P300
HYDRAULIC PUMP KIT
Accessory Installation Instructions


Do not attempt to start or operate the equipment without thoroughly reviewing this manual for safe and proper operation.

Keep this manual with the machine at all times
SAFETY ALERT SYMBOL

Why is SAFETY important to you?

3 Big Reasons
Accidents Disable and Kill
Accidents Cost
Accidents Can Be Avoided

SIGNAL WORDS:

DANGER - Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations typically for machine components which, for functional purposes, cannot be guarded.

WARNING - Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

CAUTION - Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTICE - Indicates a situation that could result in damage to the machine or other property.

Safety Signs
1. Keep safety signs clean and legible at all times.
2. Replace safety signs that are missing or have become illegible.
3. Safety signs are available from your authorized Distributor or Dealer Parts Department or the factory.

Caution: this product is designed to work at optimum efficiency with a maximum PTO speed of 540 rpm. Poor performance or damage to the system will result if 540 rpm is not maintained.

Notice: When adding or replacing fluid, replace with Dexron III for maximum performance and reliability. See maintenance section for detailed information.

Caution: fluid under pressure, do not check for leaks with your hand or fingers when the system is pressurized. Serious injury will result. Concealed hydraulic connection: use caution when removing panels or guards.
Accessory Installation Instructions
P300 HYDRAULIC PUMP KIT

Always wear the appropriate safety gear when installing this kit or working around the machine. This includes but is not limited to:
- Hard hat for protection to the head.
- Safety glasses protection for the eyes.
- Gloves for hand protection.
- Safety shoes with slip resistant soles and steel toes.

Caution: This kit is constructed of heavy gauge steel. Use caution moving and installing the kit. Avoid dropping or pinching body parts on corners and edges of the kit.

A Wallenstein PTO Hydraulic Pump Kit is required when mounting a Wallenstein wood processor on a tractor which has no or limited hydraulics and will provide a 15 gpm (57 Lpm) flow sufficient to power the processor.

The PTO kits consists of a PTO mounted gearbox with hydraulic pump, hydraulic tank with return hose and fittings and hardware.

P300 Hydraulic Pump Kit:
- 15 gpm (57 Lpm)
- 7 US gal (27 L) hydraulic tank

P300 Hydraulic Pump Kit installs in the same way for all WP 3 point hitch models. Installation and setup instructions apply to all models unless specified. Please read this manual thoroughly.

The PTO Hydraulic Pump Kit comes partially assembled. Illustrations show typical assembly. This assembly procedure is one time only. Once assembled only regular maintenance and minor adjustments are required.

Tighten all hardware using the “Bolt Torque” table at the back of this manual unless otherwise specified.

Tighten all hydraulic connections using the “Hydraulic Fitting Torque” table at the back of this manual unless otherwise specified.

The P300 kit comes partially assembled, you will need ATF fluid and tools to complete the installation.

Before you start, you'll need:
- 11 oz (325 cc) of 85W-140 gear oil.
- 7 gal (27 L) of Dexron III ATF fluid
- Thread Sealant

If you have any questions not answered in this manual or require additional copies or the manual is damaged, please contact your dealer or EMB Mfg, 4144 Boomer Line, St. Clements, ON, N0B 2M0. Phone (519) 699-9283 or Fax (519) 699-4146.
Preparation Instructions:

⚠️ Ensure the Backhoe and the area around it is clean and free of debris, resting on dry level ground, and detached from the tractor. Leave enough working space between the tractor and backhoe.

⚠️ To avoid contaminating the gearbox and fluid, ensure the work area around the gearbox is clean and free of dirt and debris.

Pump Drive Gearbox

Preparation:

- The Gearbox is shipped without gear oil.
- Add gear oil before using the equipment.

1. Carefully unscrew the vent cap at the top of the gear box, and set aside.
2. Add the 85W-140 gear oil: up to 11 oz. (325 cc) or until the level reaches the top of the site glass.
3. Replace the vent cap.

Clean up any spills, and the gearbox is ready.

Gearbox Maintenance:

- First oil change is recommended at 60 to 80 hours.
- Regular oil changes thereafter at 1500 hours minimum.

1. Carefully remove the drain plug at the bottom of the gear box, and set aside.
2. Drain the old fluid into a container.
3. Dispose of the fluid in a environmentally responsible fashion.
4. Carefully remove the vent plug at the top of the gear box, and set aside.
5. Add the 85W-140 gear oil: up to 11 oz. (325 cc) or until the level reaches the top of the site glass.
6. Replace the vent plug.

Clean up any spills, and the gearbox is ready.

Notice: Dispose of the fluid in a environmentally responsible way at a chemical recycler or in accordance to hazardous waste laws in your area. Do not dispose of the fluid in any way that would result in contaminating the environment.
Installation Instructions:

- Ensure the Wood Processor and the area around it is clean and free of debris, resting on dry level ground, and detached from the tractor. Have the Power Pack kit on the ground in front of the hoses by the 3 point hitch.

Install the Reservoir
1. Remove the bolts and nuts from the reservoir, and set aside in a safe place.
2. Carefully lift the reservoir tank, and set it inside the 3 point hitch frame.
3. Have a helper lift the tank into position, line up to the holes in tank mount plates.
4. Quickly assemble the nuts and bolts thru the holes, just enough to hold the reservoir in place.
5. Tighten up the nuts and bolts.

Connect Hydraulic Hoses
1. Remove quick connects from the hydraulic hoses on the Wood Processor (have some rags handy).
2. Determine which hose goes to the input line of the winch control, and attach that hose end to the PTO pump connector.
3. Attach the remaining end to the return on the top of the reservoir tank.
4. Open up the filler cap, and insert the funnel.
5. Add 7 US gal (27 L) of Dexron III ATF fluid, replace the cap.

**WARNING**

High Pressure Fluid Hazard
To prevent serious injury or death from high pressure fluid:
- Ensure connections are secure.
- Tighten to torque specification table.
- Shut off the engine, wear proper hand and eye protection when searching for leaks

Install the Pump Drive Assembly
1. Temporarily set the Pump Drive on top of the reservoir, then follow the instructions in the owners manual and attach your wood processor to your three point hitch.
2. Ensure the gearbox is positioned so the vent is on top,
3. Slip the pump over the PTO drive shaft and move the spring loaded locking collar forward to allow the gearbox to lock on the shaft.
4. Ensure the locking collar is locked so the pump drive assembly is secure on the PTO shaft.
5. To prevent the pump drive assembly from spinning when the PTO shaft is engaged, wrap the safety chain around a nearby link arm or trailer tow bar.
6. Secure the chain with the carabiner snap link hook.
Hydraulic Maintenance

Every 100 hrs or annually drain and replace fluid:

2. Move controls to neutral or off position, stop engine, remove ignition key and wait for all moving parts to stop before servicing, repairing or maintaining.
3. Allow the machine to cool before changing the fluid. Hot fluid can cause burns if it contacts exposed skin. It is best to change fluid while the machine is warm to keep the contaminants in suspension.
4. Place a pan under the fluid reservoir.
5. Find the drain under the reservoir and remove the drain socket plug.
6. Replace the socket plug in the drain.
7. Find the filler cap on the top of the reservoir, fill the reservoir with 7 US gal (27 L) of Dexron III ATF fluid.
8. Run the machine for 1-2 minutes while operating cylinder and check fluid level and leaks at the drain.
9. Fluid level should be approximately 1" (25 mm) from the top of the tank.
10. Dispose of the old or any spilled fluid in an approved container.

Every 100 hrs or annually remove and clean the filter:

1. Find the fluid return on the top of the reservoir, and remove the 3 screws on the filter cover.
2. Remove the cover and pull out the filter.
3. With the screen in hand, simply wash it out with diesel fuel or varsol. Once clean inspect the filter mesh for any holes, perforation, rust or tears.
4. Replace the clean filter into the tank, install and secure the filter cover.

Notice: Dispose of the fluid in a environmentally responsible way at a chemical recycler or in accordance to hazardous waste laws in your area. Do not dispose of the fluid in any way that would result in contaminating the environment.

WARNING

High Pressure Fluid Hazard

To prevent serious injury or death from high pressure fluid:
- Relieve pressure on the system before repairing or adjusting.
- Wear proper hand and eye protection when searching for leaks.
- Keep all components in good repair.
BOLT TORQUE

Checking Bolt Torque

The tables shown give correct torque values for various bolts and capscrews. Tighten all bolts to the torque values specified in the table, unless indicated otherwise. Check tightness of bolts periodically.

IMPORTANT! If replacing hardware, use fasteners of the same grade.

IMPORTANT! Torque figures indicated in the table are for non-greased or non-oiled threads. Do not grease or oil threads unless indicated otherwise. When using a thread locker, increase torque values by 5%.

NOTE: Bolt grades are identified by their head markings.

HYDRAULIC FITTING TORQUE

Tightening Flare Type Tube Fittings

1. Check flare and flare seat for defects that might cause leakage.
2. Align tube with fitting before tightening.
3. Hand-tighten swivel nut until snug.
4. To prevent twisting the tube, use two wrenches. Place one wrench on the connector body and tighten the swivel nut with the second. Torque to values shown.

If a torque wrench is not available, use the FFFT (Flats From Finger Tight) method.

<table>
<thead>
<tr>
<th>Tube Size OD</th>
<th>Hex Size Across Flats</th>
<th>Torque Value</th>
<th>Flats From Finger Tight</th>
</tr>
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<tbody>
<tr>
<td>Inches</td>
<td>Inches</td>
<td>lbf•ft</td>
<td>N•m</td>
</tr>
<tr>
<td>3/16</td>
<td>7/16</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>1/4</td>
<td>9/16</td>
<td>11–12</td>
<td>15–17</td>
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<tr>
<td>5/16</td>
<td>5/8</td>
<td>14–16</td>
<td>19–22</td>
</tr>
<tr>
<td>3/8</td>
<td>11/16</td>
<td>20–22</td>
<td>27–30</td>
</tr>
<tr>
<td>1/2</td>
<td>7/8</td>
<td>44–48</td>
<td>59–65</td>
</tr>
<tr>
<td>5/8</td>
<td>1</td>
<td>50–58</td>
<td>68–79</td>
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<tr>
<td>3/4</td>
<td>1-1/4</td>
<td>79–88</td>
<td>107–119</td>
</tr>
<tr>
<td>1</td>
<td>1-5/8</td>
<td>117–125</td>
<td>158–170</td>
</tr>
</tbody>
</table>

Values shown are for non-lubricated connections.
<table>
<thead>
<tr>
<th>BOM ID</th>
<th>Part No.</th>
<th>Description</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Z43103</td>
<td>1-3 Ratio Gearbox, 27HP x 540RPM w/ Adapters Included</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>Z51388</td>
<td>Elbow 90, MORB x FPX 1208</td>
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</tr>
<tr>
<td>16</td>
<td>Z53114</td>
<td>Gear Pump, Series 25 x 2.01GIR</td>
<td>1</td>
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<tr>
<td>17</td>
<td>Z77175</td>
<td>Hex Bolt, M12 x 1.75 x 25 mm Lg.</td>
<td>5</td>
</tr>
<tr>
<td>18</td>
<td>Z72531</td>
<td>Serrated Flange Locknut, 3/8NC</td>
<td>1</td>
</tr>
<tr>
<td>19</td>
<td>Z73131</td>
<td>SAE Washer, 3/8&quot;</td>
<td>1</td>
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<tr>
<td>20</td>
<td>Z77153</td>
<td>Hex Bolt, M8 x 30 mm Lg.</td>
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<tr>
<td>21</td>
<td>Z92303</td>
<td>Safety Chain, 1/4&quot; x 20 ft with Snap</td>
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<td>22</td>
<td>Z51694</td>
<td>Elbow 90, MJIC x MORB 1616</td>
<td>1</td>
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<tr>
<td>23</td>
<td>Z58104</td>
<td>Dog, Pump</td>
<td>1</td>
</tr>
<tr>
<td>24</td>
<td>Z46592</td>
<td>Woodruff Key, 1/8&quot; x 1/2&quot;</td>
<td>1</td>
</tr>
</tbody>
</table>

*ECR03218

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**Replacement Filter**

HEK06-10.100-AS-MS090-O-B

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<table>
<thead>
<tr>
<th>BOM ID</th>
<th>Part No.</th>
<th>Description</th>
<th>Qty</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>2089W601</td>
<td>Tank, 27 Litre - 7 Gal</td>
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<td>2</td>
<td>Z51192</td>
<td>Socket Plug, MP 08</td>
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<td>3</td>
<td>Z51221</td>
<td>Straight, MP x FP 1208</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Z51331</td>
<td>Elbow 90, MP x FPX 0808</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Z51594</td>
<td>Straight, MJIC x MORB 1616</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>Z52407</td>
<td>Suction Hose, 1&quot; x 30&quot;</td>
<td>1</td>
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<tr>
<td>7</td>
<td>Z55201</td>
<td>Tank Mounted Return Filter, FP12</td>
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<tr>
<td>8</td>
<td>Z55401</td>
<td>Filler Breather Cap x 400um</td>
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<tr>
<td>9</td>
<td>Z71107</td>
<td>Hex Bolt, 1/4NC x 3/4&quot;</td>
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<tr>
<td>10</td>
<td>Z72531</td>
<td>Serrated Flange Locknut, 3/8NC</td>
<td>2</td>
</tr>
<tr>
<td>11</td>
<td>Z76134</td>
<td>Flange Bolt, 3/8NC x 1&quot;</td>
<td>4</td>
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<td>12</td>
<td>Z78303</td>
<td>Machine Screw, #10NF x 1/2&quot;</td>
<td>4</td>
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<tr>
<td>13</td>
<td>Z79401</td>
<td>Hose Clamp, SAE #16 (1-1/2&quot;)</td>
<td>2</td>
</tr>
</tbody>
</table>

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**Note:** Decal Kit: P300-DKIT