

OPERATOR'S MANUAL

W252 PTO PUMP AND RESERVOIR KIT FOR 6-1/2 FOOT BACKHOES FOR TRACTORS WITH 540 RPM PTO SHAFT OR 1000 RPM (1-3/8" - 6 tooth spline) PTO SHAFT

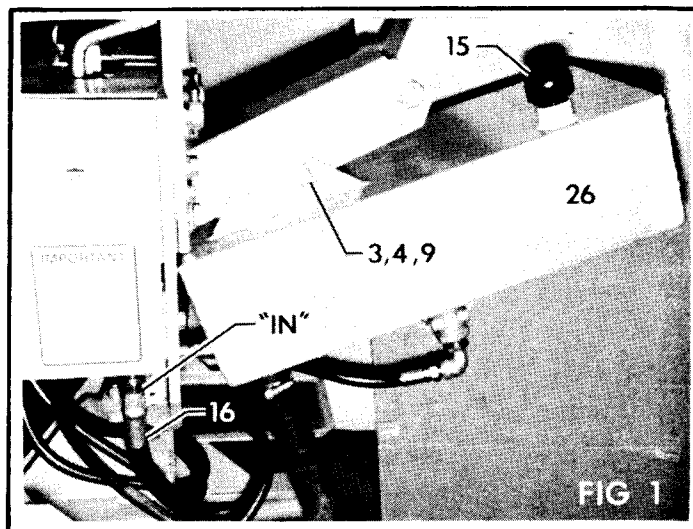
General Description

The W252 PTO Pump Kit consists of those parts required to power the 6-1/2 Foot Backhoe from the tractor's PTO shaft. It includes the PTO pump and adapter, reservoir, filtration system, hydraulic hoses, and fittings. In addition it includes a pump torque arm which attaches to the tractor's lower link and keeps the pump from turning with the PTO shaft.

NOTE - The speed of backhoe operation increases as PTO speed increases. When using a 1000 RPM PTO, engine speed must be reduced to obtain acceptable backhoe operating speed.

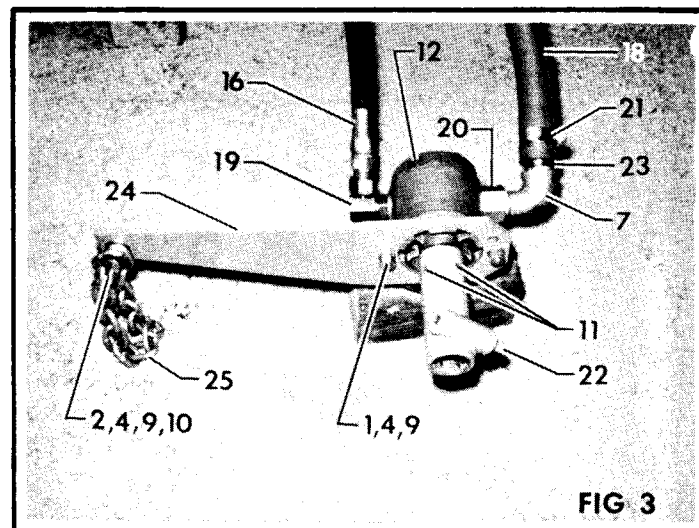
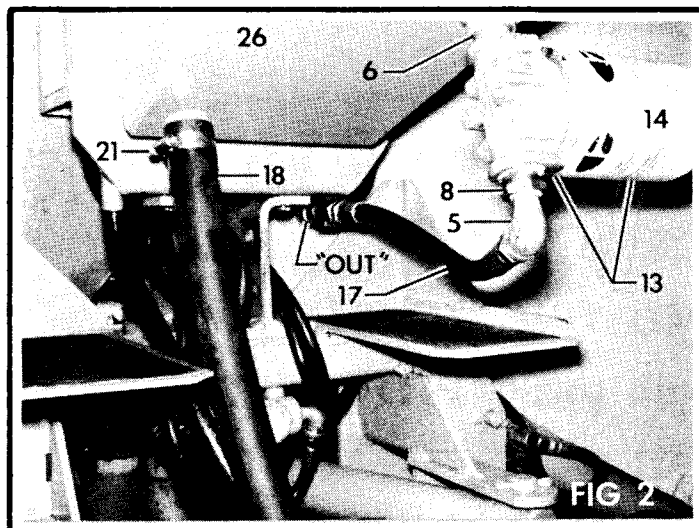
Assembly

NOTE - When installing hoses and fittings always use thread sealant in permanent connections. Do not use thread sealant in union ends of adapters. Do not over-tighten fittings, they can split or expand causing leakage.



IMPORTANT - Tighten all hardware to the torque requirements specified in the Torque Chart, Page 3, of this manual.

1. Assemble reservoir (26) to backhoe using 3/8 NC x 6" bolts, nuts, and lock-washers (3,4,9) as shown in Fig 1.



2. Assemble suction hose (18) to reservoir (26) using hose clamp (21), as shown in Fig 2.

3. Assemble filter base and element (13) to reservoir (26), using close nipple (6), as shown in Fig 2.

NOTE - Change filter element (14) every time oil is changed.

4. Assemble pump plate (24) to pump (12), using hardware provided (1,4,9), as shown in Fig 3. Pump plate may have to be re-adjusted later.

5. Slide PTO adapter (22) onto pump shaft allowing 1/8 inch between adapter and pump face and secure with two setscrews (11), as shown in Fig 3.

6. Assemble suction hose (18) to pump (12) using pipe adapter (20), street elbow (7), hose nipple (23), and hose clamp (21), as shown in Fig 3.

7. Connect pressure line between valve "in" port fitting and pump using adapter union (19), and hose (16), as shown in Fig 1 and 3.

8. Assemble return line (17) between filter base (13) and valve "out" port fitting, using street elbow (5), and pipe bushing (8), as shown in Fig 2.

IMPORTANT - If hoses are hooked up incorrectly, serious damage to the backhoe valve will result.

9. Fill reservoir with recommended fluid to correct level, referring to Service Section in the Backhoe Manual. Attach breather filters (15, 27) to top of reservoir.

10. Mount the backhoe to the tractor at this time following the procedure in the Attaching Kit Manual.

11. Slide complete pump assembly onto the PTO shaft and secure with lock pin on PTO adapter. Be sure kinks do not develop in any of the lines. Suction hose can be shortened to prevent this problem.

⚠ CAUTION - Do not remove the tractor PTO guard.

12. Attach pump plate (24) to tractor's lower link using hook-up chain (25), and hardware (2,4,9,10) provided, as shown in Fig 3. Pump plate (24) may be adjusted on pump (12) for proper fit-up to lower link if necessary.

IMPORTANT - When mounting backhoe on the adapter, do not let the swing cylinders interfere with the backhoe pump, or the hydraulic lines become tangled in any part of the adapter during installation.




Parts List

| Index | Description | Part No. | Index | Description | Part No. |
|-------|--|----------|-------|---|----------|
| 1 | Bolt, 3/8 NC x 1-1/4..... | 6857 | 15 | Breather, 3/4 NPT..... | 10385 |
| 2 | Bolt, 3/8 NC x 2"..... | 6872 | 16 | Hydraulic Hose, 3/8 NPT x 3/8 NPT x 36"..... | 10917 |
| 3 | Bolt, 3/8 NC x 6"..... | 6907 | 17 | Hydraulic Hose, 3/8 NPT x 3/8 NPT x 13"..... | 10948 |
| 4 | Nut, 3/8 NC..... | 7451 | 18 | Suction Hose, 1" ID x 36"... | 11026 |
| 5 | Street Elbow, 3/8 NPT x 90°.. | 7861 | 19 | Adapter Union, 7/8-14 M x 3/8 NPT x 90°..... | 11141 |
| 6 | Close Nipple, 3/4 NPT..... | 7948 | 20 | Pipe Adapter, 1-3/16-12 M x 3/4 NPT..... | 11237 |
| 7 | Street Elbow, 3/4 NPT x 90°.. | 7975 | 21 | Hose Clamp..... | 14150 |
| 8 | Pipe Bushing, 3/4 NPT M x 3/8 NPT F..... | 7984 | 22 | PTO Adapter..... | 15046 |
| 9 | Lockwasher, 3/8..... | 8079 | 23 | Hose Nipple..... | 780833 |
| 10 | Flat Washer, 3/8..... | 8156 | 24 | Pump Plate..... | 850697 |
| 11 | Setscrew, 5/16 NC x 3/8 cup point..... | 8321 | 25 | Hook-up Chain..... | 851834 |
| 12 | Hydraulic Pump (see page 4 for breakdown).. | 10173 | 26 | Reservoir..... | 856700 |
| 13 | Filter Base and Element..... | 10375 | 27 | Breather, 1/2 NPT..... | 10366 |
| 14 | Filter Element Only..... | 10376 | | | |

TORQUE VALUES

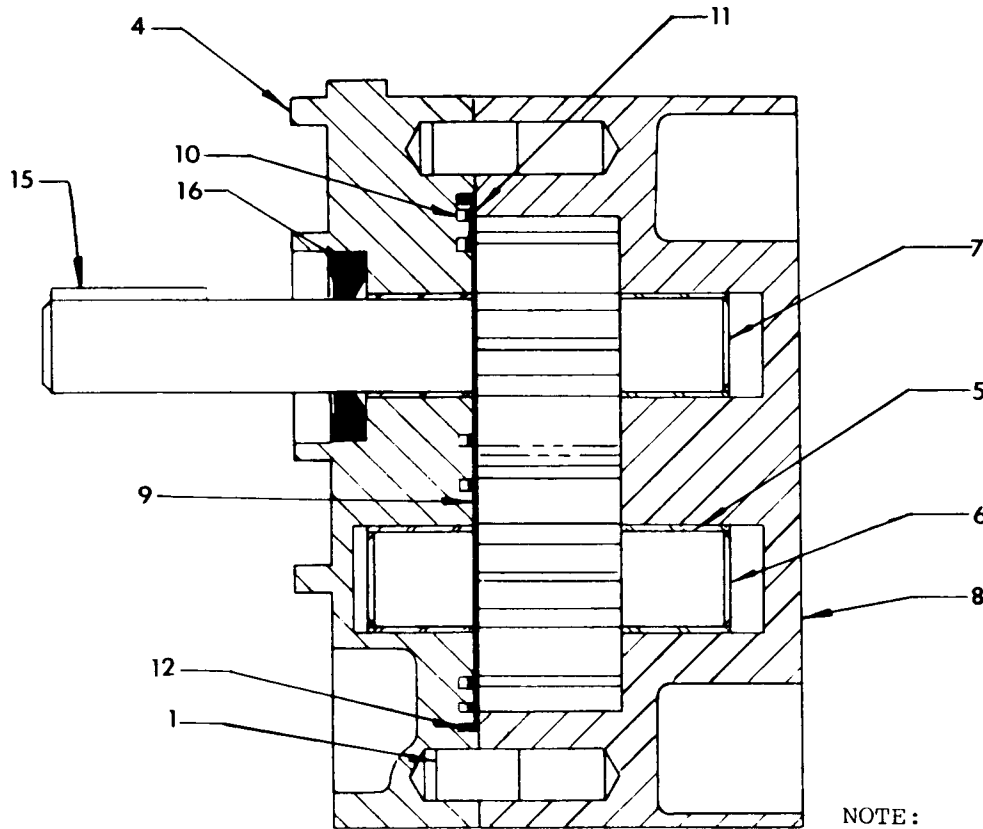
Common bolts and nuts.

Tightening Torque \pm 20%

| SIZE | GRADE 2  | GRADE 5  | GRADE 8  |
|------------|---|---|---|
| 1/4-20 NC | 70 in lb | 115 in lb | 165 in lb |
| 1/4-28 NF | 85 in lb | 140 in lb | 200 in lb |
| 5/16-18 NC | 150 in lb | 250 in lb | 350 in lb |
| 5/16-24 NF | 165 in lb | 270 in lb | 30 ft lb |
| 3/8-16 NC | 260 in lb | 35 ft lb | 50 ft lb |
| 3/8-24 NF | 300 in lb | 40 ft lb | 60 ft lb |
| 7/16-14 NC | 35 ft lb | 55 ft lb | 80 ft lb |
| 7/16-20 NF | 45 ft lb | 75 ft lb | 105 ft lb |
| 1/2-13 NC | 50 ft lb | 80 ft lb | 115 ft lb |
| 1/2-20 NF | 70 ft lb | 105 ft lb | 165 ft lb |
| 9/16-12 NC | 75 ft lb | 125 ft lb | 175 ft lb |
| 9/16-18 NF | 100 ft lb | 165 ft lb | 230 ft lb |
| 5/8-11 NC | 110 ft lb | 180 ft lb | 260 ft lb |
| 5/8-18 NF | 140 ft lb | 230 ft lb | 330 ft lb |
| 3/4-10 NC | 150 ft lb | 245 ft lb | 350 ft lb |
| 3/4-16 NF | 200 ft lb | 325 ft lb | 470 ft lb |

NOTE - See tractor instruction manual or your tractor dealer for tightening of metric bolts.

Webster Pump No. 10173



NOTE:

Bolt #2 - torque to 360-380 in lb

Bolt #3 - torque to 190-210 in lb

Parts List

| Index | Part No. | Description | Quantity Per Pump |
|-------|----------|--|-------------------|
| 1 | * | Dowel Pin..... | 2 |
| 2 | * | Socket Head Screw, 3/8-16 x 1-1/2..... | 4 |
| 3 | * | Socket Head Screw, 5/16-18 x 1-1/4..... | 4 |
| 4 | * | Body Assembly, with Bearings and Seal..... | 1 |
| 5 | * | Bearing..... | 4 |
| 6 | * | Idler Shaft/Gear Assembly..... | 1 |
| 7 | * | Drive Shaft/Gear Assembly..... | 1 |
| 8 | * | Cover Assembly, with Bearings..... | 1 |
| 9 | ** | Wear Plate..... | 1 |
| 10 | ** | Pre-Load Seal (Rubber)..... | 1 |
| 11 | ** | Load Seal..... | 1 |
| 12 | ** | Sealing Ring..... | 1 |
| 13 | ** | Washer, 3/8..... | 4 |
| 14 | ** | Washer, 5/16..... | 4 |
| 15 | ** | Key..... | 1 |
| 16 | 10191 | Seal and Retaining Ring..... | 1 |
| | 10192 | Pump Seal Kit, consisting of: #9 Wear Plate (1), #10 Pre-Load Seal (1), #11 Load Seal (1), #12 Sealing Ring (1), #13 Washers (4), #14 Washers (4), #15 Key (1), and #16 Seal and Retaining Ring (1)..... | 1 |

* Not available as a separate repair part.

** Not available as a separate repair part, order Pump Seal Kit.