Operator's Manual

Hydraulic Post Driver
Model HD-12-H

Safety
Operation
Maintenance
Repair
Troubleshooting
Parts

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## Contents

- Safety ........................................... 2
- Safety Alert Symbols ....................... 3
- Safety Icon Nomenclature ................. 3
- Safety Warnings ............................... 4
  - General Safety ............................... 4
  - Hazard Avoidance ......................... 4
  - Hydraulic Hoses ......................... 5
- Introduction .................................... 6
- Product Information .......................... 6
- Specifications ................................ 6
- Assembly Procedure ......................... 7
- Recommended Tools ............................ 7
- Unpacking ..................................... 8
- Assembly ...................................... 8
  - Main Carriage Channel ................... 9
  - Stabilizer Legs ............................. 10
  - Base Plate ................................ 10
  - Hydraulic Valve ............................ 13
  - Safety Stop Adjustment .................... 16
  - Rubber Debris Guard ....................... 17
  - Safety Arm ................................ 18
  - Document Storage Tube ................... 21
- Post Driver Operation ....................... 21
- Operational Safety Tips ..................... 21
- Operating Instructions ....................... 22
- Mounting ..................................... 22
- Preparing to Drive a Post ................... 23
- Driving a Post ................................ 24
- Dismounting Post Driver ..................... 28
- Troubleshooting ............................... 29
- Storage ....................................... 29
- Service Procedures ........................... 30
  - Three-Point Hitch/Post Driver Assembly . 30
  - Main Carriage Channel Disassembly ...... 31
  - Drive Cylinder Seal Replacement .......... 34
  - Main Carriage Channel Assembly .......... 36
  - Forward and Side Tilt Cylinder
    Maintenance .................................. 40
  - Cylinder Disassembly ..................... 40
  - Cylinder Assembly .......................... 41
  - Three-Point Hitch/Post Driver Assembly . 43
  - Service Parts ............................... 44
  - Driver Assembly ............................. 44
  - Hydraulic Base Plate Assembly .......... 46
  - Three-Point Hitch Assembly ............... 48
  - Hydraulic Hoses ............................ 48
  - Safety Arm Assembly ....................... 48
  - Replacement Decals ......................... 49
  - Document Storage Tube .................... 49
  - Hydraulic Control Valve .................... 50
  - Drive Cylinder Assembly ................... 51
  - Expanded View of Safety Lever
    Assembly ....................................... 51
  - Tilt Cylinder Assembly ..................... 52
  - Limited Warranty ............................ 53
  - Warranty Card ............................... 54

## Safety

Most work related accidents are caused by failure to observe basic safety rules or precautions. An accident can often be avoided by recognizing potentially hazardous situations before an accident occurs. As you assemble and operate the Shaver Post Driver, you must be alert to potential hazards. You should also have the necessary training, skills, and tools to perform this assembly procedure.

**Improper operation and maintenance of this implement could result in a dangerous situation that could cause injury or death.**

Do not assemble, operate, or maintain the Shaver Post Driver until you read and understand the information contained in this manual.

⚠️ Safety precautions and warnings are provided in this manual and on the product. If these hazard warnings are not heeded, bodily injury or death could occur to you or to other persons.
Shaver Manufacturing Company cannot anticipate every possible circumstance that might involve a potential hazard. The warnings in this supplement and on the product are, therefore, not all-inclusive. If a method of operation, not specifically recommended by Shaver Manufacturing Company is used, you must satisfy yourself that it is safe for you and for others. You should also ensure that the implement will not be damaged or be made unsafe by the methods that you choose.

The information, specifications, and illustrations in this supplement are based on the information that was available at the time this material was written and can change at any time.

Safety Alert Symbols

The safety alert symbol means Attention! Become Alert! Your Safety is Involved.

Hazards are identified by the “Safety Alert Symbol” and are followed by the signal word “WARNING”.

**WARNING**: Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

Potential damage situations are identified by the signal words “IMPORTANT NOTICE”.

**IMPORTANT NOTICE**
Indicates that equipment or property damage can result if instructions are not followed.
Safety Warnings

General Safety

**WARNING**

To avoid personal injury or death, carefully read and understand all instructions before attempting to assemble and/or operate the Post Driver. Do not operate or work on equipment unless you read and understand the instructions and warnings in this and all other applicable manuals. Contact Shaver Manufacturing Company if any of the instructions provided are unclear or not understood. Proper care is your responsibility. Always follow all State and Federal health and safety laws and/or local regulations.

To help prevent personal injury, protective equipment must be worn during Post Driver assembly, operation, and maintenance. Personal protective equipment should include, but not be limited to, safety glasses, hearing protection, protective gloves, and steel toe footwear.

Personal injury can result from slips or falls. DO NOT leave tools or parts laying around the work area, and clean up all spilled fluids immediately.

Hazard Avoidance

**WARNING**

Inspect this equipment before each use. Make sure all hardware is tight. Always replace worn or damaged parts before use.

To avoid personal injury or death, do not operate the Post Driver by yourself. Always have another person to control the machine or power source.

**WARNING**

Make sure all decals are securely attached to the Post Driver and are legible at all times. Always read and understand all decals before working on or operating the Post Driver.

Make sure all lock-pins and transport supports are secured in place before transporting or storing the Post Driver. While transporting, never ride on or permit others to ride on the Post Driver.

Improper operating procedures can create risk for the operator and bystanders. DO NOT use the Post Driver before making sure no one will be endangered.

To prevent personal injury or death, be aware of overhead electrical lines when operating the Post Driver. Electrocution can occur even without direct contact with overhead power lines. Proceed cautiously around electrical lines and utility poles.

To prevent personal injury or death, always check for underground utilities, such as electrical wires, gas lines, and water pipes, before driving posts. Contact local utility companies for information on locating underground utilities.

To avoid serious injury or death, do not operate the Post Driver on steep slopes, as this can cause a roll over.

To avoid personal injury, always stand 45 degrees to the right of the post being driven while operating the Post Driver.
Potential pinch points. Keep hands clear of Post Driver while operating. Never place hand(s) on top of a post when inserting it into the Post Driver. Always close the safety arm before driving the post.

To avoid personal injury do not attempt to clean, adjust, or lubricate the Post Driver while it is in motion.

The rubber debris guard helps shield the operator from flying debris that may be generated during post driving. To avoid personal injury, make sure the rubber debris guard is securely attached to the Post Driver before driving posts.

To avoid personal injury or death, do not modify the Post Driver by welding, drilling, or grinding. Do not expose to extreme heat, such as from a torch.

The main carriage channel assembly is tall and heavy. To avoid tip over, resulting in serious injury or death, leave the overhead lifting device attached to the main carriage channel while assembling components.

The safety arm is spring loaded. To avoid serious injury or death, the safety arm must be installed after the Post Driver has been mounted on a machine, or the freestanding Post Driver has been secured to prevent tipping.

Hydraulic Hoses

Avoid damaging hydraulic hoses. Avoid sharp bends and kinks when routing hydraulic hoses. Sharp bends and kinks can internally damage the hose, leading to premature hose failure, resulting in personal injury.

Do not drop heavy objects on hoses. A sharp impact may cause internal damage to the hose. Applying pressure to a damaged hose may cause it to rupture, resulting in personal injury.

Mismatched couplings and hoses can cause the coupling to violently disconnect from the hose when placed under pressure; separating with sudden, extreme force which can result in property damage, personal injury, or death.

Replace a hose if any of the following conditions are present:
- End fittings that are damaged or leaking
- Outer coverings that are chafed or cut
- Wire shields that are exposed
- Outer coverings that are ballooning
- Flexible part of the hoses that are kinked
- End fittings that are displaced

Pressure can be trapped in a hydraulic system. Trapped pressure can cause sudden movement of an attachment. Use caution when disconnecting hydraulic lines or fittings. High-pressure oil that is released can cause a hose to move violently while spraying oil.

Escaping high-pressure fluid can penetrate the skin, causing serious injury. Relieve pressure before unhooking hoses. Check/tighten all connections before activating hydraulics. Never use your hand to check for leaks.
Introduction

The Shaver Manufacturing Company would like to congratulate you on your purchase of the Shaver Hydraulic Post Driver. You have selected the best Post Driver in its class. The clean design and uncomplicated working principle have made Shaver the largest selling Post Driver in the country.

The Shaver HD-12-H (hydraulic tilt adjustment) Hydraulic Post Driver is a durable piece of equipment that, with regular maintenance, will provide many years of service.

This manual provides information regarding assembly, operation, and maintenance. It is important to read and become familiar with this manual before assembling or operating the Shaver Hydraulic Post Driver.

NOTE: For other valuable information on farm equipment operation and safety, refer to the following resources.

- Farm Equipment Manufacturers Association (FEMA)
  http://www.farmequip.org/home
- National Ag Safety Database
  http://www.cdc.gov/nasd

Product Information

Record Shaver product information here. The model number and serial number are found on the metal tag attached to the drive ram.

Model Number ____________________________
Serial Number ____________________________
Date Purchased __________________________
Dealer Name _____________________________

Specifications

<table>
<thead>
<tr>
<th>HD-12-H Post Driver</th>
</tr>
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<tbody>
<tr>
<td>Approximate Length $^1$</td>
</tr>
<tr>
<td>Approximate Width $^2$</td>
</tr>
<tr>
<td>Approximate Depth $^2$</td>
</tr>
<tr>
<td>Shipping Weight</td>
</tr>
<tr>
<td>Effective Weight of Spring Powered Driving Ram</td>
</tr>
<tr>
<td>Impact (at full stroke)</td>
</tr>
<tr>
<td>Main Carriage Channel Tilt Front/Back</td>
</tr>
<tr>
<td>Tilt Side/Side</td>
</tr>
<tr>
<td>Guide Blocks</td>
</tr>
<tr>
<td>Mounting options</td>
</tr>
<tr>
<td>Three-Point Hitch</td>
</tr>
<tr>
<td>Hydraulic Requirements</td>
</tr>
<tr>
<td>Post Size</td>
</tr>
<tr>
<td>Maximum Length</td>
</tr>
</tbody>
</table>

$^1$ Driving ram and main carriage channel. Overall length will vary, depending on mounting position and tractor.

$^2$ With stabilizer legs attached to three point hitch weldment.
Assembly Procedure

Recommended Tools

The basic tools needed to assemble and maintain the HD-12-H Post Driver are shown below. Additional specialized tools may be required.

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td>Mallet or Hammer</td>
<td>1</td>
</tr>
<tr>
<td>T2</td>
<td>Straight Edge</td>
<td>1</td>
</tr>
<tr>
<td>T3</td>
<td>1-1/8 Inch Combination Wrench</td>
<td>1</td>
</tr>
<tr>
<td>T4</td>
<td>1-1/16 Inch Combination Wrench</td>
<td>1</td>
</tr>
<tr>
<td>T5</td>
<td>15/16 Inch Combination Wrench</td>
<td>1</td>
</tr>
<tr>
<td>T6</td>
<td>3/4 Inch Combination Wrench</td>
<td>1</td>
</tr>
<tr>
<td>T7</td>
<td>11/16 Inch Combination Wrench</td>
<td>1</td>
</tr>
<tr>
<td>T8</td>
<td>5/8 Inch Combination Wrench</td>
<td>1</td>
</tr>
<tr>
<td>T9</td>
<td>9/16 Inch Combination Wrench</td>
<td>1</td>
</tr>
<tr>
<td>T10</td>
<td>1/2 Inch Combination Wrench</td>
<td>1</td>
</tr>
<tr>
<td>T11</td>
<td>7/16 Inch Combination Wrench</td>
<td>1</td>
</tr>
<tr>
<td>T12</td>
<td>Paste-Type Thread Sealant</td>
<td>AR</td>
</tr>
<tr>
<td>T13</td>
<td>1-1/2 Inch Combination Wrench</td>
<td>1</td>
</tr>
<tr>
<td>T14</td>
<td>1/2 Inch Drive Impact Gun</td>
<td>1</td>
</tr>
<tr>
<td>T15</td>
<td>1-1/2 Inch Impact Socket</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>1-1/16 Inch Impact Socket</td>
<td>1</td>
</tr>
<tr>
<td>T16</td>
<td>3/8 and/or 1/2 Inch Drive Socket Set (9/16, 5/8, 11/16, 1/2, 15/16, 3/4 Inch)</td>
<td>AR</td>
</tr>
<tr>
<td>T17</td>
<td>1/2 Inch Drive Ratchet</td>
<td>1</td>
</tr>
<tr>
<td>T18</td>
<td>3/8 Inch Drive Ratchet</td>
<td>1</td>
</tr>
</tbody>
</table>
Unpacking

**WARNING**

Due to the size and weight of the Post Driver, two people are required for the assembly procedures.

The Post Driver is shipped in several sections: the drive ram assembly, base plate assembly, short channel bracket, hose and valve carton, safety arm carton, and the tilt cylinder carton.

**WARNING**

Before starting the unpacking procedure, make sure the overhead lifting device or material handling device (forklift) has adequate lifting capacity. Follow all safety recommendations when unpacking the Post Driver. Some components are heavy and can cause serious injury or death if not adequately supported during removal and assembly.

For ease of assembly, unload the Post Driver components in the area where they will be assembled. Choose a large, hard surface area that can safely support the weight of the assembled Post Driver and is accessible by the machine it will be mounted on.

Assembly

**NOTE:** Refer to the Service Parts section of this manual for a photograph and description of all the Post Driver parts.

The HD-12-H Post driver main carriage channel has provisions for mounting the short channel bracket in various positions. The HD-12-H is shipped with the short channel bracket bolts installed in the middle (most common) mounting position. If an optional mounting position is used, the three point hitch weldment and stabilizer leg height will have to be adjusted accordingly.

The Post Driver assembly procedure consists of the following subsections:

1. Main Carriage Channel
2. Stabilizer Legs (optional)
3. Base Plate
4. Hydraulic Valve
5. Safety Stop Adjustment
6. Rubber Debris Guard
7. Safety Arm
8. Document Storage Tube
Main Carriage Channel

1. With road lock pin (B8) installed in lower hole of drive ram (A1), use a suitable overhead lifting device to raise (stand up) main carriage channel (B1).

2. Remove 6 factory installed bolts (D3) and 6 lock washers (D4). Install short channel bracket (D2) using the bolts and lock washers. Tighten bolts completely.

3. Remove road lock pin (B8) from lower hole in drive ram (A1). Use the overhead lifting device to help raise main carriage channel (B1) and insert road lock pin (B8) in upper hole (tool storage position) in drive ram (A1). Install Lynch pin (B9), not shown, to secure the road lock pin.

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**WARNING**

The main carriage channel assembly is tall and heavy. To avoid tip over, resulting in serious injury or death, leave the overhead lifting device attached to the main carriage channel while assembling components.
Stabilizer Legs (optional)

1. Place three-point hitch weldment (K1) upside down on the floor. Install stabilizer leg brackets (K2), with stabilizer legs (K7) installed, over the cross tube, as shown. Tighten two leg bracket bolts (K3) to secure the brackets to the cross tube.

2. If the short channel bracket was mounted at the most common center position in Step 2, set stabilizer leg (K7) height at 8” (20.3 cm) measured from three-point hitch weldment (K1) cross tube to the stabilizer leg base plate, as shown. Tighten the stabilizer leg lock bolts.

NOTE: If a set of six threaded holes other than the center set, were used to mount short channel bracket (D2), the height of the legs will need to be adjusted accordingly.

3. Turn over three-point hitch weldment (K1) and set it on stabilizer leg (K7) base plates, as shown.

Base Plate

1. Remove the four carriage bolts, washers, and nuts from base plate (F2). Save hardware for reuse.
The main carriage channel assembly is tall and heavy. To avoid tip over, resulting in serious injury or death, leave the overhead lifting device attached to the main carriage channel while assembling components.

2. With three point hitch weldment (K1) positioned in front of short channel bracket (D2), install base plate (F2) as shown. Install the bolts, washers, lockwashers, and nuts removed in Step 1. Center the base plate on the three-point hitch weldment and tighten the hardware securely.

3. Install four hose assemblies (H5) on tilt cylinders (F3, F4) using paste-type thread sealant (T12) on fittings. Tighten the hose fittings securely.

4. Install forward tilt cylinder (F3) on base plate (F2), along with safety lever (F9, F10), as shown. Attach with long cylinder mounting pin (F7) and channel mounting pin (D6).

**NOTE:** Secure long cylinder mounting pin (F7) and channel mounting pin (D6) with Lynch pins (D7) (included).
5. Install side tilt cylinder (F4) on base plate (F2), as shown. Attach with long cylinder mounting pin (F7) and short cylinder mounting pin (F8).

**NOTE:** Secure long cylinder mounting pin (F7) and short cylinder mounting pin (F8) with Lynch pins (D7) (included).

6. Attach base plate (F2) to short channel bracket (D2).
   a. With the main carriage channel still attached to an overhead lifting device, use a suitable floor jack to support three-point hitch weldment (K1).
b. Loosen stabilizer leg lock bolts (K8), and adjust floor jack up or down to align base plate (F2) pivot pin hole with short channel bracket (D2) lower mounting hole.

c. Install lower channel mounting pin (D6) and secure with Lynch pins. Tighten two stabilizer leg lock bolts (K8) and remove the floor jack.

Hydraulic Valve

**IMPORTANT NOTICE**

Hydraulic system fittings that require a thread sealant, must be installed with a paste-type sealer only. Do not use a tape-type sealer such as Teflon Tape, as this can contaminate the system and voids the valve warranty.

1. Assemble the hydraulic control valve.
   a. Remove the plastic plugs from hydraulic control valve (H1). Apply paste-type thread sealant (T12) to pipe threads. Install hydraulic fittings (G16, G18, G19, G21), and four tilt cylinder hose fittings (H3). Refer to the photographs for correct fitting placement and orientation.

(H1) Hydraulic Control Valve.

(G16) Swivel Fitting:
3/4" O-Ring Male to 1" Female NPT.

(G19) 90° Swivel Fitting:
1-1/16" O-Ring Male to 1/2" Female.

(G21) 90° Swivel Fitting:
3/4" Male to 1" NPT Female with Adapter Fitting:
1-1/16" O-Ring Male to 3/4" NPT Female.

(H3) 90° O-Ring Swivel Fitting (with restricter):
7/8" Male to 1/4" Female.
b. Assemble the control valve linkage. Install levers (G5), control valve safety lever (G7), return spring (G10), and lever linkage (G11, G12, G23), as shown. Secure with cotter pins (G13). Refer to photographs for correct linkage placement and orientation.

2. Install hydraulic valve (H1) on short channel bracket (D2) using three 5/16-18 x 3” valve mounting bolts (G2), washers (G3), and nuts (G4). Do not overtighten the hardware, which can warp the valve body.

(H1) Hydraulic Control Valve Linkage.

(G5) Control Valve Levers. (G7) Control Valve Safety Lever. (G10) Safety Lever Return Spring. (G11) Clevis Pin. (G12) U-Link. (G13) Cotter Pin(s). (G23) Flat Link.

(D2) Short Channel Bracket. (G2) 5/16-18 x 3” Bolt. (G3) 5/16” Washer. (G4) 5/16-18 Nut. (H1) Hydraulic Control Valve.

**IMPORTANT NOTICE**
The hydraulic valve and cylinder(s) can be damaged by contamination (dirt and debris) from the oil in the tractor or power source. Ensure the oil is clean and properly filtered before connecting the Post Driver to a hydraulic power source. Failure to follow oil cleanliness standards voids the Shaver Post Driver warranty.
3. Attach the three main hydraulic hoses.

a. Apply paste-type thread sealant (T12) to the pipe thread hose fittings and install drive cylinder hose (G15) (1” I.D. x 35”) between hydraulic control valve (H1) and drive cylinder assembly (C1). Tighten the hose fittings securely.

b. Connect the threaded fitting on pressure hose (G17) (1/2” x 120”) to hydraulic control valve (H1) swivel fitting.

c. Connect the threaded fitting on return hose (G20) (1” x 120”) to hydraulic control valve (H1) swivel fitting.

NOTE: The owner/operator must supply suitable hydraulic quick disconnect fittings for connecting pressure supply hose (G17) and return hose (G20) to the tractor or power supply hydraulic system.
**IMPORTANT NOTICE**

If the tilt cylinder hoses are attached differently than shown, the control of the drive ram will not be as described in this manual.

d. Attach two forward tilt cylinder hoses (H5) between forward tilt cylinder (F3) and hydraulic control valve (H1), as shown.

e. Attach two side tilt cylinder hoses (H5) between side tilt cylinder (F4) and hydraulic control valve (H1), as shown.

**Safety Stop Adjustment**

**WARNING**

To avoid serious injury, inspect the control valve safety stop before using the Post Driver the first time and before each daily use. Adjust the safety stop as needed, per the following procedure. Make sure all control valve hardware is tight. Always replace worn or damaged parts before use.

The control valve safety stop prevents unintentional activation of the Post Driver control valve and must be functional at all times.

**NOTE:** If the Post Driver is operational, before adjusting the safety stop, make sure the machine/power source is OFF, parking brake is set, road lock pin is installed, and all hydraulic pressure is released (zero pressure).

1. Attempt to push main hydraulic control valve lever (G5) forward (away from operator) without squeezing (pulling) yellow tipped control valve safety lever (G7).

2. If main hydraulic control valve lever (G5) can move forward more than 1/4”, the safety stop must be adjusted.
3. To adjust the safety stop, do the following:
   a. Squeeze the control valve lever and the control valve safety lever together to expose the safety lever stop setscrew.
   b. Insert a 1/8" Allen wrench and adjust the setscrew outward (counterclockwise) slightly. Remove the Allen wrench and repeat Step 1.
   c. If necessary, repeat Step 3a and Step 3b until the setscrew prevents more than 1/4" of forward movement of the control valve lever.

**NOTE**: Do not “over adjust” the setscrew. Make sure the setscrew easily falls into place behind the lip on the control valve when it is released quickly (1/8" gap at the setscrew).

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**Rubber Debris Guard**

1. Locate rubber debris guard (A4), guard mounting strap bracket (A5), and bag containing hardware and caution tag (A6, A7, A8, and A9).

2. Attach the rubber debris guard, mounting strap, and caution tag on drive ram (A1) with guard mounting bolts, lock washers and nuts, as shown.

**NOTE**: To avoid damage to the rubber debris guard, do not over-tighten the mounting hardware.
Safety Arm

WARNING

The safety arm is spring loaded. To avoid serious injury or death, the safety arm must be installed after the Post Driver has been mounted on a machine, or the freestanding Post Driver has been secured to prevent tipping.

1. Locate the safety arm assembly parts and hardware.

2. Attach safety arm frame (12) to outside of short channel bracket (D2) with two 3/4-10 x 2” frame mounting bolts (13) and self locking nuts (14), as shown. Tighten the nuts securely.

3. Assemble rollers (17) onto roller bracket (16) and use hammer (T1) to install two roller retainer roll pins (18), as shown.
4. Apply a light film of a good quality grease to the pivot shaft and attach roller bracket (I6) to swing arm handle (I5) with roller bracket nut (I9). Tighten the nut until seated and then loosen 1/4 to 1/2 turn.

**NOTE:** Roller bracket (I6) must swivel freely on swing arm handle (I5).

5. Attach one end of latch spring (I10) to swing arm handle (I5), as shown. Secure with spring retainer flat washer (I11) and Lynch pin (I13).

6. Install the swing arm assembly.
   a. Apply a light film of a good quality grease to the pivot shaft on swing arm handle (I5).
   b. Start the pivot shaft into the main bracket tube, as shown. Slide the open spring eye over the main bracket anchor rod.
   c. Secure the spring with flat washer (I11) and Lynch pin (I13).

**NOTE:** Swing arm handle (I5) will be below safety arm frame (I2) bracket stop at this point.
The safety arm is spring loaded. To avoid serious injury or death, the safety arm must be installed after the Post Driver has been mounted on a machine, or the freestanding Post Driver has been secured to prevent tipping.

7. Pull the swing arm handle around toward the Post Driver I-beam until the swing arm clears (swings past) safety arm frame (I2) bracket stop.

8. Tap the swing arm shaft up through the safety arm frame tube.

9. Install Lynch pin (I13) to secure the swing arm to the safety arm frame.

10. Verify the swing arm handle opens against safety arm frame (I2) stop bracket and closes against back wall of drive ram (A1) I-beam.

NOTE: When driving a fence post, the swing arm rollers must contact and hold the fence post in position, as shown.
Document Storage Tube

1. If desired, locate the document storage tube in a convenient location on the Post Driver. The photo below shows the tube mounted on the drive ram yoke, but other locations are acceptable.

Post Driver Operation

Operational Safety Tips

1. Follow all safety information contained in this manual and refer to the safety decals located on the Post Driver.

2. Personal safety equipment must be worn at all times during operation, i.e. safety glasses, steel toe shoes, hearing protection, etc.

3. Always stand 45 degrees to the right of the post while the Post Driver is in operation.

4. Do not remove any of the Post Driver safety equipment or safety labels.

5. All Post Driver safety equipment must be inspected, maintained, kept in working order, and used during Post Driver operation.

6. Do Not place your hand(s) on top of the post when placing the post in the Post Driver or while the Post Driver is operating.

7. Leave the safety arm attachment open when not holding a post, except when transporting the Post Driver.

8. Do not remove the hydraulic control valve safety lever stop.

9. Never use the maximum force of the Post Driver until the post being driven is started into the ground and is straight.

10. Use caution when driving small diameter wood or steel posts. Maximum driving impact is not necessary.

11. Always be aware of the environment in which you are operating the Post Driver.

12. Do not operate the Post Driver on steep slopes, as this could cause a roll over.

13. Always check for underground utilities, i.e. wires, gas lines, waterlines, etc. Call your local utility companies for underground utility locations.

14. Use caution where large rocks or other objects could be hidden underground and not visible to the operator. The post could splinter and cause injury to the operator. If the post fails to drive into the ground after two or three strikes, move to another location.

2. Mark the location of the two mounting holes using the storage tube as a guide.

3. Drill two 3/16” holes.

4. Attach the storage tube with the two pop rivets (supplied inside the tube).
15. **Do not** operate the Post Driver with the machine or power source unattended. The Post Driver requires two people for proper operation - one operating the Post Driver and one on the tractor.

16. Always engage the road lock pin in the drive ram lower hole before transporting the Post Driver. Engage the road lock pin in the drive ram upper hole for storage.

**Operating Instructions**

**Mounting**

1. With the Post Driver positioned on a hard level surface, move the tractor or other power supply toward the Post Driver until the three-point hitch lines up.

2. Attach the two lower, three-point hitch lift arms to Post Driver three-point hitch weldment (K1) hitch pins. Secure with lock pins (operator supplied).

3. Attach the three-point top link to removable pin (B8). Secure the upper pin with Lynch pin (B9).

**NOTE:** Adjust the length of the machine’s top link, as required, to correctly attach the Post Driver.

4. Attach hydraulic pressure supply hose (small diameter, G17) to the tractor pressure supply port. Attach hydraulic return hose (larger diameter, G20) to the tractor return port.

**NOTE:** The HD-12-H Post Driver will fit tractors with Category II or Category III three-point hitches. Use bushings (owner/operator supplied) on the hitch pins, if required, to correctly install the lift arms.

5. Make sure the safety arm frame is closed against the drive ram before transporting the Post Driver.

**NOTE:** The owner/operator is responsible for installing quick-disconnect fittings (or other suitable fittings) on the Post Driver hoses. Make sure the fittings are compatible with the tractor hydraulic fittings.
6. If traveling more than 100 feet to the work site, remove road lock pin (B8). Raise drive ram (A1) and install the road lock pin in the lower “transport” position. The Post Driver can now be moved to the work site.

4. Remove road lock pin (B8) and lower drive ram (A1) until it rests on the road lock pin bracket rubber bumpers (not visible) inside main carriage channel (B1).

NOTE: Store the road lock pin in a secure location during Post driver operation.

(A1) Drive Ram. (B8) Road Lock Pin (transport position).

Preparing to Drive a Post

1. With the tractor three point hitch supporting the weight of the post driver, loosen stabilizer leg lock bolts (K8) and raise up each stabilizer leg (K7). Tighten the lock bolts to support the stabilizer legs.

2. Position the tractor or power source in place to drive the first fence post.

3. Set the brakes on the tractor or power supply. If the machine is equipped with an automatic transmission, the transmission must be in PARK.

5. Use the tractor three point hitch to lower the Post Driver until drive ram (A1) firmly contacts the ground.

6. Continue to lower Post Driver main carriage channel (B1) an additional 1” (2.5 cm). This important step helps protect the lower rubber bumpers (B3) from premature wear and/or damage.

IMPORTANT NOTICE

If operating on uneven ground, make sure the stabilizer legs firmly contact the ground at each new fence post location. If necessary, loosen the stabilizer leg lock bolts to readjust the stabilizer legs, as needed. Failure to do so can cause damage to the Post Driver components.

(K7) Stabilizer Leg. (K8) Lock Bolts.

7. Loosen two stabilizer leg lock bolts (K8) and lower the stabilizer legs until both feet firmly contact the ground. Tighten the stabilizer leg lock bolts.
Driving a Post

WARNING

To avoid personal injury or death, do not operate the Post Driver by yourself. Always have another person to control the machine or power source.

1. Lubricate eight guide blocks (A2) with clean oil before each daily use and, if necessary, between post installations.

NOTE: For clarity, in this photograph the lubrication points are shown on the partially assembled post driver.

2. Have the tractor or power source operator raise and maintain the engine RPM to supply the hydraulic pressure and flow necessary to properly operate the Post Driver.

NOTE: The tractor or other power source must be capable of maintaining adequate hydraulic pressure (engine RPM) to smoothly operate (cycle) the Post driver.

3. To raise drive ram (A1), squeeze safety lever (G7) and pull back main hydraulic control valve lever (G5).

IMPORTANT NOTICE

At the beginning of each day, use the main hydraulic control lever to cycle the drive ram up and down 10 to 15 times, without impact with a post or the ground, to “season” the drive ram return springs. Failure to follow this recommendation can cause damage to the springs.

NOTE: The first time the Post Driver is used, it may be necessary to operate the hydraulic control valve levers a few times, to remove air from the hydraulic system.

NOTE: Do not use grease on the guide blocks or in the main carriage channel. Grease will retain abrasive material, which will result in premature wear.

IMPORTANT NOTICE
4. To drive the fence post straight, adjust the main carriage channel side-to-side and fore-and-aft tilt using the second and third hydraulic control valve levers.

**IMPORTANT NOTICE**

If the tilt cylinder hoses are attached differently than shown, the control of the drive ram will not be as described in this manual.

Tilt Top of Drive Ram Away From Operator.

Tilt Top of Drive Ram Toward Operator.

Tilt Top of Drive Ram Away From Tractor.

Tilt Top of Drive Ram Toward Tractor.
5. With drive ram (A1) in the raised position, open safety arm frame (I2) and place a fence post in the drive ram I-beam, under the drive ram plate. There should be a 1” to 2” gap between the top of the fence post and the bottom of the drive ram plate.

NOTE: For clarity, the photo below shows the rubber debris guard raised up. Never drive a fence post without the guard in place over the drive ram plate.

6. Close safety arm frame (I2) to secure the post (the adjustable roller assembly keeps tension on the post while it is being driven).

7. Do not stand in front of the drive ram while operating the Post Driver. Stand at a 45 degree angle to the side of the Post Driver, in front of the hydraulic control valve.
IMPORTANT NOTICE

Posts will drive into the ground much straighter using shorter strokes. Use caution when driving small diameter wood and steel posts. Maximum impact is not necessary with these smaller diameter posts and can cause damage (splintering or breakage) of posts.

8. Squeeze control valve safety lever (G7) and push control valve lever (G5) forward to release the drive ram and create impact.

9. Pull back the control valve safety lever and handle to raise the drive ram again. Continue this process, as needed, to drive the post to the desired depth.

NOTE: If the post stops moving down or is crooked after a few impacts, stop and move the post to a different location. Conditions such as thick sod, rocks, or tree roots can cause splintered or broken posts.

10. Once a post is driven to the desired depth or the bottom of the drive ram contacts the ground, release the hydraulic control lever.

11. Open safety arm frame (I2).

12. Use the three point hitch to raise the Post Driver and move to the next location to begin driving a new post.

13. If traveling more than 100 feet, close the safety arm frame and install the road lock pin in the lower “transport” position. The Post Driver can now be moved to the next work site position or the storage location.
Dismounting Post Driver

1. Install road lock pin (B8) in the upper "storage" position.

2. The Post Driver should be stored on a hard level surface. Lower the drive ram until it is on the ground.

3. Adjust (raise or lower) the stabilizer legs to allow the drive ram I-beam to make full contact with the ground. Make sure the Post Driver is stable.

**WARNING**

Securely tighten the bolt/nut on the cylinder stop bracket when storing the post driver. Failure to tighten the stop bracket could cause an unstable condition, resulting in serious injury or death.

4. Completely tighten bolt (F11) and nut (F13) on the cylinder stop bracket to prevent the tilt cylinder from drifting, causing an unstable condition with the Post Driver.

5. Make sure all pressure is released (zero pressure) from the Post Driver hydraulic system. Disconnect hydraulic pressure supply hose (G17) from the tractor. Disconnect hydraulic return hose (G20) from the tractor.

6. Remove top link pin (B8) from three point hitch weldment (K1) to disconnect the three-point hitch top link. Disconnect the two lower lift arms from the three-point hitch weldment to separate the tractor three-point hitch from the Post Driver.

7. Carefully move the tractor or power source away from the Post Driver.
Troubleshooting

NOTE: Refer to the Service Parts section of this manual for a photo and description of all the parts.

Problem: Drive ram (A1) will not move or slide freely on main carriage channel (B1).

Possible Cause/Solution(s):
2. Guide blocks (A2) are installed incorrectly. Refer to Service Information section assembly procedures for correct orientation.
3. Incorrect clearance between main carriage channel (B1) and drive ram (A1) I-beam. Refer to Service Information section for clearance specifications.
4. Hydraulic drive cylinder assembly (C1) is not parallel to main carriage channel (B1). Refer to Service Information section, hydraulic drive cylinder installation, and parallelism adjustment.
5. Main carriage channel (B1) or drive ram (A1) is bent or damaged. Discontinue use and order replacement parts.

Problem: Poor performance, low or no impact, hydraulic drive cylinder will not extend.

Possible Cause/Solution(s):
1. Weak or broken drive ram springs (C14).
2. Broken upper spring bracket (A11).
3. Bent or damaged hydraulic drive cylinder assembly (C1).
4. Main carriage channel (B1) is binding.
5. Restricted or plugged hydraulic hose(s) (G15, G17, G20).
6. Low or no hydraulic pressure or flow from the machine or power source.

Problem: Rubber bumpers (B3) have premature or excessive damage.

Possible Cause/Solution(s):
1. Post Driver is not properly adjusted prior to operation and drive ram guide blocks (A2) are contacting rubber bumpers (B3).

Storage

For the best results, always store equipment in a dry, protected location. Leaving equipment unprotected will shorten the service life of the Post Driver.

1. Before storing, remove debris and clean the entire unit using compressed air or a pressure washer.
2. Inspect the Shaver Post Driver. Replace any worn or damaged parts before using the Post Driver again.
   - Check all bolted connections. Ensure that fasteners are tight, and all pins are secured in place.
   - Inspect the frame for structural fractures.
   - Make sure all warning decals are in place and legible.
   - Make sure the rubber debris guard is in place and in good condition.
   - Check the hydraulic cylinder(s) for signs of seal damage or excessive wear.
   - Inspect all hydraulic hoses and fittings for leaks or signs of wear.
3. After cleaning, lightly lubricate the guide blocks with clean engine oil. Do not apply grease, as this will retain grit and cause excessive wear.
4. Clean and lubricate the hydraulic control valve safety stop linkage. Make sure the return spring and cotter pins are in good condition.
5. Apply a light coating of clean grease to all exposed hydraulic cylinder shafts to help prevent rust.
Service Procedures

**WARNING**
To avoid personal injury or death, carefully read and understand all instructions before attempting to assemble and/or operate the Post Driver. Do not operate or work on equipment unless you read and understand the instructions and warnings in this and all other applicable manuals. Contact Shaver Manufacturing Company if any of the instructions provided are unclear or not understood. Proper care is your responsibility. Always follow all State and Federal health and safety laws and/or local regulations.

To help prevent personal injury, protective equipment must be worn during Post Driver assembly, operation, and maintenance. Personal protective equipment should include, but not be limited to, safety glasses, hearing protection, protective gloves, and steel toe footwear.

Personal injury can result from slips or falls. DO NOT leave tools or parts laying around the work area, and clean up all spilled fluids immediately.

Due to the size and weight of the Post Driver, two people are required for the disassembly and assembly procedures.

**NOTE:** Disassembly, assembly, and/or associated repairs must be performed with the main carriage channel and drive ram in a horizontal position, such as on a suitable pallet, or heavy-duty support stands.

Refer to Dismounting Post Driver from Machine/Power Source section for steps to remove Post Driver from a tractor or other power source.

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Three-Point Hitch/Post Driver Disassembly

1. Secure the Post Driver upright [main carriage channel (B1) and drive ram (A1) assembly] to an appropriate overhead lifting device to prevent tipping.
2. Disconnect drive cylinder to valve hose (G15) and drain fluid into a suitable container.
3. Completely tighten cylinder stop arm bolt/nut (F11, F13). Disconnect four tilt cylinder hoses (H5) from hydraulic control valve (H1), and drain the fluid into a suitable container.
4. Remove Lynch pins (D7) and two channel mounting pins (D6) that connect the base plate to the Post Driver upright.
5. With assistance, carefully move the three-point hitch weldment/base plate assembly away from the Post Driver upright. Store the weldment/base plate assembly in a safe location.
6. The upright assembly is heavy. Use an appropriate lifting device to position the Post Driver assembly horizontally, on suitable stands, pallet, or blocks on the ground.

**NOTE:** Be prepared to collect any hydraulic fluid that drains from the cylinder into a suitable container.
Main Carriage Channel Disassembly

1. Remove road lock pin (B8). Slide the main carriage channel up as far as possible to relieve the extra tension on the springs.

   NOTE: If necessary, use retaining strap (T19), as shown, to pull main carriage channel (B1) and release tension on road lock pin (B8) allowing easy removal.

2. Remove the retaining strap and slide main carriage channel (B1) up. Loosen, but do not remove two lower bolts (B11) that attach each return spring (C14) to the main carriage channel.

3. To release tension on the springs, loosen lower spring bolts (B11) only enough so that threads are still fully engaged in lower spring mount, as shown.

4. Remove upper cylinder rod self-locking nut (C4) and lock washer (C16) from drive cylinder piston (C3).

(A1) Drive Ram.  (B1) Main Carriage Channel.  (B8) Road Lock Pin.  (T19) Retaining Strap.

(B11) Lower Return Spring Bolts

(C3) Drive Cylinder Piston.  (C4) Self-Locking Nut.  (C16) Lock Washer.
Potential pinch points. The spring can suddenly retract (compress) when upper spring bracket bolt is removed. Keep hands clear of return springs during bolt removal.

5. Carefully loosen and remove two upper return spring retaining bolts (C16).

NOTE: There can be tension remaining on spring (C14). As the bolt is removed, the spring will quickly retract (compress) away from upper spring bracket (A11).

6. Once the two upper spring mounting bolts are removed, completely remove two lower spring bracket bolts (B11), that where loosened in Step 2. Save all bolts, lock washers and sleeves for reuse.

7. Remove upper spring bracket bolts, washers, and nuts (C8) (not shown), lift up on drive cylinder (C1) and remove upper spring bracket (A11) from inside main carriage channel (B1).

8. Slide each return spring (C14) out from the top of drive ram (A1) and main carriage channel (B1), as shown.
9. Remove drive cylinder (C1) two lower lock nuts (C12) and two road lock bracket nuts (B7). Remove road lock bracket (B2).

10. Slide the main carriage channel down and remove drive cylinder (C1) by sliding it out the top of drive ram assembly (A1).

11. Use an overhead lifting device to support main carriage channel (B1). Remove the main carriage channel by sliding it out the top of drive ram (A1).

**IMPORTANT NOTICE**

Note the number and thickness of shims, and location of each shim pack removed. This information is needed for correct drive ram reassembly.

12. Remove guide blocks (A2) and shims (A3) from the pins inside the drive ram I-beam.

13. Inspect contact points on guide blocks (A2) for excessive wear and the replace guide blocks, as necessary.

14. Inspect the drive ram, main carriage channel, springs, rubber bumpers, and all other components. Replace any worn or damaged parts before assembling the Post Driver.

**NOTE:** Refer to Drive Cylinder Seal Replacement section for cylinder service procedures.
Drive Cylinder Seal Replacement

1. Remove drive ram cylinder assembly (C1) from the Post Driver, as outlined in the disassembly instructions.

2. Be prepared to collect any hydraulic fluid that drains from the cylinder into a suitable container. Unscrew cylinder cap (C7) and remove cylinder piston rod (C3) from the cylinder housing.

NOTE: Care must be taken during removal to prevent scoring of cylinder piston rod (C3) or the inside of cylinder tube (C2).

3. Inspect the threads on the outside of drive cylinder (C2) tube and inside of cylinder cap (C7). Repair or replace components with damaged threads.

4. Remove self-locking piston guide nut (C11) and piston rod guide (C10), using a 1-1/4” wrench to hold the piston rod guide while removing the piston guide nut. Discard the self-locking nut and replace with new.

5. Place cylinder cap (C7) and cylinder cap seal (C9) in hot (120°F) water for ten minutes. Soaking the cap and seal will make the seal more pliable and easier to remove.

WARNING

The cylinder cap and seal will be hot. To avoid personal injury, wear protective gloves and take precautions to avoid direct contact with hot surfaces.
6. Wear gloves, and use a sturdy seal pick to remove cylinder cap seal (C9) from cylinder cap (C7).

7. Clean the seal groove in the cylinder cap and place the new seal in hot (120°F) water for ten minutes.

8. Once the seal is pliable, squeeze the new seal together making a banana shape. Place one end of the seal into the cylinder cap seal groove. Continue to push the seal into the seal groove, holding the seal in the groove from the bottom with one finger, while continuing to push the seal down from the top until the seal snaps in place.

**IMPORTANT NOTICE**

Care must be taken not to damage the new seal while installing it. Do not use a sharp tool, such as a screwdriver, to push the seal into place. A suitable diameter impact socket with rounded edges can be useful in pushing the seal into the cap groove.

9. Once cylinder cap seal (C9) is in the groove, double check for correct orientation. The sharp edge of the seal must be down (towards the threads inside the cap).

10. Lubricate the seal with clean hydraulic fluid and slide the cap onto cylinder piston rod (C3) from the **bottom**.

**IMPORTANT NOTICE**

Do not slide the cylinder rod cap over the top of the drive cylinder rod. The threads will damage the new cylinder rod cap seal.

11. Install piston guide (C10) and new self-locking piston guide nut (C11), using a 1-1/4” wrench to hold the piston guide while installing the piston guide nut. Do not over-tighten the self-locking nut. Piston guide (C10) must be able to rotate on cylinder piston rod (C3).

12. Install cylinder piston rod (C3) assembly into drive cylinder tube (C2).

**NOTE:** Care must be taken during installation to prevent scoring of cylinder piston rod (C3) or the inside of drive ram cylinder tube (C2).

13. Apply paste-type thread sealant (T12) on drive cylinder tube (C2) external threads and install cylinder cap assembly (C7). Tighten the cap securely.

**IMPORTANT NOTICE**

Hydraulic system fittings that require a thread sealant must be installed with a paste-type sealer only. Do not use a tape-type sealer such as Teflon Tape, as this can contaminate the system and voids the valve warranty.

14. To install drive cylinder assembly (C1) in the Post Driver, follow the instructions in the Main Carriage Channel Assembly section.
Main Carriage Channel Assembly

1. Install guide block shims (A3) and guide blocks (A2) on the pins inside drive ram I-beam. Make sure the shims are installed in their original locations.

NOTE: The square (sharp edges) on guide blocks must be positioned horizontally to correctly fit the width of main carriage channel frame.

2. Lubricate the guide blocks with clean oil to reduce friction. Use an overhead lifting device to lift and support the main carriage channel (B1). Get assistance to slide the main carriage channel over the guide blocks, from the top of drive ram (A1).

3. Make sure the main carriage channel will slide back and forth freely, without contacting or rubbing the drive ram.

4. With the drive ram assembly horizontal, check up and down movement of the main carriage channel in the drive ram I-beam. Up and down movement should not be less than 1/4” or more than 1/2”.

5. Install drive cylinder (C1) in drive ram assembly (A1) from the top (upper end).

NOTE: Hydraulic drive ram cylinder (C1) must be installed in main carriage channel (B1) before springs (C14) are installed. Position the cylinder laying loose inside the main carriage channel.

7. If removed, install two rubber bumpers (B3) on road lock bracket (B2)
8. Install road lock bracket (B2) on the main carriage channel. Install road lock bracket bolts (B6) and road lock bracket nuts (B7). For easy drive cylinder alignment, leave the nuts slightly loose and install drive cylinder (C1) lower bracket over bolts, as shown.

9. Install but do not tighten lock nuts (C12) on road lock bracket bolts (B6). Once the lock nuts are started, completely tighten road bracket nuts (B7) on bolts (B6).

NOTE: To allow for drive cylinder alignment, self-locking nuts (C12) must still be loose at this point.

10. With main carriage channel (B1) slid up as far as possible, install each spring (C14) from the bottom of the Post Driver between drive ram (A1) I-beam and the main carriage channel. Slide each spring into position.

11. Attach the springs to the lower and upper spring brackets.

a. Install lower bolts (B10) lockwashers and sleeves as shown. Thread the bolts into lower spring mount just enough to fully engage the bolt threads.
b. Position upper spring bracket (A11) inside the main carriage channel and slide it, under drive cylinder (C1), up to the upper spring mounts.

![Image](A11) Upper Spring Bracket.  (B1) Main Carriage Channel.  (C2) Drive Cylinder.

12. Attach drive cylinder piston rod (C3) to the top of the drive ram I-beam using new lock washer (C16) and self-locking nut (C4). Install the nut by hand just enough to fully engage the threads.

![Image](C3) Drive Cylinder Piston Rod.  (C4) Self-Locking Nut.  (C16) Lock Washer.

13. Attach the upper spring bracket to the drive ram yoke. The distance between the mounting holes in the upper spring bracket and drive ram yoke will be approximately two inches.

a. Get assistance and use a suitable round pry bar to engage one set of holes in both the bracket and drive ram yoke. Pry the bracket forward until the second set of holes are aligned.

b. While holding the bracket in this position, secure the bracket using hardware (C8) (bolt, washer, lockwasher, and nut) in the other hole, as shown.

![Image](C8) Upper Spring Bracket Hardware.

c. Install upper spring bracket bolts and lockwashers (C16, C17) through upper spring bracket (A11). Do not tighten the bolts. Thread the bolts into return spring (C14) upper mounts just enough to fully engage the threads.

![Image](A11) Upper Spring Bracket.  (C14) Return Spring.  (C16) Upper Spring Bolt.  (C17) Lockwasher.
c. Remove the pry bar and install remaining upper bracket hardware (C8) (bolt, washer, lockwasher, and nut). Tighten both the nuts securely.

d. Completely tighten two upper spring mount bolts (C16).

e. Completely tighten lower spring mount bolts (B10) that were left loose in Step 11a.

f. Tighten drive cylinder self-locking nuts (C12) that were left loose in Step 8. Tighten each nut slightly, in turn, to align the drive cylinder inside the main carriage channel.

14. Tighten the drive cylinder upper self-locking nut (C4) by holding the lower nut with a 1-1/8” wrench and tightening the self-locking nut using a 1-1/16” wrench. Then loosen the self-locking nut 1/2 turn (180 degrees).

15. Pull main carriage channel (B1) down and install road lock pin (B8) and Lynch pin (B9) in lower hole in drive ram (A1).

NOTE: If necessary, use retaining strap (T19) to overcome the spring tension and pull the main carriage channel down, so road lock pin (B8) can be easily installed.

16. To avoid binding, the drive cylinder and rod must be parallel to the sides of the main carriage channel. If necessary, make the following adjustments:

a. Make sure the top drive ram cylinder self-locking nut is loosened 1/2 turn.

b. Loosen lower drive ram cylinder self-locking nuts (C12).

c. Tighten or loosen each nut slightly, in turn, to align the drive cylinder inside the main carriage channel.

NOTE: Self-locking nuts (C12) do not have to be completely tightened against the lower spring bracket.
Forward and Side Tilt Cylinder Maintenance

Cylinder Disassembly

- **WARNING**

Removing tilt cylinder(s) from the assembled Post Driver can cause an unstable condition. To avoid personal injury or death, make sure the drive ram is fully supported by other means before removing the tilt cylinders for service.

1. When removing the cylinder(s) from the assembled Post Driver, make sure the drive ram is fully supported by other means, such as a suitable overhead lifting device.

2. Clean the outside of tilt cylinders (F3, F4).

3. Disconnect tilt cylinder hydraulic hoses (H5) from the hydraulic control valve. Plug the fittings to prevent dirt from entering the hydraulic system.

**NOTE:** Be prepared to collect any hydraulic fluid that drains from the cylinder and hoses, into a suitable container.

4. Remove tilt cylinders (F3, F4) from the base plate by removing the mounting pins.

5. Inspect the tilt cylinder mounting points. Replace any worn or damaged components.

6. Carefully clamp tilt cylinder (F3 or F4) mounting tube in a vise. Completely compress internal cylinder cap snap ring (F14) and pull cylinder rod assembly (F16 or F17) out of tilt cylinder tube (F21 or F27).

7. Disassemble cylinder rod (F16, F17) by removing cylinder rod nut (F20), piston (F19), piston to cylinder rod seal (F18), and cylinder cap (F15) from the cylinder rod.

8. Inspect the cylinder rod sealing surface for any dents, bends, nicks, pitting, scratches, scoring, or rust. Replace any worn or damaged components.
9. Use a sturdy seal pick to remove the seals from the cylinder piston. Discard the seals. Clean and inspect the piston and replace if worn or damaged.

10. Clean the inside of the tilt cylinder tube and inspect for scratches with raised (above the surface level) edges, wear, rust, cracks, and pitting. Replace any worn or damaged tube.

11. Use a sturdy seal pick to remove the seals from the cylinder cap. Discard the seals. Clean and inspect the cap and replace if worn or damaged.

**Cylinder Assembly**

1. Make sure all tilt cylinder components are clean and free of rust.

2. Lubricate the new seals with clean hydraulic fluid.

3. Install new internal O-ring seal (F23) and lip seal (F24) (raised lip up) inside the cylinder cap. Install new O-ring seal (F22) in the O.D. groove. Install a new snap ring (F14), not shown, in the top “cut-a-way” groove.

4. Install new scraper seal (F25) in the cylinder piston groove, followed by O-ring seal (F26), and second scraper seal (F25). The rounded (concave) surface of each scraper seal (F25) must face (contact) larger O-ring seal (F26).

5. Install new O-ring seal (F18) on the threaded end of cylinder rod (F16 or F17).

6. Lubricate the ID of cylinder cap (F15) with clean hydraulic oil and install the cap onto cylinder rod (F16 or F17) with the snap ring groove facing up (toward the cylinder rod mounting eye).

7. Lubricate the ID of cylinder piston (F19) with clean hydraulic oil. Install the cylinder piston on cylinder rod (F16 or F17) with the O-ring relief (groove) (A) toward O-ring seal (F18). Install new self locking nut (F20) and tighten securely.
8. Lubricate cylinder tube (F21, F27) bore, piston (F19) seals, and cylinder cap (F15) seals. Install cylinder rod (F16, F17) assembly into the cylinder tube, being careful not to damage any seals.

(F14) Snap Ring. (F15) Cylinder Cap. (F16, F17) Cylinder Rod. (F19) Cylinder Piston (with seal). (F21, F27) Cylinder Tube.

9. Push cylinder rod into cylinder tube until snap ring (F14) in cylinder cap (F15) contacts the top of the cylinder tube.

10. Use heavy-duty snap ring pliers to completely compress snap ring (F14). Push cylinder cap (F15) into cylinder tube (F21) until the snap ring is completely seated in the internal snap ring groove.

NOTE: It may be necessary to use a soft (brass or wood) drift to tap the cylinder cap and snap ring into place. Use caution not to damage the aluminum cylinder cap.

WARNING

Make sure the snap ring is completely seated in the cylinder tube groove. Failure to seat the snap ring in the groove can cause the cylinder cap to be explosively ejected from the tilt cylinder tube when hydraulic pressure is applied, resulting in serious injury or even death.
Three-Point Hitch/Post Driver Assembly

1. With road lock pin (B8) installed in the lower hole of drive ram (A1), use a suitable overhead lifting device to raise (stand up) main carriage channel assembly (B1).

2. For instructions on connecting the three-point hitch weldment and Post Driver assembly after service, refer to Step 6 in the Assembly Procedure, Base Plate section of this manual.

3. Apply paste-type thread sealant to the pipe thread hose fitting. Connect drive cylinder hose (G15) to drive cylinder assembly (C1). Tighten the hose fitting securely.

NOTE: Before using the Post Driver after service, it may be necessary to operate the hydraulic control valve levers a few times, to remove air from the hydraulic system.
## Driver Assembly

### HD-12-H Service Parts - Driver Assembly

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Part No.</th>
<th>Description</th>
<th>Qty.</th>
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<tbody>
<tr>
<td>A1</td>
<td>SM-1211-DRC</td>
<td>Driving Ram Complete</td>
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<td>A1</td>
<td>SM-1211-DRO</td>
<td>Driving Ram Only</td>
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<td>A2</td>
<td>SM-00512</td>
<td>Guide Block (Pkg. of 4)</td>
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<td>A3</td>
<td>SM-0933-(18 ga)</td>
<td>Shim</td>
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<td>SM-1211-G</td>
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<td>Guard Mounting Strap</td>
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<td>Caution Tag</td>
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<td>SM-0041-B</td>
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<td>Bumper Lock Washer, 5/16</td>
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<td>Bumper Nut, 5/16-18</td>
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<td>B6</td>
<td>SM-093</td>
<td>Road Lock Bracket Bolt</td>
<td>2</td>
</tr>
<tr>
<td>B7</td>
<td>SM-0932</td>
<td>Road Lock Bracket Nut</td>
<td>2</td>
</tr>
<tr>
<td>B8</td>
<td>SM-1041-RLP</td>
<td>Road Lock Pin</td>
<td>1</td>
</tr>
<tr>
<td>B9</td>
<td>SM-1041-RLC</td>
<td>Road Lock Pin Clip</td>
<td>1</td>
</tr>
<tr>
<td>C1</td>
<td>SM-1026</td>
<td>Cylinder Assembly</td>
<td>1</td>
</tr>
<tr>
<td>C2</td>
<td>SM-10261</td>
<td>Cylinder Tube</td>
<td>1</td>
</tr>
<tr>
<td>C3</td>
<td>SM-10266</td>
<td>Cylinder Piston/Rod</td>
<td>1</td>
</tr>
<tr>
<td>C4</td>
<td>SM-10267</td>
<td>Piston Self-Locking Nut</td>
<td>1</td>
</tr>
<tr>
<td>C5</td>
<td>SM-018</td>
<td>Cylinder Nut (w/ setscrew)</td>
<td>1</td>
</tr>
<tr>
<td>C6</td>
<td>SM-10268</td>
<td>Lock Washer</td>
<td>1</td>
</tr>
<tr>
<td>C7</td>
<td>SM-10262-D</td>
<td>Cylinder Cap (w/ seal)</td>
<td>1</td>
</tr>
</tbody>
</table>

**SM-1211-G Includes Items A4, A5, L8, A7, A8, and A9.**

### HD-12-H Service Parts - Driver Assembly (continued)

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Part No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C8</td>
<td>—</td>
<td>Bolts, Lock Washers, Nuts (upper spring bracket)</td>
<td>2</td>
</tr>
<tr>
<td>C12</td>
<td>SM-0931</td>
<td>Lower Bracket Lock Nut</td>
<td>2</td>
</tr>
<tr>
<td>C13</td>
<td>SM-1211-SCL</td>
<td>Spring Mount Lower</td>
<td>2</td>
</tr>
<tr>
<td>C14</td>
<td>SM-1211-DRS</td>
<td>Spring Complete (w/ spring mounts installed)</td>
<td>2</td>
</tr>
<tr>
<td>C15</td>
<td>SM-1211-SCU</td>
<td>Spring Mount Upper</td>
<td>2</td>
</tr>
<tr>
<td>C16</td>
<td>—</td>
<td>Upper Spring Mt. Bolt</td>
<td>2</td>
</tr>
<tr>
<td>C17</td>
<td>—</td>
<td>Upper Spring Mt. Washer</td>
<td>2</td>
</tr>
<tr>
<td>D3</td>
<td>S-012</td>
<td>Short Bracket Bolts 5/8-11 x 1-1/4</td>
<td>4</td>
</tr>
<tr>
<td>D4</td>
<td>S-013</td>
<td>Short Bracket Lock Washer 5/8</td>
<td>4</td>
</tr>
<tr>
<td>L2</td>
<td>MS-161</td>
<td>Large &quot;SHAVER&quot; Decal</td>
<td>1</td>
</tr>
<tr>
<td>L3</td>
<td>MS-169</td>
<td>Control Valve Decal</td>
<td>1</td>
</tr>
<tr>
<td>L5</td>
<td>MS-181</td>
<td>Pinch Area Warning Decal</td>
<td>1</td>
</tr>
<tr>
<td>L7</td>
<td>MS-280</td>
<td>FEMA Member Decal</td>
<td>1</td>
</tr>
<tr>
<td>L9</td>
<td>MS-180</td>
<td>Cylinder Shaft Loose Decal (not visible)</td>
<td>1</td>
</tr>
</tbody>
</table>

**SM-1211-G Includes Items A4, A5, L8, A7, A8, and A9.**

**SM-0041-B Includes Items B3, B4, and B5.**

## Drive Ram Weldment Parts

### HD-12-H Service Parts - Drive Ram Weldment

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Part No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A10</td>
<td>SM-1011-BS</td>
<td>Block Stud</td>
<td>8</td>
</tr>
<tr>
<td>A12</td>
<td>SM-1211-LYB</td>
<td>Lift Yoke Bar</td>
<td>1</td>
</tr>
<tr>
<td>A13</td>
<td>SM-1211-LYT</td>
<td>Lift Yoke Top</td>
<td>1</td>
</tr>
</tbody>
</table>

**Replacement of these parts requires removal of old parts with a cutting torch and/or grinding wheel. New (replacement) parts must be welded to drive ram. This type of repair voids any warranties.**
Hydraulic Base Plate Assembly
## Hydraulic Base Plate Assembly

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Part No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>D2</td>
<td>HBP-9129</td>
<td>Short Channel</td>
<td>1</td>
</tr>
<tr>
<td>D6</td>
<td>SM-014</td>
<td>Channel Mounting Pin</td>
<td>2</td>
</tr>
<tr>
<td>D7</td>
<td>SM-2025-LP</td>
<td>Lynch Pin</td>
<td>10</td>
</tr>
<tr>
<td>E14</td>
<td>—</td>
<td>Base Plate Mounting Bolt, 5/8-11 x 1-1/2</td>
<td>4</td>
</tr>
<tr>
<td>E15</td>
<td>—</td>
<td>Base Plate Flat Washer, 5/8</td>
<td>4</td>
</tr>
<tr>
<td>E16</td>
<td>—</td>
<td>Base Plate Lock Washer, 5/8</td>
<td>4</td>
</tr>
<tr>
<td>E17</td>
<td>—</td>
<td>Base Plate Mounting Nut, 5/8-11</td>
<td>4</td>
</tr>
<tr>
<td>F1</td>
<td>HBP-912111</td>
<td>Hydraulic Base Plate, 2.5&quot; diameter cylinders</td>
<td>1</td>
</tr>
<tr>
<td>F2</td>
<td>HBP-912111</td>
<td>Hydraulic Base Plate, 2&quot; diameter cylinders</td>
<td>1</td>
</tr>
<tr>
<td>F3</td>
<td>HBP-91217</td>
<td>2.5&quot; Forward Tilt Cylinder</td>
<td>1</td>
</tr>
<tr>
<td>F4</td>
<td>HBP-91218</td>
<td>2.5&quot; Side Tilt Cylinder</td>
<td>1</td>
</tr>
<tr>
<td>F5</td>
<td>HBP-912177</td>
<td>Cylinder Seal Kit, not shown</td>
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</tr>
<tr>
<td>F7</td>
<td>HBP-908133</td>
<td>Cylinder Mounting Pin</td>
<td>2</td>
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<tr>
<td>F8</td>
<td>HBP-908134</td>
<td>Side Tilt Mounting Pin</td>
<td>1</td>
</tr>
<tr>
<td>F9</td>
<td>—</td>
<td>Cylinder Stop Plate, 8.5</td>
<td>1</td>
</tr>
<tr>
<td>F10</td>
<td>—</td>
<td>Cylinder Stop Plate, 10.5</td>
<td>1</td>
</tr>
<tr>
<td>F11</td>
<td>—</td>
<td>Cylinder Stop Bolt, 1/2-13 x 1-3/4</td>
<td>1</td>
</tr>
<tr>
<td>F12</td>
<td>—</td>
<td>Cylinder Stop Lock Washer, 1/2</td>
<td>1</td>
</tr>
<tr>
<td>F13</td>
<td>—</td>
<td>Cylinder Stop Nut, 1/2-13</td>
<td>1</td>
</tr>
<tr>
<td>H1</td>
<td>P-23</td>
<td>Hydraulic Control Valve</td>
<td>1</td>
</tr>
<tr>
<td>H2</td>
<td>—</td>
<td>Valve Mounting Bolt, 5/16-18 x 3</td>
<td>3</td>
</tr>
<tr>
<td>H3</td>
<td>—</td>
<td>Valve Mounting Washer, 5/16</td>
<td>3</td>
</tr>
<tr>
<td>H4</td>
<td>—</td>
<td>Valve Mounting Nut, 5/16-18</td>
<td>3</td>
</tr>
<tr>
<td>H5</td>
<td>SM-02111-P</td>
<td>Tilt Cylinder Hose</td>
<td>4</td>
</tr>
<tr>
<td>L10</td>
<td>MS-171</td>
<td>High-Pressure Warning Decal</td>
<td>2</td>
</tr>
</tbody>
</table>

**NOTE:** All hardware is Grade 5.

1 HBP-908120 Kit Includes Items F3, F4, and F9 Through F13.
2 Replaces Obsolete 2" Forward Tilt Cylinder HBP-91209.
3 Replaces Obsolete 2" Side Tilt Cylinder HBP-91210.
4 S-1092 Kit Includes Items E14, E15, E16, and E17.
5 HBP-912-CS Kit Contains Items F9, F10, F11, F12, and F13.
### Three-Point Hitch Assembly

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Part No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B8</td>
<td>MB-1201A-12</td>
<td>Upper Link Hitch Pin</td>
<td>1</td>
</tr>
<tr>
<td>B9</td>
<td>SM-2025-LP</td>
<td>Lynch Pin</td>
<td>1</td>
</tr>
<tr>
<td>K1</td>
<td>MB-1201-A</td>
<td>Three-Point Hitch Weldment</td>
<td>1</td>
</tr>
<tr>
<td>K2</td>
<td>OS-4-22-SFB</td>
<td>Leg Bracket Weldment</td>
<td>1</td>
</tr>
<tr>
<td>K3</td>
<td>—</td>
<td>Leg Bracket Bolt, 1/2-13 x 4</td>
<td>2</td>
</tr>
<tr>
<td>K4</td>
<td>—</td>
<td>Leg Bracket Flat Washer, 1/2</td>
<td>2</td>
</tr>
<tr>
<td>K5</td>
<td>—</td>
<td>Leg Bracket Lock Washer 1/2</td>
<td>2</td>
</tr>
<tr>
<td>K6</td>
<td>—</td>
<td>Leg Bracket Nut, 1/2-13</td>
<td>2</td>
</tr>
<tr>
<td>K7</td>
<td>OS-4-22-SSA</td>
<td>Stabilizer Leg Only</td>
<td>2</td>
</tr>
<tr>
<td>K8</td>
<td>—</td>
<td>Stabilizer Leg Lock Bolt, 5/8-11 x 1-1/2</td>
<td>2</td>
</tr>
</tbody>
</table>

1 OS-4-22 Stabilizer Leg Kit Includes Items K2 Through K8.

### Hydraulic Hoses

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Part No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>G15</td>
<td>SM-1023-P</td>
<td>Valve to Drive Ram Hose 1</td>
<td>1</td>
</tr>
<tr>
<td>G17</td>
<td>SM-0234-P</td>
<td>Power Supply to Valve Hose 2</td>
<td>1</td>
</tr>
<tr>
<td>G20</td>
<td>SM-1025-R</td>
<td>Valve to Tank Return Hose 3</td>
<td>1</td>
</tr>
</tbody>
</table>

1 1" ID x 35” long. 2 1/2” ID x 120” long. 3 1” ID x 120” long.

### Safety Arm Assembly

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Part No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>I1</td>
<td>SM-0011-SAA</td>
<td>Safety Arm Attachment 1</td>
<td>1</td>
</tr>
<tr>
<td>I2</td>
<td>SM-0011-SAAC</td>
<td>Safety Arm Frame</td>
<td>1</td>
</tr>
<tr>
<td>I3</td>
<td>—</td>
<td>Frame Mounting Bolt, 3/4-13 x 2</td>
<td>2</td>
</tr>
<tr>
<td>I4</td>
<td>—</td>
<td>Self-Locking Nut, 3/4-13</td>
<td>2</td>
</tr>
<tr>
<td>I5</td>
<td>SM-0011-SAAD</td>
<td>Swing Arm Handle</td>
<td>1</td>
</tr>
<tr>
<td>I6</td>
<td>SM-0011-SAA15</td>
<td>Roller Holder Swivel 2</td>
<td>1</td>
</tr>
<tr>
<td>I7</td>
<td>SM-0011-SAA16</td>
<td>Roller 2</td>
<td>2</td>
</tr>
<tr>
<td>I8</td>
<td>—</td>
<td>Roller Retainer Roll Pin 2</td>
<td>2</td>
</tr>
<tr>
<td>I9</td>
<td>—</td>
<td>Roller Bracket Nut, 3/4-13</td>
<td>1</td>
</tr>
<tr>
<td>I10</td>
<td>SM-0011-SAA2</td>
<td>Latch Spring</td>
<td>1</td>
</tr>
<tr>
<td>I11</td>
<td>SM-0011-SAA7</td>
<td>Flat Washer, 3/4</td>
<td>2</td>
</tr>
<tr>
<td>I12</td>
<td>SM-015-CC</td>
<td>Swing Arm Handle Cover</td>
<td>1</td>
</tr>
<tr>
<td>I13</td>
<td>SM-2025-LP</td>
<td>Lynch Pin, 3/16 x 1-7/8</td>
<td>3</td>
</tr>
<tr>
<td>L1</td>
<td>MS-165</td>
<td>Small “SHAVER” Decal</td>
<td>1</td>
</tr>
<tr>
<td>L4</td>
<td>MS-166</td>
<td>Safety Arm Decal</td>
<td>1</td>
</tr>
<tr>
<td>L6</td>
<td>MS-181</td>
<td>Pinch Area Warning Decal</td>
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</tr>
</tbody>
</table>

## Replacement Decals

<table>
<thead>
<tr>
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<th>Part No.</th>
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<tbody>
<tr>
<td>L1</td>
<td>MS-165</td>
<td>Small SHAVER Decal</td>
<td>1</td>
</tr>
<tr>
<td>L2</td>
<td>MS-161</td>
<td>Large SHAVER Decal</td>
<td>1</td>
</tr>
<tr>
<td>L3</td>
<td>MS-169</td>
<td>Control Valve Decal</td>
<td>1</td>
</tr>
<tr>
<td>L4</td>
<td>MS-166</td>
<td>Safety Arm Decal</td>
<td>1</td>
</tr>
<tr>
<td>L5</td>
<td>MS-163</td>
<td>Pinch Area Warning Decal</td>
<td>1</td>
</tr>
<tr>
<td>L6</td>
<td>MS-181</td>
<td>Pinch Point Warning Decal</td>
<td>1</td>
</tr>
<tr>
<td>L7</td>
<td>MS-280</td>
<td>FEMA Member Decal</td>
<td>1</td>
</tr>
<tr>
<td>L8</td>
<td>SM-0011-ST</td>
<td>Caution Tag</td>
<td>1</td>
</tr>
<tr>
<td>L9</td>
<td>MS-180</td>
<td>Cylinder Shaft Decal</td>
<td>1</td>
</tr>
<tr>
<td>L10</td>
<td>MS-171</td>
<td>High-Pressure Warning Decal</td>
<td>1</td>
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</table>

## Document Storage Tube

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Part No.</th>
<th>Description</th>
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</tr>
</thead>
<tbody>
<tr>
<td>J1</td>
<td>OPMAN</td>
<td>Document Storage Tube</td>
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</table>

(with two rivets)
## HD-12-H Service Parts - Hydraulic Control Valve

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Part No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>P-23</td>
<td>Control Valve (Complete)</td>
<td>1</td>
</tr>
<tr>
<td>H3</td>
<td>P-910181</td>
<td>90° O-Ring Swivel Fitting (With Restricter)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7/8-14 Male to 1/4 Female</td>
<td></td>
</tr>
<tr>
<td>G5</td>
<td>P-202</td>
<td>Control Valve Lever Only 1, 2</td>
<td>3</td>
</tr>
<tr>
<td>G7</td>
<td>GS-001</td>
<td>Control Valve Safety Lever</td>
<td>1</td>
</tr>
<tr>
<td>G8</td>
<td>GS-001-2</td>
<td>Safety Lever Plastic Cap</td>
<td>1</td>
</tr>
<tr>
<td>G10</td>
<td>GS-001-3</td>
<td>Safety Lever Return Spring</td>
<td>1</td>
</tr>
<tr>
<td>G11</td>
<td>P-206</td>
<td>Lever Clevis Pin</td>
<td>3</td>
</tr>
<tr>
<td>G12</td>
<td>P-209</td>
<td>U-Link</td>
<td>3</td>
</tr>
<tr>
<td>G13</td>
<td>P-205</td>
<td>Cotter Pin</td>
<td>8</td>
</tr>
<tr>
<td>G14</td>
<td>P-207A</td>
<td>Open Center Plug Kit</td>
<td>1</td>
</tr>
<tr>
<td>G16</td>
<td>P-910182</td>
<td>O-Ring Swivel Fitting 3/4” Male x 1” Female</td>
<td>1</td>
</tr>
<tr>
<td>G19</td>
<td>P-910183</td>
<td>O-Ring Swivel 90° Fitting 1-1/16-12 Male to 1/2” Female</td>
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</tr>
</tbody>
</table>

## HD-12-H Service Parts - Hydraulic Control Valve (continued)

<table>
<thead>
<tr>
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<th>Part No.</th>
<th>Description</th>
<th>Qty.</th>
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<tbody>
<tr>
<td>G21</td>
<td>P-910184</td>
<td>Pipe Thread Adapter Fitting 1-1/16”-12 O-Ring Male to</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3/4” Pipe Thread Female</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>90° Pipe Thread Swivel Fitting</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3/4” Male to 1” NPT Female</td>
<td></td>
</tr>
<tr>
<td>G23</td>
<td>P-208</td>
<td>Flat Link</td>
<td>1</td>
</tr>
<tr>
<td>—</td>
<td>P-2012</td>
<td>Seal Kit for P-23 Valve 4</td>
<td>3</td>
</tr>
</tbody>
</table>

1 P-201 Kit Includes Item G5, G11, G12, G13, and G23.
2 P-202A Kit Includes Item G5, G7, G8, and G10.
3 Standard. Optional P207 Plug Kit required for “Closed Center” valve operation.
4 One P-2012 Seal Kit required for each section of P23 Valve.
Drive Cylinder Assembly

Expanded View Of Safety Lever Assembly

<table>
<thead>
<tr>
<th>HD-12-H Service Parts - Safety Lever Assembly Detail</th>
<th>HD-12-H Service Parts - Drive Ram Cylinder Assembly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item No.</td>
<td>Part No.</td>
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<tr>
<td>G5</td>
<td>P-202</td>
</tr>
<tr>
<td>G7</td>
<td>GS-001</td>
</tr>
<tr>
<td>G8</td>
<td>GS-001-2</td>
</tr>
<tr>
<td>G9</td>
<td>—</td>
</tr>
<tr>
<td>G10</td>
<td>GS-001-3</td>
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<tr>
<td>G11</td>
<td>P-206</td>
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<td>P-209</td>
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<td>G13</td>
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<tr>
<td>G23</td>
<td>P-208</td>
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<table>
<thead>
<tr>
<th>Item No.</th>
<th>Part No.</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>SM-1026</td>
<td>Drive Ram Cylinder (complete)</td>
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<tr>
<td>C5</td>
<td>SM-018</td>
<td>Nut With Setscrew</td>
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<td>C6</td>
<td>SM-10268</td>
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<td>C7</td>
<td>SM-10262</td>
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<td>C9</td>
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<td>C10</td>
<td>SM-02610</td>
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<td>C11</td>
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Tilt Cylinder Assembly

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\(^1\) 2.5" Diameter Cylinders Replace Obsolete 2" Diameter HBP-91209 Fwd Tilt Cylinder and HBP-91220 Side Tilt Cylinder.


(one seal kit required per cylinder.)
Limited Warranty

Shaver Manufacturing Company, LLC warrants each new Shaver product to be free from defects in material and workmanship. This warranty is applicable only for the normal service life expectancy of the product or components, not to exceed 12 consecutive months from the date of delivery of the new Shaver product to the original purchaser.

Genuine Shaver replacement parts and components will be warranted for 90 days from the date of purchase, or the remainder of the original equipment warranty period, whichever is longer.

Rubber Bumpers, Carbide Teeth, Auger Teeth and Auger Points are usable parts and not covered by warranty. Part No. SD-101-GB and SD-0301-GB Gearbox are warranted for 3 years from the date of purchase. Part No. SD-0607-GB and SD-0907-GB Gearbox are warranted for 5 years from the date of purchase. Part No. SL-2030-1 5" Cylinder for the Logsplitter is warranted for 4 years from the date of purchase. Driving Ram Springs are warranted for 60 days from the date of purchase for residential customers and 30 days from the date of purchase with a limit of 2 claims per serial numbered unit for commercial users. Tires are warranted for 90 days from the date of purchase.

Under no circumstances will it cover any merchandise or components thereof, which, in the opinion of the company, have been subjected to misuse, unauthorized modification, alteration, an accident, or if a repair has been made with parts other than those obtainable through Shaver.

Our obligation under this warranty shall be limited to repairing or replacing any part that, in our judgment, shall show evidence of such defect, provided further that such part shall be returned within thirty (30) days from the date of failure to Shaver, routed through the dealer and distributor from whom the purchase was made, transportation charges prepaid. All returned items must have an RGA number. Contact Shaver at 712-859-3293 to get authorization to return, file your warranty claim and, if needed, an RGA will be provided.

This warranty shall not be interpreted to render Shaver liable for injury or damages of any kind or nature to person or property. This warranty does not extend to the loss of crops, loss because of delay in harvesting, or any expense or loss incurred for labor, substitute machinery, rental, or for any other reason.

Except as set forth above, Shaver shall have no obligation or liability of any kind on account of any of its equipment and shall not be liable for special or consequential damages. Shaver makes no other warranty, expressed or implied, and specifically, Shaver disclaims any implied warranty of merchantability or fitness for a particular purpose. Some states or provinces do not permit limitations or exclusions of implied warranties or incidental or consequential damages, so the limitations or exclusion in this warranty may not apply.

This warranty is subject to any existing conditions of supply which may directly affect our ability to obtain materials or manufacture replacement parts.

Shaver reserves the right to make improvements in design or changes in specifications at any time, without incurring any obligation to owners of units previously sold.

No one is authorized to alter, modify, or enlarge this warranty, nor the exclusion, limitations, and reservations.

Effective January 1, 2009
Warranty Card

The Post Driver is shipped from the factory with a warranty card. If the card is lost or misplaced, please copy this page, fill in the information, and send it to Shaver Manufacturing Company.

Warranty Card

Please complete the warranty card and return to:

Shaver Manufacturing Company
103 South Washington Avenue
P.O. Box 358
Graettinger, Iowa 51342

Name ____________________________________________________________
Address __________________________________________________________________
City ___________________ State ___________ Zip Code __________
Purchase / Deliver Date ____________________________
Shaver Model Number _________________________
Serial Number ________________________________