

Farm King

OPERATOR AND PARTS MANUAL

Post Driver

1450 Model

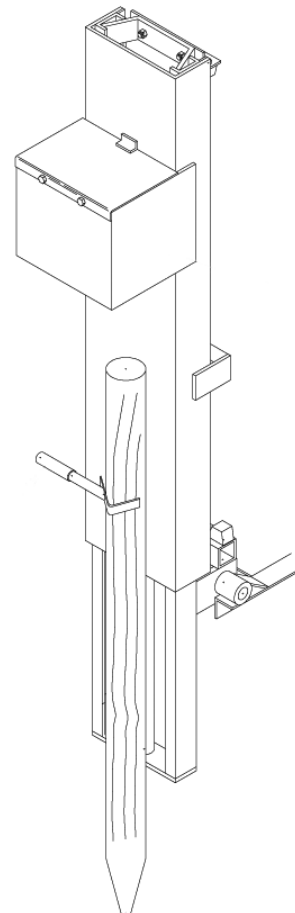


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Manufacturer’s statement: for technical reasons Buhler Industries Inc. reserves the right to modify machinery design and specifications provided herein without any preliminary notice. Information provided herein is of descriptive nature. Performance quality may depend on soil fertility, applied agricultural techniques, weather conditions and other factors.

Introduction

The Farm King 3-Point Post Driver works with your tractor or skid-steer for efficient effortless post driving. Built to be fast, powerful, durable, and maneuverable, Farm King 3-Point Post Drivers are ideal for use on the job site or on the farm.

Keep this manual handy for frequent reference. All new operators or owners must review the manual before using the equipment and at least annually thereafter. Contact your Farm King Dealer if you need assistance, information, or additional copies of the manual. Visit our website at www.farm-king.com for a complete list of dealers in your area.

The directions left, right, front and rear, as mentioned throughout this manual, are as seen facing in the direction of travel of the implement.

Safety

Safety Instructions

Remember, YOU are the key to safety. Good safety practices not only protect you, but also the people around you. Make these practices a working part of your safety program. Be certain that everyone operating this equipment is familiar with the recommended operating and maintenance procedures and follows all the safety precautions. Most accidents can be prevented. Do not risk injury or death by ignoring good safety practices.

The alert symbol is used throughout this manual. It indicates attention is required and identifies hazards. Follow the recommended precautions.



The safety alert symbol means...
ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



CAUTION

The caution symbol 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.



WARNING

The Warning Symbol 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.



DANGER

The Danger Symbol 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 that, for functional purposes, cannot be guarded.

General Safety

- Have a first-aid kit available for use and know how to use it. Have a fire extinguisher available, stored in a highly visible location, and know how to use it.
- Wear appropriate protective gear. This list may include but is not limited to:
 - hard hat
 - protective shoes with slip resistant soles
 - protective glasses or goggles
 - heavy gloves
 - wet weather gear
 - hearing protection
 - respirator or filter mask
- Read and understand the Operator's Manual and all safety signs before operating, servicing, adjusting, repairing, or unplugging the equipment.
- Do not attempt any unauthorized modifications to your Farm King product as this could affect function or safety, and could affect the life of the equipment.
- Never start or operate the mower except from the operator's station on the power unit.
- Inspect and clean the working area before operating.
- Keep hands, feet, clothing, and hair away from moving parts.
- Ensure bystanders are clear of the area before operating.
- Do not mount post driver on tractors weighing less than 3000 lb (1360 kg). Operating or transporting post driver mounted on a tractor weighing less than 3000 lb (1360 kg) could result in tractor roll over causing serious injury or death to operator and person(s) nearby.
- Never mount post driver on tractors without ROPS protection.
- Only one person, the operator, should be allowed to operate the post driver.
- Never ride or permit others to ride, on the drawbar of the tractor or on the post driver.
- Never allow anyone, other than the operator, on the tractor when operating or transporting the post driver.

Start-up Safety

- Do not let inexperienced operators or children run this equipment.
- Place all tractor and machine controls in neutral before starting.
- Operate only with ROPS and seatbelt equipped tractors.
- Do not operate inside a building unless there is adequate ventilation.
- Ensure all shields are in place and in good condition before operating.
- Stay clear of PTO shaft and machine when engaging PTO.

Operation Safety

- Never allow anyone near the post driver when you are performing operating functions.
- When tilting, raising or lowering the hammer, keep all persons away from the post driver.
- Wear safety glasses and hand wear to protect against splinters.
- Make certain everyone is clear before operating or moving the post driver.
- Keep all untrained personnel away from the post driver at all times. Only personnel knowledgeable in the operation should be allowed near or in control of the post driver.
- Contact local utility companies for underground services before installing posts.

- Never place your hand on top of the post at any time during operation. Serious injury may occur.
- Always use hand held post holder or optional post guide to position post under hammer when driving posts. Using one of these devices may prevent injury to hand or arm.
- Know the functions of each operating lever of hydraulic controls before proceeding with operations. Never use the valve to stop the hammer except in extreme emergency. The resulting extreme hydraulic pressure may seriously damage hydraulic system.
- Fluid escaping from a very small hole can be almost invisible. Use a piece of cardboard or wood, rather than hands, to search for suspected leaks. If injured by escaping fluid, see a doctor at once. Serious infection or reaction can develop if proper medical treatment is not administered immediately.
- If the torque arm chain of PTO pump is not properly secured, severe damage to the pump and hydraulic circuitry could occur.
- Always stay clear of PTO drive shaft when it is in operation. Serious injury or death will result if clothing, hair or limbs are caught in these drive shafts.
- Before connecting (or disconnecting) hydraulic pump to (or from) tractor's PTO shaft, disengage PTO and shut off tractor engine. Serious injury or death may occur if PTO was accidentally engaged while connecting or disconnecting pump.
- Always ensure tractor's PTO safety shield is installed.
- To avoid serious injury or death, use discretion when adding ballast to hammer as both tractor and post driver may become unstable during either operation or transporting unit. (It is not recommended to add ballast to hammer).
- Never allow any other person or persons to stand near hammer when post driver is being operated. This post driver is designed to be operated by one person only. Serious injury or death will result if a person is struck by a falling or tilting hammer.
- Never allow another person to hold the post when post driver is being operated. Serious injury or death will result if a person is struck by a falling or tilting hammer.
- Always lower post driver stand to ground and shut off power when post driver is left unattended or is not in operation. Serious injury or death may result if hammer fell unexpectedly and struck person(s) nearby.
- Operator should always observe the movement of hammer and mast assembly when raising and folding post driver for transport. If upper link of 3-point hitch was adjusted too short and/or the upper limit of the 3-point hitch is set too high, the hammer and mast assembly could strike operator in tractor seat or rear of tractor causing serious injury or death to operator or serious damage to tractor.
- Incorrect adjustment of upper link and wrong hole selection when pinning upper link to tractor may cause post driver to interfere with rear of tractor cab or strike operator resulting in serious injury to operator and serious damage to tractor.
- Always use extra care when operating post driver with optional mast extension installed. The extra height of the hammer may cause tractor and post driver to become unstable.
- Use extra care when operating post driver in uneven terrain. Tractor and post driver may become unstable and roll over causing serious injury or death.
- Never operate post driver hydraulic system without being pinned to tractor's 3-point hitch.

Assembly Safety

- Use an aligning punch to line up holes. Keep fingers out of these holes. Any sudden movement of heavy components will severely injure or sever your fingers.

- Use a hoist or adequate manpower to lift the heavy components into place. Use adequate jacks or support materials. Attempting to lift heavy components by yourself could cause serious injury.
- Be sure all bolts and hydraulic fittings are tight, and all cotter pins are installed in pins.
- Before applying pressure to hydraulic system, be sure all connections are tight and components are not damaged.
- Use cardboard or wood as a backstop when searching for hydraulic leaks. Escaping hydraulic oil under pressure can cause serious injury if it penetrates the skin. See a doctor immediately if injured.
- Relieve hydraulic pressure before disconnecting hydraulic components. Hydraulic components under pressure, may cause parts and hydraulic fluid to fly out at a high velocity which could cause serious injury.
- Operator should always observe the movement of hammer and mast assembly when raising and folding post driver for transport. If upper link of 3-point hitch was adjusted too short, and/or the upper limit of the 3-point hitch is set to high, the hammer and mast assembly could strike operator or rear of tractor causing serious injury or death to operator or serious damage to tractor.
- Before connecting (or disconnecting) hydraulic pump to (or from) tractor PTO shaft, disengage PTO and shut off tractor engine. Serious injury or death may occur if PTO was accidentally engaged while connecting or disconnecting pump.
- If the torque arm chain of PTO pump is not properly secured, severe damage to the pump and hydraulic circuitry could occur.
- Always stay clear of PTO when it is engaged. Serious injury or death will result if clothing, hair or limbs were caught in PTO shaft.
- Always ensure tractor's PTO safety shield is installed.
- Be sure all hammer tilt cylinder pins are properly installed and secured with retainers. Serious injury or death may occur to operator or person(s) nearby if cylinder pin(s) fell out and hammer fell.

Transport Safety

- Reduce speed when transporting post driver over uneven or rough terrain.
- Shift the tractor into a lower gear when transporting post driver down hills or steep slopes.
- Be sure SMV (slow moving vehicle) emblem is clean and visible before transporting post driver. The SMV emblem warns other vehicles approaching from rear.
- Always comply with all State, Provincial, Federal and local laws when transporting post driver on roadways.
- Retract hammer cylinder and upper tilt cylinder before transporting post driver.
- When transporting the post driver on a public road or highway by night or during the day, use accessory lights and devices to give adequate warning to the operators of other vehicles. Check local regulations.

Service and Maintenance Safety

- Never work on the hammer when it is in the raised or partially raised position. If hammer fell, operator or person(s) nearby could be seriously injured or killed in an explosion, which may result in serious injury or death.
- Escaping hydraulic fluid under pressure can have sufficient force to penetrate the skin, causing serious personal injury. Before disconnecting lines, be sure to relieve all pressure. Before applying pressure to the system, be sure all connections are tight and that all lines,

pipes and hoses are not worn or damaged.

- Fluid escaping from a very small hole can be almost invisible. Use a piece of cardboard or wood, rather than hands, to search for suspected leaks. If injured by escaping fluid, see a doctor at once. Serious infection or reaction can develop if proper medical treatment is not administered immediately.
- If spray-can paint is used, be careful when discarding empty cans. Do not incinerate or puncture can.
- Do not permit smoking, sparks, or open flame where combustible lubricants or liquids are being used.
- Replace any worn or damaged hydraulic hoses and keep all hydraulic hoses and hydraulic fittings tight.
- Shut off all power and lock tractor brakes before adjusting, servicing or cleaning the post driver.
- Do not lubricate or adjust post driver when it is being operated or while it is in motion.
- Always retract all cylinders, shut off tractor engine, disengage PTO and lock tractor brakes before lubricating post driver.
- Replace any safety decals that are damaged or are illegible.

Storage Safety

- Do not store the post driver with the hammer raised. If hammer fell person(s) nearby could be seriously injured.
- Always close both tilt cylinders when storing post driver.

Installation

- To install safety signs, ensure the installation area is clean and dry. Decide on the exact position before you remove the backing paper. Remove the smallest portion of the split backing paper and align over the specified area. Carefully press in place.
- Slowly peel back the remaining paper and smooth the remaining portion in place. Small air pockets can be pierced with a pin and smoothed out.
- Replace safety signs immediately should they become damaged, torn or illegible. Obtain replacements from your authorized dealer using the part numbers shown.

Assembly Instructions



CAUTION

Use a hoist or adequate manpower to lift heavy components in place. Attempting to lift heavy components by yourself could cause serious injury.

1. See ILL. 1. Join 2 spool valve, arrow 1, and single spool valve, arrow 2, with one (1) 3/4" NPT x 2" (19 x 51 mm) nipple, arrow 3. Next, fasten three (3) control levers, arrow 4, to the two valves. Attach handles so they point up. Fasten valve assembly to top of valve bracket, arrow 5, with four (4) 3/8" x 2" (10 x 51 mm) NC hex bolts c/w nuts, lockwashers and flatwasher. Place flatwashers on bottom of valve mount plate. Tighten bolts.

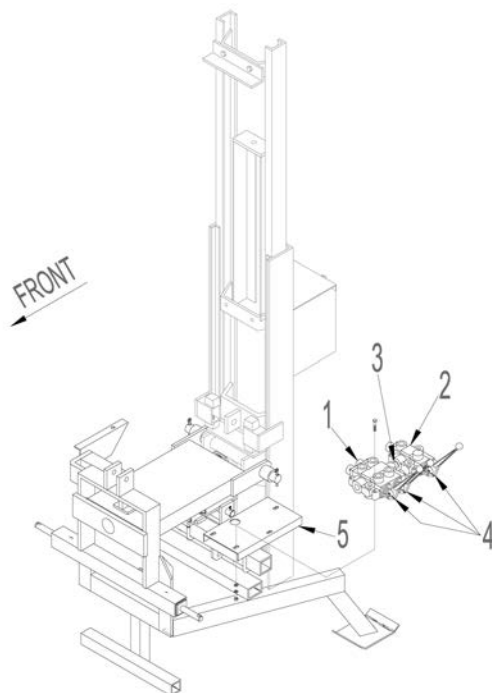


CAUTION

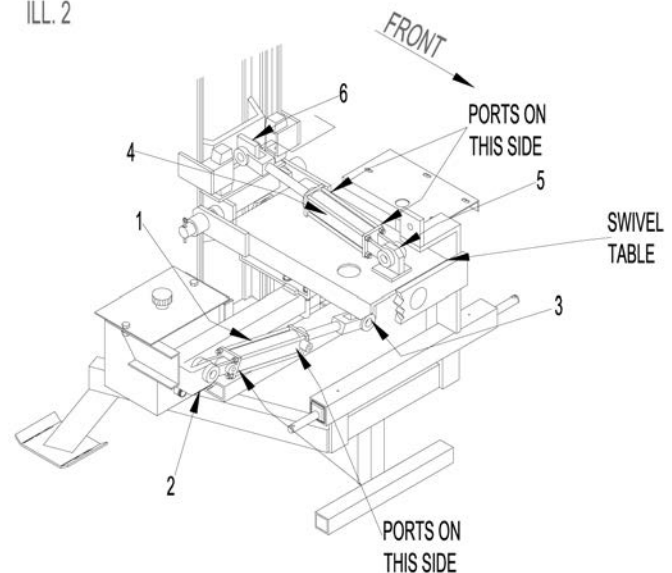
When assembling post driver, use aligning punch to line up holes. Keep fingers out of holes. Any sudden movement of heavy components will severely injure or sever your fingers.

2. See ILL. 2. Fasten barrel end of a 2" x 8" (51 x 203 mm) cylinder, arrow 1, to cylinder lug, arrow 2, of hydraulic support bar. Position so ports are facing away from hammer. Fasten shaft end of same cylinder to lug, arrow 3, under swivel table. Fasten barrel end of the other 2" x 8" (51 x 203 mm) cylinder, arrow 4, to cylinder lug, arrow 5, on swivel table. Position so ports are facing hydraulic valves. Fasten shaft end of cylinder to lug, arrow 6, on hammer. Secure each cylinder with two (2) cylinder pins. Secure each cylinder pin with two (2) clips.

ILL. 1



ILL. 2



3. Attaching hydraulic hose and fittings. See ILL. 3.

NOTE: Do not use teflon tape to seal hydraulic hoses and fittings. If pieces of tape gets into the hydraulic system they may plug small orifices.

NOTE: Cleanliness is absolutely necessary to prevent contamination when hooking up the hydraulic system components. Handle fittings carefully.

Attach hoses and fittings to hydraulic pump, filter, valves, cylinders and oil reservoir as shown in ILL. 3.

NOTE: Be sure the 3/8" (10 mm) male - female swivel adaptors with restricted orifice, (painted black), are installed in the 2" x 8" (51 x 203 mm) hammer tilt cylinder and in the 2" x 8" (51 x 203 mm) hammer swivel cylinder. Two orifices are required per cylinder.

Fasten torque arm assembly to pump with (2) 3/8" x 1-1/2" (10 x 38 mm) NC hex bolts c/w nuts and lockwashers. Fasten as shown in ILL. 3.

Install 3/16" (5 mm) key in pump shaft, then slide PTO adaptor over shaft. Secure by tightening set screw. See ILL. 3.

NOTE: When the post driver has been idle for a period of time, the hammer tilt cylinder may creep causing a void in the cylinders. This cylinder movement is caused by a lack of oil pressure in cylinders when the post driver is not being used. For piston seals to hold oil there must be enough hydraulic pressure in the cylinders to deform the seal. This seal deformation pushes the seal against the wall of the cylinder and piston block, giving an oil tight seal.



WARNING

Use cardboard or wood as a backstop when searching for hydraulic leaks. Escaping hydraulic oil under pressure can cause serious injury if it penetrates the skin. See a doctor immediately if injured.



WARNING

Relieve hydraulic pressure before disconnecting hydraulic components. Hydraulic components under pressure may cause parts and hydraulic fluid to fly out at a high velocity which could cause serious injury.



CAUTION

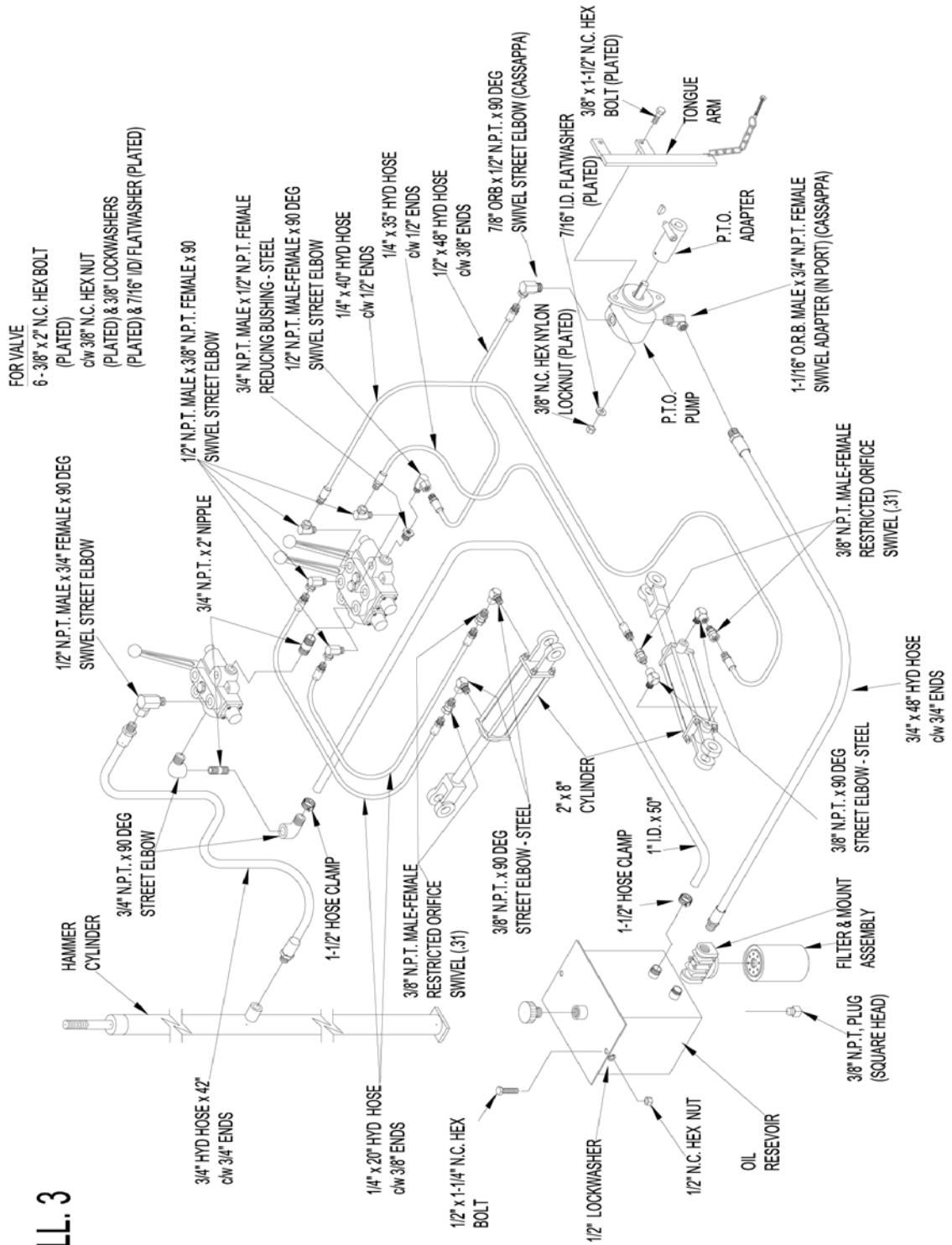
Do not mount post driver on tractor weighing less than 3,000 lb (1,360 kg). Operating or transporting post driver mounted on a tractor weighing less than 3,000 lb (1,360 kg) could result in tractor roll over causing serious injury or death to operator or person(s) nearby.



CAUTION

Never mount post driver on tractor without ROPS protection.

ILL. 3

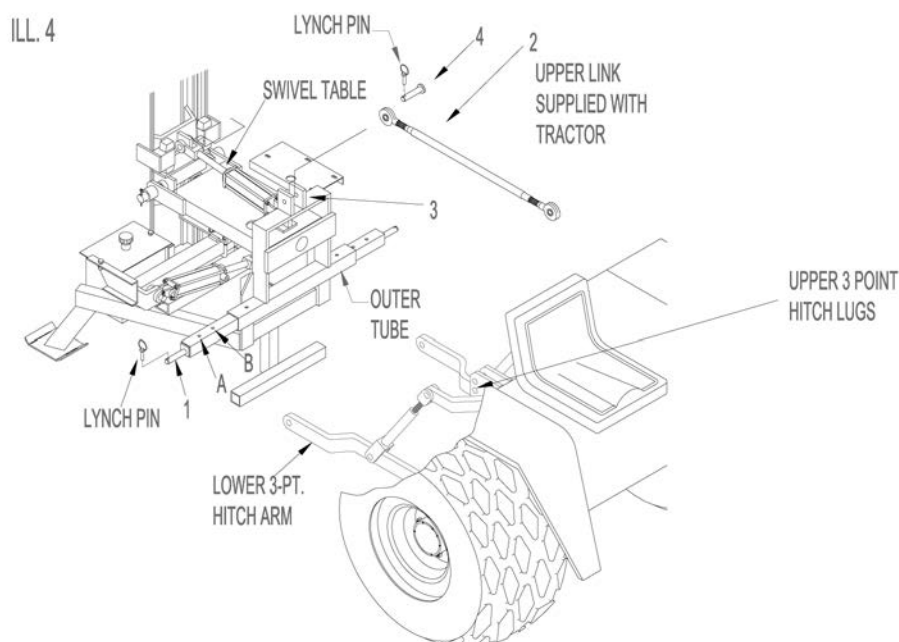


4. Mounting Post Driver

A - Category I, see ILL. 4. Move both hitch inner tubes, arrow 1, IN so hole "A" aligns with hole in outer tube. Install a 1/2" x 3" (13 x 76 mm) bolt in hole , secure bolt with 1/2" (13 mm) locknut. Place each lower arm of 3-point hitch over draw pin, arrow 1. Secure with lock pin supplied with tractor's 3-point hitch.

NOTE: For Category II hitches install 1-1/8" OD x 1-3/4" (29 x 44 mm) bushings over draw pins.

Category II, See ILL. 4. Move both inner hitch tubes, arrow 1, OUT so hole "B" aligns with hole in outer tube. Install a 1/2" x 3-1/2" (13 x 89 mm) bolt in hole , secure bolt with 1/2" (13 mm) locknut. Place each lower arm of 3-point hitch over draw pin, arrow 1. Secure with lynch pins.



NOTE: Use extreme caution when shortening upper link, arrow 2, (See ILL 8). Turning link in too much may cause hammer to interfere with rear of tractor when post drive is raised with hammer folded. This may cause serious damage to tractor and serious injury to tractor operator.

B - Connecting upper link - See ILL. 4. Pin upper link, arrow 2, (supplied with tractor) to upper lugs of tractors = 3-point hitch. Select hole (if more than one set of holes are available) which gives the most desirable post driver position when raised for transport. Selecting incorrect hole in upper 3-point hitch lug of tractor may cause hammer and mast to interfere with rear of tractor or strike tractor's operator causing serious injury to operator and damage to tractor. Use pin supplied with tractor. Install opposite end of upper link, arrow 2, between upper lugs, arrow 3, of post driver frame. Fasten with pin, arrow 4. Then secure pin with lynch pin.



WARNING

Incorrect adjustment of upper link and wrong hole selection when pinning upper link to tractor may cause post driver to interfere with rear of tractor cab or strike tractor operator resulting in serious injury to operator and serious damage to tractor.

NOTE: For Category II hitch install 1" OD x 1-15/16" (25 x 49 mm) bushing in upper of link, arrow 2.

C - Adjusting limits of 3-point hitch - To allow safe operation of post driver the upper and lower limits of 3-point hitch must be set as follows:

Set lower limit so post driver legs rest on the ground. Upper link may have to be adjusted so all legs rest on the ground.

Set the upper limits so post driver has adequate ground clearance for transport. To set upper limit, first fold hammer into transport position then slowly raise post driver with 3-point hitch. Use extra care when activating 3-point hitch. Be sure 3-point hitch does not automatically rise to maximum height when activated. To start with, set upper limit at 1/2 or less of maximum lift height, then adjust as required. Observe position, of hammer as post driver is being raised. When post driver reaches desired safe height, hammer should be well clear of operator in tractor seat and rear of tractor.

NOTE: When raising post driver (with 3-point hitch) for the first time, raise unit slowly. Be sure no binding occurs. Also ensure hammer mast does not strike rear of tractor or strike tractor's operator when hammer is folded for transport.

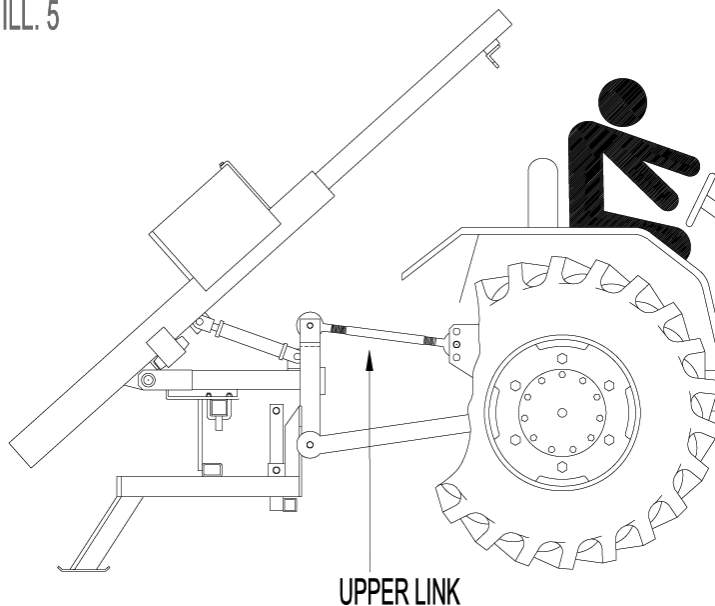
D - Attaching PTO pump. See ILL. 6.



DANGER

Operator should always observe the movement of hammer and mast assembly when raising and folding post driver for transport. If upper link of 3-point hitch was adjusted too short and/or the upper limit of the 3-point hitch it set too high, the hammer and mast assembly could strike operation in tractor seat or rear of tractor causing serious injury or death to operator or serious damage to tractor. See ILL. 5.

ILL. 5



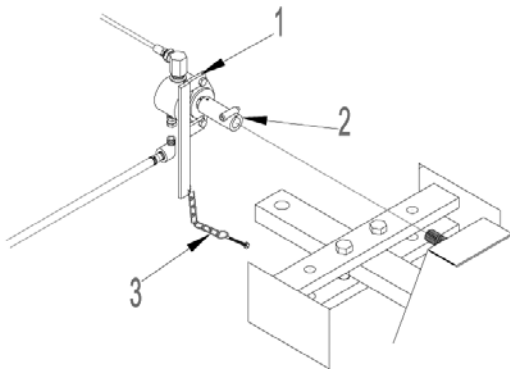


WARNING Always ensure tractor's PTO safety shield is installed.

With torque arm, arrow 1, on left hand side, slide the spline adaptor of pump, arrow 2, onto the tractor PTO shaft.

Place I-bolt of torque arm chain, arrow 3, through a convenient hole in drawbar. Secure with flatwasher and locknut.

ILL. 6



DANGER

Before connecting (or disconnecting) hydraulic pump to (or from) tractor PTO shaft, disengage PTO and shut off tractor engine. Serious injury or death may occur if PTO was accidentally engaged while connecting or disconnecting pump.



CAUTION

If the torque arm chain of PTO is not properly secured, severe damage to the pump and hydraulic circuitry could occur. (This is not a warrantable failure).



DANGER

Always stay clear of PTO when it is engaged. Serious injury or death will result if clothing, hair or limbs are caught in PTO drive shaft.

5. Filling Hydraulic System.

A - Fill oil reservoir with hydraulic oil, use Esso Hydro 56 or a grade of hydraulic oil that is approved for tractor hydraulic systems.

B - Engage PTO to start pump. Using hydraulic valve control levers, pump hydraulic oil into all cylinders. Extend and contract cylinders until completely filled with oil. Add oil to reservoir as required. The level should be one inch from top of tank. (Oil reservoir is shown in ILL. 3).

NOTE - Before applying pressure to hydraulic system, be sure all connections are tight and components are not damaged.



CAUTION

Be sure all bolts and hydraulic fittings are tight, and all cotter pins are installed in pins. Unit could be damaged if any component came loose.



CAUTION

Be sure all hammer tilt cylinder pins are properly installed and secured with retainers. Serious injury or death may occur to operator or person(s) nearby if cylinder pin(s) fell out and hammer fell.

Operation Instructions

1. Preparing post driver for operation

A - To mount post driver to tractors = 3-point hitch, refer to subsections "A" to "D" on the following pages.



CAUTION

Do not mount post driver on tractor weighing less than 3000 lb (1360 kg) and tractor not equipped with ROPS protection.

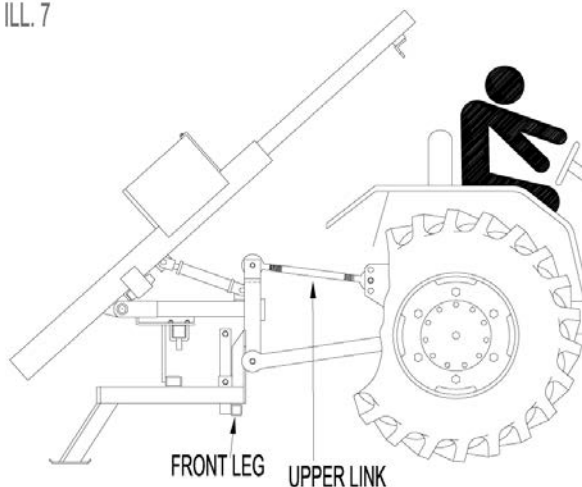
B - Check if upper link of 3-point hitch is adjusted properly for tractor. Refer to paragraph "C"



DANGER

Operator should always observe the movement of hammer and mast assembly when raising and folding post driver for transport. If upper link of 3-point hitch was adjusted too short and/or the upper limit of the 3-point hitch is set too high, the hammer and mast assembly could strike operator or rear of tractor causing serious injury or death to operator or serious damage to tractor. See ILL 7.

ILL. 7



C - Check the oil level in oil reservoir. The level should be 1" (25 mm) from top of reservoir. If filling is required, use Esso Hydro 56 a grade of hydraulic oil that is approved for tractor hydraulic systems.

D - Check that the rubber bumpers on upper and lower hammer stops are in place and in good condition.

E - Ensure both sides of hammer slide are greased before activating controls.

F - Check all bolts and hydraulic fittings for tightness.

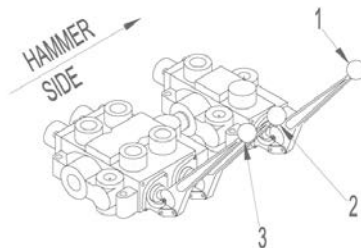
G - Be sure all pins are properly secured with cotter pins, especially the 3-point hitch pins.

2. Operation of hydraulic controls - See ILL. 8.

The three control levers operate post driver as follows:

- Lever, arrow 1, raises and lowers hammer.
- Lever, arrow 2, tilts hammer IN and OUT.
- Lever, arrow 3, rotates hammer towards the left or right when viewing from rear of tractor

ILL. 8



3. See ILL. 10. Before operating post driver raise front leg of stand assembly and lock in raised position with pin. D



CAUTION

Know the function of each hydraulic lever before proceeding with operations.



CAUTION

When tilting, raising or lowering the hammer, keep all persons away from post driver.



WARNING

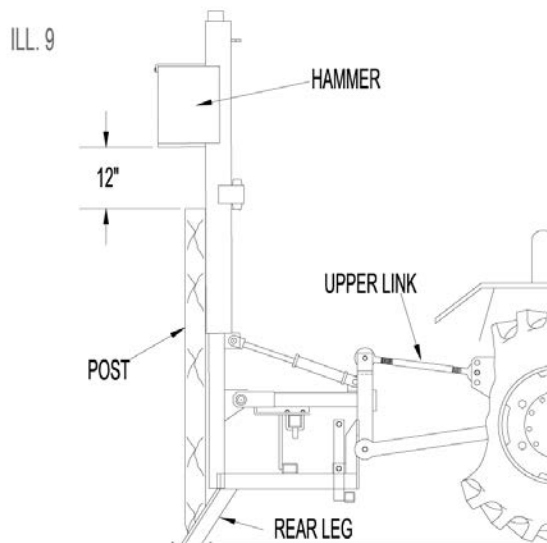
Fluid escaping from a very small hole can be almost invisible. Use a piece of cardboard or wood, rather than hands, to search for suspected leaks. If injured by escaped fluid, see a doctor at once. Serious infection or reaction can develop if proper medical treatment is not administered immediately.

4. Driving posts - see ILL. 9.

A - Before starting to drive posts, fully cycle both tilt cylinders. If post driver has been idle for a period of time, the tilt cylinder may creep causing a void in cylinders. The cylinder movement is caused by a lack of oil pressure in cylinder. For piston seals to hold oil there must be enough hydraulic pressure in the cylinders to deform seal. This seal deformation pushes the seal against the wall of the cylinder and piston block, giving an oil tight seal.

Cycling tilt cylinders will fill void in cylinders which will prevent cylinder movement when driving posts.

When cycling or operating tilt cylinder, push or pull valve levers to maximum position. Do not feather. Feathering or holding valve levers in a partially open position will also cause a void in tilt cylinders



DANGER

Always stay clear of PTO shaft when in operation. Serious injury or death will result if clothing, hair or limbs are caught in these drive shafts.

B - Locate post driver with tractor where post is to be driven.

C - Using 3-point hitch lower post driver so rear legs of stand rest on the ground.

D - Turn on PTO to start pump.

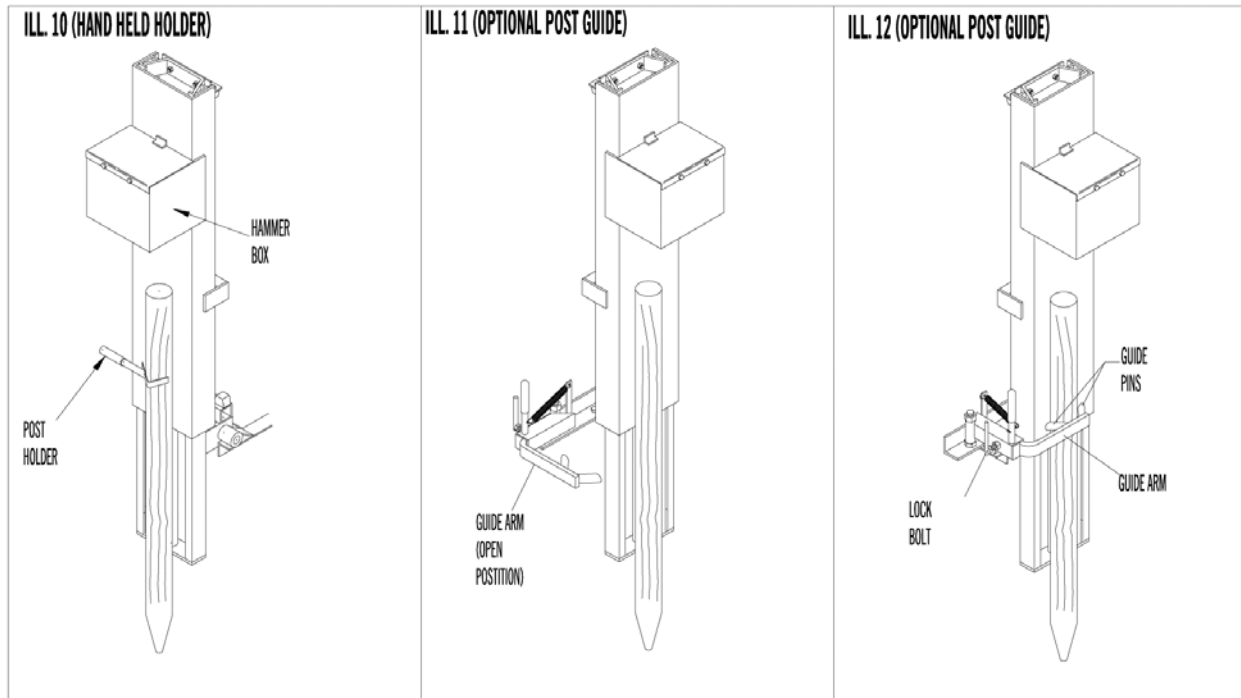
E - Tilt and rotate hammer by operating valve levers, arrow 2, and 3, shown in ILL. 8. These levers will locate hammer in desired working position.

F - Raise hammer approximately 12" (304 mm) above post as shown in ILL. 9.



CAUTION

Make certain everyone is clear before operating or moving the post driver.



DANGER

Never allow person or persons to stand near hammer when post driver is being operated. This post driver is designed to be operated by one person only. Serious injury or death will result if a person is struck by a falling or tilting hammer.

G - Holding post under hammer

- Hand held holder - See ILL. 10. Position post under hammer. Using the hand held post holder, hold post against hammer. Start to drive post.

- Optional post guide - See ILL 11 and 12.

Step 1 - Place guide arm in open position and place post under hammer. ILL. 11 shows guide arm in open position.

Step 2 - See ILL. 12. Close Post Guide over post so guide pins hold post.

Step 3 - See ILL. 12. If necessary, loosen lock bolt and adjust guide arm IN or OUT so guide pins hold post securely. Tighten lock bolt.


Step 4 - Start to drive post.


H - Push hammer valve lever, arrow 1 (ILL. 8), IN to drop hammer on post. Use 12" strokes to start driving post and increase stroke as required.


I - NOTE: Do not use too much force when operating hammer valve lever. Handle mount brackets will be damaged if lever is pushed too hard to drop hammer.


J - NOTE: It is not recommended to add ballast to hammer box. The additional weight may cause post driver and tractor to become unstable.





 **DANGER** Never allow another person to hold the post under hammer when post driver is being operated. Serious injury or death will result if a person is struck by a falling hammer.


 **WARNING** Always ensure tractor's PTO safety shield is installed.


 **DANGER** Contact local utility companies for underground services before installing posts.


 **DANGER** When driving posts always watch for overhead power lines. If post driver makes contact with power lines, operator or those nearby could be seriously injured or killed.


 **DANGER** Never place your hand on top of post.

 **WARNING** Use safety glasses and hand wear to protect against splinters.

 **CAUTION** Never use the valve to stop the hammer unless in extreme emergency. The resulting extreme hydraulic pressure may seriously damage hydraulic system.

	<p><u>CAUTION</u></p>	<p>Keep all untrained personnel away from the post driver at all times. Only personnel knowledgeable in the operation should be allowed near or in control of the post driver.</p>
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	<p><u>WARNING</u></p>	<p>To avoid serious injury or death. Use discretion when adding ballast to hammer as both tractor and post driver may become unstable during either operation or transporting unit.</p>
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	<p><u>DANGER</u></p>	<p>Always lower post driver stand to ground, lower hammer and shut off power when post driver is left unattended or is not in operation. Serious injury or death may result if hammer fell unexpectedly and struck person(s) nearby.</p>
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5. To transport post driver, proceed as follows: See ILL 13.

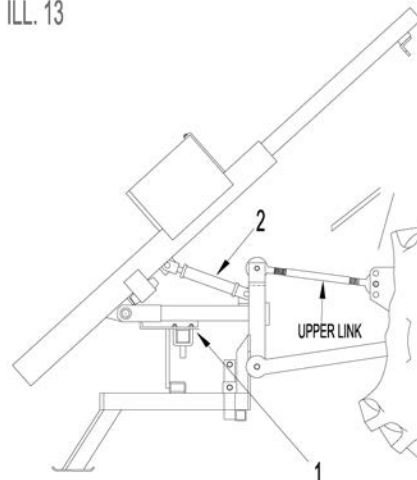
A - Lower hammer cylinder to bottom.


B - Rotate hammer by activating lower cylinder, arrow 1, so top of hammer is in 12 o'clock position. (Viewed from rear of tractor).

C - Tilt hammer in by contracting upper tilt cylinder, arrow 2.


D - Now disengage PTO.

ILL. 13



	<p><u>DANGER</u></p>	<p>Operator should always observe the movement of hammer and mast assembly when raising and folding post driver for transport. If upper link of 3-point hitch was adjusted too short and/or the upper limit of the 3-point hitch is set too high, the hammer and mast assembly could strike operator or rear of tractor causing serious injury or death to operator or serious damage to tractor.</p>
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E - Using 3-point hitch, raise post driver.

	<p><u>CAUTION</u></p>	<p>Never allow anyone near the post driver when you are performing operating functions.</p>
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CAUTION

When transporting the post driver on a public road or highway by night or during the day, use accEssory lights and devices to give adequate warning to the operations of other vehicles. Check local regulations.



CAUTION

Be sure SMV (Slow Moving Vehicle) emblem is clean and visible before transporting post driver. The SMV emblem warns other vehicles approaching from rear.



CAUTION

Reduce speed when transporting post driver over uneven or rough terrain.



CAUTION

Shift tractor into a lower gear when transporting post driver down hills or steep slopes.



CAUTION

Comply with all state, federal and local laws when transporting post driver on roadways.



WARNING

Retract hammer cylinder and upper tilt cylinder before transporting post driver.

6. Mast extension kit (installation) - Instructions to convert from low hammer to high hammer. (optional)

NOTE: To prevent post driver from falling while converting hammer, attach post driver to tractor.

A - See ILL 14. With post driver mounted on tractor, position hammer so it is in a vertical position, then raise hammer so rubber bumpers are above bracket, arrow 5. Next, place a safety block between bottom of hammer and bottom of mast.



CAUTION

Place a block between bottom of hammer and bottom of mast. If hydraulic system failed or if hydraulic lever was accidentally operated, hammer could fall causing serious injury or death.

B - Remove top angle iron bumper stop, arrow 1, from bracket, arrow 6, at top of mast. Next install same bumper stop, lower bracket, arrow 5, at mid point of mast. Position bumper as shown. Fasten with (2) 1/2" x 1-1/2" (13 x 38 mm) hex bolts c/w nuts and locks.

C - Remove safety block and lower hammer so rubber bumpers rest on bumper stop, arrow 6.

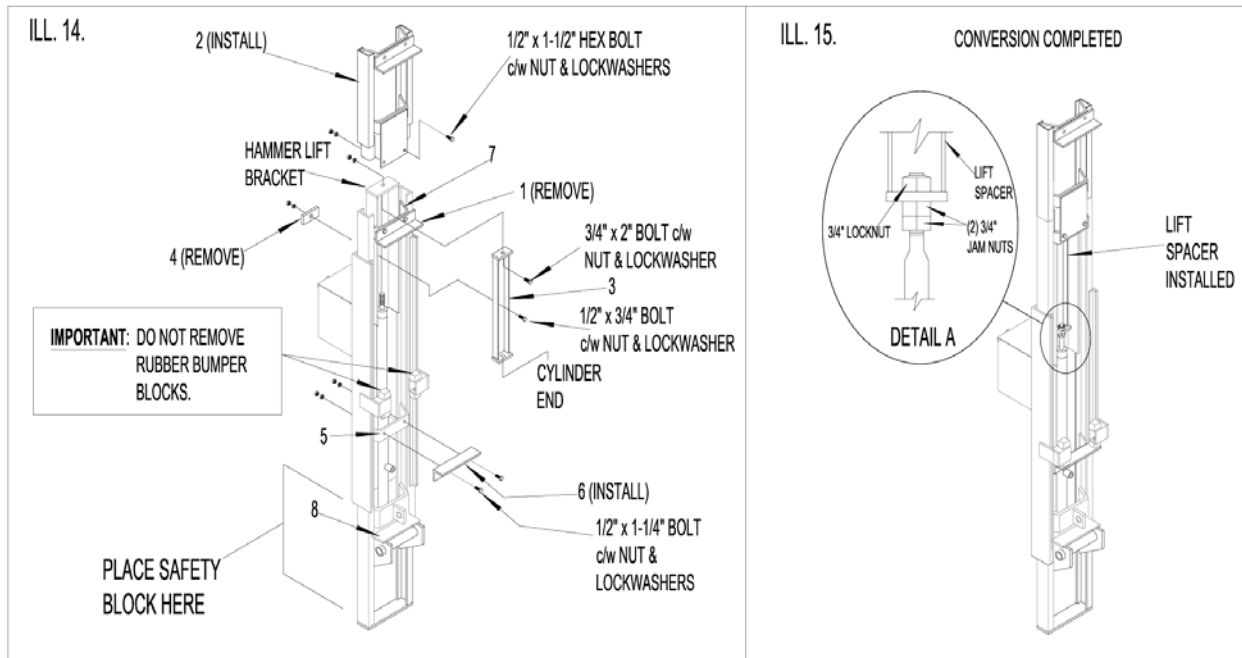
D - See ILL 14. Insert mast extension, arrow 2, into top of mast. Secure to bracket, arrow 7, with (2) 1/2" x 1-1/2" (13 x 38 mm) hex bolts c/w nuts and lockwashers.


E - Remove nut from top of hammer cylinder and allow shaft to retract into cylinder.

F - See ILL. 14. Install lift spacer, arrow 3, inside the hammer lift bracket as shown. Fasten top of lift spacer with (1) 3/4" x 2" (19 x 51 mm) hex bolt c/w nut and lockwasher. Fasten center of lift spacer to front of hammer lift bracket with one (1) backing plate, arrow 4, and one (1) 1/2" x 1-3/4" (13 x 44 mm) bolt c/w nut and lockwasher. Locate backing plate, arrow 4, over front of hammer lift bracket.

G - See ILL. 14. Next install hammer cylinder shaft in hole in bottom of lift spacer, arrow 3. Secure shaft with three (3) 3/4" (19 mm) nuts, one 3/4" (19 mm) locknut on top of lift spacer and two (2) 3/4" (19 mm) jam nuts at bottom of lift spacer. Turn locknut until 1/4" (6 mm) of thread extends beyond nut. Next tighten top jam nut against bottom of lift spacer. Then lock top jam nut by tightening bottom jam nut against it, see ILL. 15, Detail "A"

NOTE: Be sure all bolts and cylinder shaft nuts are tight before using the post driver.



	<p>CAUTION</p>	<p>Always use extra care when operating post driver with mast extension installed. The extra height the hammer is raised may cause tractor and post driver to become unstable.</p>
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7. Mast extension kit (removal) - Instructions to convert from high hammer to low hammer position. (optional)

NOTE: To prevent post driver from falling while converting hammer, attach post driver to tractor.

A - See ILL 16. With post driver mounted on tractor, position hammer so it is in a vertical position and lower hammer on to bumper stop, arrow 6.

B - Remove mast extension, arrow 2, from top of mast.

C - See ILL 16. Remove nut from top of hammer cylinder and allow shaft to retract into cylinder.

D - See ILL 16. Remove lift spacer, arrow 3, front top of hammer.

E - See ILL. 16. Next, pull shaft out of cylinder and insert it through hole in hammer lift bracket, arrow 9. Shaft is secured with three (3) 3/4" (19 mm) nuts, one 3/4" (19 mm) locknut on top of bracket and two (2) 3/4" (19 mm) jam nuts at bottom of bracket. Turn locknut until 1/4" (6 mm) of thread extends beyond nut. Next, tighten top jam nut against bottom of lift bracket. Then lock top jam nut by tightening bottom jam nut against it. See ILL. 17, Detail "A".

F - See ILL 16. Use hydraulic system, raise hammer so rubber bumpers are above top bracket, arrow 6. Then place a safety block between bottom of hammer and bottom of mast.

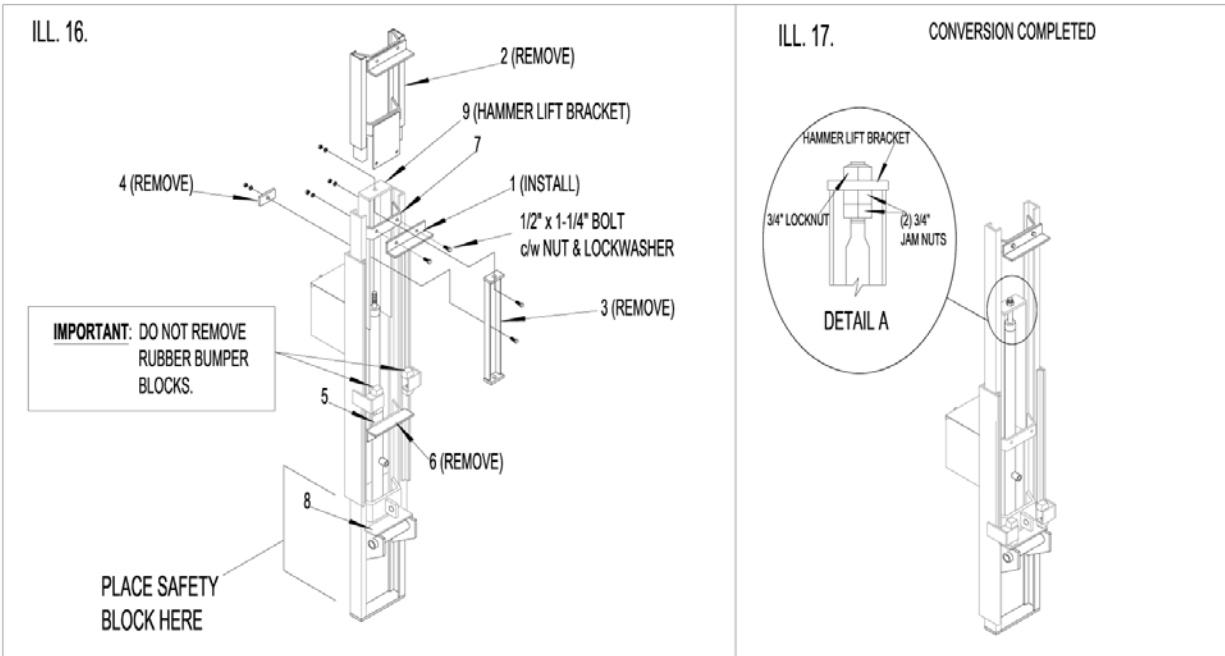
**CAUTION**

Place a block between bottom of hammer and bottom of mast. If hydraulic system failed or if hydraulic lever was accidentally operated, hammer could fall causing serious injury or death.

G - See ILL 16. Remove lower bumper stop, arrow 6, from bracket, arrow 5. Next remove safety block and lower hammer so rubber stops rests on bottom stop, arrow 8.

H - See ILL 16. Fasten hammer stop, arrow 1, to bracket, arrow 7, with two (2) 1/2" x 1-1/2" (13 x 38 mm) bolts c/w nuts and lockwashers. (This is the same bracket (arrow 6) that was removed earlier).

NOTE: Be sure all bolts and cylinder shaft nuts are tight before using post driver.



Maintenance

1. Lubricate post driver as follows - see ILL 18.

A - Grease hammer pivots every 50 hours of operation.

B - Raise hammer and grease both sides of hammer slide every 10 hours of operation.

2. Hydraulic systems

A - Periodically check level of hydraulic oil in reservoir. Oil should be within 1" (25 mm) of the top of reservoir.

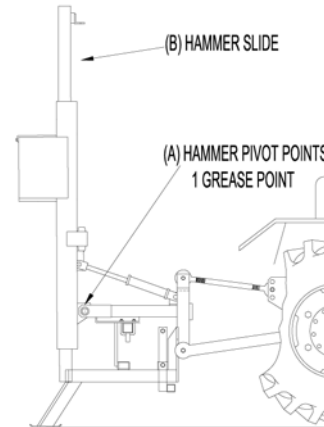
B - Change oil filter every 200 hours of operation.

3. Check for any loose bolts and tighten if required.

4. Be sure all pins have cotter pins or hair pin cotters installed, especially pins which secure post driver to tractor 3-point hitch.

5. Replace any safety decals that are damaged or are illegible.

ILL. 18



DANGER

Never work on the hammer when it is in the raised or partially raised position. If hammer fell, operator or person(s) nearby could be seriously injured or killed.



WARNING

Escaping hydraulic fluid under pressure can have sufficient force to penetrate the skin, causing serious personal injury. Before disconnecting lines, be sure to relieve all pressure. Before applying pressure to the system, be sure all connections are tight and that lines, pipes, and holes are not worn or damaged.



WARNING

Fluid escaping from a very small hole can be almost invisible. Use a piece of cardboard or wood, rather than hands, to search for suspected leaks. If injured by escaping fluid, see a doctor at once. Serious infection or reaction can develop if proper medical treatment is not administered immediately.

**CAUTION**

If spray-can is used, be careful when discarding empty cans. Do not incinerate or puncture can.

**CAUTION**

Do not permit smoking, sparks or open flame where combustible lubricants or liquids are being used.

**CAUTION**

Replace any worn or damaged hydraulic hoses and keep all hydraulic hoses and hydraulic fittings tight.

**CAUTION**

Shut off all power and lock tractor brakes before adjusting, servicing or cleaning the post driver.

Storage

1. Be sure hammer is lowered to bottom position.
2. If post driver is removed from tractor for storage, perform the following procedures:
 - A** - Find a level piece of ground.
 - B** - Lower front leg of support stand, and lock in lower position with lock pins.
 - C** - Using 3-point hitch, lower post driver to the ground so it is resting on three legs of support stand.
 - D** - Using post driver hydraulic controls, lower hammer and close tilt cylinders.
 - E** - Shut off tractor engine and lock brakes.
 - F** - Remove hydraulic pump from PTO
 - G** - Unpin post driver from 3-point hitch.
3. Clean and lubricate all grease points and hammer slide when storing post driver for extended period of time.

4. Inspect the post driver for any missing, worn, or damaged parts. Replace parts as required.
5. Check for any loose bolts and tighten if required.
6. Be sure all pins have cotter pins or hair pin cotters installed.
7. Apply a thin layer of grease to exposed cylinder shafts to prevent rusting when storing post driver for extended period of time.

Beginning of Season Service**DANGER**

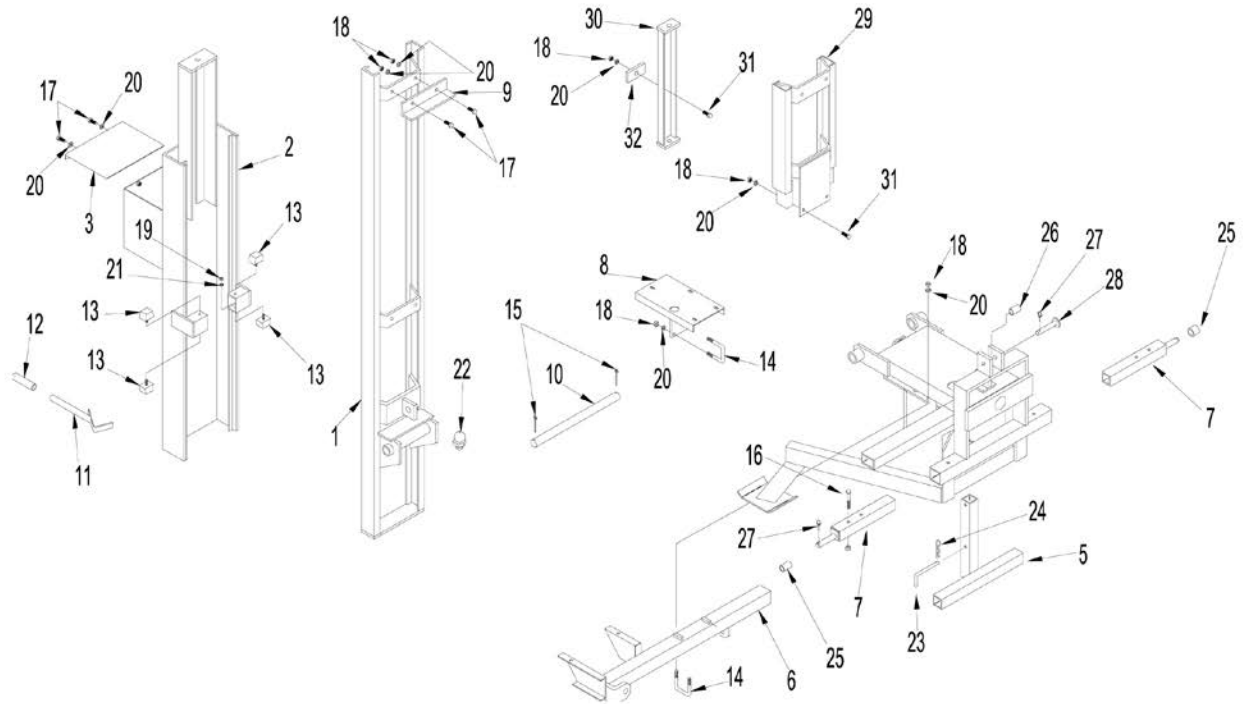
Do not store post driver with hammer in raised position. If hammer fell person(s) nearby could be seriously injured.

1. Clean off any dirt or grease that may have accumulated on moving parts. This will prevent abrasive action that could cause excessive wear.
2. Thoroughly inspect the post driver for any loose or missing parts and adjust as necessary. Replace any worn or damaged parts.
3. Replace any safety decals that are damaged or are illegible.

End of Season Service

1. Coat all sliding parts with a layer of grease to prevent rust. The chief enemies of your post driver, rust and corrosion, are busy the year-round. A little time and effort spent protecting the post driver from destructive moisture will repay you in longer service, easier operation, and higher resale value. This should also be done if the machine is going to sit for long periods of time. Clean the post driver thoroughly to remove dirt and trash which hold moisture and cause rusting.
2. Replace worn or damaged parts.
3. Replace any safety decals that are damaged or are illegible.

Hammer and Mast Assembly

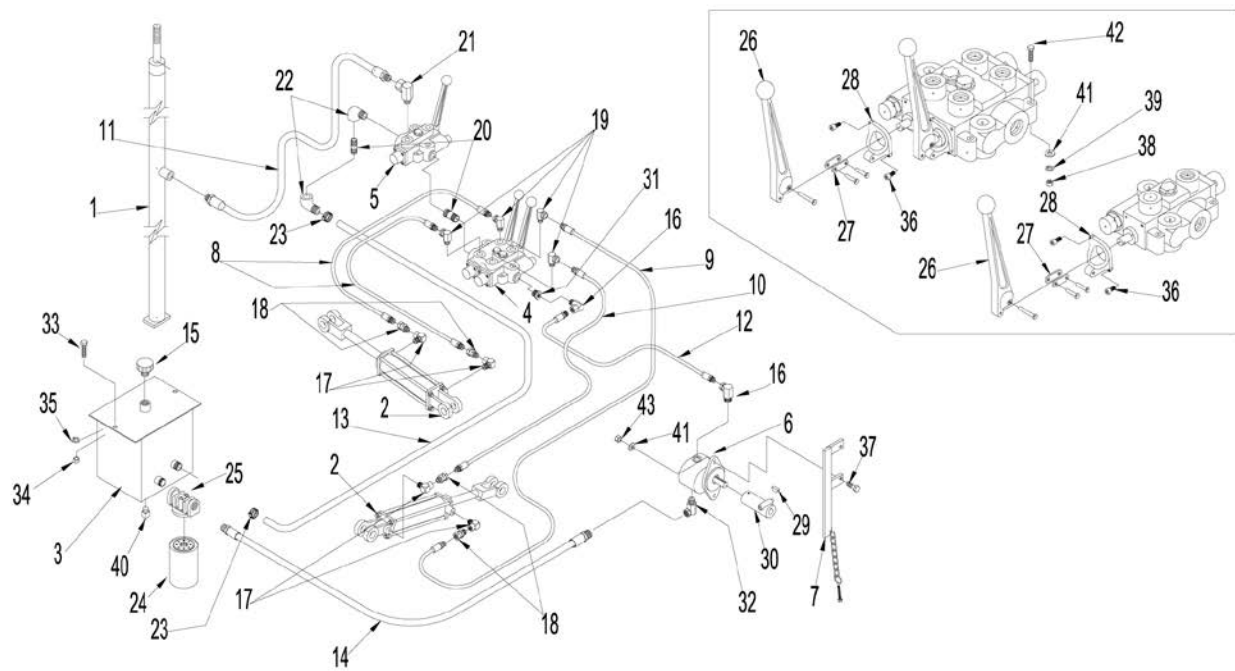


When Ordering Parts

Always give your dealer the Model, Color and Serial Number of your machine to assist him in ordering and obtaining the correct parts. Use the exploded view and tabular listing of the area of interest to exactly identify the required part.

Item	Part Number	Description	Qty
1	P80761	Mast Assembly	1
2	P80762	Hammer Assembly	1
3	P80650	Hammer Lid	1
4	P80800	Stand and Table Assembly	1
5	P80799	Front Leg - Stand	1
6	P80754	Lower Cylinder Support	2
7	P80755	Inner Hitch Tube	1
8	P80756	Valve Plate Mount Bracket	1
9	P80757	Bumper Stop	1
10	PH80661	Pivot Pin (Mast)	1
11	P80601	Post Holder	1
12	P80602	Rubber Grip - Post Holder	1
13	PH80628	Rubber Stop Block	4
14	M80010	1/2" x 3-1/16" C-C x 3-9/16" (13 x 78 x 90 mm) U-Bolt	4
15	BP37200	3/8" x 2" (10 x 51 mm) Cotter Pin	2
16	BO50035B	1/2" x 3-1/2" (13 x 89 mm) NC Hex Bolt	2
17	O50012	1/2" x 1-1/4" (13 x 32 mm) NC Hex Bolt	4
18	BN050	1/2" (13 mm) NC Hex Nut	15
19	BN037	3/8" (10 mm) NC Hex Nut	4
20	BW050L	1/2" (13 mm) Lockwasher	15
21	BW037L	3/8" (10 mm) Lockwasher	4
22	10GN1	1/4 - 28 Grease Zirk	1
23	P80767	Lock Pin - Front Leg	1
24	DR129	Hair Pin - Cotter	1
25	P80768	Cat II Lower Bushing	2
26	P80769	Cat II Upper Bushing	1
27	DH12517	Lynch Pin - 7/16" x 1-3/4" (11 x 45 mm)	2
28	P80770	Cat I - Toplink pin - 3/4" x 3-7/8" (19 x 99 mm)	1

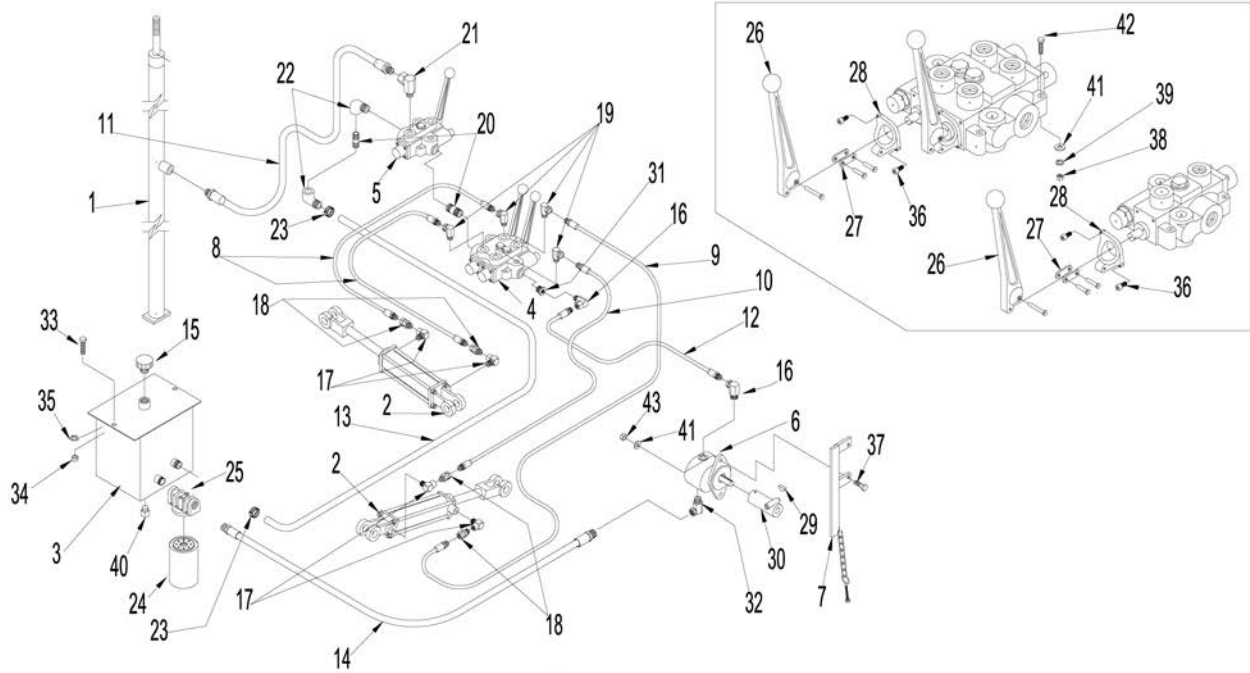
Hydraulic System w/Tank Mounted Filter (Currently Used)



Item	Part #	Description	Qty
1	281	Hammer Cylinder - 1-5/8" Dia x 64-15/16" (41 x 1649 mm) Stroke c/w Nuts & Mount Pad	1
2	283	2" x 8" (51 x 203 mm) Cylinder c/w Pins	2
3	P80513	Hydraulic Oil Reservoir	1
4	P80750	2 Spool Hydraulic Control Valve	1
*	P80529	Seal Kit - Cross 2 Spool Valve	---
**	P80528	Seal Kit - Cross Single Spool Valve	---
5	P80682	Single Spool Hydraulic Control Valve	1
6	P80703	Pump PTO w/ ORB Ports (Cassappa)	1
***	P80517	Seal Kit - Cassappa Pump	---
7	P80512	Torque Arm	1
8	L2929	1/4" x 20" (6 x 508 mm) Hydraulic Hose c/w 3/8" (10 mm) Ends	2
9	L2909	1/4" x 40" (6 x 1016 mm) Hydraulic Hose c/w 3/8" (10 mm) Ends	1
10	L2907	1/4" x 35" (6 x 889 mm) Hydraulic Hose c/w 3/8" (10 mm) Ends	1
11	P3033	3/4" x 42" (19 x 1067 mm) Hydraulic Hose c/w 3/4" (19 mm) Ends	1
12	P4329	1/2" x 48" (13 x 1219 mm) Hydraulic Hose c/w 1/2" (13 mm) Ends	1
13	P4327	1" (25 mm) Fuel Hose x 50" (1270 mm) Long (No Ends)	1
14	P4503	3/4" x 48" (19 x 1219 mm) Hydraulic Hose c/w 3/4" (19 mm) Ends	1
15	P80510	Breather Cap	1
16	P80706	7/8" (22 mm) ORB Male x 1/2" (13 mm) NPT x 90 Degree Swivel Street Elbow	1
17	DL5283	3/8" (10 mm) NPT x 90 Degree Street Elbow (Steel)	1
18	P80704	3/8" (10 mm) Male-Female Restricted Orifice Swivel (0.31)	6
19	P80675	1/2" (13 mm) NPT Male x 3/8" (10 mm) NPT Female x 90 Degree Swivel Street Elbow	4
20	P80693	3/4" (19 mm) NPT x 2" (51 mm) Nipple	2
21	P80694	1/2" (13 mm) NPT Male x 3/4" (19 mm) NPT Female x 90 Degree Female Swivel Street Elbow	6
22	P80695	3/4" (19 mm) NPT x 90 Degree Swivel Street Elbow	1
23	A70728	1-1/2" (38 mm) Hose Clamp	2
24	P80700	Oil Filter	1
25	P80699	Filter Mount	1
26	P80680	Handle - Valve	1
27	P80679	Link Kit	3
28	P80685	Handle Bracket - Cross	3
29	P80588	3/16" (5 mm) Woodruff Key	3
30	P80687	540 PTO Adapter - 3/4" (19 mm) Diameter	1
31	P80698	3/4" (19 mm) NPT Male x 1/2" (13 mm) NPT Female Reducing Bushing - Steel	1
32	P80708	1-1/16" (27 mm) ORB Male x 3/4" (19 mm) NPT Female Swivel Adapter	1
33	BO50012	1/2" x 1-1/4" (13 x 32 mm) NC Cap Screw	2
34	BN050L	1/2" (13 mm) NC Hex Nylon Locknut	2

Item	Part #	Description	Qty
35	BW050L	1/2" (13 mm) Lockwasher	2
36	P80676	1/4" NC x 1/2" (6 x 13 mm) Socket Head Cap Screw	6
37	BO37015	3/8" x 1-1/2" (10 x 38 mm) NC Hex Bolt	7
38	BN037	3/8" (10 mm) NC Hex Nut	7
39	BW037L	3/8" (10 mm) Lockwasher	7
40	P80584	3/8" (10 mm) NPT Plug - Square Head	1
41	BW13705606F	9/16" (14 mm) ID Flatwasher	2
42	BO37020	3/8" x 2" (10 x 51 mm) NC Hex Bolt	2

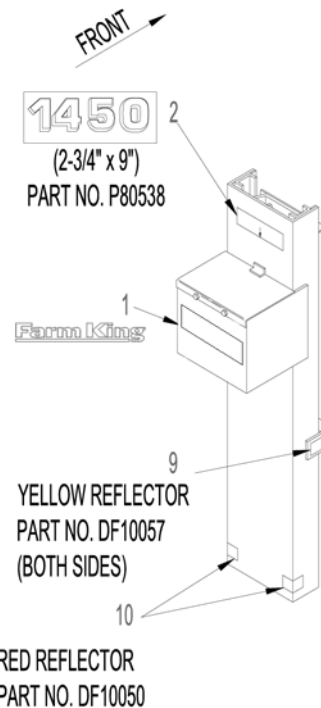
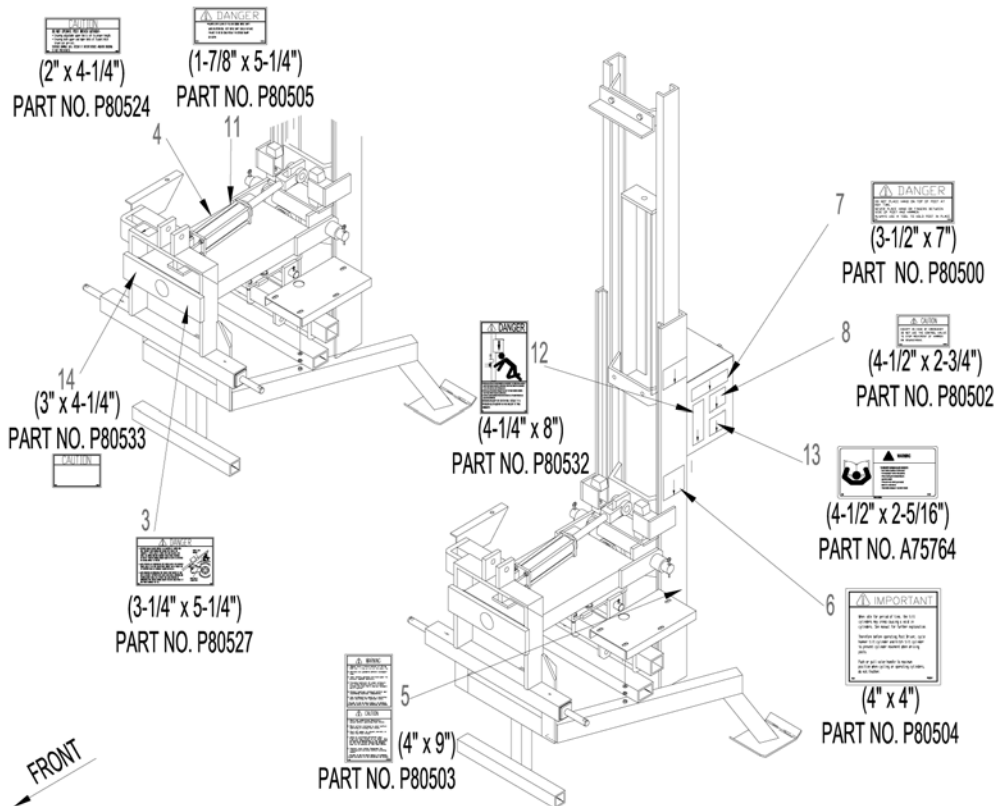
Hydraulic System w/ Pump Mounted Filter (Older System)



Item	Part #	Description	Qty
1	281	Hammer Cylinder - 1-5/8" Dia x 64-15/16" (41 x 1649 mm) Stroke c/w Nuts & Mount Pad	1
2	283	2" x 8" (51 x 203 mm) Cylinder c/w Pins	2
3	P80513	Hydraulic Oil Reservoir	1
4	P80750	2 Spool Hydraulic Control Valve	1
*	P80529	Seal Kit - Cross 2 Spool Valve	---
**	P80528	Seal Kit - Cross Single Spool Valve	---
5	P80682	Single Spool Hydraulic Control Valve	1
6	P80703	Pump PTO w/ ORB Ports (Cassappa)	1
***	P80517	Seal Kit - Cassappa Pump	---
7	P80512	Torque Arm	1
8	L2929	1/4" x 20" (6 x 508 mm) Hydraulic Hose c/w 3/8" (10 mm) Ends	2
9	L2909	1/4" x 40" (6 x 1016 mm) Hydraulic Hose c/w 3/8" (10 mm) Ends	1
10	L2907	1/4" x 35" (6 x 889 mm) Hydraulic Hose c/w 3/8" (10 mm) Ends	1
11	P3033	3/4" x 42" (19 x 1067 mm) Hydraulic Hose c/w 3/4" (19 mm) Ends	1
12	P4329	1/2" x 48" (13 x 1219 mm) Hydraulic Hose c/w 1/2" (13 mm) Ends	1
13	P4327	1" (25 mm) Fuel Hose x 50" (1270 mm) Long (No Ends)	1
14	A4470	3/4" x 42" (19 x 1067 mm) Hydraulic Hose c/w 3/4" (19 mm) Ends	1
15	P80510	Breather Cap	1
16	P80706	7/8" (22 mm) ORB Male x 1/2" (13 mm) NPT x 90 Degree Swivel Street Elbow	1
17	DL5283	3/8" (10 mm) NPT x 90 Degree Street Elbow (Steel)	1
18	P80704	3/8" (10 mm) Male-Female Restricted Orifice Swivel (0.31)	6
19	P80675	1/2" (13 mm) NPT Male x 3/8" (10 mm) NPT Female x 90 Degree Swivel Street Elbow	4
20	P80693	3/4" NPT x 2" (19 x 51 mm) Nipple	3
21	P80694	1/2" (13 mm) NPT Male x 3/4" (19 mm) NPT Female x 90 Degree Female Swivel Street Elbow	6
22	P80695	3/4" (19 mm) NPT x 90 Degree Swivel Street Elbow	1
23	A70728	1-1/2" (38 mm) Hose Clamp	2
24	P80700	Oil Filter	1
25	P80699	Filter Mount	1
26	P80680	Handle - Valve	1
27	P80679	Link Kit	3
28	P80685	Handle Bracket - Cross	3
29	P80588	3/16" (5 mm) Woodruff Key	3
30	P80687	540 PTO Adapter - 3/4" (19 mm) Diameter	1
31	P80698	3/4" (19 mm) NPT Male x 1/2" (13 mm) NPT Female Reducing Bushing - Steel	1

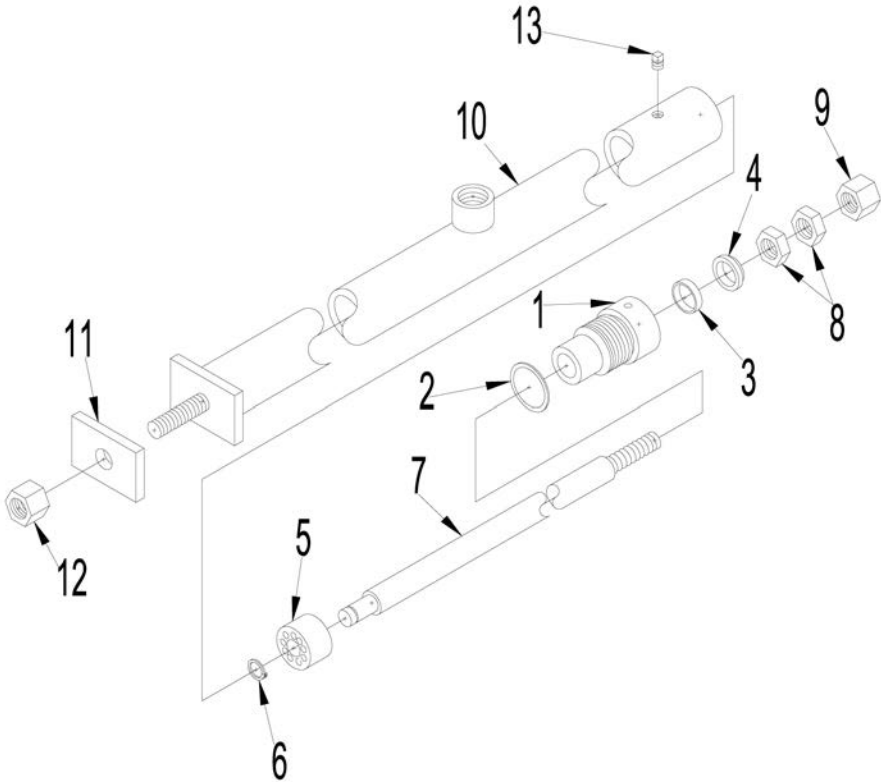
Item	Part #	Description	Qty
32	P80708	1-1/16" (27 mm) ORB Male x 3/4" (19 mm) NPT Female Swivel Adapter	1
33	BO50012	1/2" x 1-1/4" (13 x 32 mm) NC Cap Screw	2
34	BN050L	1/2" (13 mm) NC Hex Nylon Locknut	2
35	BW050L	1/2" (13 mm) Lockwasher	2
36	P80676	1/4" NC x 1/2" (6 x 13 mm) Socket Head Cap Screw	6
37	BO37015	3/8" x 1-1/2" (10 x 38 mm) NC Hex Bolt	7
38	BN037	3/8" (10 mm) NC Hex Nut	7
39	BW037L	3/8" (10 mm) Lockwasher	7
40	P80584	3/8" (10 mm) NPT Plug - Square Head	1
41	BW13705606F	9/16" (14 mm) ID Flatwasher	2
42	BO37020	3/8" x 2" (10 x 51 mm) NC Hex Bolt	2

Decals



Item	Part #	Description	Qty
1		Decal, Farm King	1
2	P80538	Decal, 1450 - 2-3/4" x 9" (70 x 229 mm)	1
3	P80527	Decal, Danger - 3-1/4" x 5-1/4" (83 x 133 mm)	1
4	P80524	Decal, Caution - 2" x 4-1/4" (51 x 108 mm)	1
5	P80503	Decal, Warning - 4" x 9" (102 x 229 mm)	1
6	P80504	Decal, Important - 4" x 4" (102 x 102 mm)	1
7	P80500	Decal, Danger - 3-1/2" x 7" (89 x 178 mm)	1
8	P80502	Decal, Caution - 2-3/4" x 4-1/2" (70 x 114 mm)	1
9	DF10057	Reflector, Yellow - 2" x 4" (51 x 102 mm)	2
10	DF10050	Reflector, Red - 2" x 4" (51 x 102 mm)	2
11	P80505	Decal, Danger - 1-7/8" x 5-1/4" (48 x 133 mm)	1
12	P80532	Decal, Danger - 4-1/4" x 8" (108 x 203 mm)	1
13	A75764	Decal, Warning - 4-1/2" x 2-5/16" (114 x 59 mm)	1
14	P80533	Decal, Caution - 3" x 4-1/4" (76 x 108 mm)	1

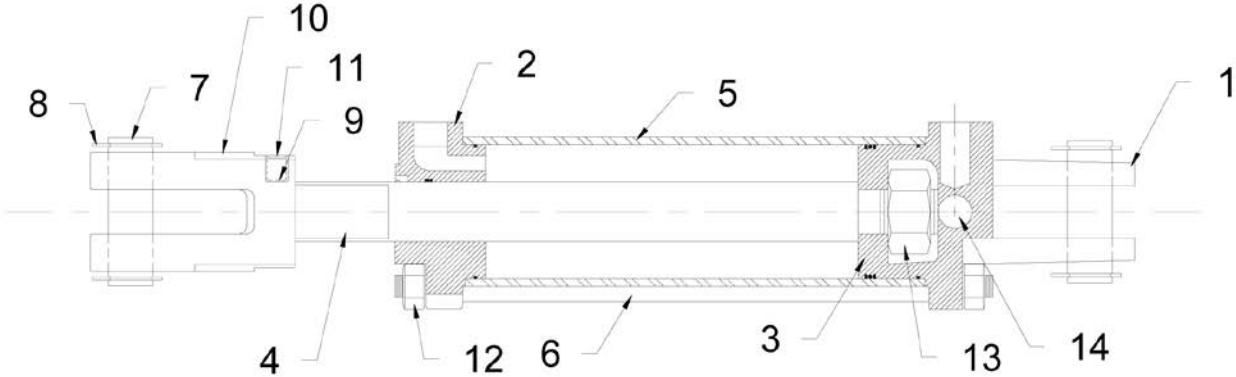
Hammer Cylinder



Item	Part #	Description	Qty
1	16HP1	1-5/8" OD x 7/8" ID Headplate (N5)	1
2	100R5	1-3/4" OD x 1-1/2" ID x 1/8" O-Ring	1
3	10RS8	7/8" ID Rod Seal	1
4	10WS8	7/8" ID Wiper Seal	1
5	16PB1	1-5/8" Dia Rod Guide	1
6	10RR1	5/8" Dia Shaft Retaining Ring	1
7	10SH56	7/8" Dia x 73-1/8" Long Cylinder Shaft	1
8	10NU7	3/4" - 16 UNF Hex Jam Nut (Grade 2)	2
9	10NU8	3/4" - 16 UNF Hex Nylon Locknut (Grade 5)	1
10	16TU1	1-5/8" x 69-1/4" Barrel	1
11	P80522	3/8" x 2-1/4" x 3-1/4" Mount Pad	1
12	10NU9	5/8" - 18 UNF Hex Nylon Locknut (Grade 5)	1
13	P80705	1/8" NPT SQ Head Plug	1

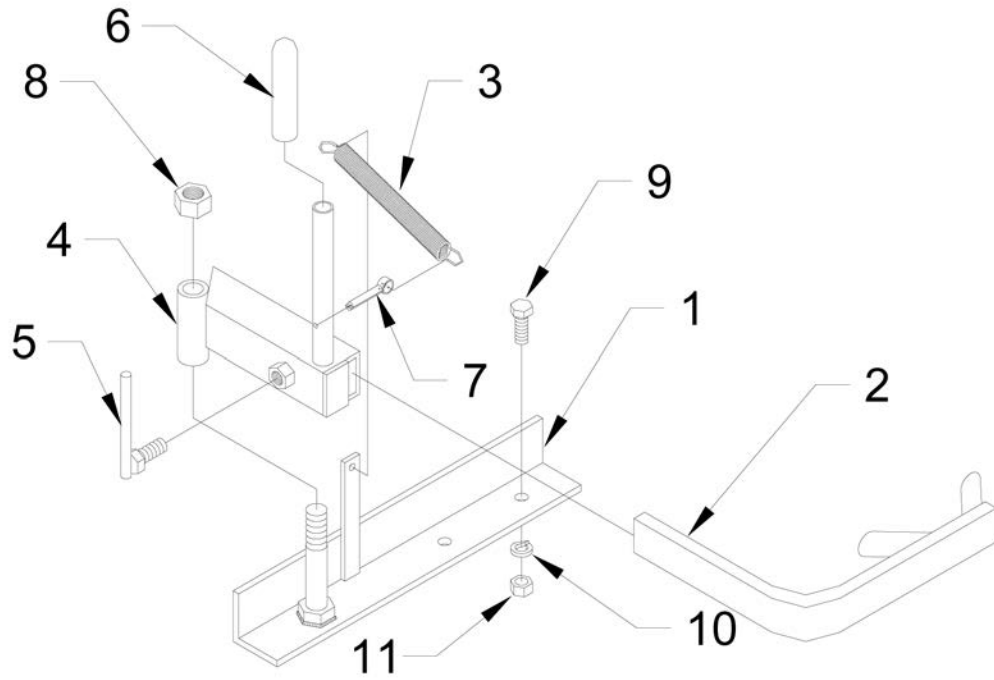
Seal Kit - No. 1608N5			
Kit #	Description	Qty	
100R25	1-3/4" OD x 1-1/2" ID x 1/8" (44 x 38 x 3 mm) O-Ring	1	
100R8	7/8" (22 mm) ID Rod Seal	1	
10WS8	7/8" (22 mm) ID Wiper Seal	1	

Hydraulic Cylinders - Monarch (Slide and Tilt)



Item	Part #	Description	Qty
1	492805	Clevis Cap for 1" (25 mm) Pin	1
2	492806	Rod Cap	1
3	492548	2" (51 mm) Dia Piston	1
4	492581	Rod 8" (203 mm) Stroke	1
5	491608	Tube 8" (203 mm) Stroke	1
6	492216	Tie Rod 8" (203 mm) Stroke	4
7 & 8	640091	Pin (2) for 1" (25 mm) Dia	2
9	498006	Third Lock	1
10	492650	Rod Clevis for 1" (25 mm) Pin	1
11	148390	Set Screw	1
12	128230	Nut - Tie Rod	8
13	129090	Nut - Piston	1
14	196530	Plug	1
**	639572	Seal Kit Rod Dia 1-1/8" (29 mm)	1

Post Guide (Optional)



Item	Part #	Description	Qty
1	P80732	Mounting Bracket	1
2	P80733	Post Holding Arm	1
3	A70157	Extension Spring	1
4	P80734	Arm Actuator	1
5	P80735	Lock Bolt	1
6	P80602	Rubber Grip	1
7	BP25200	1/4" x 2" (6 x 51 mm) Cotter Pin	1
8	BN100L	1" (25 mm) NC Hex Nylon Lock Nut	1
9	BO62015	5/8" x 1-1/2" (16 x 38 mm) Hex Bolt	1
10	BW062L	5/8" (16 mm) Lockwashers	1
11	BN062	5/8" (16 mm) Hex Nut	1

Delivery Checklist

Pre-delivery

- Check engine fluid levels (if equipped) and hydraulic fluid in reservoir.
- Lubricate the entire machine as recommended in the Operator's Manual.
- Check all bolts for tightness and cotter pins are installed.
- Ensure both sides of hammer slide are greased before first use.
- Ensure the rubber bumpers on upper & lower hammer stops are in place.
- Check Operator's Manual to ensure all decals are correctly installed.
- Ensure hammer does not rise too slowly or stick while rising.
- Check hydraulic hoses are leak free and hydraulic cylinders are filled with oil.
- Do not mount on tractor weighing less than 3,000 lb (1365 kg).
- Ensure all pins are properly secured with cotter pins, especially the 3-point hitch pins (which also secure post driver to skid-steer mount frame).
- Raise front leg of stand assembly and lock in raised position before operating post driver.
- Ensure Post Holder tool is present and Post Guide installed correctly (if equipped).

Dealer Representative:

Date:

Customer Delivery

- Give the Operator's Manual to your customer.
- Inform your customer of all safety precautions, maintenance procedures, and demonstrate proper & safe operation of the post driver.
- Verify correct serial number.
- Attach post driver to your customer's tractor, skid-steer, or vehicle.
- Ensure hitch jack is in transport position (if equipped).
- Connect PTO pump to tractor's PTO, connect safety chain (if equipped).
- Ensure machine functions properly. (Raise/ lower hammer, slide, tilt, etc).
- Start tractor or engine & run all controls so your customer understands correct operation of the post driver and ensure all functions are working properly.
- Explain warranty.

Dealer Representative:

Date:

Farm King Limited Warranty

This document limits your warranty rights.

Base Limited Warranty

Buhler Industries Inc. provides this warranty only to original retail purchasers of its product. Buhler Industries Inc. warrants to such purchasers that all Buhler Industries Inc. manufactured parts and components used and serviced as provided for in the Operator's Manual shall be free from defects in materials and workmanship for a period following delivery to the original retail purchaser of 12 months (80 days for commercial applications). This limited warranty applies only to those parts and components manufactured by Buhler Industries Inc. Parts and components manufactured by others are subject to their manufacturer's warranties, if any.

Buhler Industries Inc. will fulfill this limited warranty by, at its option, repairing or replacing any covered part that is defective or is the result of improper workmanship, provided that the part is returned to Buhler Industries Inc. within thirty (30) days of the date that such defect or improper workmanship is, or should have been, discovered. Buhler Industries Inc. reserves the right to either inspect the product at the buyer's location or have it returned to the factory for inspection. Parts must be returned through the selling representative and the buyer must prepay transportation charges.

Buhler Industries Inc. will not be responsible for repairs or replacements that are necessitated, in whole or part, by the use of parts not manufactured by or obtained from Buhler Industries Inc. Under no circumstances are component parts warranted against normal wear and tear. There is no warranty on product pump seals, product pump bearings, rubber product hoses, pressure gauges, or other components that require replacement as part of normal maintenance. Also: Buckets and Bucket Tines carry no warranty, Bent Spears carry no warranty, Snowblower Fan Shafts carry no warranty, Mower Blades carry no warranty, Portable Auger Parts Have Two (2) Year Warranty, Loader Parts Have Two (2) Year Warranty. The purchaser is solely responsible for determining suitability of goods sold. This warranty is expressly in lieu of all other warranties expressed or implied. Buhler Industries Inc. will in no event be liable for any incidental or consequential damages whatsoever. Nor for any sum in excess of the price received for the goods for which liability is claimed.

Repair Parts Limited Warranty

Buhler Industries Inc. warrants Farm King replacement parts purchased after the expiration of the Buhler Industries Inc. Limited Warranty, and used and serviced as provided for in the Operator's Manual, to be free from defects in materials or workmanship for a period of thirty (30) days from the invoice date for the parts. Buhler Industries Inc. will fulfill this limited warranty by, at its option, repairing or replacing any covered part that is defective or is the result of improper workmanship, provided that the part is returned to Buhler Industries Inc. within thirty (30) days of the date that such defect or improper workmanship is, or should have been, discovered. Such parts must be shipped to Buhler Industries Inc. at the purchaser's expense.

What is Not Covered

Under no circumstances does this limited warranty cover any components or parts that have been subject to the following: negligence; alteration or modification not approved by Buhler Industries Inc.; misuse; improper storage; lack of reasonable and proper maintenance, service, or repair; normal wear; damage from failure to follow operating instructions; accident; and/or repairs that have been made with parts other than those manufactured, supplied, and or authorized by Buhler Industries Inc.

Authorized Dealer and Labor Costs

Repairs eligible for labor under this limited warranty must be made by Buhler Industries Inc. or an authorized Farm King dealer. Buhler Industries Inc. retains the exclusive discretion to determine whether it will pay labor costs for warranty repairs or replacements, and the amount of such costs that it will pay and the time in which the repairs will be made. If Buhler Industries Inc. determines that it will pay labor costs for warranty work, it will do so by issuing a credit to the dealer's or distributor's account. Buhler Industries Inc. will not approve or pay invoices sent for repairs that Buhler Industries Inc. has not previously approved. Warranty service does not extend the original term of this limited warranty.

Warranty Requirements

To be covered by warranty, each Farm King new product must be registered with Buhler Industries Inc. within thirty (30) days of delivery to original retail purchaser. If the customer decides to purchase replacement components before the warranty disposition of such components is determined, Buhler Industries Inc. will bill the customer for such components and then credit the replacement invoice for those components later determined to be covered by this limited warranty. Any such replacement components that are determined not be covered by this limited warranty will be subject to the terms of the invoice and shall be paid for by the purchaser.

Warranty Claims:

Warranty requests must be prepared on Buhler Industries Inc. Warranty Claim Forms with all requested information properly completed. Warranty Claims must be submitted within a thirty (30) day period from date of failure repair.

Warranty Labor:

Any labor subject to warranty must be authorized by Buhler Industries Inc. The labor rate for replacing defective parts, where applicable, will be credited at 100% of the dealer's posted shop rate.

Exclusive Effect of Warranty and Limitation of Liability

TO THE EXTENT PERMITTED BY LAW, BUHLER INDUSTRIES INC. DISCLAIMS ANY WARRANTIES, REPRESENTATIONS, OR PROMISES, EXPRESS OR IMPLIED, AS TO THE QUALITY, PERFORMANCE, OR FREEDOM FROM DEFECT OF THE COMPONENTS AND PARTS COVERED BY THIS WARRANTY AND NOT SPECIFICALLY PROVIDED FOR HEREIN.

TO THE EXTENT PERMITTED BY LAW, BUHLER INDUSTRIES INC. DISCLAIMS ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ON ITS PRODUCTS COVERED HEREIN, AND DISCLAIMS ANY RELIANCE BY THE PURCHASER ON BUHLER INDUSTRIES INC.'S SKILL OR JUDGMENT TO SELECT OR FURNISH GOODS FOR ANY PARTICULAR PURPOSE. THE PURCHASER'S ONLY AND EXCLUSIVE REMEDIES IN CONNECTION WITH THE BREACH OR PERFORMANCE OF ANY WARRANTY ON PRODUCTS MANUFACTURED BY BUHLER INDUSTRIES INC. ARE THOSE SET FORTH HEREIN. IN NO EVENT SHALL BUHLER INDUSTRIES INC. BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING, BY WAY OF EXAMPLE ONLY AND NOT LIMITATION, LOSS OF CROPS, LOSS OF PROFITS OR REVENUE, OTHER COMMERCIAL LOSSES, INCONVENIENCE, OR COST OF REPLACEMENT OF RENTAL EQUIPMENT). IN NO EVENT SHALL FARM KING'S CONTRACT OR WARRANTY LIABILITY EXCEED THE PURCHASE PRICE OF THE PRODUCT.

(Note that some provinces or states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusion may not apply to you.) This warranty gives you specific legal rights and you may also have other rights, which vary from province to province or state to state.

Buhler Industries Inc. neither assumes nor authorizes any person or entity, including its selling representatives, to assume any other obligations or liability in connections with the sale of covered equipment, or to make any other warranties, representations, or promises, express or implied, as to the quality, performance, or freedom from defect of the components and parts covered herein. No one is authorized to alter, modify, or enlarge this limited warranty, or its exclusions, limitations and reservations.

Corrections of defects and improper workmanship in the manner, and for the applicable time periods, provided for herein shall constitute fulfillment of all responsibilities of Buhler Industries Inc. to the purchaser, and Buhler Industries Inc. shall not be liable in negligence, contract, or on any other basis with respect to the subject equipment.

This limited warranty is subject to any existing conditions of supply which may directly affect Buhler Industries Inc.'s ability to obtain materials or manufacture replacement parts.

Buhler Industries Inc. reserves the right to make improvements in design or changes in specifications to its products at anytime, without incurring any obligation to owners of units previously sold.

Government Legislation:

Warranty terms and conditions are subject to provincial or state legislation.

Important Note: This warranty does not apply to rentals.

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Farm King

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