoe assemblies must contact the cam plate.
8. Install new O ring, C, Figure 1-10, on the back plate.

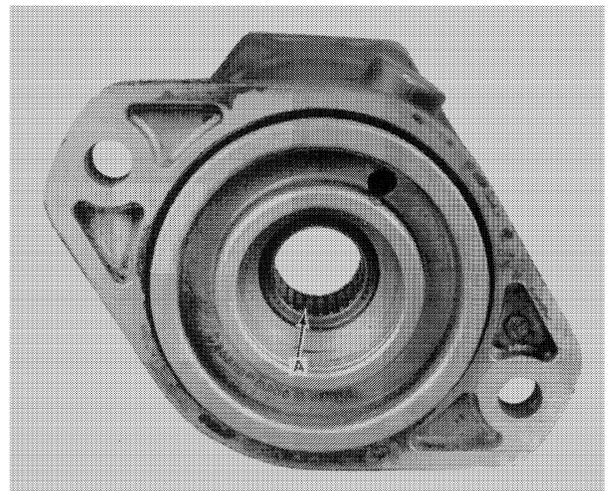


FIGURE 1-14

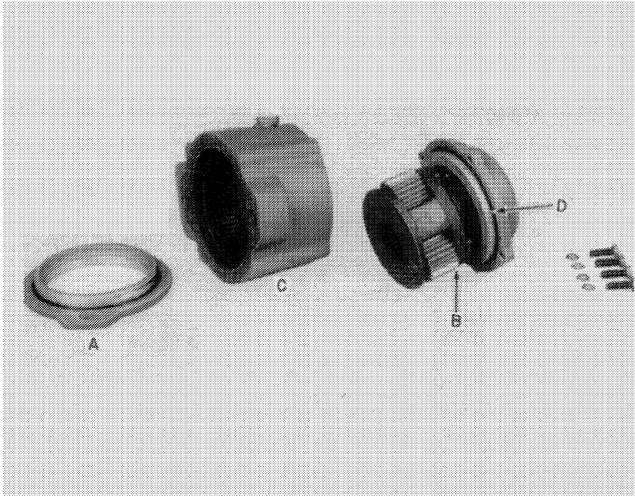


FIGURE 1-15

9. Install back plate, A, Figure 1-9. Align the roll pin in the hole in the housing. Install the cap screws and tighten to 15 ft. lbs.-18 ft. lbs. (20 N·m-24 N·m) torque.
10. Install the rear snap ring and gear, B, Figure 1-8, and front snap ring, A, on the drive shaft.

GEARBOX

Disassembly

1. Remove adapter plate, A, Figure 1-15, from the housing, C. Remove the O ring from the adapter plate.

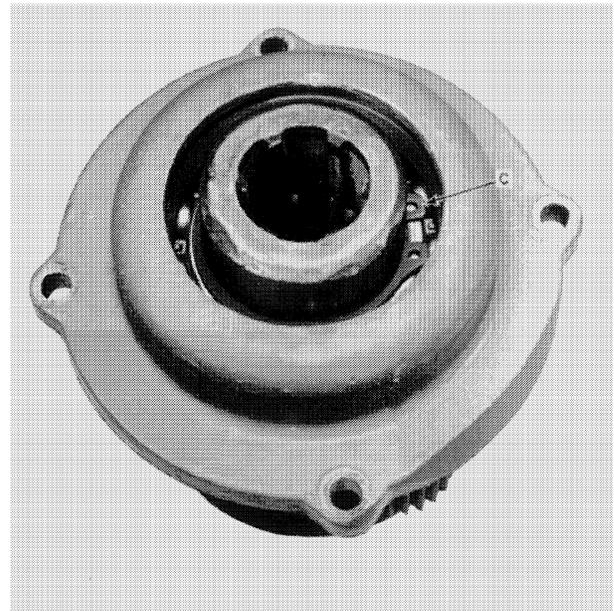


FIGURE 1-17

2. Remove the four cap screws and remove the front plate and planetary gear assembly, B, Figure 1-15, from the housing. Remove the O ring from the front plate.

3. Remove shaft seal, D, Figure 1-16.

NOTE The seal will be damaged and must be replaced.

4. Remove retaining ring, C, Figure 1-17.

5. Remove retaining ring, A, Figure 1-18.

6. Remove the carrier and gear assembly, B, Figure 1-18, from front plate, C. The carrier shaft is a light press fit in bearing, D.

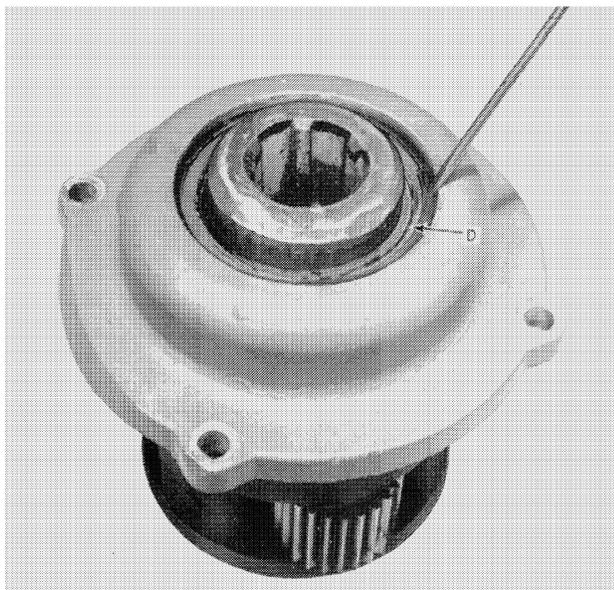


FIGURE 1-16

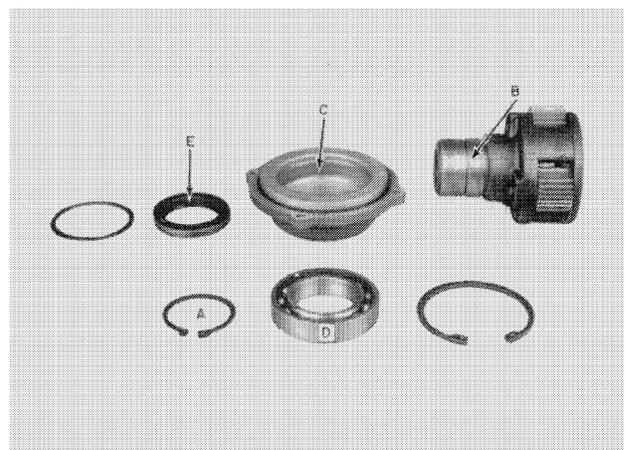


FIGURE 1-18

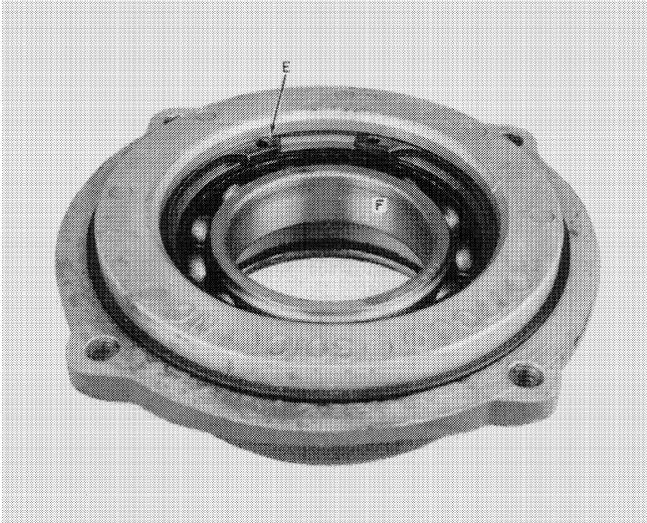


FIGURE 1-19

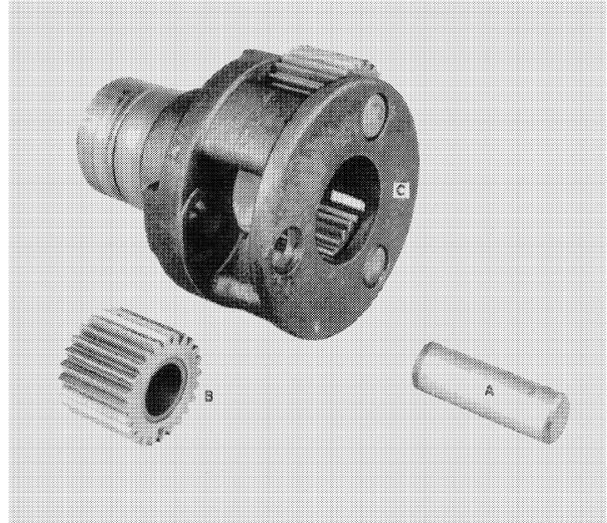


FIGURE 1-20

7. Remove bearing retaining ring, E, Figure 1-19. Remove bearing, F.
8. To remove gears, B, Figure 1-20, press pin shafts, A, from carrier, C.

Inspection

1. Wash all the parts thoroughly in a cleaning solvent.
2. Examine the gear teeth and internal teeth in housing, C, Figure 1-15. The teeth should show no signs of excessive wear. Worn parts must be replaced.
3. If the ID of the gear teeth exceeds 0.755" (20 mm) replace the gears.
4. Inspect the splines inside the carrier for wear. Replace the carrier if the splines are worn.

Assembly

1. Install bearing, F, and retaining ring, E, Figure 1-19, in the front plate.
2. Install the gears in carrier and press pin shafts, A, Figure 1-20, in until they are flush with the carrier.
3. Press carrier assembly, B, through the bearing in the front plate and install retaining ring, C, Figure 1-17.

4. Press shaft seal, E, Figure 1-18, in the front plate and install retaining ring as shown in Figure 1-17.
5. Install a new O ring on the face of the front plate at D, Figure 1-15, and install the assembly into the housing. Secure with four cap screws and washers and tighten to 15 ft. lbs.-18 ft. lbs. (20 N·m-24 N·m) torque.
6. Install a new O ring on the face of adapter plate, A, Figure 1-15, and install on the housing assembly. Secure the plate with two cap screws and tighten to 55 ft. lbs.-60 ft. lbs. (74 N·m-81 N·m) torque.

HYDROSTATIC PUMP AND GEARBOX START-UP

Before running the gearbox and pump on a tractor, fill the gearbox and pump at least half full of hydraulic oil (refer to the operator's manual for the approved oils).

Connect all the lines securely and fill the oil reservoir to the proper level. Start the tractor and run the machine slowly under no load for 10 minutes. Recheck the hoses and oil reservoir level before operating the machine in the field.

HYDROSTATIC MOTOR

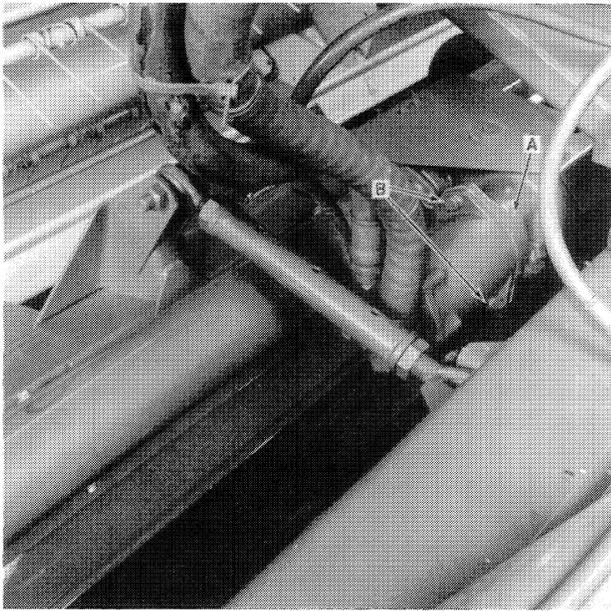


FIGURE 1-21

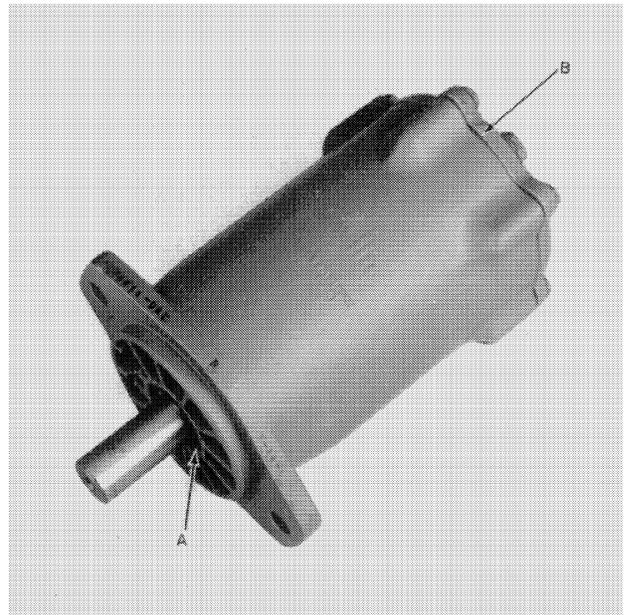


FIGURE 1-22

REMOVAL

Before disconnecting the hoses, be sure the unit is on level ground or setting with the tongue lowered. Raise the frame and secure the safety lock links. The hoses may then be loosened with the only oil loss being the volume of oil in the hoses.

1. Drain the oil from the header drive gearbox, A, Figure 1-21. Be sure to refill the gearbox with oil after reinstalling the motor.
2. Remove the three hoses from the motor. Cap the hoses to keep foreign material from entering the system.
3. Remove the two cap screws at B, and slide the motor out of the gearbox.

DISASSEMBLY

1. Clean the outside of the motor thoroughly before disassembling.
2. Remove the retaining ring from the housing assembly at A, Figure 1-22.
3. Remove the cap screws from back plate assembly, B.

4. Use a soft hammer and tap on bolt hole lugs while rotating housing in either direction to loosen the back plate. Then tap on the underside of the lugs to remove the back plate.
5. Remove O ring, C, Figure 1-23, from the back plate.
6. Remove the thrust washers and thrust bearing, D, Figure 1-23, from the back plate.

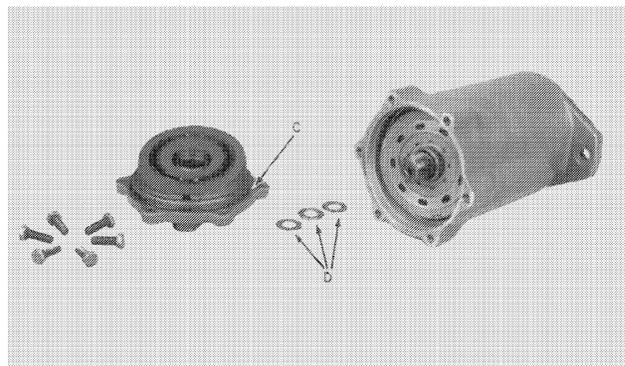


FIGURE 1-23

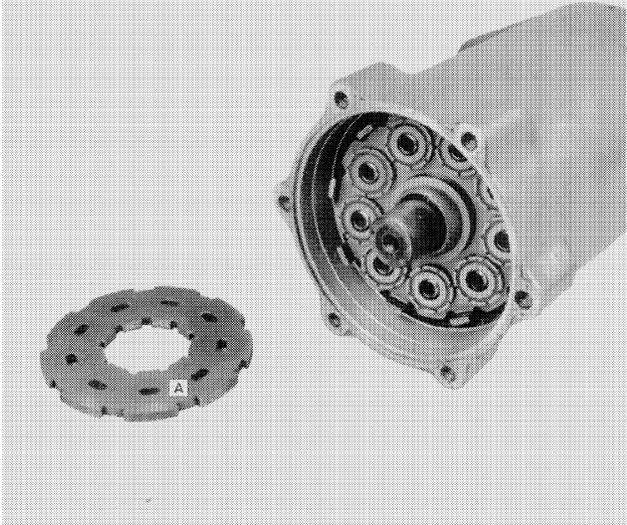


FIGURE 1-24

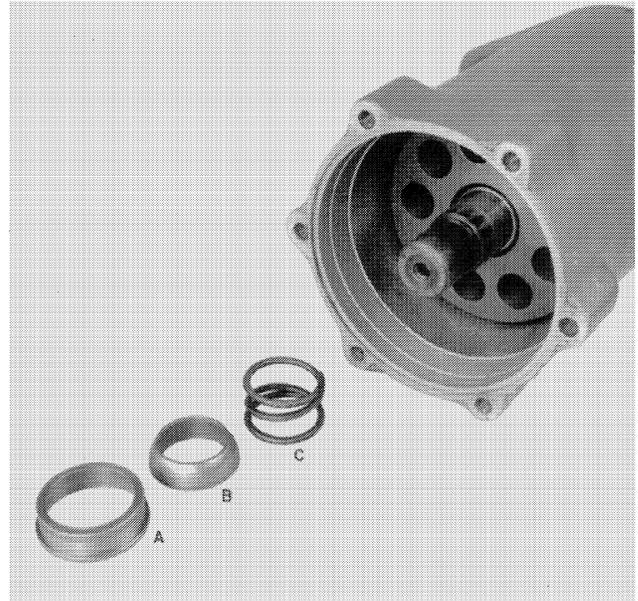


FIGURE 1-26

7. Remove connector plate, A, Figure 1-24.
8. Remove pistons and spider, B, Figure 1-25.

9. Remove pilot, A; pivot, B; and spring, C, Figure 1-26.
10. Remove the complete piston block and shaft assembly, C, Figure 1-27.

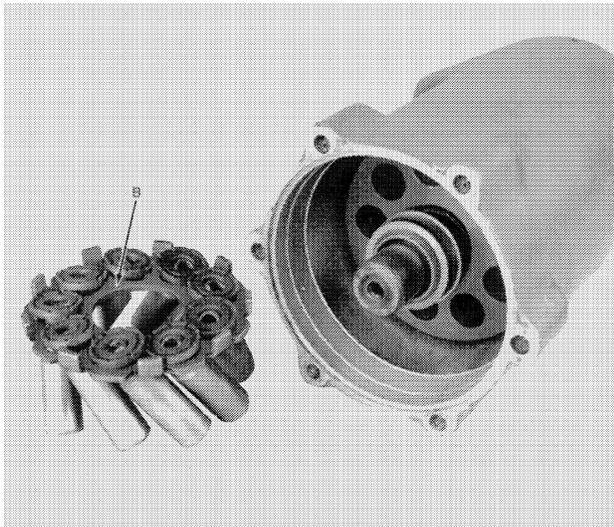


FIGURE 1-25



FIGURE 1-27

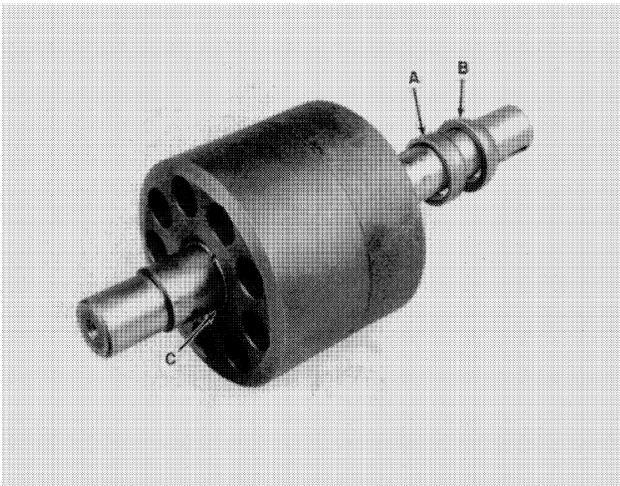


FIGURE 1-28

11. Remove the pistons from the block as shown in Figure 1-28. Remove pivot, B, and spacer, A, from the shaft. Remove the piston block and key from the shaft. Remove retaining ring, C.
12. Remove piston race assembly, A; thrust bearing, B; and thrust washer, C, Figure 1-29. Remove retaining ring, D, and seal, E, from the housing.

INSPECTION

1. Wash all the parts thoroughly in a cleaning solvent.
2. Examine the needle bearings in the housing. If the needles do not have excessive play and remain in the bearing cage, there is no need to replace the bearings.
3. Inspect all the components for wear or scoring marks. Replace all questionable parts as required.

ASSEMBLY

1. Install snap ring, C, Figure 1-28, on the shaft if it was removed and install key, F, Figure 1-29.
2. Slide piston block, G, Figure 1-29, on the shaft with the bore chamfer toward the snap ring.
3. Lubricate the pistons and install them in the piston block as shown in Figure 1-27.

NOTE: The pointed ends of the pistons are pointed outward toward the long end of the shaft.

4. Slide spacer, A, and pivot, B, Figure 1-28, on the shaft.

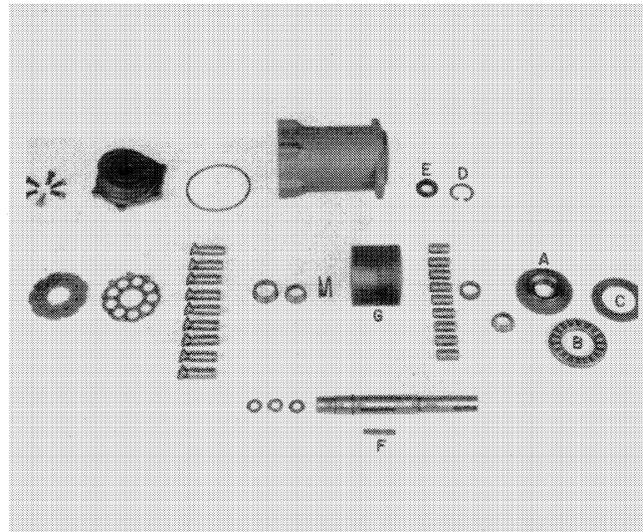


FIGURE 1-29

5. Position the housing with the open end up. Lubricate thrust washer, C, Figure 1-29, and install in the housing.
6. Slide piston race assembly, A, and thrust bearing, B, Figure 1-29, on the shaft.
7. Lay the housing on its side and insert the lubricated shaft and piston block assembly in the housing. Make sure all the parts are properly aligned and seated.
8. Place the splined end of the shaft in a protected jaw vise with the open end of the housing up. Let the shaft hang through the housing to keep the parts in position.
9. Place spring, C, Figure 1-26, over the shaft. Lubricate and assemble the pistons in the spider as shown in Figure 1-25. Assemble pivot, B, and spacer, A, Figure 1-26, and piston assembly into the piston block as shown in Figure 1-24.
10. Lubricate the shoes of the pistons and lay the flat part of connector plate, A, Figure 1-24, over the pistons.
11. Install a new O ring, C, Figure 1-23, on the back plate. Lay the thrust washers and thrust bearing, D, on the end of the shaft. Install the back plate and rotate the back plate until all the bolt holes are properly aligned. Install the bolts and tighten to 15 ft. lbs.-18 ft. lbs. (20 N·m-24 N·m) torque.
12. Remove the assembly from the vise and install new shaft seal, E, Figure 1-29. Install retaining ring, D.

SECTION 2

HYDRAULIC CYLINDERS

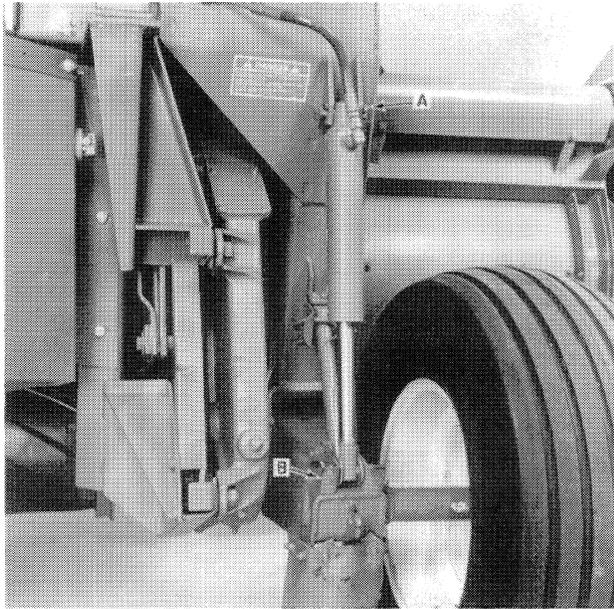


FIGURE 2-1

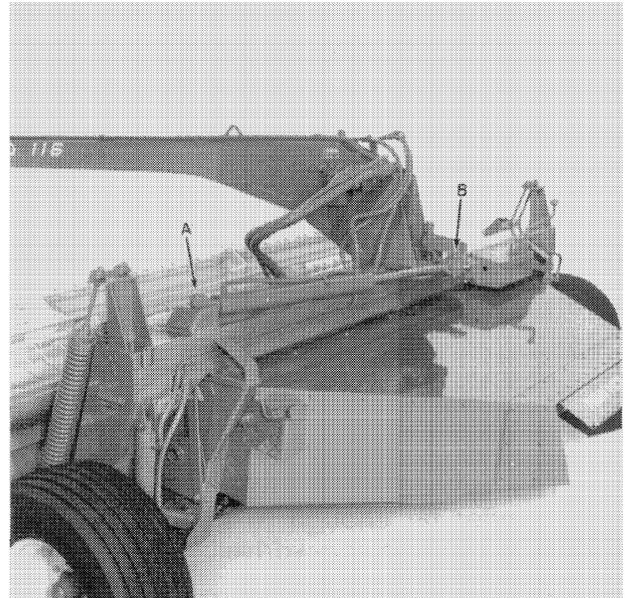


FIGURE 2-2

Three different cylinders are used on the Model 116. The tongue swing cylinder is a double-acting cylinder. The right lift cylinder is a master cylinder that supplies oil to the left lift cylinder. The left cylinder operates as a slave cylinder.



WARNING: BEFORE ATTEMPTING TO REMOVE THE LIFT CYLINDERS:

1. RAISE THE HEADER WITH THE TRACTOR HYDRAULICS.
2. ENGAGE THE STOP LINKS IN THE LOCKED POSITION. LOWER THE HEADER SO THE WEIGHT IS CARRIED ON THE STOP LINKS.

Remove the hoses at the cylinder ports to remove any of the three cylinders.

Remove pins, A and B, Figure 2-1, to remove the lift cylinder.

NOTE: The right side is shown. The left side is similar.

Remove pins, A and B, Figure 2-2, to remove the swing cylinder.

MASTER CYLINDER

Disassembly

1. Remove setscrew, A, Figure 2-3.

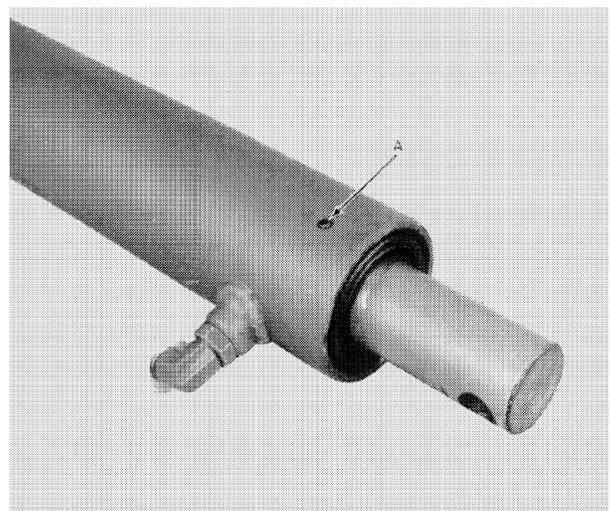


FIGURE 2-3

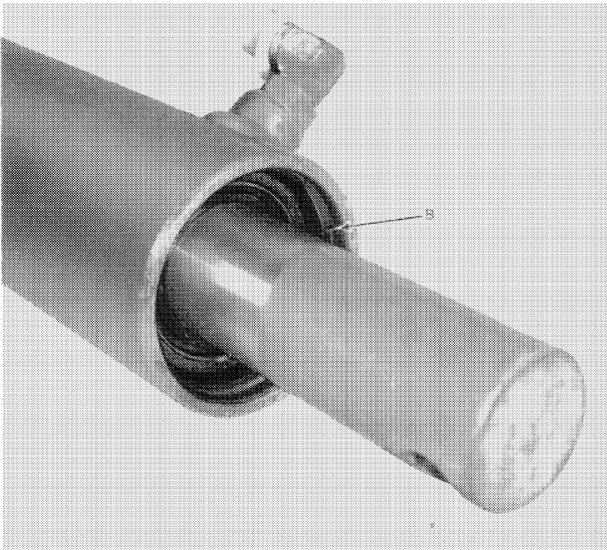


FIGURE 2-4

2. Tap cylinder head, Figure 2-4, into the cylinder far enough to remove retaining ring, B, with a screwdriver.

3. Pull the complete piston rod assembly out of the barrel.

NOTE: The O rings and seals should be replaced.

4. Remove rod nut, E, Figure 2-5, and remove piston, I, and cylinder head, H.

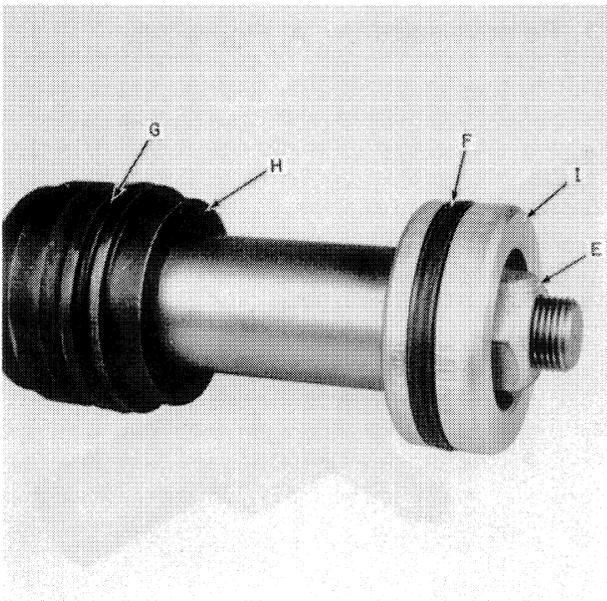


FIGURE 2-5

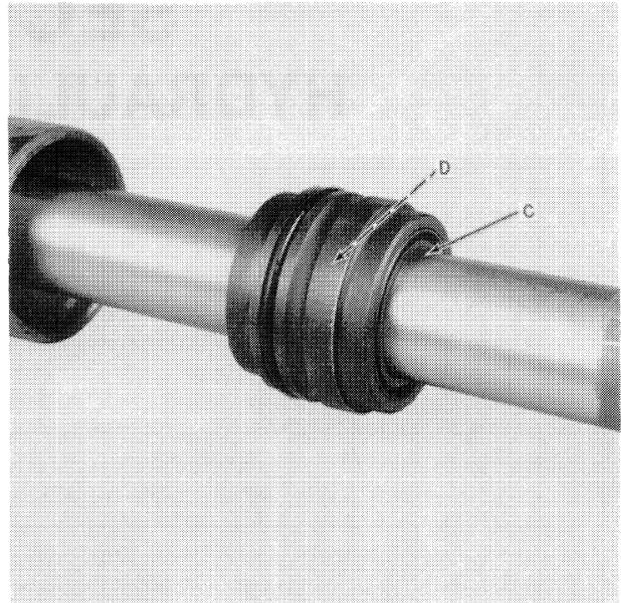


FIGURE 2-6

Inspection

1. Examine the parts for wear or nicks. Remove any burrs inside the cylinder.
2. Remove all seals and O rings, carefully noting the lip position on the seals.

Assembly

1. Lubricate all the seals, O rings, and sliding surfaces before assembly.
2. Install a new seal inside cylinder head, D, Figure 2-6. Install seal, C. Slide the cylinder head assembly over the piston rod.
3. Install piston, I, Figure 2-5, and locknut, E. Tighten the locknut to 155 ft. lbs. (210 N·m) torque.
4. Install O ring, G, and seal, F, Figure 2-5.
5. Insert the complete piston rod assembly into the barrel and install retaining ring, B, Figure 2-4.
6. Install setscrew, A, Figure 2-3, aligning it with the groove in cylinder head, H, Figure 2-5.

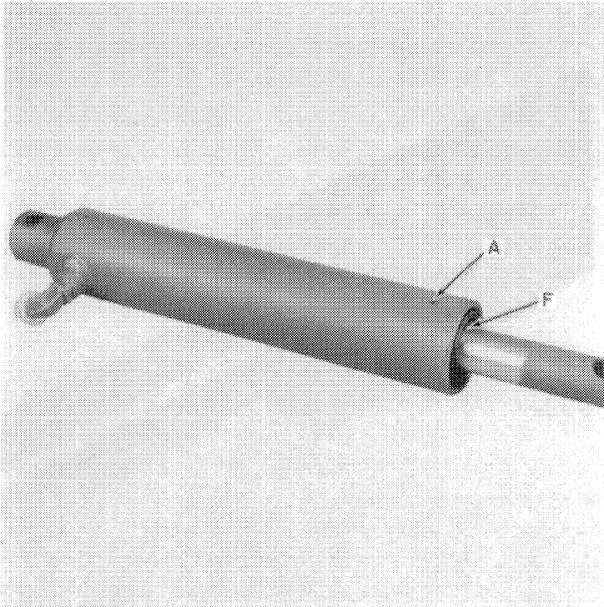


FIGURE 2-7

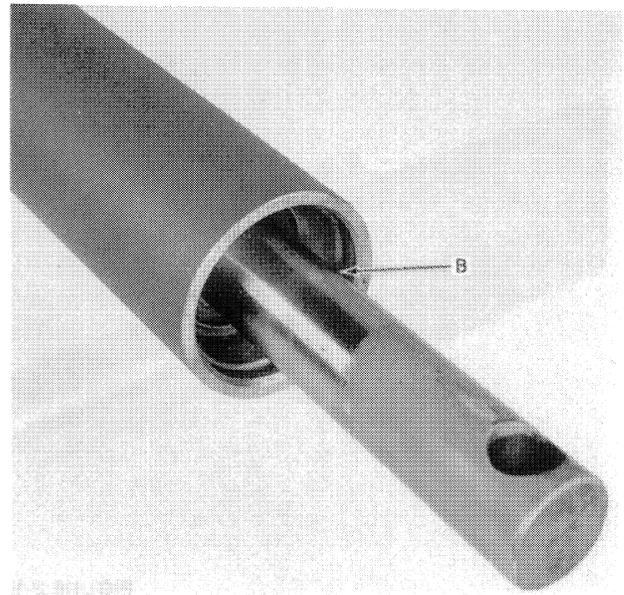


FIGURE 2-8

SLAVE CYLINDER

Disassembly

1. Remove setscrew, A, Figure 2-7.
2. Tap cylinder head, F, Figure 2-7, into the cylinder far enough to remove retaining ring, B, Figure 2-8.
3. Pull the complete cylinder rod assembly out of the barrel.
4. Remove rod nut, C, Figure 2-9, piston, D, and the cylinder head.

Inspection

1. Examine the parts for wear or nicks. Remove any burrs inside the cylinder.
2. Remove all the seals, carefully noting the lip position on the seals.

Assembly

1. Lubricate all the seals and sliding surfaces before assembly.
2. Install a new seal in cylinder head, G, Figure 2-9. Slide the cylinder head assembly over the piston rod.

3. Install a new seal, E, Figure 2-9, on the piston. Install the piston and locknut, C. Tighten the locknut to 155 ft. lbs. (210 N·m) torque.
4. Insert the complete piston rod assembly into the barrel and install retaining ring, B, Figure 2-8.
5. Install setscrew, A, Figure 2-7, aligning it with the groove in cylinder head, F.

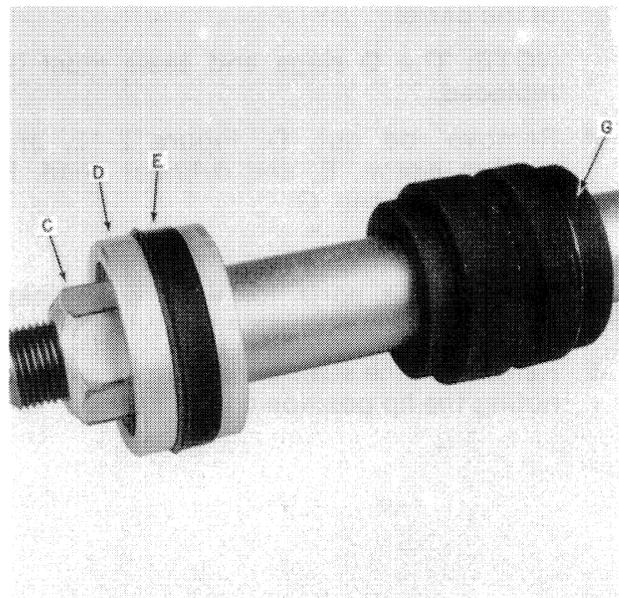


FIGURE 2-9

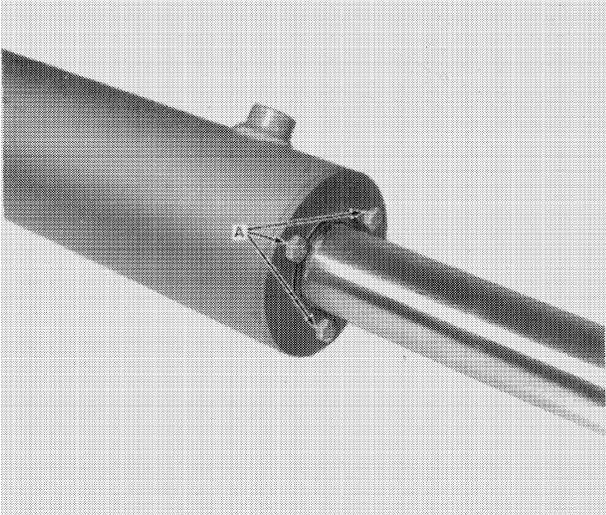


FIGURE 2-10

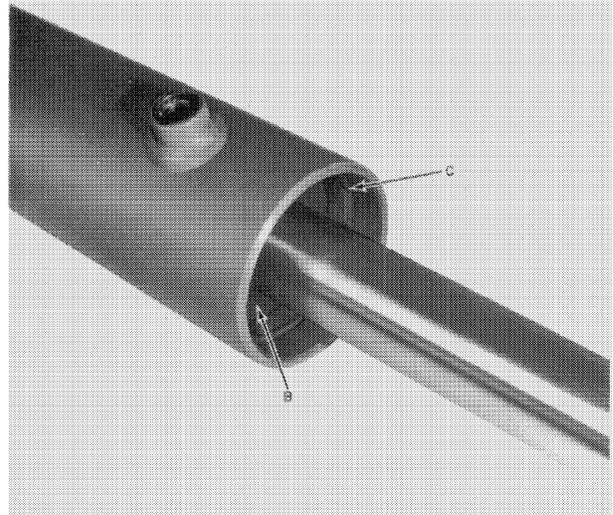


FIGURE 2-11

SWING CYLINDER

Disassembly

1. Remove three cap screws, A, Figure 2-10, and remove the end cap. Drain oil from the cylinder.
2. Tap cylinder head, B, Figure 2-11, into the cylinder far enough to remove retaining ring, C, with a screwdriver.
3. Pull the complete piston rod assembly out of the barrel.

NOTE: The O rings and seals must be replaced.

4. Remove rod nut, D, Figure 2-12, and remove piston, E, and cylinder head, F. Remove end cap, G.

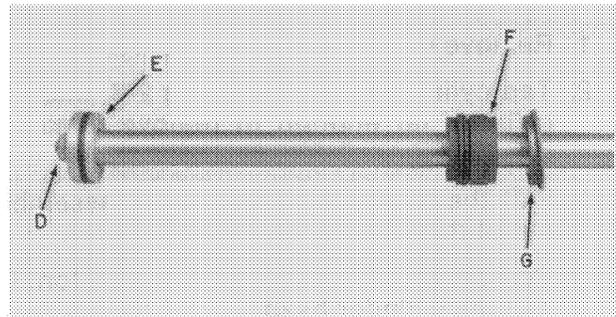


FIGURE 2-12

Inspection

1. Examine the parts for wear and nicks. Remove any burrs inside the cylinders.
2. Remove all the seals and O rings, carefully noting the lip position on the seals.

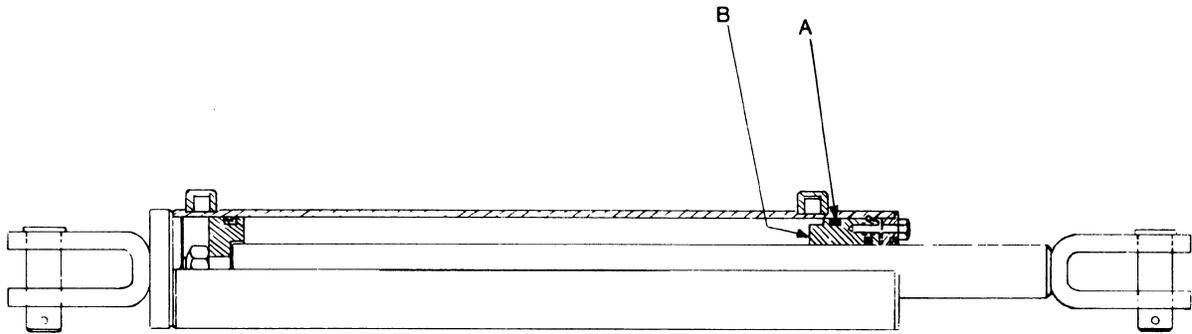


FIGURE 2-13

Assembly

1. Lubricate all the seals, O rings, and sliding surfaces before assembly.

NOTE: Two different size seals, A, Figure 2-13, are included in the seal kit for either style cylinder head, B.

2. Install the cap, cylinder head, and piston as shown in Figure 2-12. Tighten rod nut, D, to 250 ft. lbs. (339 N·m) torque.
3. Insert the complete piston rod assembly into the barrel and install retaining ring, C, Figure 2-11.
4. Install the end cap and tighten the cap screws to 8 ft. lbs. (11 N·m) torque.
5. Install the cylinder on the machine and tighten the hoses securely.

SECTION 3

GEARBOXES

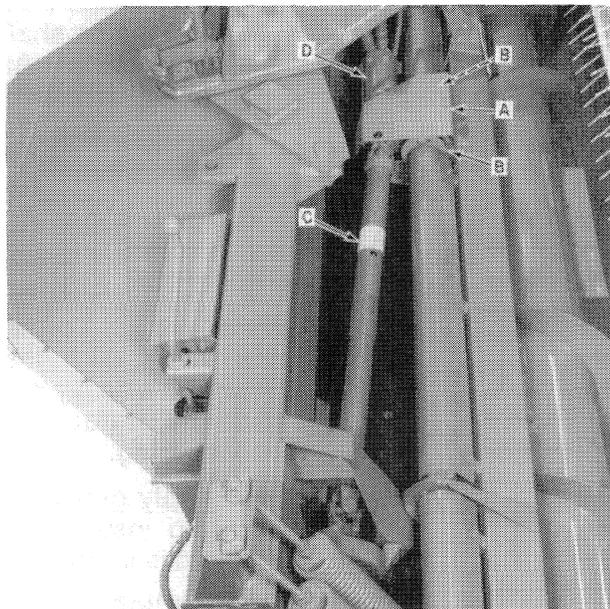


FIGURE 3-1

HEADER DRIVE GEARBOX

Removal

1. Drain the oil from the gearbox.
2. Remove shield, A, Figure 3-1.
3. Remove the three carriage bolts from each knife drive coupling, B. Be careful not to lose the flat washers between the shaft coupling and the gearbox coupling.
4. Remove the conditioner drive PTO, C.
5. Remove the two cap screws and hydrostatic motor, D. Do not disconnect the hoses. Secure the motor to the frame so it cannot be damaged.
6. Remove the four mounting cap screws and remove the gearbox.



CAUTION: USE CARE, THE GEARBOX IS HEAVY.