

Ezee-On

OPERATOR'S MANUAL

MODEL 1450 3 POINT HITCH POST DRIVER CATEGORY I and II MOUNT

*includes
ASSEMBLY INSTRUCTIONS
and
PARTS LIST*

Manufactured

By

Ezee-On Manufacturing

PRINTED IN CANADA

Vegreville, Alberta

Canada

722J

EZEE-ON MANUFACTURING

Limited Warranty Policy

Ezee-On Manufacturing's products are warranted to the original non-commercial purchaser to be free from defects in material and workmanship for a minimum period of twelve (12) months from the original date of purchase.

Ezee-On Manufacturing's obligation under this warranty shall be limited to the repair or exchange, at Ezee-On's option, free of charge to the original purchaser, any part or component that, in our judgment, shows evidence of such defect. Further, that such part shall be returned within thirty (30) days from date of failure to Ezee-On Manufacturing, routed through the dealer and distributor from whom the equipment was purchased, **transportation charges prepaid.**

This warranty shall not be interpreted to render Ezee-On Manufacturing liable for injury or damages of any kind or nature to person or property. This warranty does not include claims for, or extend to the loss or damage of crops, loss because of delay in seeding/ planting or harvesting, or any expense or loss incurred for labor, substitute machinery, rental, transportation expense or for any other reason.

Except as set forth above, Ezee-On Manufacturing 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. Ezee-On Manufacturing makes no other warranty, expressed or implied, and, specifically, Ezee-On Manufacturing disclaims any implied warranty or merchantability or fitness for a particular purpose. The purchaser is solely responsible for determining suitability of Ezee-On equipment purchased. This warranty is subject to any existing conditions of supply, which may directly affect our ability to obtain materials or manufacture replacement parts.

Ezee-On reserves the right to make improvements in the design of products and/ or changes in specifications at any time, without incurring any obligation to owners of units previously sold. No one other than Ezee-On Manufacturing is authorized to alter, modify or enlarge this warranty.

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

Under no circumstances will this warranty cover any merchandise or components thereof, which, in the opinion of the Company, has been subjected to misuse, unauthorized modifications, alteration, an accident or if repairs have been made with parts other than those obtainable through Ezee-On Manufacturing.

Commercial Use: Warranty for commercial, rental or custom use of any Ezee-On product is limited to 90 days, parts and labor.

Twelve Months Warranty:

All Ezee-On manufactured products are warranted for twelve consecutive months from the date of delivery of the new Ezee-On product to the original non-commercial purchaser.

- 1-12 Months: 100% parts and labor coverage

Extended Coverage Limited Warranty (24 additional months):

Air Drills, Coulter Drills, Air Carts, Cultivators, Chisel Plows, Offset and Tandem Discs and Post Drivers carry limited extended warranty. Ezee-On Manufacturing's obligations under this extended warranty coverage shall be limited to repair or exchange, at Ezee-On Manufacturing's option, for the original, non-commercial owner:

- 13-24 Months: 100% Ezee-On manufactured components only, NO labour – see below for description
- 25-36 Months: 50% Ezee-On manufactured components only, NO labour – see below for description

Ezee-On manufactured components are, but not limited to: frames, axles, hitches, castor assemblies, packers, turnbuckles, rockshafts, packer frames, packers – steel, tanks – air cart seed and fertilizer tanks, seed cups, metering rollers.

NON Ezee-On manufactured components are, but not limited to: Monitors, tires, rims, bearings, hydraulics: motors, pumps, controls, cylinders, hoses and valves; sprockets, chain, rubber packer wheel tires, polyurethane wheel mounted packers, coulter blades, shanks, springs, bolts, pulleys, air hoses, sweeps, spikes, spoons, seals, power wheels, hitch jacks, hubs and wheels.

The Company in no way warrants engines, batteries, coulter assemblies, rubber tires, or other trade accessories since these items are warranted separately by their respective manufacturers.

T2-215 Bearing Extended Coverage Limited Warranty:

Seven year limited warranty: Extended coverage (13-84 months) on T2-215 Series bearing is limited to the replacement of ball bearings and seals for the original, non-commercial owner. Associated bearing parts, labor, freight, etc., are not covered.

Warranty Limitations and/ or Exclusions:

1. Buckets & bucket tines, bale spears & tines, grapple tines, pallet forks, shanks, all ground engaging tools, disc openers and disc blades, air seeder hose and normal wear parts/ items carry NO warranty.
2. There is no warranty coverage if parts or attachments, other than those made or marketed by Ezee-On Manufacturing have been used in connection with the unit, and in the sole judgment of Ezee-On, such use affects its performance or reliability.
3. If the equipment has been altered or repaired in a manner which, in the sole judgment of Ezee-On, affects its performance, stability or reliability.
4. The purchaser shall be responsible for dealer travel time to the machine or to deliver the machine to the dealer's service shop for repair. Ezee-On Manufacturing does not cover delivery charges or travel time.

This warranty policy is subject to change without prior written notice at Ezee-On Manufacturing's sole discretion.

Revision: September 1, 2004



5110 – 62nd Street
Vegreville, AB T9C 1N6
Canada

Ph: (780) 632-2126
Fx: (780) 632-6221
www.ezeeon.com

Post Driver Pre-Delivery Inspection/ Warranty Registration

Dealership _____ Location _____ Delivery Date: ____/____/____
Model _____ Serial # _____ ☐ New Machine ☐ Demo Unit

Items for Dealership technician to inspect prior to delivery: see Operator's Manual for detailed instructions

- | | |
|---|---|
| ☐ Torque all wheel bolts/ lug nuts to specifications (Model 2400) | ☐ Check hydraulic hoses are leak free and hydraulic cylinders are filled with oil |
| ☐ Check tire pressures are correct @ 28 psi (Model 2400) | ☐ Model 2400: Ensure minimum 250 lbs of ballast is in trailer weight box |
| ☐ Check engine fluid levels (if equipped) and hydraulic fluid in reservoir | ☐ Model 1450: Do not mount on tractor weighing less than 3,000 lbs (1365 kg) |
| ☐ Lubricate the entire machine as recommended in the Operator's Manual | ☐ Model 1450: 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) |
| ☐ Check all bolts for tightness and cotter pins are installed | ☐ Model 1450: raise front leg of stand assembly and lock in raised position before operating post driver |
| ☐ Ensure both sides of hammer slide are greased before first use | ☐ Ensure Post Holder tool is present and Post Guide installed correctly (if equipped) |
| ☐ 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 | |

Pre-Delivery completed by _____ (signature) Date ____/____/____
mm dd yyyy

Items for Dealership staff to cover with customer upon delivery:

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

Ezee-On Fax: (780) 632-6221

Warranty Registration

Owner's Name _____ Address _____ Town _____
Province/ State _____ Country _____ Postal/ Zip Code _____
Home Phone # _____ Cell Phone # _____ Email Address _____

***The owner hereby acknowledges receipt of the Operator's Manual and that all delivery checks have been completed as listed above. Owner furthermore acknowledges that the Operator's Manual is an integral part of the purchased equipment and it contains information important to the proper operation, maintenance, and safety procedures of this machine.**

Owner's signature _____ Date ____/____/____
mm dd yyyy

Dealer's signature _____ Date ____/____/____
mm dd yyyy

Mail or Fax the original copy of this Warranty Registration and Pre-Delivery/Delivery Inspection to Ezee-On Manufacturing immediately after delivery.

Warranty Registration is mandatory. Failure to complete and return this form will delay the processing of warranty claims

INTRODUCTION

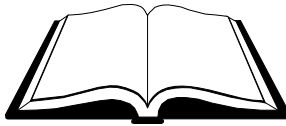
THANK YOU for choosing to purchase this Ezee-On implement, we are confident you will be impressed with its performance.

In addition to the traditional values of simplicity, reliability and durability, your new EZEE-ON implement incorporates a number of operational and safety features. We urge you to familiarize yourself with the maintenance and operation of your implement by reading this Manual thoroughly and completely. Failure to do so could result in personal injury or equipment damage.

THIS MANUAL contains important information regarding assembly, maintenance, operating instructions, and troubleshooting problems, and should be considered a permanent part of your implement.

Remember that it is the responsibility of the Operator to ensure that the implement is field ready, prior to first operation. However, should you encounter a problem, please contact your dealer immediately.

READ THIS MANUAL CAREFULLY TO ENSURE THAT YOUR NEW IMPLEMENT IS ASSEMBLED AND ADJUSTED CORRECTLY PRIOR TO FIRST OPERATION.



RIGHT and LEFT is determined by standing behind the machine and facing FORWARD, in the direction of travel.



This symbol is used to identify safety messages. When you see this symbol, read the safety message carefully.

TABLE OF CONTENTS

DESCRIPTION	PAGE
SAFETY	2
ASSEMBLY INSTRUCTIONS	5
OPERATING INSTRUCTIONS	12
MAINTENANCE	19
STORAGE	20
SEASONAL SERVICE	20
PARTS LIST INDEX	22

EZEE-ON MANUFACTURING RESERVES THE RIGHT to make improvements in design and changes in specifications at any time without notice and without incurring any obligation to install them on units previously sold. Specifications, descriptions, and illustrative material herein are as accurate as known at time of publication, but are subject to change without notice.

SPECIFICATIONS

Minimum Tractor Weight – 3000 lbs (1360 Kgs)
Hammer Face 9" x 12 – 1/2"
Maximum Hammer Height – 112"
3 Point Hitch Type – Category I and II

HYDRAULICS

Hammer Cylinder- 1 5/8" x 64" Stroke
Hammer Tilt Cylinder- 2" x 8" Stroke
Hammer Swivel Cylinder- 2" x 8" Stroke
Hydraulic Oil Reservoir- 2.1 Imperial Gallons
Hydraulic Pump- 4.5 U.S. Gal/Min @ 540 r.p.m

SAFETY RECOMMENDATIONS



Watch for this symbol. It identifies important safety messages. When you see this symbol, read the safety message carefully.

GENERAL SAFETY

1. Do not mount post driver on tractors weighing less than 3000 lbs (1360 Kgs). Operating or transporting post driver mounted on a tractor weighing less than 3000 lbs (1360. Kgs) could result in tractor roll over causing serious injury or death to operator and person(s) nearby.
2. Never mount post driver on tractors without ROPS protection.
3. Only one person, the operator, should be allowed to operate the post driver.
4. Never ride or permit others to ride, on the drawbar of the tractor or on the post driver.
5. Never allow anyone, other than the operator, on the tractor when operating or transporting the post driver.
6. Follow all safety precautions in your tractor manual.
7. Keep a first aid kit in the tractor at all times.



ASSEMBLY SAFETY

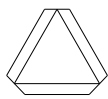
1. Use an aligning punch to line up holes. Keep fingers out of these holes. Any sudden movement of heavy components will severely injure or sever your fingers.
2. Use a hoist or adequate manpower to lift the heavy components into place. Use adequate jacks or support materials. Attempting to lift heavy components by yourself could cause serious injury.
3. Be sure all bolts and hydraulic fittings are tight, and all cotter pins are installed in pins.
4. Before applying pressure to hydraulic system, be sure all connections are tight and components are not damaged.
5. 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.
6. 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.
7. 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.
8. Before connecting (or disconnecting) hydraulic pump to (or from) tractor P.T.O. shaft, disengage P.T.O. and shut off tractor engine. Serious injury or death may occur if P.T.O. was accidentally engaged while connecting or disconnecting pump.
9. If the torque arm chain of P.T.O. pump is not properly secured, severe damage to the pump and hydraulic circuitry could occur.
10. Always stay clear of P.T.O. when it is engaged. Serious injury or death will result if clothing, hair or limbs were caught in P.T.O. shaft.
11. Always ensure tractor's P.T.O. safety shield is installed.
12. 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.

OPERATING SAFETY

1. Never allow anyone near the post driver when you are performing operating functions.
2. When tilting, raising or lowering the hammer, keep all persons away from the post driver.
3. Wear safety glasses and hand wear to protect against splinters.
4. Make certain everyone is clear before operating or moving the post driver.
5. 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.
6. Contact local utility companies for underground services before installing posts.
7. Never place your hand on top of the post at any time during operation. Serious injury may occur.
8. 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.
9. 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.
10. 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.
11. If the torque arm chain of PTO pump is not properly secured, severe damage to the pump and hydraulic circuitry could occur.
12. Always stay clear of P.T.O. drive shaft when it is in operation. Serious injury or death will result if clothing, hair or limbs are caught in these drive shafts.
13. Before connecting (or disconnecting) hydraulic pump to (or from) tractor's P.T.O. shaft, disengage P.T.O. and shut off tractor engine. Serious injury or death may occur if P.T.O. was accidentally engaged while connecting or disconnecting pump.
14. Always ensure tractor's P.T.O. safety shield is installed.
15. 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).
16. 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.
17. 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.
18. 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.
19. 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.
20. 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.
21. 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.
22. 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.
23. Never operate post driver hydraulic system without being pinned to tractor's 3 point hitch.

TRANSPORT SAFETY

1. Reduce speed when transporting post driver over uneven or rough terrain.
2. Shift the tractor into a lower gear when transporting post driver down hills or steep slopes.
3. Be sure SMV (slow moving vehicle) emblem is clean and visible before transporting post driver. The SMV emblem warns other vehicles approaching from rear.
4. Always comply with all State, Provincial, Federal and local laws when transporting post driver on roadways.
5. Retract hammer cylinder and upper tilt cylinder before transporting post driver.
6. 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.



MAINTENANCE

1. 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.
2. 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.
3. 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.
4. If spray-can paint is used, be careful when discarding empty cans. Do not incinerate or puncture can.
5. Do not permit smoking, sparks, or open flame where combustible lubricants or liquids are being used.
6. Replace any worn or damaged hydraulic hoses and keep all hydraulic hoses and hydraulic fittings tight.
7. Shut off all power and lock tractor brakes before adjusting, servicing or cleaning the post driver.
8. Do not lubricate or adjust post driver when it is being operated or while it is in motion.
9. Always retract all cylinders, shut off tractor engine, disengage P.T.O. and lock tractor brakes before lubricating post driver.
10. Replace any safety decals that are damaged or are illegible.

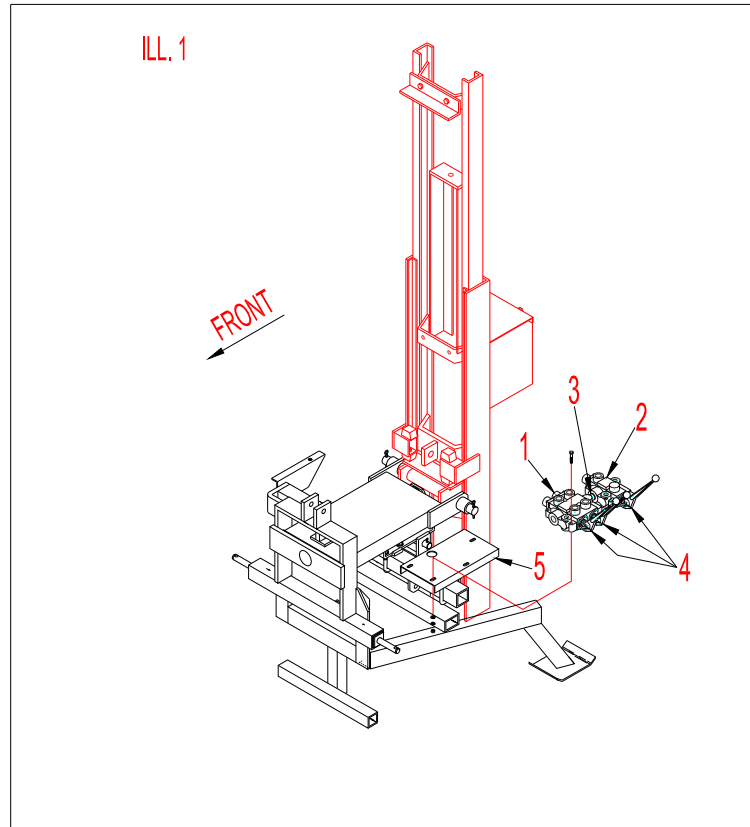
STORAGE SAFETY

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

NOTE: *An accident is usually caused by someone's carelessness, neglect, or oversight. Remember, safety comes first.*

**AN ACCIDENT NOT ONLY HURTS,
BUT ALSO COSTS YOU VALUABLE LOST TIME.**

ASSEMBLY INSTRUCTIONS

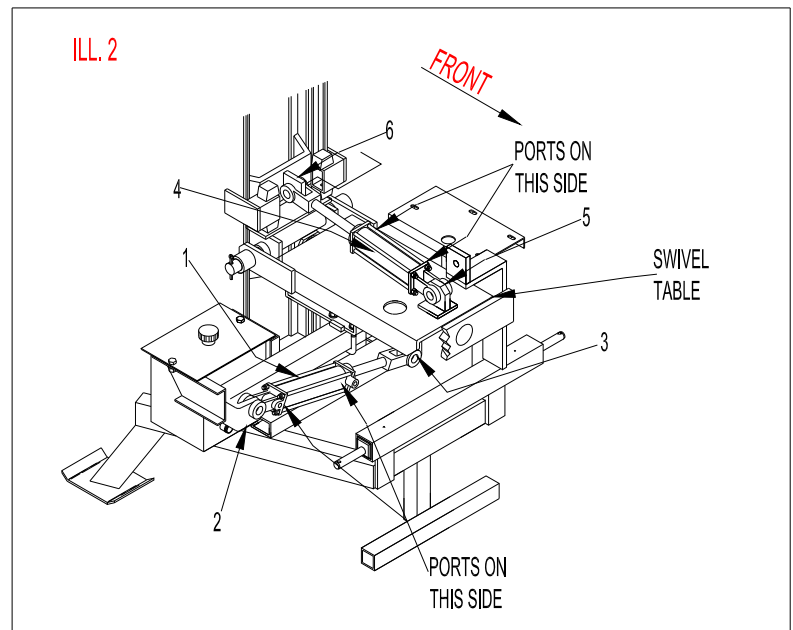


CAUTION: USE A HOIST OR ADEQUATE MANPOWER TO LIFT HEAVY COMPONENTS IN PLACE. ATTEMPTING TO LIFT HEAVY COMPONENTS BY YOURSELF COULD CAUSE SERIOUS INJURY.

1. See ILL. 1. Join 2 spool valve, arrow 1, and single spool valve, arrow 2, with one (1) 3/4" N.P.T. x 2" 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" N.C. hex bolts c/w nuts, lockwashers and flatwasher. Place flatwashers on bottom of valve mount plate. Tighten bolts.

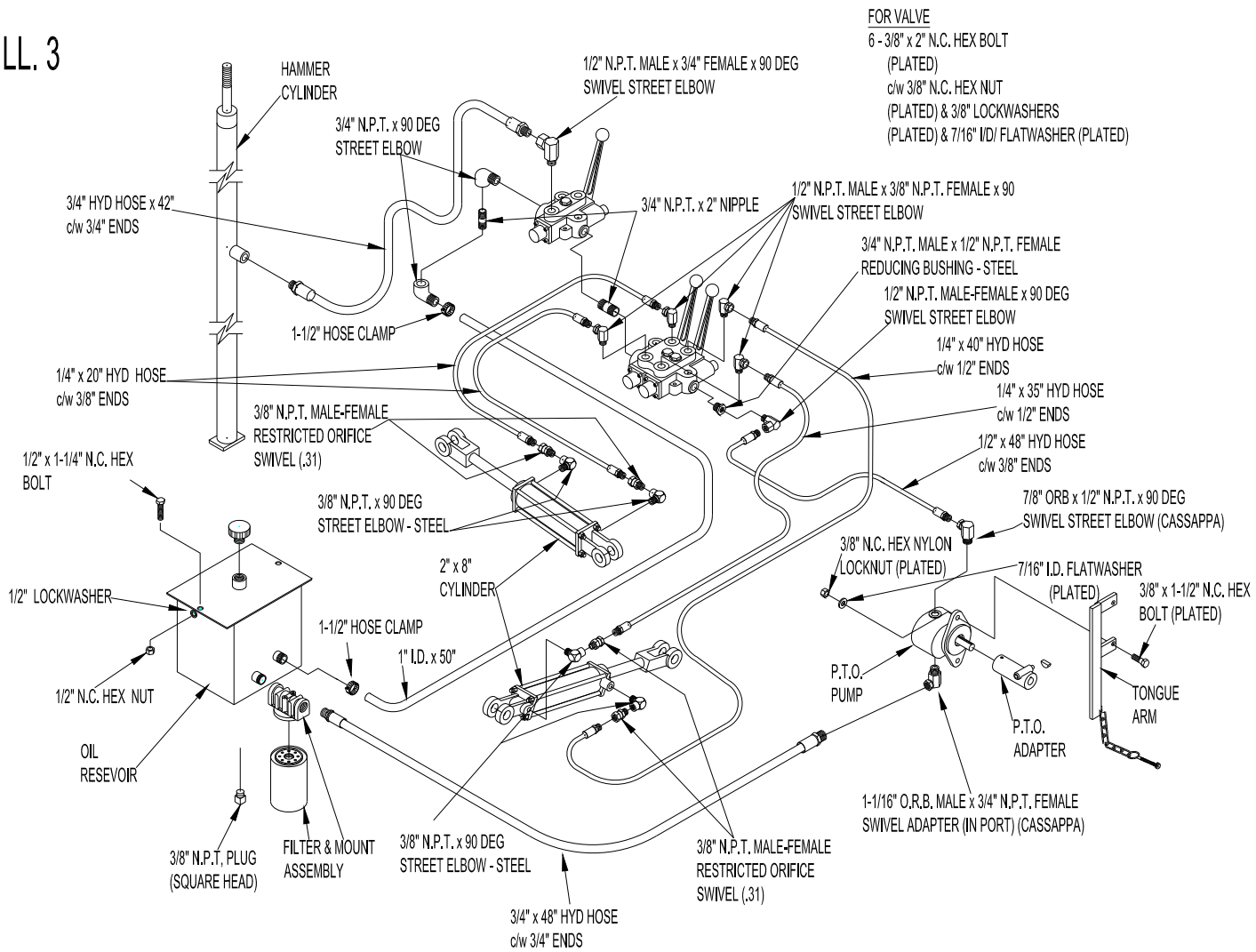


CAUTION: WHEN ASSEMBLING POST DRIVER, USE ALIGNING PUNCH TO LINE UP HOLES. KEEP FINGERS OUT OF HOLES. ANY SUDDEN MOVEMENT OF HEAVY COMPONENTS WILL SEVERELY INJURE OR SEVER YOUR FINGERS.



2. See ILL. 2. Fasten barrel end of a 2" x 8" 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" 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. 3



3. Attaching hydraulic hose and fittings. See ILL. 3 on page 5.

IMPORTANT: 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.

IMPORTANT: CLEANLINESS IS ABSOLUTELY NECESSARY TO PREVENT CONTAMINATION WHEN HOOKING UP THE HYDRAULIC SYSTEM COMPONENTS. HANDLE FITTINGS CAREFULLY.

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

IMPORTANT: BE SURE THE 3/8" MALE - FEMALE SWIVEL ADAPTORS WITH RESTRICTED ORIFICE, (PAINTED BLACK), ARE INSTALLED IN THE 2" x 8" HAMMER TILT CYLINDER AND IN THE 2" x 8" HAMMER SWIVEL CYLINDER. TWO FITTINGS ARE REQUIRED PER CYLINDER.

- i) Fasten torque arm assembly to pump with two (2) 3/8" x 1-1/2" N.C. hex bolts c/w nuts and lockwashers. Fasten as shown in ILL. 3.

- j) Install 3/16" key in pump shaft, then slide P.T.O. adapter over shaft. Secure by tightening set screw. See ILL. 3.

- k) **IMPORTANT NOTE:** WHEN THE POST DRIVER HAS BEEN IDLE FOR A PERIOD OF TIME, THE HAMMER TILT CYLINDERS 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 3000 LBS (1360 KGS). OPERATING OR TRANSPORTING POST DRIVER MOUNTED ON A TRACTOR WEIGHING LESS THAN 3000 LBS (1360 KGS) COULD RESULT IN TRACTOR ROLL OVER CAUSING SERIOUS INJURY OR DEATH TO OPERATOR OR PERSON(S) NEARBY.



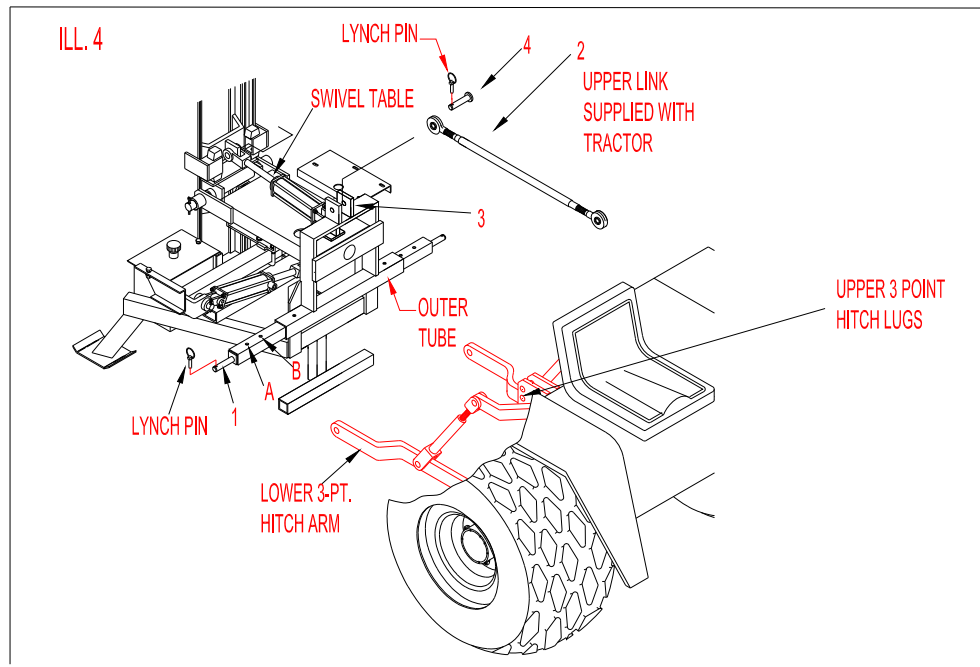
CAUTION: NEVER MOUNT POST DRIVER ON TRACTOR WITHOUT ROPS PROTECTION.

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" bolt in hole, secure bolt with 1/2" 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" O.D. x 1-3/4" 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" bolt in hole, secure bolt with 1/2" locknut. Place each lower arm of 3 point hitch over draw pin, arrow 1. Secure with lynch pins.



IMPORTANT: 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 DRIVER 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= three 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.

NOTE: For Category II hitch install 1" O.D. x 1-15/16" bushing in upper of link, arrow 2.



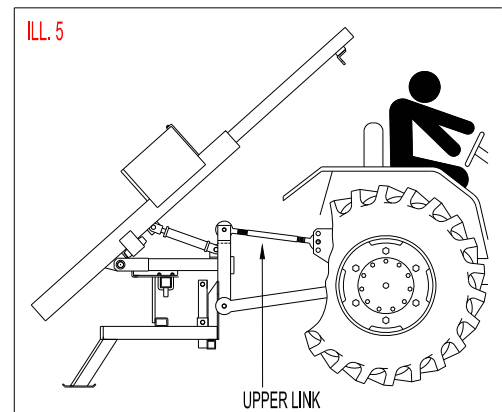
CAUTION: INCORRECT ADJUSTMENT OF UPPER LINK AND WRONG HOLE SELECTION WHEN PINNING UPPER LINK TO TRACTOR MAY CAUSE POST DRIVER TO INTERFERE WITH REAR OF TRACTOR CAB OR STRIKE TRACTOR OPERATOR RESULTING IN SERIOUS INJURY TO OPERATOR AND SERIOUS DAMAGE TO TRACTOR.

- C) ADJUSTING LIMITS OF THREE 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 $\frac{1}{2}$ 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.

IMPORTANT: 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.



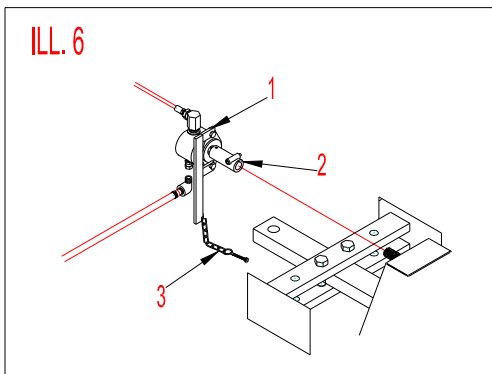
DANGER: OPERATOR SHOULD ALWAYS OBSERVE THE MOVEMENT OF HAMMER AND MAST ASSEMBLY WHEN RAISING AND FOLDING POST DRIVER FOR TRANSPORT. IF UPPER LINK OF 3-POINT HITCH WAS ADJUSTED TOO SHORT AND/OR THE UPPER LIMIT OF THE 3-POINT HITCH IS SET TOO HIGH, THE HAMMER AND MAST ASSEMBLY COULD STRIKE OPERATOR IN TRACTOR SEAT OR REAR OF TRACTOR CAUSING SERIOUS INJURY OR DEATH TO OPERATOR OR SERIOUS DAMAGE TO TRACTOR. SEE ILL. 5.



WARNING: ALWAYS ENSURE TRACTOR'S P.T.O. SAFETY SHIELD IS INSTALLED.

- D) Attaching P.T.O. pump. See ILL. 6.

- d1) With torque arm, arrow 1, on left hand side, slide the spline adapter of pump, arrow 2, onto the tractor P.T.O. shaft.
- d2) Place I-Bolt of torque arm chain, arrow 3, through a convenient hole in drawbar. Secure with flatwasher and locknut.



DANGER: BEFORE CONNECTING (OR DISCONNECTING) HYDRAULIC PUMP TO (OR FROM) TRACTOR P.T.O. SHAFT, DISENGAGE P.T.O. AND SHUT OFF TRACTOR ENGINE. SERIOUS INJURY OR DEATH MAY OCCUR IF P.T.O. WAS ACCIDENTLY ENGAGED WHILE CONNECTING OR DISCONNECTING PUMP.



CAUTION: IF THE TORQUE ARM CHAIN OF P.T.O PUMP 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 P.T.O. WHEN IT IS ENGAGED. SERIOUS INJURY OR DEATH WILL RESULT IF CLOTHING, HAIR OR LIMBS ARE CAUGHT IN P.T.O. 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 P.T.O. to start pump. Using hydraulic valve control levers, see section 1 of Operating Instructions, 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 on page 6).

IMPORTANT: 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 PINS(S) FELL OUT AND HAMMER FELL

OPERATING INSTRUCTIONS

1. PREPARING POST DRIVER FOR OPERATION

- a) To mount post driver to tractors= 3 point hitch, refer to subsections AA≡ to “D” of section 4 on pages 8 to 10.

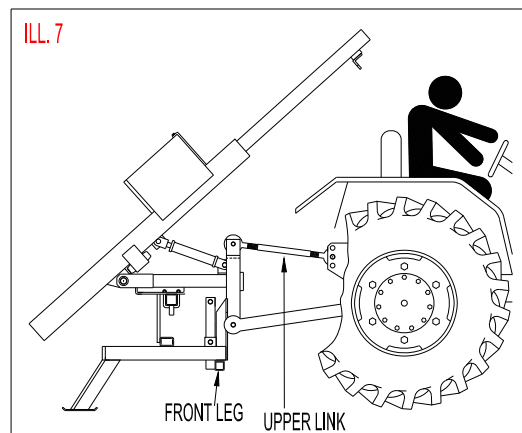


CAUTION: DO NOT MOUNT POST DRIVER ON TRACTOR WEIGHING LESS THAN 3000 LBS (1360 KGS) AND TRACTOR NOT EQUIPPED WITH ROPS PROTECTION.

- b) Check if upper link of 3 point hitch is adjusted properly for tractor. Refer to paragraph “C” of section 10 on page 9.



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.

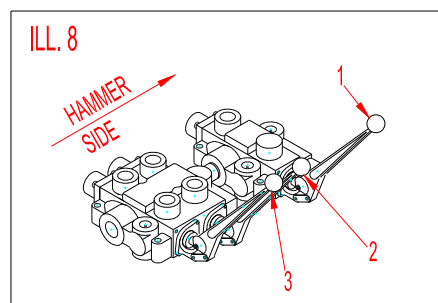


- c) Check the oil level in oil reservoir. The level should be 1 inch from top of reservoir. If filling is required, use ESSO Hydro 56 a grade of hydraulic oil that is approved for tractor hydraulic systems.
- d) Check that the rubber bumpers on upper and lower hammer stops are in place and in good condition.
- 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 three point hitch pins.

2. OPERATION OF HYDRAULIC CONTROLS - See ILL. 8.

The three control levers operate post driver as follows:

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



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



CAUTION: KNOW THE FUNCTIONS OF EACH HYDRAULIC LEVER BEFORE PROCEEDING WITH OPERATIONS.



CAUTION: WHEN TILTING, RAISING OR LOWERING THE HAMMER, KEEP ALL PERSONS AWAY FROM POST DRIVER.



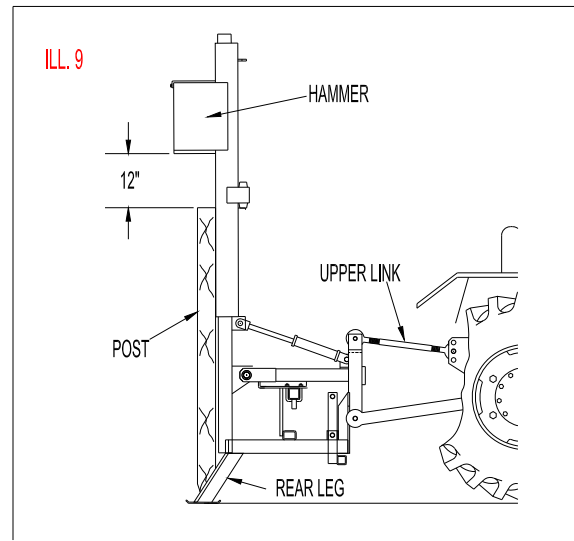
WARNING: FLUID ESCAPING FROM A VERY SMALL HOLE CAN BE ALMOST INVISIBLE. USE A PIECE OF CARDBOARD OR WOOD, RATHER THAN HANDS, TO SEARCH FOR SUSPECTED LEAKS. IF INJURED BY ESCAPED FLUID, SEE A DOCTOR AT ONCE. SERIOUS INFECTION OR REACTION CAN DEVELOP IF PROPER MEDICAL TREATMENT IS NOT ADMINISTERED IMMEDIATELY.

2. 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

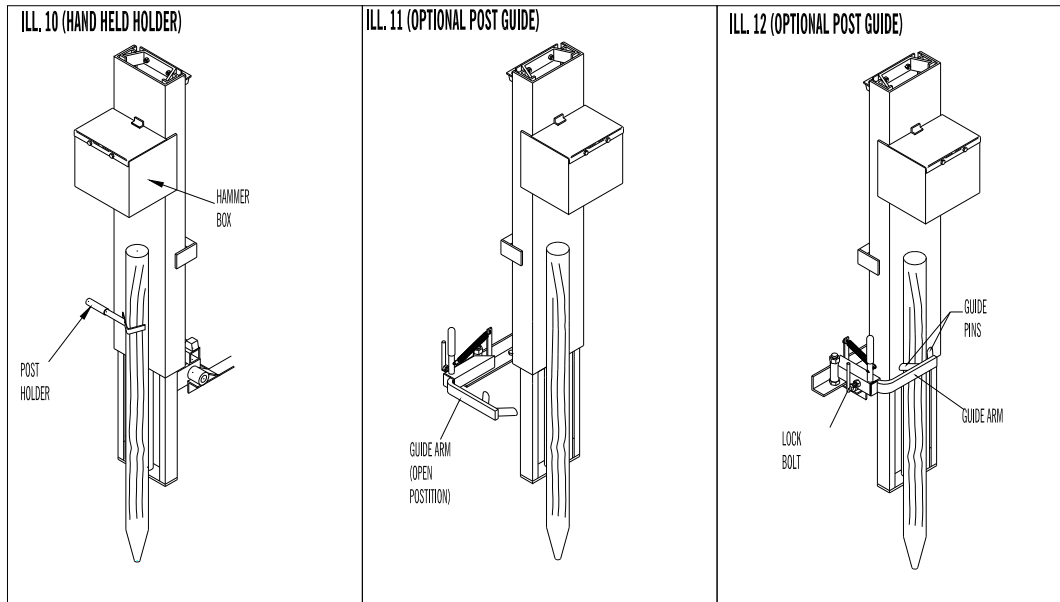


DANGER: ALWAYS STAY CLEAR OF P.T.O. SHAFT WHEN IN OPERATION. SERIOUS INJURY OR DEATH WILL RESULT IF CLOTHING, HAIR OR LIMBS ARE CAUGHT IN THESE DRIVE SHAFTS.

- 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 P.T.O. to start pump.
- e) Tilt and rotate hammer by operating valve levers, arrow 2, and 3, shown in ILL. 8 on page 11. These levers will locate hammer in desired working position. See Section 2 of OPERATING INSTRUCTIONS on page 11.
- f) Raise hammer approximately 12 inches 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 - USE SUBSECTION f1 or f2.

g1) HAND HELD HOLDER - See ILL. 10. Position post under hammer. Using the hand held post holder, hold post against hammer. Start to drive post, see Paragraph h, i and j below.

g2) 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 AIN≡ or AOUT≡ so guide pins hold post securely. Tighten lock bolt.

Step 4 - Start to drive post. See Paragraphs h, i and j below.



CAUTION: ALWAYS USE HAND HELD POST HOLDER OR OPTIONAL POST GUIDE TO POSITION POSTS UNDER HAMMER WHEN DRIVING POSTS. USING HAND HELD POST HOLDER OR POST GUIDE MAY PREVENT INJURY TO HAND.

h) Push hammer valve lever, arrow 1 (ILL. 8 on Page 11), "IN" to drop hammer on post. Use 12" strokes to start driving post and increase stroke as required.

i) **IMPORTANT:** 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) **IMPORTANT:** 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 P.T.O. 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.



CAUTION: 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.



WARNING: 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.



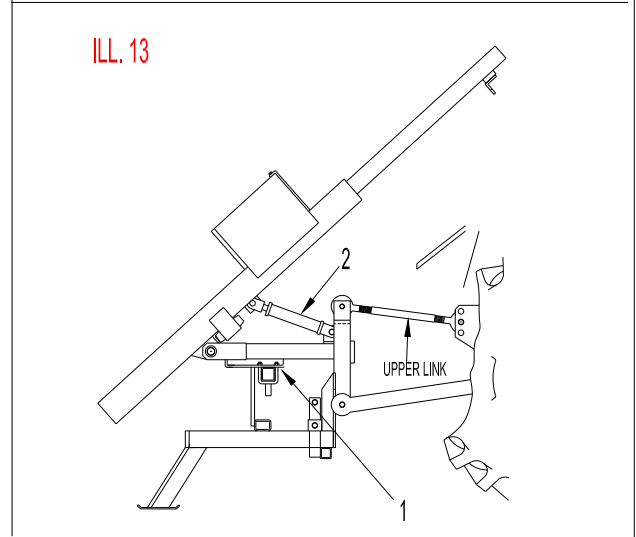
DANGER: ALWAYS LOWER POST DRIVER STAND TO GROUND, LOWER HAMMER AND SHUT OFF POWER WHEN POST DRIVER IS LEFT UNATTENDED OR IS NOT IN OPERATION. SERIOUS INJURY OR DEATH MAY RESULT IF HAMMER FELL UNEXPECTEDLY AND STRUCK PERSON(S) NEARBY.

4. 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 P.T.O.



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.



- e) Using 3 point hitch, raise Post Driver.



CAUTION: NEVER ALLOW ANYONE NEAR THE POST DRIVER WHEN YOU ARE PERFORMING OPERATING FUNCTIONS.



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 OPERATORS 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.

5) MAST EXTENSION KIT (INSTALLATION) - Instructions to convert from **low** hammer to **high** hammer. (OPTIONAL)

IMPORTANT: TO PREVENT POST DRIVER FROM FALLING WHILE CONVERTING HAMMER, ATTACH POST DRIVER TO TRACTOR.

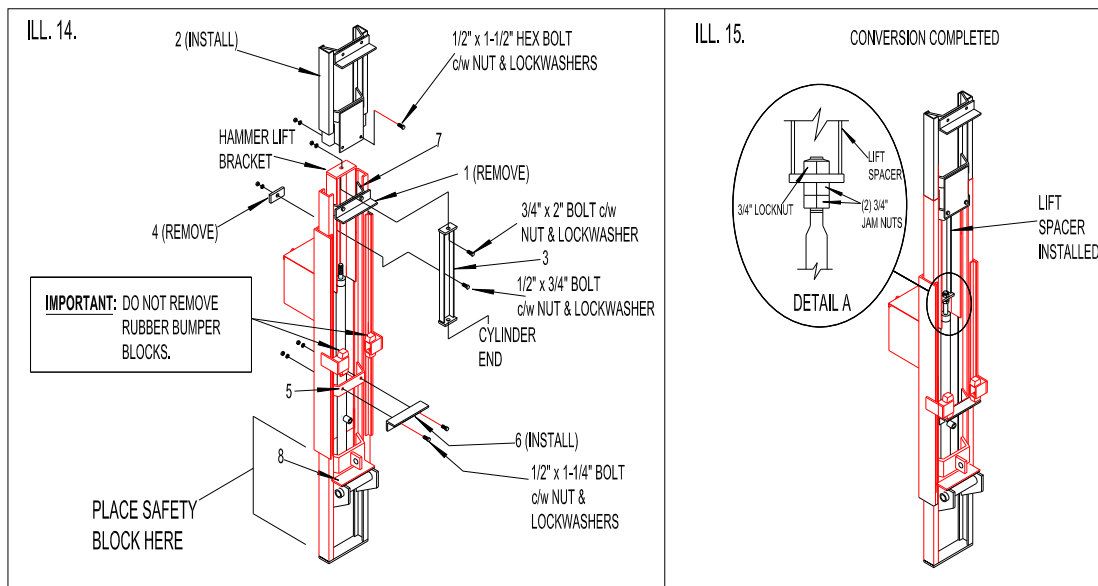
- a) See ILL. 14. With post driver mounted on tractor, position hammer so it is in a vertical position, then raise hammer so rubber bumpers are above bracket, arrow 5. Next, place a safety block between bottom of hammer and bottom of mast.



CAUTION: PLACE A BLOCK BETWEEN BOTTOM OF HAMMER AND BOTTOM OF MAST. IF HYDRAULIC SYSTEM FAILED OR IF HYDRAULIC LEVER WAS ACCIDENTLY 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" 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" 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" 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" 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" nuts, one 3/4" locknut on top of lift spacer and two (2) 3/4" jam nuts at bottom of lift spacer. Turn locknut until 1/4" 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".

IMPORTANT: BE SURE ALL BOLTS AND CYLINDER SHAFT NUTS ARE TIGHT BEFORE USING POST DRIVER.



CAUTION: 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.

6) MAST EXTENSION KIT (REMOVAL) - Instructions to convert from **high** hammer to **low** hammer position. (OPTIONAL)

IMPORTANT: TO PREVENT POST DRIVER FROM FALLING WHILE CONVERTING HAMMER, ATTACH POST DRIVER TO TRACTOR.

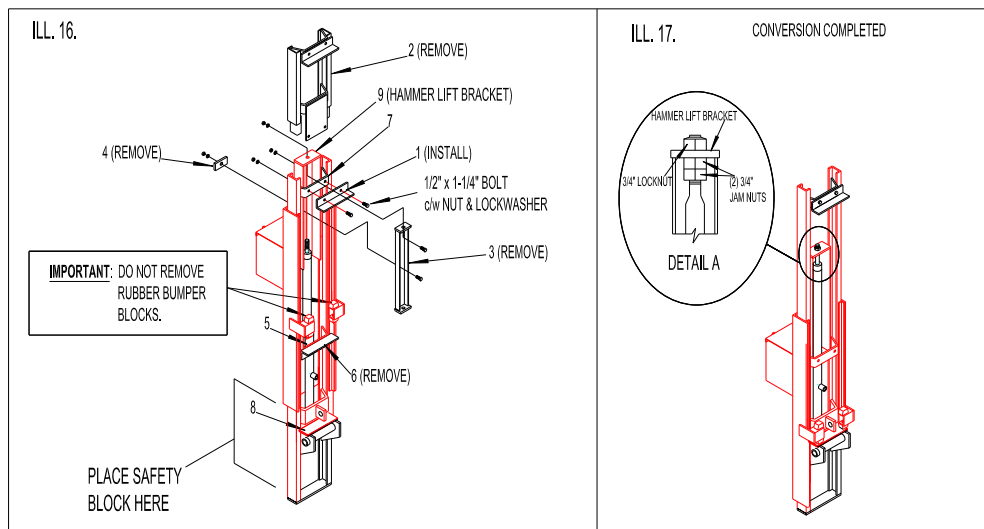
- a) See ILL. 16. With post driver mounted on tractor, position hammer so it is in a vertical position and lower hammer on to bumper stop, arrow 6.
- b) Remove mast extension, arrow 2, from top of mast.
- c) See ILL. 16. Remove nut from top of hammer cylinder and allow shaft to retract into cylinder.
- 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" nuts, one 3/4" locknut on top of bracket and two (2) 3/4" jam nuts at bottom of bracket. Turn locknut until 1/4" 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 ACCIDENTLY 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 1-1/4" bolts c/w nuts and lockwashers. (This is the same bracket (arrow 6) that was removed earlier).

IMPORTANT: BE SURE ALL BOLTS AND CYLINDER SHAFT NUTS ARE TIGHT BEFORE USING POST DRIVER.



MAINTENANCE

1. Lubricate post driver as follows: - See ILL. 18.

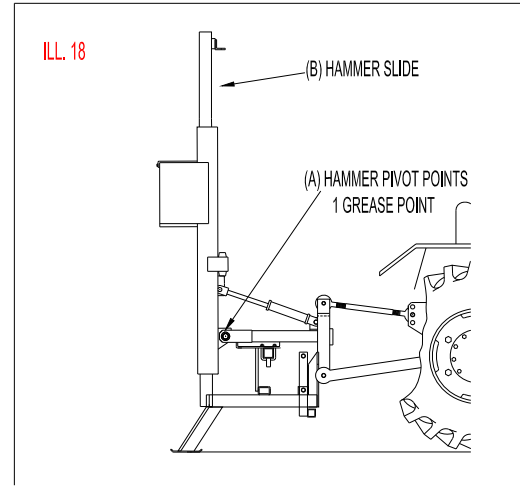
- a) Grease hammer pivots every 50 hours of operation.
- b) Raise hammer and grease both sides of hammer slide every 10 hours of operation.



CAUTION: DO NOT LUBRICATE OR ADJUST POST DRIVER WHEN IT IS BEING OPERATED OR WHILE IT IS IN MOTION.



CAUTION: ALWAYS RETRACT ALL CYLINDERS, SHUT OFF TRACTOR ENGINE, DISENGAGE P.T.O., AND LOCK TRACTOR BRAKES BEFORE LUBRICATING POST DRIVER.



2. HYDRAULIC SYSTEMS

- a) Periodically check level of hydraulic oil in reservoir. Oil should be within 1" 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.



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 HOSES 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.

IMPORTANT: REPLACE ANY SAFETY DECALS THAT ARE DAMAGED OR ARE ILLEGIBLE.

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 P.T.O.
 - 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.



DANGER: DO NOT STORE POST DRIVER WITH HAMMER IN RAISED POSITION. IF HAMMER FELL PERSON(S) NEARBY COULD BE SERIOUSLY INJURED.

BEGINNING OF SEASON SERVICE

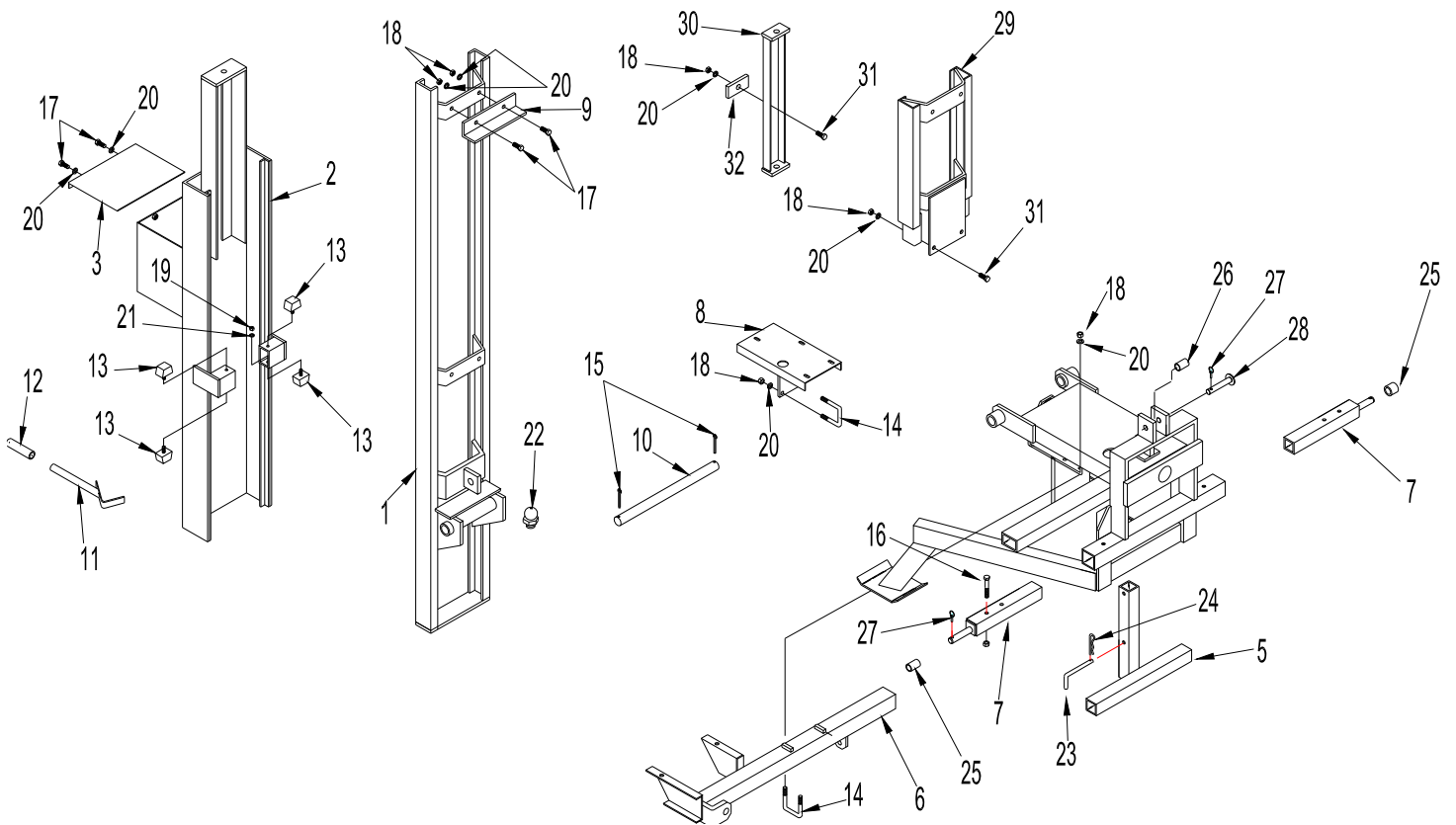
1. Clean off any dirt or grease that may have accumulated on moving parts. This will prevent abrasive action that could cause excessive wear.
2. Thoroughly inspect the post driver for any loose or missing parts and adjust as necessary. Replace any worn or damaged parts.
3. Replace any safety decals that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

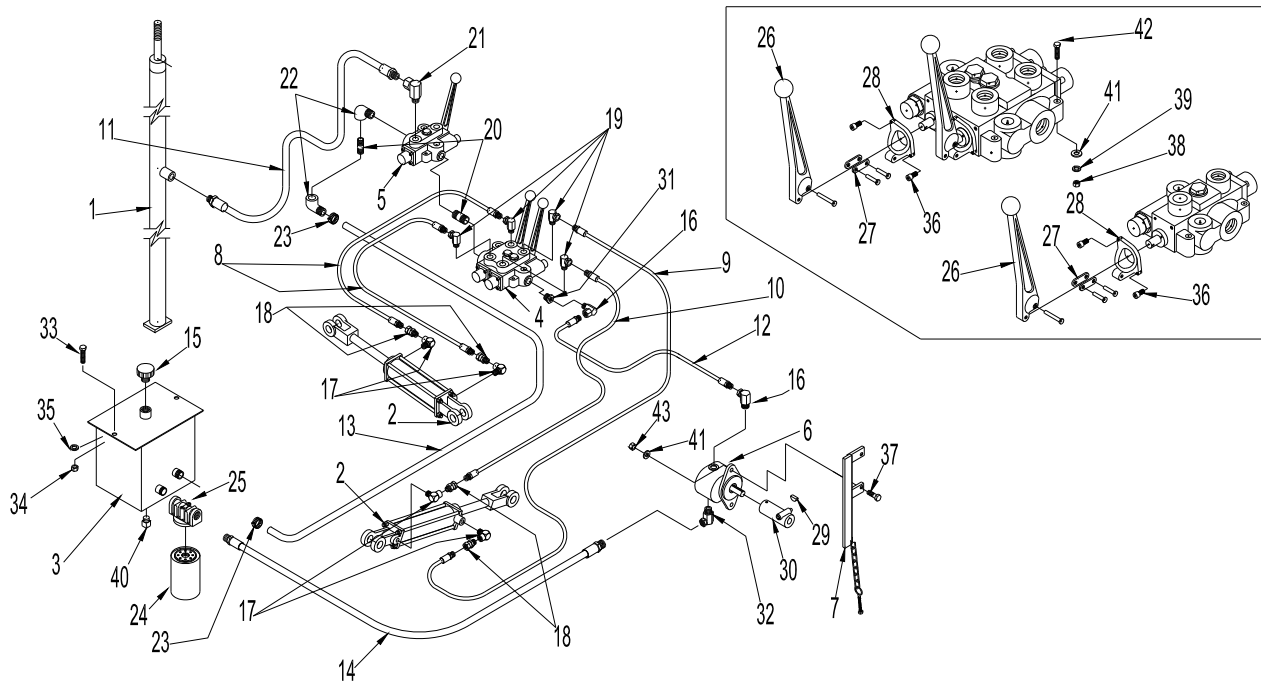
PARTS LIST INDEX
MODEL 1450 POST DRIVER

	Page
Hammer and Mast Assembly	22
Hydraulic System	23
Decals	25
Hammer Cylinder	26
Tilt and Slide Hydraulic Cylinders	27
Post Guide (Optional)	28



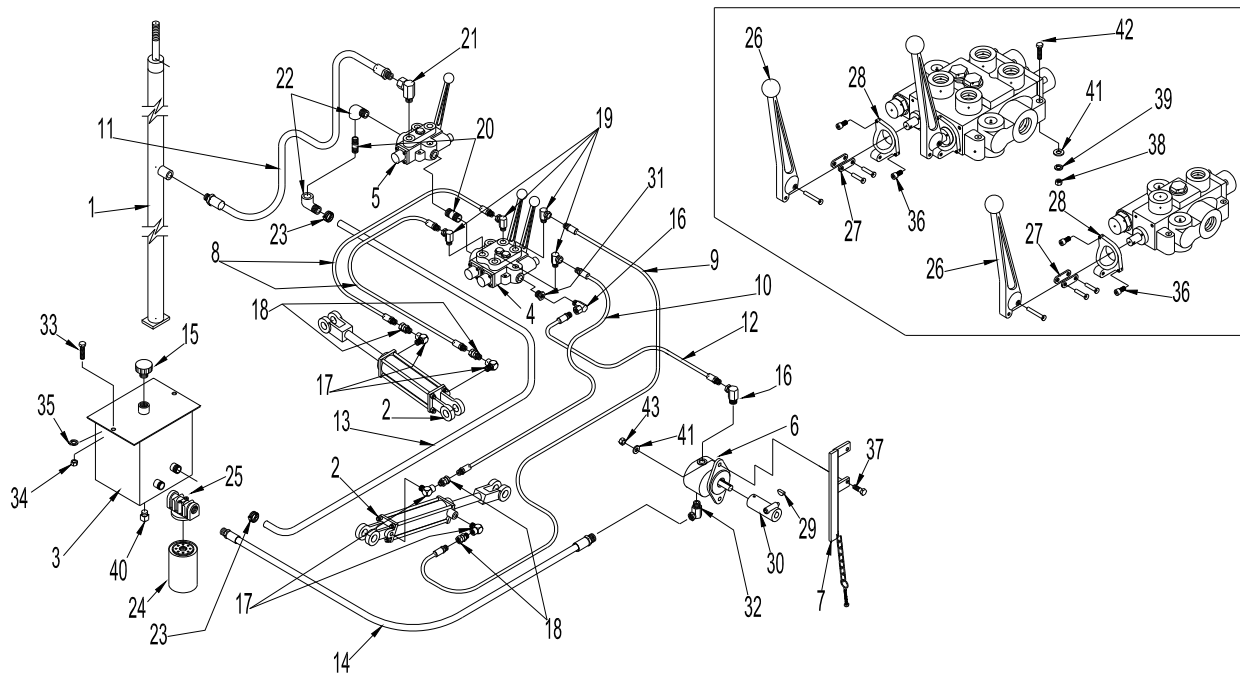
MODEL 1450 HAMMER AND MAST ASSEMBLY

Ref. No.	Part No.	Description	Qty. Req=d
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" U-Bolt	4
15	BP37200	3/8" x 2" Cotter Pin	2
16	B050035B	1/2" x 3-1/2" N.C. Hex Bolt	2
17	O50012	1/2" x 1-1/4" N.C. Hex Bolt	4
18	BN050	1/2" N.C. Hex Nut	15
19	BN037	3/8" N.C. Hex Nut	4
20	BW050L	1/2" Lockwasher	15
21	BW037L	3/8" 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" (11.18 x 44.45mm)	2
28	P80770	Cat I – Toplink pin – 3/4" x 3-7/8" (19.05 x 98.55mm)	1



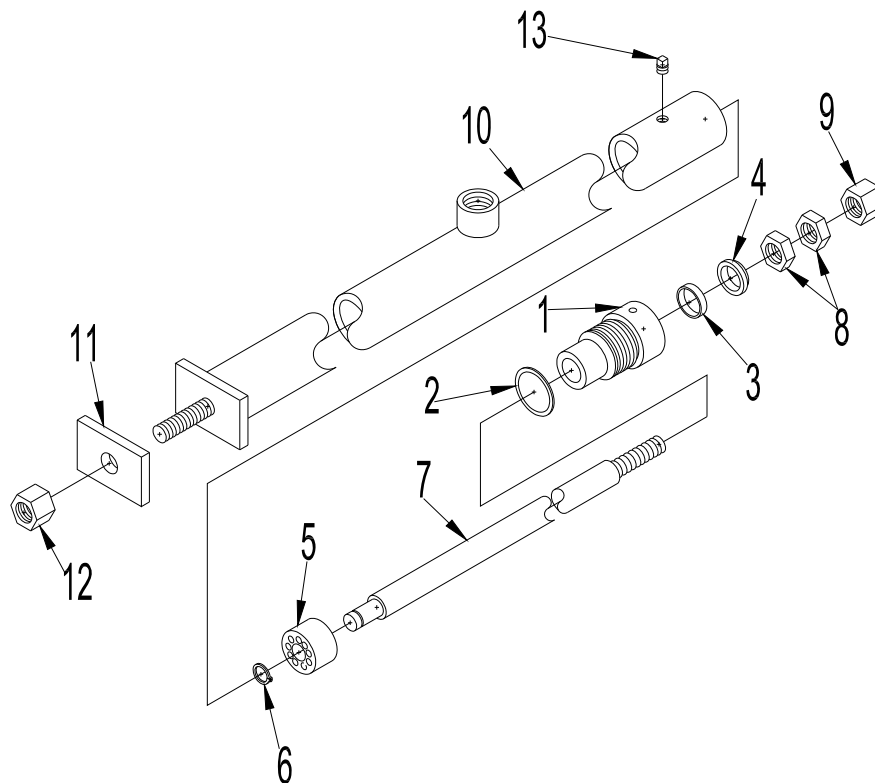
**MODEL 1450 HYDRAULIC SYSTEM
w/ Tank Mounted Filter (Currently Used)**

Ref. No.	Part No.	Description	Qty. Req=d
1	281	Hammer Cylinder - 1-5/8" Dia. X 64-15/16" Stroke c/w Nuts and Mount Pad	1
2	283	2" x 8" 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 P.T.O. with O.R.B. Ports (Cassappa)	1
***	P80517	Seal Kit - Cassappa Pump	---
7	P80512	Torque Arm	1
8	L2929	1/4" x 20" Hydraulic Hose c/w 3/8" Ends	2
9	L2909	1/4" x 40" Hydraulic Hose c/w 3/8" Ends	1
10	L2907	1/4" x 35" Hydraulic Hose c/w 3/8" Ends	1
11	P3033	3/4" x 42" Hydraulic Hose c/w 3/4" Ends	1
12	P4329	1/2" x 48" Hydraulic Hose c/w 1/2" Ends	1
13	P4327	1" Fuel Hose x 50" Long (No Ends)	1
14	P4503	3/4" x 48" Hydraulic Hose c/w 3/4" Ends	1
15	P80510	Breather Cap	1
16	P80706	7/8" O.R.B. Male x 1/2" N.P.T. x 90 Degree Swivel Street Elbow	1
17	DL5283	3/8" N.P.T. x 90 Degree Street Elbow (Steel)	1
18	P80704	3/8" Male-Female Restricted Orifice Swivel (0.31)	6
19	P80675	1/2" N.P.T. Male x 3/8" N.P.T. Female x 90 Degree Swivel Street Elbow	4
20	P80693	3/4" N.P.T. x 2" Nipple	2
21	P80694	1/2" N.P.T. Male x 3/4" N.P.T. Female x 90 Degree Female Swivel Street Elbow	6
22	P80695	3/4" N.P.T. x 90 Degree Swivel Street Elbow	1
23	A70728	1-1/2" 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" Woodruff Key	3
30	P80687	540 P.T.O. Adapter - 3/4" Diameter	1
31	P80698	3/4" N.P.T. Male x 1/2" N.P.T. Female Reducing Bushing - Steel	1
32	P80708	1-1/16" O.R.B. Male x 3/4" N.P.T. Female Swivel Adapter	1
33	B050012	1/2" x 1-1/4" N.C. Capscrew	2
34	BN050L	1/2" N.C. Hex Nylon Locknut	2
35	BW050L	1/2" Lockwasher	2
36	P80676	1/4" N.C. x 1/2" Socket Head Capscrew	6
37	B037015	3/8" x 1-1/2" N.C. Hex Bolt	7
38	BN037	3/8" N.C. Hex Nut	7
39	BW037L	3/8" Lockwasher	7
40	P80584	3/8" N.P.T. Plug - Square Head	1
41	BW13705606F	9/16" I.D. Flatwasher	2
42	B037020	3/8" x 2" N.C. Hex Bolt	2



**MODEL 1450 HYDRAULIC SYSTEM
w/ Pump Mounted Filter (Older System)**

Ref. No.	Part No.	Description	Qty. Req=d
1	281	Hammer Cylinder - 1-5/8" Dia. X 64-15/16" Stroke c/w Nuts and Mount Pad	1
2	283	2" x 8" 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 P.T.O. with O.R.B. Ports (Cassappa)	1
***	P80517	Seal Kit - Cassappa Pump	---
7	P80512	Torque Arm	1
8	L2929	1/4" x 20" Hydraulic Hose c/w 3/8" Ends	2
9	L2909	1/4" x 40" Hydraulic Hose c/w 3/8" Ends	1
10	L2907	1/4" x 35" Hydraulic Hose c/w 3/8" Ends	1
11	P3033	3/4" x 42" Hydraulic Hose c/w 3/4" Ends	1
12	P4329	1/2" x 48" Hydraulic Hose c/w 1/2" Ends	1
13	P4327	1" Fuel Hose x 50" Long (No Ends)	1
14	A4470	3/4" x 42" Hydraulic Hose c/w 3/4" Ends	1
15	P80510	Breather Cap	1
16	P80706	7/8" O.R.B. Male x 1/2" N.P.T. x 90 Degree Swivel Street Elbow	1
17	DL5283	3/8" N.P.T. x 90 Degree Street Elbow (Steel)	1
18	P80704	3/8" Male-Female Restricted Orifice Swivel (0.31)	6
19	P80675	1/2" N.P.T. Male x 3/8" N.P.T. Female x 90 Degree Swivel Street Elbow	4
20	P80693	3/4" N.P.T. x 2" Nipple	3
21	P80694	1/2" N.P.T. Male x 3/4" N.P.T. Female x 90 Degree Female Swivel Street Elbow	6
22	P80695	3/4" N.P.T. x 90 Degree Swivel Street Elbow	1
23	A70728	1-1/2" 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" Woodruff Key	3
30	P80687	540 P.T.O. Adapter - 3/4" Diameter	1
31	P80698	3/4" N.P.T. Male x 1/2" N.P.T. Female Reducing Bushing - Steel	1
32	P80708	1-1/16" O.R.B. Male x 3/4" N.P.T. Female Swivel Adapter	1
33	B050012	1/2" x 1-1/4" N.C. Capscrew	2
34	BN050L	1/2" N.C. Hex Nylon Locknut	2
35	BW050L	1/2" Lockwasher	2
36	P80676	1/4" N.C. x 1/2" Socket Head Capscrew	6
37	B037015	3/8" x 1-1/2" N.C. Hex Bolt	7
38	BN037	3/8" N.C. Hex Nut	7
39	BW037L	3/8" Lockwasher	7
40	P80584	3/8" N.P.T. Plug - Square Head	1
41	BW13705606F	9/16" I.D. Flatwasher	2
42	B037020	3/8" x 2" N.C. Hex Bolt	2

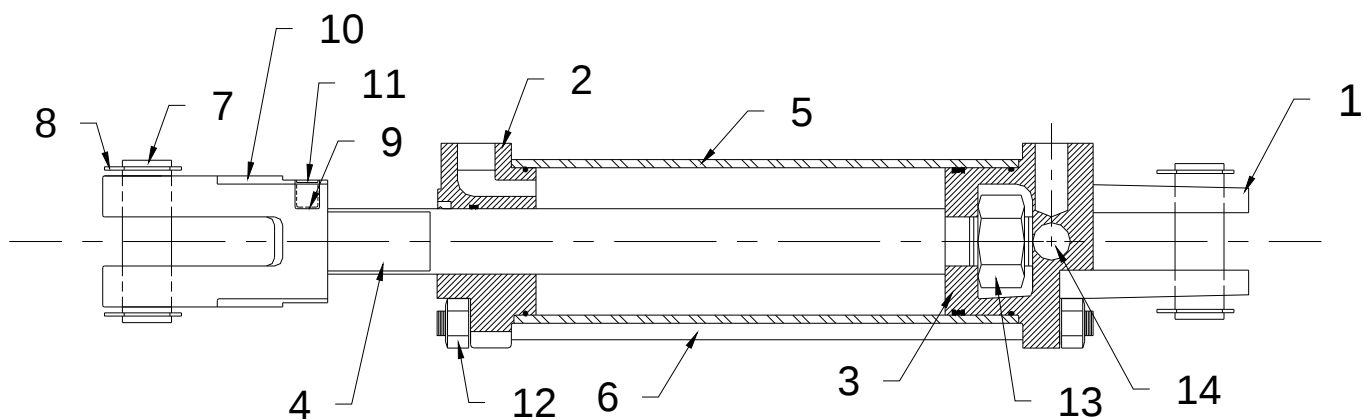


MODEL 1450 HAMMER CYLINDER

REF. NO.	PART NO.	DESCRIPTION	QTY. REQ'D
1	16HP1	1-5/8" O.D. x 7/8" I.D. Headplate (N5)	1
2	100R5	1-3/4" O.D. x 1-1/2" I.D. x 1/8" O-Ring	1
3	10RS8	7/8" I.D. Rod Seal	1
4	10WS8	7/8" I.D. 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" N.P.T. SQ. Head Plug	1

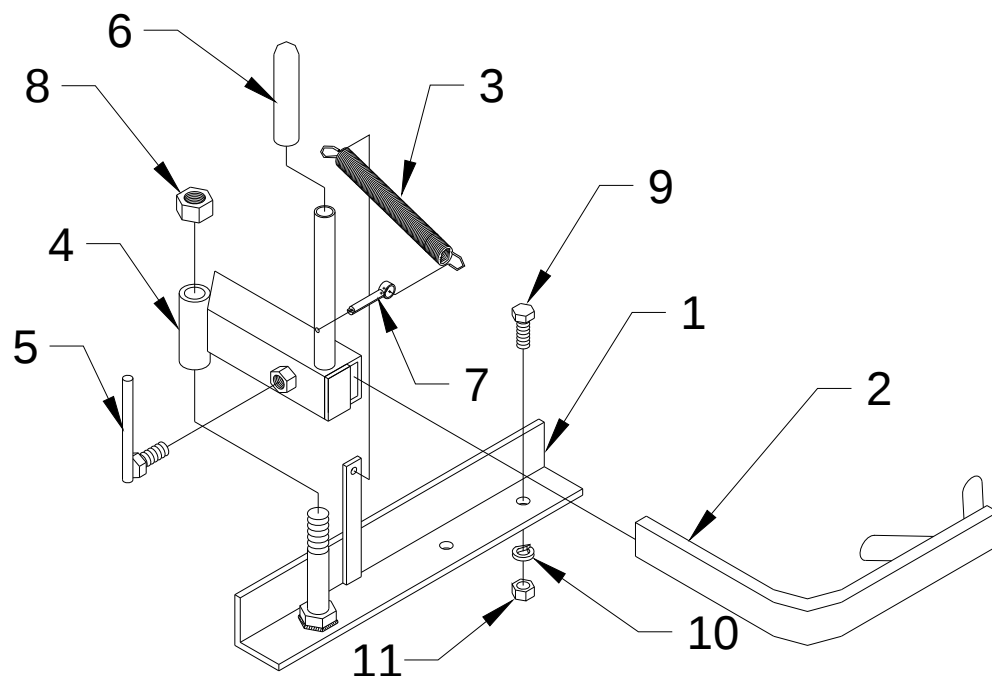
SEAL KIT - NO. 1608N5 - HAMMER CYLINDER

KIT NO.	DESCRIPTION	QTY. REQ'D
100R25	1-3/4" O.D. x 1-1/2" I.D. x 1/8" O-Ring	1
100R8	7/8" I.D. Rod Seal	1
10WS8	7/8" I.D. Wiper Seal	1



MODEL 1450
HYDRAULIC CYLINDERS - MONARCH (SLIDE, and TILT)

REF. NO.	MONARCH PART NO.	DESCRIPTION	MONARCH 2" x 8" QTY. REQ'D
1	492805	Clevis Cap (for 1" Pin)	1
2	492806	Rod Cap	1
3	492548	2" Dia. Piston	1
4	492581	Rod (8" Stroke)	1
5	491608	Tube (8" Stroke)	1
6	492216	Tie Rod (8" Stroke)	4
7 & 8	640091	Pin (2) (for 1" Dia.)	2
9	498006	Third Lock	1
10	492650	Rod Clevis (for 1" 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")	1



POST GUIDE (OPTIONAL)

REF. NO.	PART NO.	DESCRIPTION	QTY REQ=D
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" Cotter Pin	1
8	BN100L	1" N.C. Hex Nylon Lock Nut	1
9	B062015	5/8" x 1-1/2" Hex Bolt	1
10	BW062L	5/8" Lockwashers	1
11	BN062	5/8" Hex Nut	1

Ezee-On

OPERATOR'S MANUAL

**MODEL 1450 SKID-STEER
POST DRIVER**

includes
ASSEMBLY INSTRUCTIONS
and
PARTS LIST

Manufactured

By

Ezee-On Manufacturing

PRINTED IN CANADA

Vegreville, Alberta

Canada

723G

EZEE-ON MANUFACTURING

Limited Warranty Policy

Ezee-On Manufacturing's products are warranted to the original non-commercial purchaser to be free from defects in material and workmanship for a minimum period of twelve (12) months from the original date of purchase.

Ezee-On Manufacturing's obligation under this warranty shall be limited to the repair or exchange, at Ezee-On's option, free of charge to the original purchaser, any part or component that, in our judgment, shows evidence of such defect. Further, that such part shall be returned within thirty (30) days from date of failure to Ezee-On Manufacturing, routed through the dealer and distributor from whom the equipment was purchased, **transportation charges prepaid**.

This warranty shall not be interpreted to render Ezee-On Manufacturing liable for injury or damages of any kind or nature to person or property. This warranty does not include claims for, or extend to the loss or damage of crops, loss because of delay in seeding/ planting or harvesting, or any expense or loss incurred for labor, substitute machinery, rental, transportation expense or for any other reason.

Except as set forth above, Ezee-On Manufacturing 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. Ezee-On Manufacturing makes no other warranty, expressed or implied, and, specifically, Ezee-On Manufacturing disclaims any implied warranty or merchantability or fitness for a particular purpose. The purchaser is solely responsible for determining suitability of Ezee-On equipment purchased. This warranty is subject to any existing conditions of supply, which may directly affect our ability to obtain materials or manufacture replacement parts.

Ezee-On reserves the right to make improvements in the design of products and/ or changes in specifications at any time, without incurring any obligation to owners of units previously sold. No one other than Ezee-On Manufacturing is authorized to alter, modify or enlarge this warranty.

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

Under no circumstances will this warranty cover any merchandise or components thereof, which, in the opinion of the Company, has been subjected to misuse, unauthorized modifications, alteration, an accident or if repairs have been made with parts other than those obtainable through Ezee-On Manufacturing.

Commercial Use: Warranty for commercial, rental or custom use of any Ezee-On product is limited to 90 days, parts and labor.

Twelve Months Warranty:

All Ezee-On manufactured products are warranted for twelve consecutive months from the date of delivery of the new Ezee-On product to the original non-commercial purchaser.

- 1-12 Months: 100% parts and labor coverage

Extended Coverage Limited Warranty (24 additional months):

Air Drills, Coulter Drills, Air Carts, Cultivators, Chisel Plows, Offset and Tandem Discs and Post Drivers carry limited extended warranty. Ezee-On Manufacturing's obligations under this extended warranty coverage shall be limited to repair or exchange, at Ezee-On Manufacturing's option, for the original, non-commercial owner:

- 13-24 Months: 100% Ezee-On manufactured components only, NO labour – see below for description
- 25-36 Months: 50% Ezee-On manufactured components only, NO labour – see below for description

Ezee-On manufactured components are, but not limited to: frames, axles, hitches, castor assemblies, packers, turnbuckles, rockshafts, packer frames, packers – steel, tanks – air cart seed and fertilizer tanks, seed cups, metering rollers.

NON Ezee-On manufactured components are, but not limited to: Monitors, tires, rims, bearings, hydraulics: motors, pumps, controls, cylinders, hoses and valves; sprockets, chain, rubber packer wheel tires, polyurethane wheel mounted packers, coulter blades, shanks, springs, bolts, pulleys, air hoses, sweeps, spikes, spoons, seals, power wheels, hitch jacks, hubs and wheels.

The Company in no way warrants engines, batteries, coulter assemblies, rubber tires, or other trade accessories since these items are warranted separately by their respective manufacturers.

T2-215 Bearing Extended Coverage Limited Warranty:

Seven year limited warranty: Extended coverage (13-84 months) on T2-215 Series bearing is limited to the replacement of ball bearings and seals for the original, non-commercial owner. Associated bearing parts, labor, freight, etc., are not covered.

Warranty Limitations and/ or Exclusions:

1. Buckets & bucket tines, bale spears & tines, grapple tines, pallet forks, shanks, all ground engaging tools, disc openers and disc blades, air seeder hose and normal wear parts/ items carry NO warranty.
2. There is no warranty coverage if parts or attachments, other than those made or marketed by Ezee-On Manufacturing have been used in connection with the unit, and in the sole judgment of Ezee-On, such use affects its performance or reliability.
3. If the equipment has been altered or repaired in a manner which, in the sole judgment of Ezee-On, affects its performance, stability or reliability.
4. The purchaser shall be responsible for dealer travel time to the machine or to deliver the machine to the dealer's service shop for repair. Ezee-On Manufacturing does not cover delivery charges or travel time.

This warranty policy is subject to change without prior written notice at Ezee-On Manufacturing's sole discretion.

Revision: September 1, 2004

Post Driver Pre-Delivery Inspection/ Warranty Registration

Dealership _____ Location _____ Delivery Date: ____/____/____
Model _____ Serial # _____ ☐ New Machine ☐ Demo Unit

Items for Dealership technician to inspect prior to delivery: see Operator's Manual for detailed instructions

- | | |
|---|---|
| ☐ Torque all wheel bolts/ lug nuts to specifications (Model 2400) | ☐ Check hydraulic hoses are leak free and hydraulic cylinders are filled with oil |
| ☐ Check tire pressures are correct @ 28 psi (Model 2400) | ☐ Model 2400: Ensure minimum 250 lbs of ballast is in trailer weight box |
| ☐ Check engine fluid levels (if equipped) and hydraulic fluid in reservoir | ☐ Model 1450: Do not mount on tractor weighing less than 3,000 lbs (1365 kg) |
| ☐ Lubricate the entire machine as recommended in the Operator's Manual | ☐ Model 1450: 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) |
| ☐ Check all bolts for tightness and cotter pins are installed | ☐ Model 1450: raise front leg of stand assembly and lock in raised position before operating post driver |
| ☐ Ensure both sides of hammer slide are greased before first use | ☐ Ensure Post Holder tool is present and Post Guide installed correctly (if equipped) |
| ☐ 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 | |

Pre-Delivery completed by _____ (signature) Date ____/____/____
mm dd yyyy

Items for Dealership staff to cover with customer upon delivery:

- | | |
|---|--|
| ☐ Give the Operator's Manual to your customer | ☐ Connect PTO pump to tractor's PTO, connect safety chain (if equipped) |
| ☐ Inform your customer of all safety precautions, maintenance procedures, and demonstrate proper & safe operation of the Post Driver | ☐ Ensure machine functions properly. (Raise/ lower hammer, slide, tilt, etc) |
| ☐ Verify correct serial number | ☐ Start tractor or engine & run all controls so your customer understands correct operation of the Post Driver and ensure all functions are working properly. |
| ☐ Attach Post Driver to your customer's tractor, skid-steer, or vehicle | ☐ Explain limited warranty and fill out registration form. Fax to the Factory |
| ☐ Ensure hitch jack is in transport position (if equipped) | Ezee-On Fax: (780) 632-6221 |

Warranty Registration

Owner's Name _____ Address _____ Town _____
Province/ State _____ Country _____ Postal/ Zip Code _____
Home Phone # _____ Cell Phone # _____ Email Address _____

*The owner hereby acknowledges receipt of the Operator's Manual and that all delivery checks have been completed as listed above. Owner furthermore acknowledges that the Operator's Manual is an integral part of the purchased equipment and it contains information important to the proper operation, maintenance, and safety procedures of this machine.

Owner's signature _____ Date ____/____/____
mm dd yyyy

Dealer's signature _____ Date ____/____/____
mm dd yyyy

Mail or Fax the original copy of this Warranty Registration and Pre-Delivery/Delivery Inspection to Ezee-On Manufacturing immediately after delivery.

Warranty Registration is mandatory. Failure to complete and return this form will delay the processing of warranty claims

INTRODUCTION

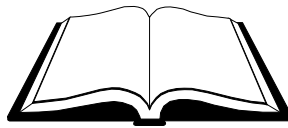
THANK YOU for choosing to purchase this Ezee-On implement, we are confident you will be impressed with its performance.

In addition to the traditional values of simplicity, reliability and durability, your new EZZE-ON implement incorporates a number of operational and safety features. We urge you to familiarize yourself with the maintenance and operation of your implement by reading this Manual thoroughly and completely. Failure to do so could result in personal injury or equipment damage.

THIS MANUAL contains important information regarding assembly, maintenance, operating instructions, and troubleshooting problems, and should be considered a permanent part of your implement.

Remember that it is the responsibility of the Operator to ensure that the implement is field ready, prior to first operation. However, should you encounter a problem, please contact your dealer immediately.

READ THIS MANUAL CAREFULLY TO ENSURE THAT YOUR NEW IMPLEMENT IS ASSEMBLED AND ADJUSTED CORRECTLY PRIOR TO FIRST OPERATION.



RIGHT and LEFT is determined by standing behind the machine and facing FORWARD, in the direction of travel.



This symbol is used to identify safety messages. When you see this symbol, read the safety message carefully.

TABLE OF CONTENTS

DESCRIPTION	PAGE
SAFETY	2
ASSEMBLY INSTRUCTIONS	5
OPERATING INSTRUCTIONS	10
MAINTENANCE	17
STORAGE	18
SEASONAL SERVICE	19
PARTS LIST INDEX	

EZZE-ON MANUFACTURING RESERVES THE RIGHT to make improvements in design and changes in specifications at any time without notice and without incurring any obligation to install them on units previously sold. Specifications, descriptions, and illustrative material herein are as accurate as known at time of publication, but are subject to change without notice.

SPECIFICATIONS

- Minimum Skid-Steer Loader Weigh – 3000 lbs (1360 Kgs)
- Hammer Face 9" x 12 –1/2"
- Maximum Hammer Height – 112"

HYDRAULICS

- Hammer Cylinder- 1-5/8" x 64" Stroke
- Hammer Tilt Cylinder- 2" x 8" Stroke
- Hammer Swivel Cylinder-2" x 8" Stroke
- Hydraulic Oil Reservoir-2.1 Imperial Gallons
- Hydraulic Pump- 4.5 U.S. Gal/Min @ 540 r.p.m
- Hydraulic Motor – 4.9 cu.in.
- Minimum Skid-Steer Hydraulic Requirements to Operator Hydraulic Motor – 6 to 8 U.S. Gal/Min

SAFETY RECOMMENDATIONS



Watch for this symbol. It identifies important safety messages. When you see this symbol, read the safety message carefully.

GENERAL SAFETY

1. Do not mount post driver on skid-steer loaders weighing less than 3000 lbs (1360 Kgs). Operating or transporting post driver mounted on a skid-steer loader weighing less than 3000 lbs (1360. Kgs) could result in loader roll over causing serious injury or death to operator and person(s) nearby.
2. Never mount post driver on skid-steer loaders without ROPS protection.
3. Only one person, the operator, should be allowed to operate the post driver.
4. Never ride or permit others to ride on the post driver.
5. Never allow anyone, other than the operator, on the skid-steer loader when operating or transporting the post driver.
6. Follow all safety precautions in your skid-steer loader manual.
7. Keep a first aid kit in the skid-steer loader at all times.



ASSEMBLY SAFETY

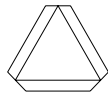
1. Use an aligning punch to line up holes. Keep fingers out of these holes. Any sudden movement of heavy components will severely injure or sever your fingers.
2. Use a hoist or adequate manpower to lift the heavy components into place. Use adequate jacks or support materials. Attempting to lift heavy components by yourself could cause serious injury.
3. Be sure all bolts and hydraulic fittings are tight, and all cotter pins are installed in pins.
4. Before applying pressure to hydraulic system, be sure all connections are tight and components are not damaged.
5. 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.
6. 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.
7. Always stay clear of post driver hydraulic motor drive shaft when it is running. Serious injury or death will result if clothing, hair or limbs were caught in hydraulic motor drive coupler shaft.
8. 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.

OPERATING SAFETY

1. Never allow anyone near the post driver when you are performing operating functions.
2. When tilting, raising or lowering the hammer, keep all persons away from the post driver.
3. Wear safety glasses and hand wear to protect against splinters.
4. Make certain everyone is clear before operating or moving the post driver.
5. 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.
6. Contact local utility companies for underground services before installing posts.
7. Never place your hand on top of the post at any time during operation. Serious injury may occur.
8. 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.
9. 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.
10. 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.
11. Always stay clear of hydraulic motor drive shaft when it is running. Serious injury or death will result if clothing, hair or limbs are caught in drive coupler.
12. To avoid serious injury or death, use discretion if adding ballast to hammer as both skid-steer loader and post driver may become unstable during either operation or transporting unit. (It is not recommended to add ballast to hammer).
13. 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.
14. 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.
15. 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.
16. 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.
17. Use extra care when operating post driver in uneven terrain. Skid-steer loader and post driver may become unstable and roll over causing serious injury or death.
18. Do not raise loader arms and stand under post driver to adjust or service post driver. Always lower loader arms when servicing or adjusting post driver.

TRANSPORT SAFETY

1. Reduce speed when transporting post driver over uneven or rough terrain.
2. Shift the tractor into a lower gear when transporting post driver down hills or steep slopes.
3. Be sure SMV (slow moving vehicle) emblem is clean and visible before transporting post driver. The SMV emblem warns other vehicles approaching from rear.



4. Always comply with all State, Provincial, Federal and local laws when transporting post driver on roadways.
5. Retract hammer cylinder and upper tilt cylinder before transporting post driver.
6. 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.

MAINTENANCE

1. 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.
2. 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.
3. 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.
4. If spray-can paint is used, be careful when discarding empty cans. Do not incinerate or puncture can.
5. Do not permit smoking, sparks, or open flame where combustible lubricants or liquids are being used.
6. Replace any worn or damaged hydraulic hoses and keep all hydraulic hoses and hydraulic fittings tight.
7. Shut off all power and lock brakes before adjusting, servicing or cleaning the post driver.
8. Do not lubricate or adjust post driver when it is being operated or while it is in motion.
9. Always retract all cylinders, shut off skid-steer engine and lock brakes before lubricating post driver.
10. Replace any safety decals that are damaged or are illegible.

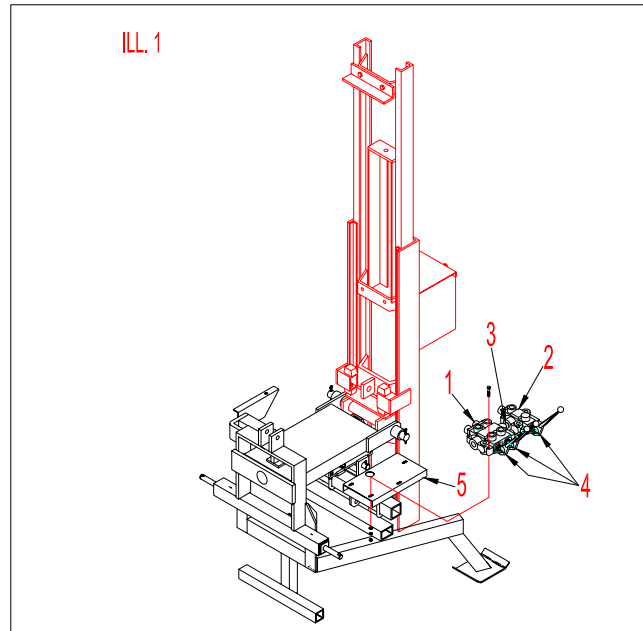
STORAGE SAFETY

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

NOTE: *An accident is usually caused by someone's carelessness, neglect, or oversight. Remember, safety comes first.*

**AN ACCIDENT NOT ONLY HURTS,
BUT ALSO COSTS YOU VALUABLE LOST TIME.**

ASSEMBLY INSTRUCTIONS

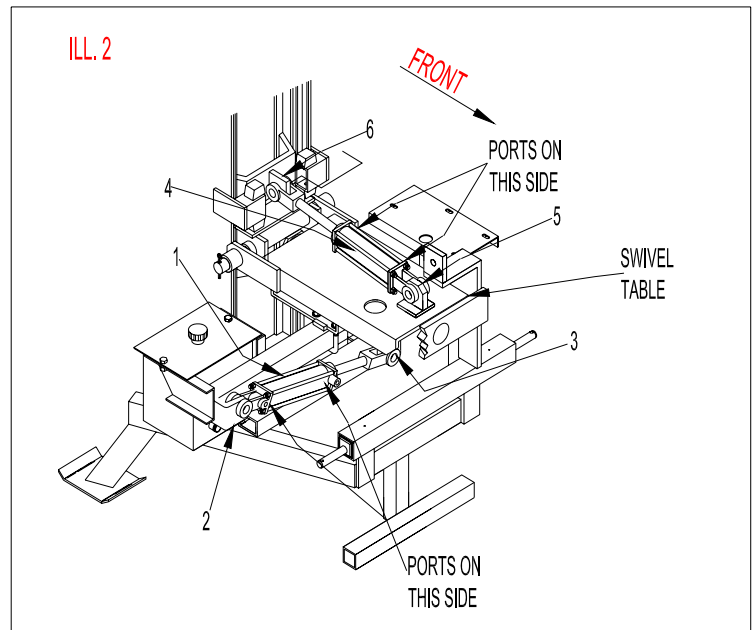


CAUTION: USE A HOIST OR ADEQUATE MANPOWER TO LIFT HEAVY COMPONENTS IN PLACE. ATTEMPTING TO LIFT HEAVY COMPONENTS BY YOURSELF COULD CAUSE SERIOUS INJURY.

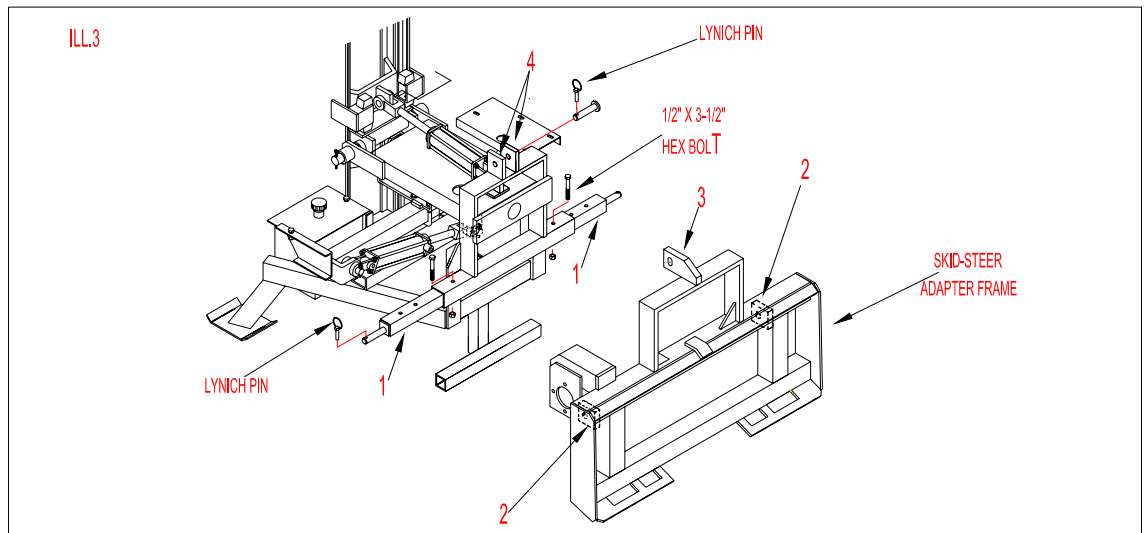
1. See ILL. 1. Join 2 spool valve, arrow 1, and single spool valve, arrow 2, with one (1) 3/4" N.P.T. x 2" nipple, arrow 3. Next, fasten three (3) control levers, arrow 4, to the two valves. Attach handles so they point up. Fasten valve assembly to top of valve bracket, arrow 5, with four (4) 3/8" x 2" N.C. 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 SEVERE YOUR FINGERS.



2. See ILL. 2. Fasten barrel end of a 2" x 8" 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" 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.



3. MODEL 1450 SKID-STEER KIT ASSEMBLY INSTRUCTIONS – See ILL. 3

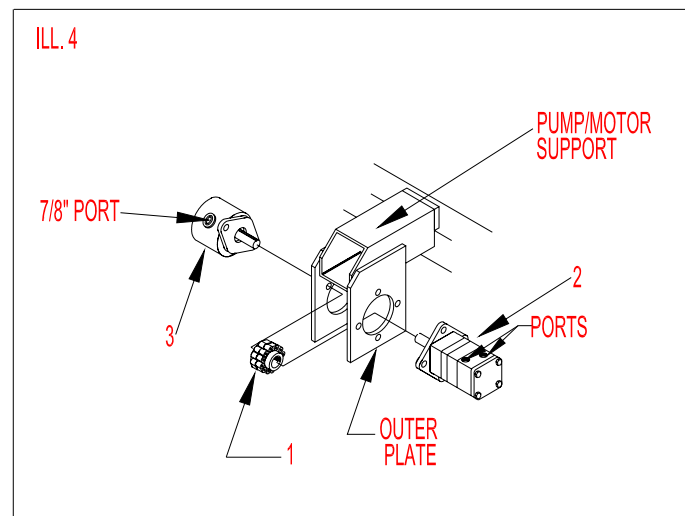
- a) Remove $\frac{1}{2}$ " x 3- $\frac{1}{2}$ " hex bolt which fastens adjustable stub, arrow 1, on back side of post driver frame. Next slide each adjustable stub "IN".
- b) Position skid-steer adapter frame so lower lugs, arrow 2, are over adjustable stubs, arrow 1, and top lug, arrow 3, is positioned between upper lugs, arrow 4, of post driver frame. Secure adapter frame to post driver by moving adjustable stubs, arrow 1, out so pins move into hole of lower lugs, arrow 2. Reinstall $\frac{1}{2}$ " x 3- $\frac{1}{2}$ " hex bolt in each side of lower tube of post driver frame and secure each bolt with (1) nut. Then install lynch pin in hole of pin of each adjustable stub, arrow 1. Next, secure top lug, arrow 3, of adapter frame to post driver frame with one $\frac{3}{4}$ " x 4- $\frac{3}{4}$ " pin. Secure pin with (1) lynch pin.

c) Motor/Pump Assembly - See ILL. 4

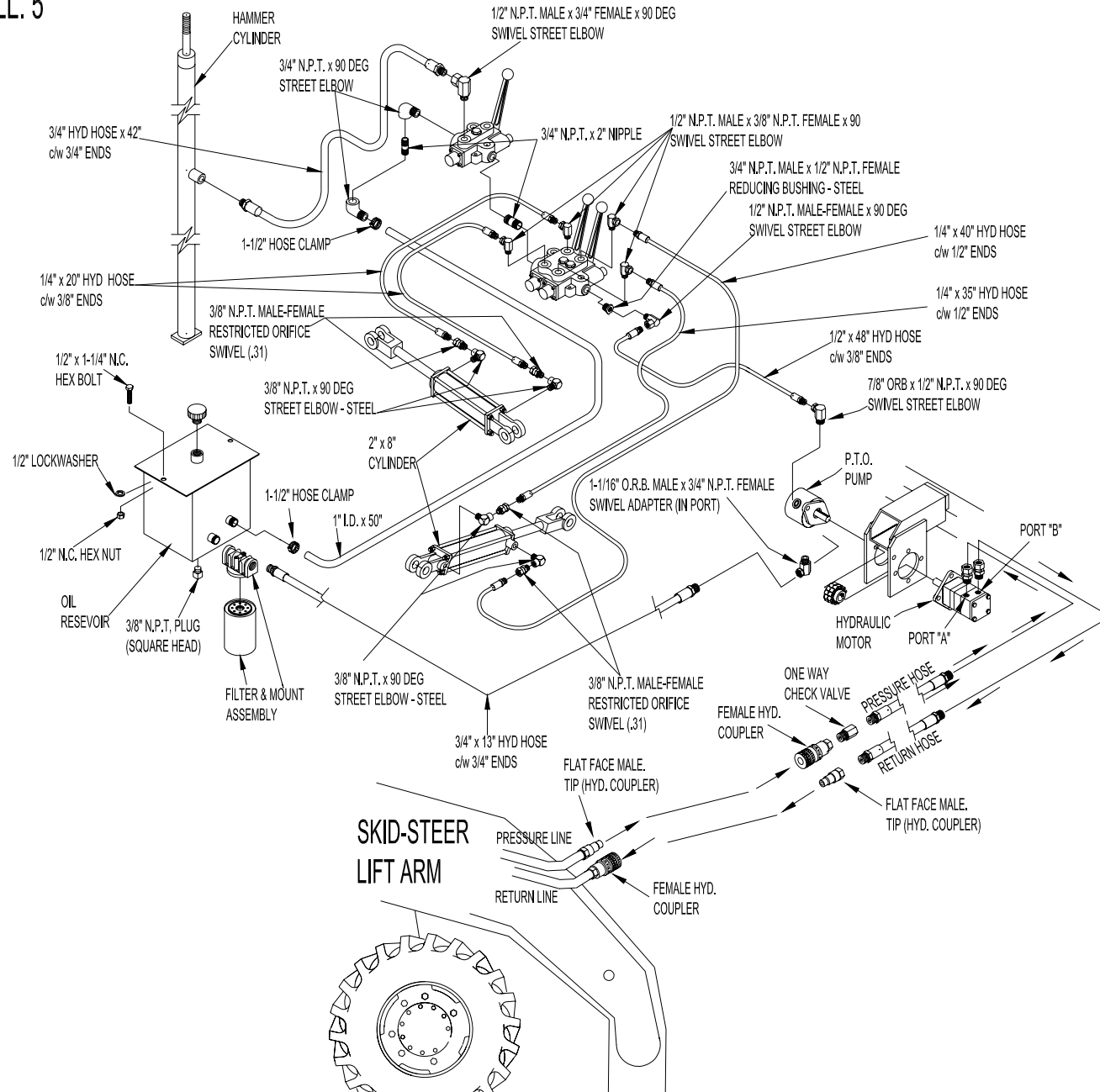
Hold drive coupler assembly, arrow 1, between side plates of pump/motor support bracket with 1" bore facing outer plate. Next, mount hydraulic motor, arrow 2, to outer side plate. As motor shaft is being installed through hole in outer plate, place drive coupler assembly, arrow 1, over motor shaft. Be sure key is installed on motor shaft. Position motor with ports facing up. Next, fasten motor to outer plate with four (4) $\frac{7}{16}$ " x 1- $\frac{3}{4}$ " hex bolts c/w nuts and lockwashers. Tighten bolts.

Mount 1.99 cu. in. hydraulic pump, arrow 3, to inner side plate. As pump is being installed, insert pump shaft into coupler, arrow 1. Position pump so $\frac{7}{8}$ " port face hammer of post driver. Next, fasten motor to inner side plate with two (2) $\frac{3}{8}$ " x 1- $\frac{3}{4}$ " hex bolt c/w nuts and lockwashers.

Tighten bolts. Finally, lock coupler assembly, arrow 1, to pump and motor shafts by tightening set screws on both hubs.



ILL. 5



4. Attaching hydraulic hose and fittings. See ILL. 5 on page 7.

IMPORTANT: 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.

IMPORTANT: CLEANLINESS IS ABSOLUTELY NECESSARY TO PREVENT CONTAMINATION WHEN HOOKING UP THE HYDRAULIC SYSTEM COMPONENTS. HANDLE FITTINGS CAREFULLY.

- h) Attach hoses and fittings to hydraulic pump, filter, valves, cylinders oil reservoir and hydraulic motor as shown in ILL. 5.

IMPORTANT: BE SURE THE 3/8" MALE - FEMALE SWIVEL ADAPTORS WITH RESTRICTED ORIFICE, (PAINTED BLACK), ARE INSTALLED IN THE 2" x 8" HAMMER TILT CYLINDER AND IN THE 2" x 8" HAMMER SWIVEL CYLINDER. TWO FITTINGS ARE REQUIRED PER CYLINDER.

- i) **IMPORTANT NOTE:** WHEN THE POST DRIVER HAS BEEN IDLE FOR A PERIOD OF TIME, THE HAMMER TILT CYLINDERS 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 SKID-STEER LOADER WEIGHING LESS THAN 3000 LBS (1360 KGS). OPERATING OR TRANSPORTING POST DRIVER MOUNTED ON A TRACTOR WEIGHING LESS THAN 3000 LBS (1360 KGS) COULD RESULT IN TRACTOR ROLL OVER CAUSING SERIOUS INJURY OR DEATH TO OPERATOR OR PERSON(S) NEARBY.



CAUTION: NEVER MOUNT POST DRIVER ON SKID-STEER LOADERS WITHOUT ROPS PROTECTION.

5. Drive skid-steer up to post driver. Attach post driver to loader by engaging quick-tach carrier on loader arms with post driver frame. Activate quick-tach lock mechanism. .
6. See ILL. 5. Identify hydraulic supply lines (2) that run to front of loader lift arms. Select line which will supply pressure and install (1) one flat face male tip to front end of line. Next, install (1) one female coupler on front end of return line.
7. See ILL. 5. Connect hydraulic motor pressure and return hoses to remote couplers on loader lift arms that were installed in section 6.
8. Filling Hydraulic System.
 - a) Fill post driver oil reservoir with hydraulic oil, use Esso Hydro 56 or use a grade of hydraulic oil that is approved for tractor hydraulic systems.
 - b) Start post driver hydraulic pump by activating hydraulic lever in skid-steer loader which controls oil flow to post driver's hydraulic motor. If lever is not moved in correct direction, hydraulic motor will NOT START. Run skid-steer engine at HALF IDLE. Using hydraulic valve control levers on post driver, see section 1 of Operating Instructions, 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. 5 on page 7).

IMPORTANT: 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 PINS(S) FELL OUT AND HAMMER FELL

OPERATING INSTRUCTIONS

1. PREPARING POST DRIVER FOR OPERATION

- a) To mount post driver to skid-steer loader, refer to section 5, 6 and 7 of assembly instructions.



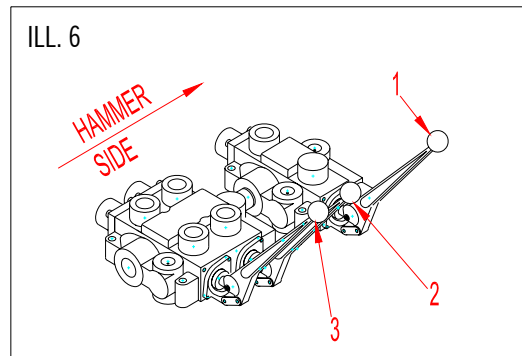
CAUTION: DO NOT MOUNT POST DRIVER ON SKID-STEER LOADER WEIGHING LESS THAN 3000 LBS (1360 KGS) AND SKID-STEER LOADER NOT EQUIPPED WITH ROPS PROTECTION.

- b) Check the oil level in oil reservoir. The level should be 1 inch from top of reservoir. If filling is required, use ESSO Hydro 56 or a grade of hydraulic oil that is approved for tractor hydraulic systems.
- c) Check that the rubber bumpers on upper and lower hammer stops are in place and in good condition.
- d) Ensure both sides of hammer slide are greased before activating controls.
- e) Check all bolts and hydraulic fittings for tightness.
- f) Be sure all pins are properly secured with cotter pins, especially the three point hitch pins which secure post driver to skid-steer mount frame.

2. OPERATION OF HYDRAULIC CONTROLS - See ILL. 6.

The three control levers operate post driver as follows:

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



CAUTION: KNOW THE FUNCTIONS OF EACH HYDRAULIC LEVER BEFORE PROCEEDING WITH OPERATIONS.



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.

3. SEE ILL. 7 Before operating post driver raise front leg of stand assembly and lock in raised position with pin.



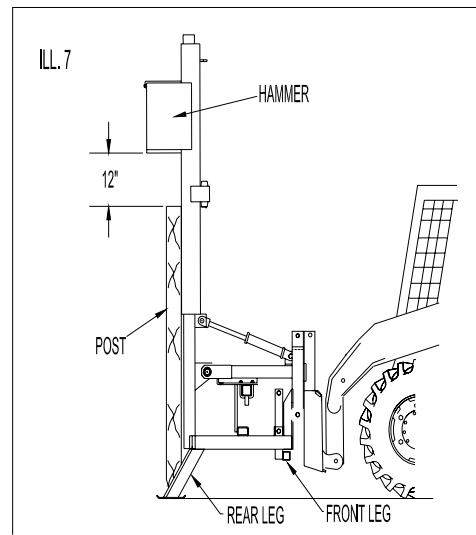
CAUTION: DO NOT RAISE LOADER ARMS AND STAND UNDER POST DRIVER TO ADJUST OR SERVICE POST DRIVER. ALWAYS LOWER LOADER ARMS WHEN SERVICING OR ADJUSTING POST DRIVER.

4. Start post driver pump by activating proper hydraulic lever in cab of skid-steer loader. **Note:** If lever is not moved to correct position, hydraulic motor on post driver will not start. Run skid-steer engine at half throttle to start with. If post driver hydraulics raise hammer too fast or too slowly, adjust skid-steer engine R.P.M. as required.
- 5 DRIVING POSTS - See ILL. 7.

- 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 HYDRAULIC MOTOR SHAFT WHEN IN OPERATION. SERIOUS INJURY OR DEATH WILL RESULT IF CLOTHING, HAIR OR LIMBS ARE CAUGHT IN DRIVE COUPLER.

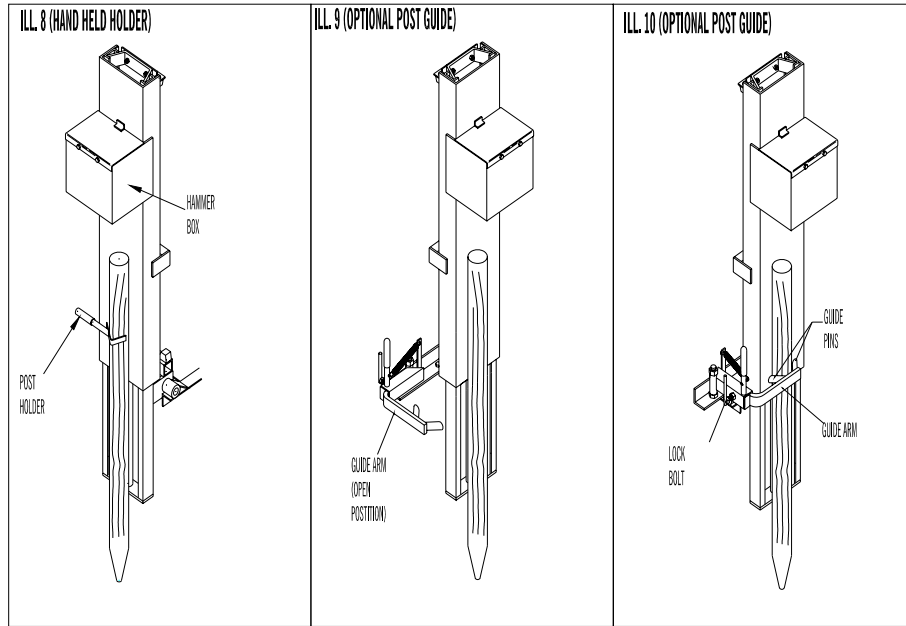
- b) Locate post driver where post is to be driven.
- c) Using loader arms lower post driver so rear legs of stand rest on the ground.
- d) Tilt and rotate hammer by operating valve levers, arrow 2, and 3, shown in ILL. 6 on page 11. These levers will locate hammer in desired working position. See Section 2 of OPERATING INSTRUCTIONS on page 11.
- e) Raise hammer approximately 12 inches above post as shown in ILL. 7.



CAUTION: MAKE CERTAIN EVERYONE IS CLEAR BEFORE OPERATING OR MOVING THE POST DRIVER.



CAUTION: WHEN TILTING, RAISING OR LOWERING THE HAMMER, KEEP ALL PERSONS AWAY FROM 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.

f) HOLDING POST UNDER HAMMER - USE SUBSECTION f1 or f2.

f1) HAND HELD HOLDER - See ILL. 8. Position post under hammer. Using the hand held post holder, hold post against hammer. Start to drive post, see Paragraph h, i and j below.

f2) OPTIONAL POST GUIDE - SEE ILL. 9 and 10.

Step 1 - Place guide arm in open position and place post under hammer. ILL. 9 shows guide arm in open position.

Step 2 - See ILL. 10. Close Post Guide over post so guide pins hold post.

Step 3 - See ILL. 10. If necessary, loosen lock bolt and adjust guide arm AIN or AOUT so guide pins hold post securely. Tighten lock bolt.

Step 4 - Start to drive post. See Paragraphs g, h and i below.



CAUTION: ALWAYS USE HAND HELD POST HOLDER OR OPTIONAL POST GUIDE TO POSITION POSTS UNDER HAMMER WHEN DRIVING POSTS. USING HAND HELD POST HOLDER OR POST GUIDE MAY PREVENT INJURY TO HAND.

g) Push hammer valve lever, arrow 1 (ILL. 6 on Page 10), "IN" to drop hammer on post. Use 12" strokes to start driving post and increase stroke as required.

h) **IMPORTANT:** 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.

i) **IMPORTANT:** IT IS **NOT** RECOMMENDED TO ADD BALLAST TO HAMMER BOX. THE ADDITIONAL WEIGHT MAY CAUSE POST DRIVER AND SKID-STEER LOADER 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.





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.



CAUTION: 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.



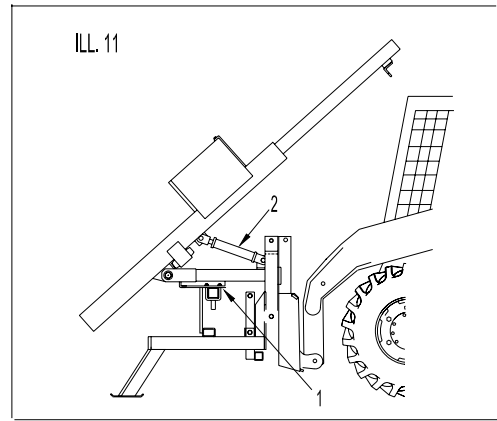
WARNING: TO AVOID SERIOUS INJURY OR DEATH. USE DISCRETION WHEN ADDING BALLAST TO HAMMER AS BOTH TRACTOR AND POST DRIVER MAY BECOME UNSTABLE DURING EITHER OPERATION OR TRANSPORTING UNIT.



DANGER: 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.

6. To transport post driver, proceed as follows:
See ILL. 11.

- 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) Stop post driver hydraulic pump.
- e) Using skid-steer loader arms, raise Post Driver.



CAUTION: NEVER ALLOW ANYONE NEAR THE POST DRIVER WHEN YOU ARE PERFORMING OPERATING FUNCTIONS.



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 OPERATORS 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 SKID-STEER LOADER 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.

7. MAST EXTENSION KIT (INSTALLATION) - Instructions to convert from **low** hammer to **high** hammer. (OPTIONAL)

IMPORTANT: TO PREVENT POST DRIVER FROM FALLING WHILE CONVERTING HAMMER, ATTACH POST DRIVER TO SKID-STEER LOADER.

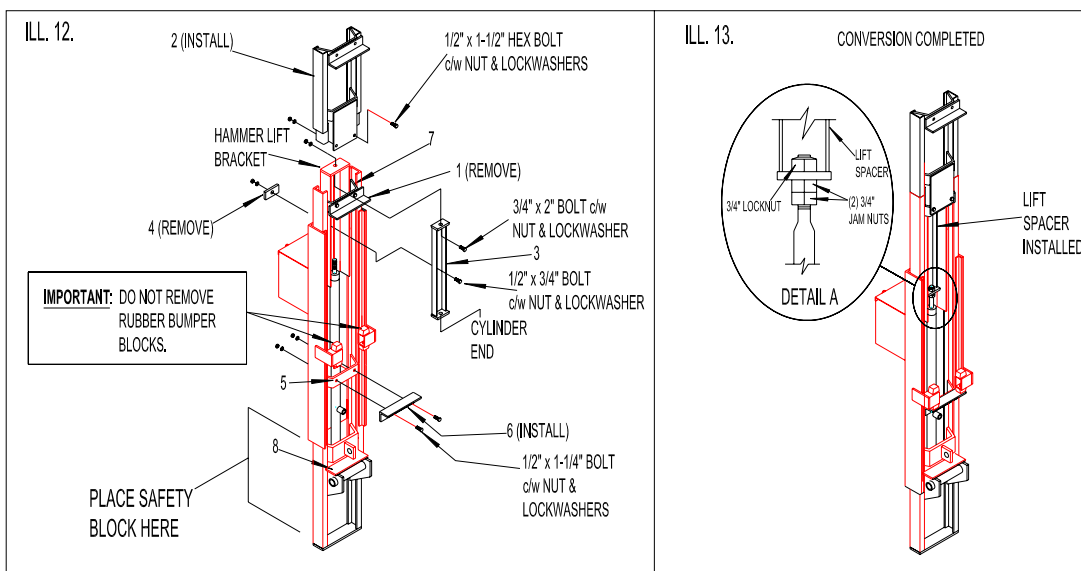
- a) See ILL. 12. With post driver mounted on skid-steer loader, position hammer so it is in a vertical position, then raise hammer so rubber bumpers are above bracket, arrow 5. Next, place a safety block between bottom of hammer and bottom of mast.



CAUTION: PLACE A BLOCK BETWEEN BOTTOM OF HAMMER AND BOTTOM OF MAST. IF HYDRAULIC SYSTEM FAILED OR IF HYDRAULIC LEVER WAS ACCIDENTLY 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" 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. 12. Insert mast extension, arrow 2, into top of mast. Secure to bracket, arrow 7, with (2) 1/2" x 1-1/2" 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. 12. Install lift spacer, arrow 3, inside the hammer lift bracket as shown. Fasten top of lift spacer with (1) 3/4" x 2" 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" bolt c/w nut and lockwasher. Locate backing plate, arrow 4, over front of hammer lift bracket.
- f) See ILL. 12. Next install hammer cylinder shaft in hole in bottom of lift spacer, arrow 3. Secure shaft with three (3) 3/4" nuts, one 3/4" locknut on top of lift spacer and two (2) 3/4" jam nuts at bottom of lift spacer. Turn locknut until 1/4" 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. 13 , Detail "A".

IMPORTANT: BE SURE ALL BOLTS AND CYLINDER SHAFT NUTS ARE TIGHT BEFORE USING POST DRIVER.



CAUTION: ALWAYS USE EXTRA CARE WHEN OPERATING POST DRIVER WITH MAST EXTENSION INSTALLED. THE EXTRA HEIGHT THE HAMMER IS RAISED MAY CAUSE SKID-STEER LOADER AND POST DRIVER TO BECOME UNSTABLE.

8. MAST EXTENSION KIT (REMOVAL) - Instructions to convert from **high** hammer to **low** hammer position. (OPTIONAL)

IMPORTANT: TO PREVENT POST DRIVER FROM FALLING WHILE CONVERTING HAMMER, ATTACH POST DRIVER TO SKID-STEER LOADER.

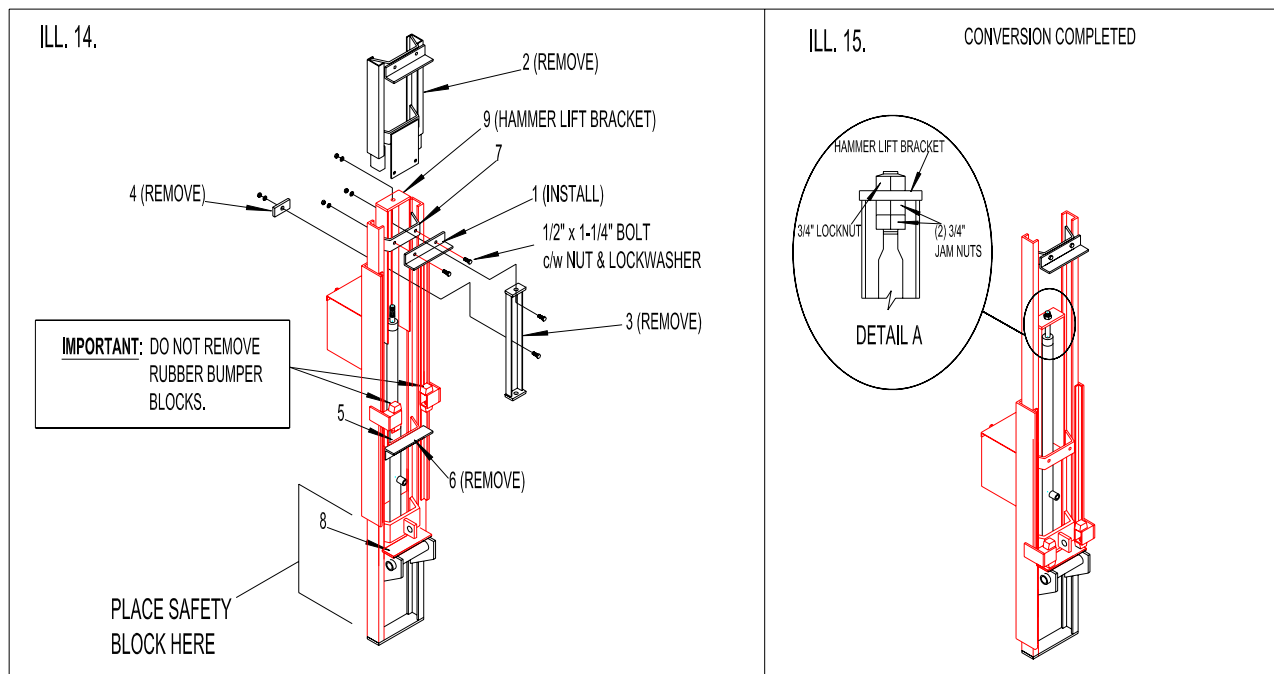
- a) See ILL. 14. With post driver mounted on skid-steer loader, position hammer so it is in a vertical position and lower hammer on to bumper stop, arrow 6.
- b) Remove mast extension, arrow 2, from top of mast.
- c) See ILL. 14. Remove nut from top of hammer cylinder and allow shaft to retract into cylinder.
- d) See ILL. 14. Remove lift spacer, arrow 3, front top of hammer.
- e) See ILL. 14. 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" nuts, one 3/4" locknut on top of bracket and two (2) 3/4" jam nuts at bottom of bracket. Turn locknut until 1/4" 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. 15, Detail "A".
- f) See ILL. 14. 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 ACCIDENTLY OPERATED, HAMMER COULD FALL CAUSING SERIOUS INJURY OR DEATH.

- g) See ILL. 14. 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. 14. Fasten hammer stop, arrow 1, to bracket, arrow 7, with two (2) 1/2" x 1-1/4" bolts c/w nuts and lockwashers. (This is the same bracket (arrow 6) that was removed earlier).

IMPORTANT: BE SURE ALL BOLTS AND CYLINDER SHAFT NUTS ARE TIGHT BEFORE USING POST DRIVER.



MAINTENANCE

1. Lubricate post driver as follows: - See ILL. 16.

- a) Grease hammer pivots every 50 hours of operation.
- b) Raise hammer and grease both sides of hammer slide every 10 hours of operation.



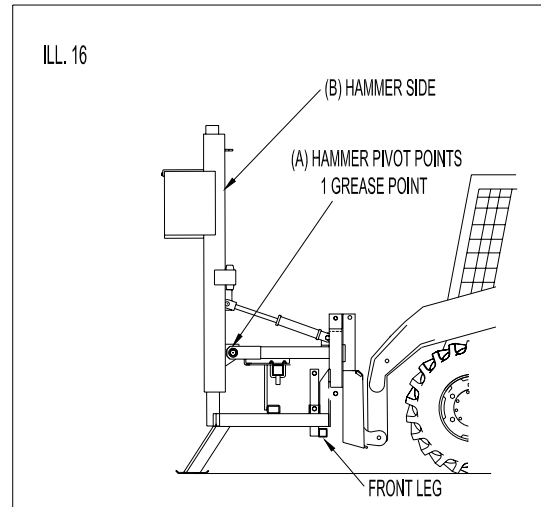
CAUTION: DO NOT LUBRICATE OR ADJUST POST DRIVER WHEN IT IS BEING OPERATED OR WHILE IT IS IN MOTION.



CAUTION: ALWAYS RETRACT ALL CYLINDERS, SHUT OFF SKID-STEER ENGINE AND LOCK BRAKES BEFORE LUBRICATING POST DRIVER.



DANGER: DO NOT RAISE LOADER ARMS AND STAND UNDER POST DRIVER TO ADJUST OR SERVICE POST DRIVER. ALWAYS LOWER LOADER ARMS WHEN SERVICING OR ADJUSTING POST DRIVER.



2. HYDRAULIC SYSTEMS

- a) Periodically check level of hydraulic oil in reservoir. Oil should be within 1" 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.



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 HOSES 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 BRAKES BEFORE ADJUSTING, SERVICING OR CLEANING THE POST DRIVER.

IMPORTANT: REPLACE ANY SAFETY DECALS THAT ARE DAMAGED OR ARE ILLEGIBLE.

STORAGE

1. Be sure hammer is lowered to bottom position.
2. If post driver is removed from skid-steer loader 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, see ILL. 16.
 - c) Using loader arms, 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) Disconnect hydraulic motor hoses from loader arms.
 - g) Unlock quick-tach mechanism. Start skid-steer loader and back away from post driver.
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.



DANGER: DO NOT STORE POST DRIVER WITH HAMMER IN RAISED POSITION. IF HAMMER FELL PERSON(S) NEARBY COULD BE SERIOUSLY INJURED.

BEGINNING OF SEASON SERVICE

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-around. 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.

Ezee-On

OPERATOR'S MANUAL

MODEL 2400 POST DRIVER

P.T.O. or ENGINE DRIVE

includes
ASSEMBLY INSTRUCTIONS
and
PARTS LIST

Manufactured

By

Ezee-On Mfg. Ltd.

PRINTED IN CANADA

Vegreville, Alberta

Canada

720F

EZEE-ON MANUFACTURING

Limited Warranty Policy

Ezee-On Manufacturing's products are warranted to the original non-commercial purchaser to be free from defects in material and workmanship for a minimum period of twelve (12) months from the original date of purchase.

Ezee-On Manufacturing's obligation under this warranty shall be limited to the repair or exchange, at Ezee-On's option, free of charge to the original purchaser, any part or component that, in our judgment, shows evidence of such defect. Further, that such part shall be returned within thirty (30) days from date of failure to Ezee-On Manufacturing, routed through the dealer and distributor from whom the equipment was purchased, **transportation charges prepaid**.

This warranty shall not be interpreted to render Ezee-On Manufacturing liable for injury or damages of any kind or nature to person or property. This warranty does not include claims for, or extend to the loss or damage of crops, loss because of delay in seeding/ planting or harvesting, or any expense or loss incurred for labor, substitute machinery, rental, transportation expense or for any other reason.

Except as set forth above, Ezee-On Manufacturing 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. Ezee-On Manufacturing makes no other warranty, expressed or implied, and, specifically, Ezee-On Manufacturing disclaims any implied warranty or merchantability or fitness for a particular purpose. The purchaser is solely responsible for determining suitability of Ezee-On equipment purchased. This warranty is subject to any existing conditions of supply, which may directly affect our ability to obtain materials or manufacture replacement parts.

Ezee-On reserves the right to make improvements in the design of products and/ or changes in specifications at any time, without incurring any obligation to owners of units previously sold. No one other than Ezee-On Manufacturing is authorized to alter, modify or enlarge this warranty.

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

Under no circumstances will this warranty cover any merchandise or components thereof, which, in the opinion of the Company, has been subjected to misuse, unauthorized modifications, alteration, an accident or if repairs have been made with parts other than those obtainable through Ezee-On Manufacturing.

Commercial Use: Warranty for commercial, rental or custom use of any Ezee-On product is limited to 90 days, parts and labor.

Twelve Months Warranty:

All Ezee-On manufactured products are warranted for twelve consecutive months from the date of delivery of the new Ezee-On product to the original non-commercial purchaser.

- 1-12 Months: 100% parts and labor coverage

Extended Coverage Limited Warranty (24 additional months):

Air Drills, Coulter Drills, Air Carts, Cultivators, Chisel Plows, Offset and Tandem Discs and Post Drivers carry limited extended warranty. Ezee-On Manufacturing's obligations under this extended warranty coverage shall be limited to repair or exchange, at Ezee-On Manufacturing's option, for the original, non-commercial owner:

- 13-24 Months: 100% Ezee-On manufactured components only, NO labour – see below for description
- 25-36 Months: 50% Ezee-On manufactured components only, NO labour – see below for description

Ezee-On manufactured components are, but not limited to: frames, axles, hitches, castor assemblies, packers, turnbuckles, rockshafts, packer frames, packers – steel, tanks – air cart seed and fertilizer tanks, seed cups, metering rollers.

NON Ezee-On manufactured components are, but not limited to: Monitors, tires, rims, bearings, hydraulics: motors, pumps, controls, cylinders, hoses and valves; sprockets, chain, rubber packer wheel tires, polyurethane wheel mounted packers, coulter blades, shanks, springs, bolts, pulleys, air hoses, sweeps, spikes, spoons, seals, power wheels, hitch jacks, hubs and wheels.

The Company in no way warrants engines, batteries, coulter assemblies, rubber tires, or other trade accessories since these items are warranted separately by their respective manufacturers.

T2-215 Bearing Extended Coverage Limited Warranty:

Seven year limited warranty: Extended coverage (13-84 months) on T2-215 Series bearing is limited to the replacement of ball bearings and seals for the original, non-commercial owner. Associated bearing parts, labor, freight, etc., are not covered.

Warranty Limitations and/ or Exclusions:

1. Buckets & bucket tines, bale spears & tines, grapple tines, pallet forks, shanks, all ground engaging tools, disc openers and disc blades, air seeder hose and normal wear parts/ items carry NO warranty.
2. There is no warranty coverage if parts or attachments, other than those made or marketed by Ezee-On Manufacturing have been used in connection with the unit, and in the sole judgment of Ezee-On, such use affects its performance or reliability.
3. If the equipment has been altered or repaired in a manner which, in the sole judgment of Ezee-On, affects its performance, stability or reliability.
4. The purchaser shall be responsible for dealer travel time to the machine or to deliver the machine to the dealer's service shop for repair. Ezee-On Manufacturing does not cover delivery charges or travel time.

This warranty policy is subject to change without prior written notice at Ezee-On Manufacturing's sole discretion.

Revision: September 1, 2004

Post Driver Pre-Delivery Inspection/ Warranty Registration

Dealership _____ Location _____ Delivery Date: ____/____/____
Model _____ Serial # _____ ☐ New Machine ☐ Demo Unit

Items for Dealership technician to inspect prior to delivery: see Operator's Manual for detailed instructions

- | | |
|---|---|
| ☐ Torque all wheel bolts/ lug nuts to specifications (Model 2400) | ☐ Check hydraulic hoses are leak free and hydraulic cylinders are filled with oil |
| ☐ Check tire pressures are correct @ 28 psi (Model 2400) | ☐ Model 2400: Ensure minimum 250 lbs of ballast is in trailer weight box |
| ☐ Check engine fluid levels (if equipped) and hydraulic fluid in reservoir | ☐ Model 1450: Do not mount on tractor weighing less than 3,000 lbs (1365 kg) |
| ☐ Lubricate the entire machine as recommended in the Operator's Manual | ☐ Model 1450: 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) |
| ☐ Check all bolts for tightness and cotter pins are installed | ☐ Model 1450: raise front leg of stand assembly and lock in raised position before operating post driver |
| ☐ Ensure both sides of hammer slide are greased before first use | ☐ Ensure Post Holder tool is present and Post Guide installed correctly (if equipped) |
| ☐ 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 | |

Pre-Delivery completed by _____ (signature) Date ____/____/____
mm dd yyyy

Items for Dealership staff to cover with customer upon delivery:

- | | |
|---|--|
| ☐ Give the Operator's Manual to your customer | ☐ Connect PTO pump to tractor's PTO, connect safety chain (if equipped) |
| ☐ Inform your customer of all safety precautions, maintenance procedures, and demonstrate proper & safe operation of the Post Driver | ☐ Ensure machine functions properly. (Raise/ lower hammer, slide, tilt, etc) |
| ☐ Verify correct serial number | ☐ Start tractor or engine & run all controls so your customer understands correct operation of the Post Driver and ensure all functions are working properly. |
| ☐ Attach Post Driver to your customer's tractor, skid-steer, or vehicle | ☐ Explain limited warranty and fill out registration form. Fax to the Factory |
| ☐ Ensure hitch jack is in transport position (if equipped) | Ezee-On Fax: (780) 632-6221 |

Warranty Registration

Owner's Name _____ Address _____ Town _____
Province/ State _____ Country _____ Postal/ Zip Code _____
Home Phone # _____ Cell Phone # _____ Email Address _____

*The owner hereby acknowledges receipt of the Operator's Manual and that all delivery checks have been completed as listed above. Owner furthermore acknowledges that the Operator's Manual is an integral part of the purchased equipment and it contains information important to the proper operation, maintenance, and safety procedures of this machine.

Owner's signature _____ Date ____/____/____
mm dd yyyy

Dealer's signature _____ Date ____/____/____
mm dd yyyy

Mail or Fax the original copy of this Warranty Registration and Pre-Delivery/Delivery Inspection to Ezee-On Manufacturing immediately after delivery.

Warranty Registration is mandatory. Failure to complete and return this form will delay the processing of warranty claims

INTRODUCTION

THANK YOU for choosing to purchase this Ezee-On implement, we are confident you will be impressed with its performance.

In addition to the traditional values of simplicity, reliability and durability, your new EZZE-ON implement incorporates a number of operational and safety features. We urge you to familiarize yourself with the maintenance and operation of your implement by reading this Manual thoroughly and completely. Failure to do so could result in personal injury or equipment damage.

THIS MANUAL contains important information regarding assembly, maintenance, operating instructions, and troubleshooting problems, and should be considered a permanent part of your implement.

Remember that it is the responsibility of the Operator to ensure that any new implement is field ready, prior to first operation. However, should you encounter a problem, please contact your dealer immediately.



READ THIS MANUAL CAREFULLY TO ENSURE THAT YOUR NEW IMPLEMENT IS ASSEMBLED AND ADJUSTED CORRECTLY PRIOR TO FIRST OPERATION.

RIGHT and LEFT is determined by standing behind the machine and facing FORWARD in the direction of travel.



This symbol is used to identify safety messages. When you see this symbol, read the safety message carefully.

TABLE OF CONTENTS

DESCRIPTION	PAGE
SAFETY	2
ASSEMBLY INSTRUCTIONS	6
OPERATING INSTRUCTIONS	18
MAINTENANCE	26
STORAGE	28
SEASONAL SERVICE	28
PARTS LIST INDEX	29

EZZE-ON MFG. LTD. RESERVES THE RIGHT to make improvements in design and changes in specifications at any time without notice and without incurring any obligation to install them on units previously sold. Specifications, descriptions, and illustrative material herein are as accurate as known at time of publication, but are subject to change without notice.

SPECIFICATIONS

Hammer Face 9" x 12 1/2"
Maximum Hammer Height-112"
Hammer Weight- 310 lbs (Less Ballast)
Tires- 6.70 x 15 - 32 PSI

Engine Drive (Only)- Honda Engine (9 HP) w/6:1 Reduction

HYDRAULICS

Hammer Cylinder- 1 5/8" x 64" Stroke
Hitch Tilt Cylinder- 2" x 8" Stroke
Hammer Tilt Cylinder-2" x 12" Stroke
Hitch Extension Cylinder- 2" x 16" Stroke (Optional)
Hydraulic Oil Reservoir-2.1 Imperial Gallons
Hydraulic Pump- 4.5 U.S. Gal/Min @ 540 R.P.M

SAFETY RECOMMENDATIONS



Watch for this symbol. It identifies important safety messages. When you see this symbol, read the safety message carefully.

GENERAL SAFETY

1. Only one person, the operator, should be allowed to operate the post driver.
2. Never ride, or permit others to ride, on the drawbar of the tractor or on the post driver.
3. Never allow anyone, other than the operator, on the tractor when operating or transporting the post driver.
4. Follow all safety precautions in your tractor manual.
5. Keep a first aid kit in the tractor or transport vehicle at all times.



ASSEMBLY SAFETY

1. Never exceed 40 Km/Hr (25 MPH) when transporting Post Driver.
2. 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.
3. 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.
4. Before installing hammer always place a minimum ballast of 250 lbs (113 kgs) in weight box of the trailer for stability.
5. If mast extension kit is installed or hammer is weighted, operator must use own discretion when adding sufficient ballast to trailer weight box to insure safe assembly and operation of post driver.
6. Be sure all bolts and hydraulic fittings are tight, and all cotter pins are installed in pins.
7. Support the frame securely before assembling the components. Inadequate support may result in the heavy components falling causing serious damage to post driver and may cause serious injury to operator or person(s) nearby.
8. Be sure all wheel bolts are checked for tightness during initial transport or when first operating post driver. Loose wheel bolts may result in the wheel falling off causing serious damage to post driver and may cause serious injury to operator or person(s) nearby.
9. Before applying pressure to hydraulic system, be sure all connections are tight and components are not damaged.
10. Before proceeding with balance of assembly, place a block under rear stabilizer, arrow 1, or ILL. 1. Hitch cylinder should be in closed position. Blocking rear stabilizer will prevent any sudden frame movement when assembling the rest of the post driver.
11. Support hammer assembly with chain hoist or other over head support during assembly of frame and tilt cylinder. If heavy hammer assembly fell, person(s) nearby could be seriously injured.
12. 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.
13. Before installing hammer always place a minimum ballast of 250 lbs (113kgs) in the weight box of trailer for stability. If mast extension kit is installed or hammer is weighted, operator must use own discretion when adding sufficient ballast to trailer weight box to ensure safe and stable operation of post driver.

ASSEMBLY CONTINUED:

14. 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.
15. Never remove stabilizer bar from rear of post driver. Stabilizer bar prevents post driver from falling backwards when post driver is disconnected from transport vehicle.

OPERATING SAFETY

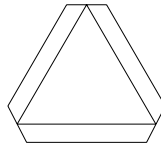
1. Never allow anyone near the post driver when you are performing operating functions.
2. When tilting, extending, retracting, raising or lowering the hammer, keep all persons away from the post driver.
3. Wear safety glasses and hand wear to protect against splinters.
4. Always have a minimum ballast of 250 lbs (113 kg) in weight box of the trailer for stability.
5. If mast extension kit is installed or hammer is weighted, operator must use own discretion when adding sufficient ballast to trailer weight box to ensure safe and stable operation of post driver.
6. Make certain everyone is clear before operating or moving the post driver.
7. 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.
8. Contact local utility companies for underground services before installing posts.
9. Always make sure the hitch of the post driver has a downward weight.
10. Never place your hand on top of the post at any time during operation. Serious injury may occur.
11. 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.
12. Know the functions of each operating lever of hydraulic controls before proceeding with operations. Never use the valve to stop hammer except in extreme emergency. The resulting extreme pressure may seriously damage hydraulic system.
13. 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.
14. If the torque arm chain of PTO pump is not properly secured, severe damage to the pump and hydraulic circuitry could occur.
15. Always attach a safety chain to the tractor or vehicle hitch before transporting post driver. Serious damage to the post driver and serious injury or death could result from post driver separating from tractor or the vehicle hitch.
16. Do not operate Post Driver when it is disconnected from transport vehicle.
17. Always stay clear of P.T.O. or ENGINE drive shaft when they are in operation. Serious injury or death will result if clothing, hair or limbs are caught in these drive shafts.
18. Before connecting (or disconnecting) hydraulic pump to (or from) tractor's P.T.O. shaft, disengage P.T.O. and shut off tractor engine.
19. When driving posts, always watch for over head power lines. If post driver makes contact with power lines, operator or those nearby could be seriously injured.
20. Always ensure tractor's P.T.O. safety shield is installed.
21. Always use discretion when operating or transporting post driver on uneven terrain. Uneven terrain may cause post driver to upset causing serious injury or death to person(s) nearby and serious damage to post driver.

OPERATING SAFETY CONTINUED:

22. Always stand clear when positioning post driver with hydraulic extendable hitch. The R.H. tire may roll over the feet of operator or person(s) nearby causing serious injury.
23. 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.
24. 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 or tilting hammer.
25. Always 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.

TRANSPORT SAFETY

1. Never exceed 40 Km/h (25 m.p.h.) when transporting post driver.
2. Reduce speed when transporting post driver over uneven or rough terrain.
3. Shift the tractor into a lower gear when transporting post driver down hills or steep slopes.
4. Be sure SMV (slow moving vehicle) emblem is clean and visible before transporting post driver. The SMV emblem warns other vehicles approaching from rear.



5. Comply with all State, Provincial, Federal and local laws when transporting post driver on roadways.
6. Retract all cylinders before transporting post driver.
7. Always test the hitch weight before releasing the post driver from the transport vehicle or hold down.
8. Lift the hitch slowly and keep it no higher than the tow bar when attaching or releasing it from the transport vehicle.
9. Do not move the post driver by hand. Make certain the post driver trailer is properly secured to a transport vehicle.
10. 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.
11. Always attach a safety chain to the tractor or vehicle hitch before transporting post driver. Serious damage to the post driver and serious injury or death to person(s) nearby could result from post driver separating from tractor or the vehicle hitch.
12. Always use discretion when operating or transporting post driver on uneven terrain. Uneven terrain may cause post driver to upset causing serious injury or death to person(s) nearby and serious damage to post driver.

MAINTENANCE

1. Always support post driver trailer and hammer on stands or blocks and have sufficient weight on the hitch, or have the hitch attached to a transport vehicle before performing assembly or repair work under or around post driver.
2. Never work on the hammer when it is in the raised or partially raised position.
3. 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.

MAINTENANCE CONTINUED:

4. 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.
5. If spray-can paint is used, be careful when discarding empty cans. Do not incinerate or puncture can.
6. Do not permit smoking, sparks, or open flame where combustible lubricants or liquids are being used.
7. Replace any worn or damaged hydraulic hoses and keep all hydraulic hoses and hydraulic fittings tight.
8. Shut off all power before adjusting, servicing or cleaning the post driver.
9. Do not lubricate or adjust post driver when it is being operated or while it is in motion.
10. Always retract all cylinders, shut off tractor engine and disengage P.T.O. or shut off post driver engine before lubricating post driver.
11. When servicing the post driver, make sure the hitch is securely attached to transport vehicle, or hitch hold down.
12. Replace any safety decals that are damaged or are illegible.

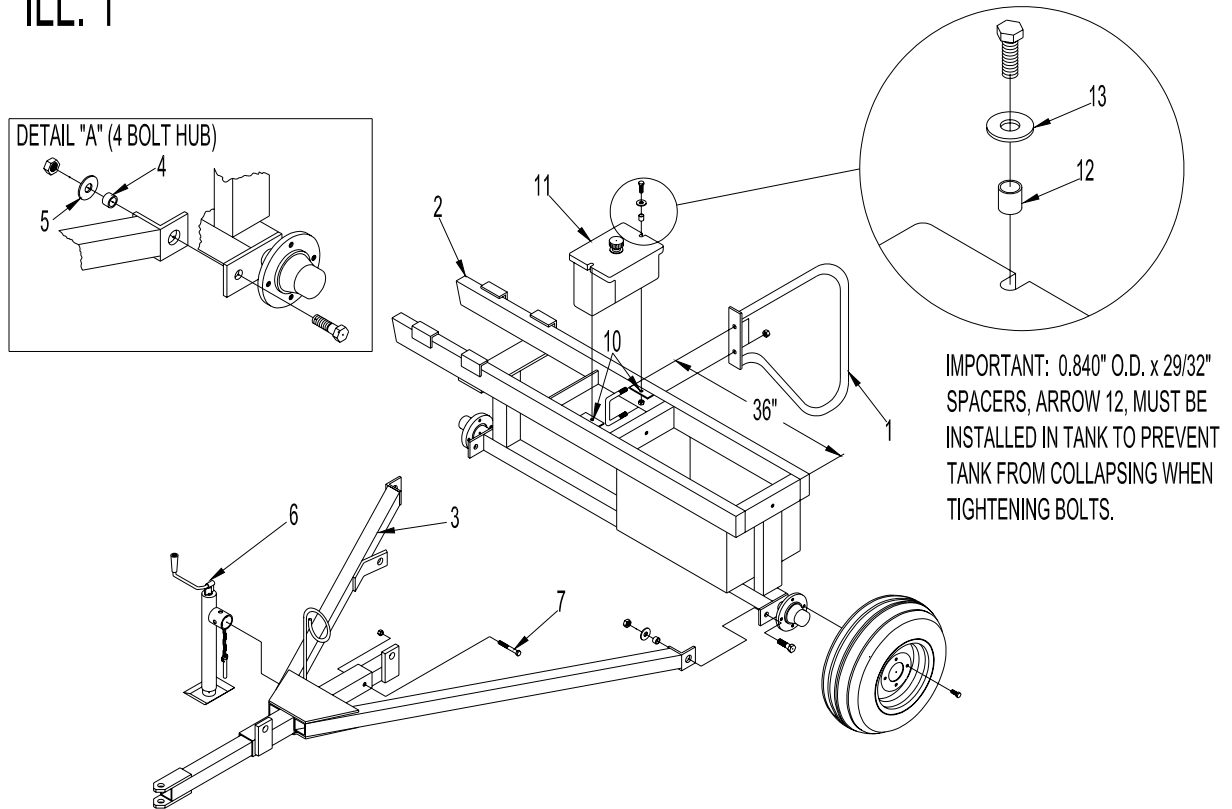
STORAGE SAFETY

1. Do not store the post driver with the hammer raised.
2. Lift the hitch slowly and keep it no higher than the tow bar when attaching or releasing it from the transport vehicle.

NOTE: AN ACCIDENT IS USUALLY CAUSED BY SOMEONE'S CARELESSNESS, NEGLIGENCE, OR OVERSIGHT. REMEMBER, SAFETY COMES FIRST.

**AN ACCIDENT NOT ONLY HURTS,
BUT ALSO COSTS YOU VALUABLE LOST TIME.**

ILL. 1



ASSEMBLY INSTRUCTION

NOTE: Left and right is determined by standing behind the machine and facing forward.



CAUTION: USE A HOIST OR ADEQUATE MAN POWER TO LIFT HEAVY COMPONENTS IN PLACE. ATTEMPTING TO LIFT HEAVY COMPONENTS BY YOURSELF COULD CAUSE SERIOUS INJURY.



CAUTION: SUPPORT FRAME SECURELY BEFORE ASSEMBLING COMPONENTS. HEAVY FRAME COULD CAUSE SERIOUS INJURY IF IT FELL.

1. See ILL. 1. Fasten rear stabilizer bar, arrow 1, to rear of frame, arrow 2, with one (1)-5/8" x 4" U-bolt c/w nuts and lockwashers. Position approximately 36" from L.H. end of frame. Tighten bolts.



DANGER: NEVER REMOVE STABILIZER BAR FROM REAR OF POST DRIVER. STABILIZER BAR PREVENTS POST DRIVER FROM FALLING BACKWARDS WHEN POST DRIVER IS DISCONNECTED FROM TRANSPORT VEHICLE.

2. HITCH ASSEMBLY

Place hitch assembly, arrow 3, between frame hitch lugs. To fasten hitch to frame, install two (2) 3/4" x 2-1/2" hex. bolts from outside of frame lugs through holes in hitch. Next, install a 3/4" I.D. x 5/8" long bushing, arrow 4, over end of each bolt and into hole of hitch. Then place a 2" O.D. x 3/4" I.D. flatwasher, arrow 5, over each bolt. Secure each bolt with 3/4" nylon locknut. Tighten bolts. See Detail AA.



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.

3. See ILL. 2. Fasten 2" x 8" hydraulic cylinder, arrow 1, to hitch and frame. Attach barrel end to lug, arrow 2, on frame. Be sure port are facing R.H.S. Attach shaft end of cylinder to lug, arrow 3, on hitch. Use cylinder pins supplied with cylinder to attach cylinder. Cylinder should be in closed position so frame is tilted forward as shown in ILL. 2.
4. If post driver was ordered from factory less tires, install 6.70 x 15 - 4 ply tires or equivalent on wheels. 7.60 x 15 - 4 ply can also be used. Ensure tire pressure is 28 PSI.
5. See ILL. 1. Install wheel and tire, arrow 14, assemblies to hubs, arrow 15. Tighten wheel bolts. Check wheel bolt tightness during first week of transport and periodically thereafter.



CAUTION:

BE SURE ALL WHEEL BOLTS ARE CHECKED FOR TIGHTNESS DURING INITIAL TRANSPORT OR WHEN FIRST OPERATING POST DRIVER. LOOSE WHEEL BOLTS MAY RESULT IN THE WHEEL FALLING OFF CAUSING SERIOUS DAMAGE TO POST DRIVER AND MAY CAUSE SERIOUS INJURY TO OPERATOR OR PERSON(S) NEARBY.

6. See ILL. 1. Install optional hitch jack, arrow 6, to mounting tube on right hand side of hitch. Pin jack in vertical position to support hitch.
7. See ILL.1. If **optional** horizontal hitch cylinder kit is not used, one (1) 5/8" x 4" N.C. hex bolt, c/w locknut, arrow 7, must be installed. This will prevent the hitch from sliding in or out during transport.



CAUTION:

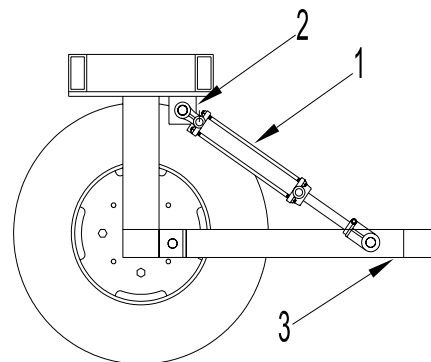
BEFORE PROCEEDING WITH BALANCE OF ASSEMBLY, PLACE A BLOCK UNDER REAR STABILIZER BAR, ARROW 1, OF ILL.1 HITCH CYLINDER SHOULD BE IN CLOSED POSITION. BLOCKING REAR STABILIZER WILL PREVENT ANY SUDDEN FRAME MOVEMENT WHEN ASSEMBLING THE REST OF THE POST DRIVER.



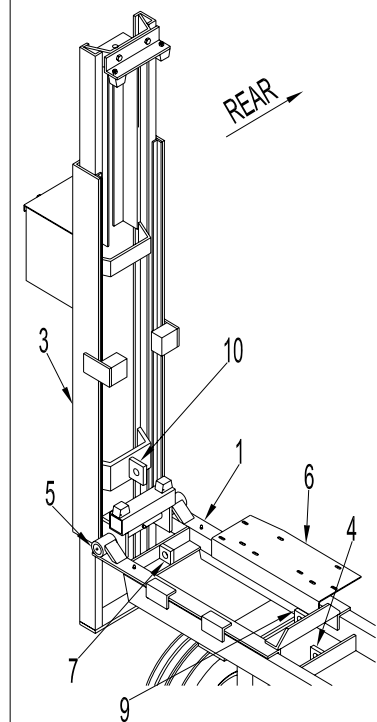
WARNING:

BEFORE INSTALLING HAMMER ALWAYS PLACE A MINIMUM BALLAST OF 250 LBS (113 KGS) IN THE WEIGHT BOX OF TRAILER FOR STABILITY. IF MAST EXTENSION KIT IS INSTALLED OR HAMMER IS WEIGHTED, OPERATOR MUST USE OWN DISCRETION WHEN ADDING SUFFICIENT BALLAST TO TRAILER WEIGHT BOX TO ENSURE SAFE AND STABLE OPERATION OF POST DRIVER.

ILL. 2.



ILL. 3.



ASSEMBLY CONTINUED:

8. See ILL. 3 & 4. With horizontal slide, arrow 1, inserted into frame, fasten a 2" x 16" hydraulic cylinder, arrow 2, to frame and horizontal slide. Attach barrel end to lug, arrow 7, on horizontal slide frame. Be sure ports are facing towards rear. Attach shaft end of cylinder to lug, arrow 4, on frame. Use cylinder pins supplied with cylinder to attach cylinder. See both illustrations.
9. See ILL. 3 & 4. Fasten hammer assembly, arrow 3, to horizontal slide, arrow 1, with one 1-3/8" dia. x 17-1/2" pin, arrow 5. Secure pin with two 3/8" x 2" cotter pins. See both illustrations.
10. See ILL. 3 & 4. Fasten a 2" x 12" hydraulic cylinder, arrow 8, to horizontal slide and hammer assembly. Attach barrel end to lug, arrow 9, on horizontal slide. Be sure ports are facing up. Fasten shaft end to lug, arrow 10, on hammer assembly. Use cylinder pins supplied with cylinder to attach cylinder. See both illustrations.
11. See ILL. 1. Attach oil reservoir, arrow 11, to two (2) lugs, arrow 10, on frame. Before installing bolts, place one (1) .840" O.D. x 29/32" spacer, arrow 12, in slot on each side of reservoir. Place One (1) 3/8" O.D. x 9/16" I.D. flatwasher, arrow 13, over each slot. Secure reservoir to frame with two (2) 1/2" x 2" hex bolts c/w locknut. Fasten bolts through flatwasher and spacer. Tighten bolts.

IMPORTANT: .840" O.D. x 29/32" SPACERS, ARROW 12, MUST BE INSTALLED IN TANK TO PREVENT TANK FROM COLLAPSING WHEN TIGHTENING BOLTS.



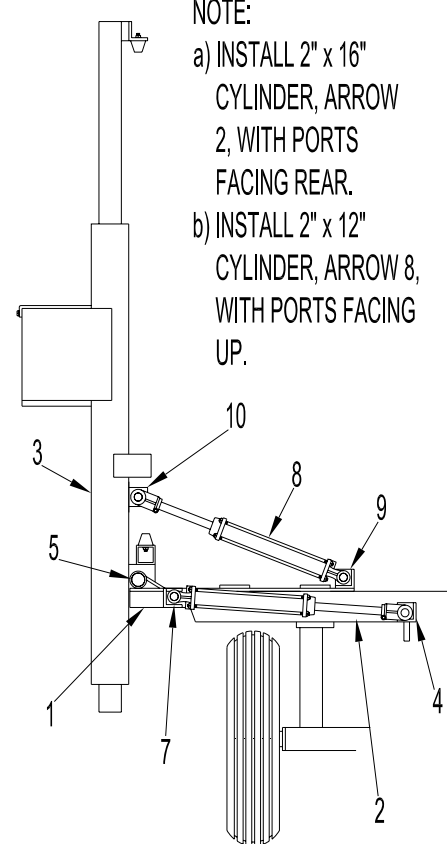
CAUTION:

SUPPORT HAMMER ASSEMBLY WITH CHAIN HOIST OR OTHER OVER HEAD SUPPORT DURING ASSEMBLY TO FRAME AND TILT CYLINDER. IF HEAVY HAMMER ASSEMBLY FELL, PERSONS NEARBY COULD BE SERIOUSLY INJURED.

12. See ILL. 5. Join 3 spool valve, arrow 1, and single spool valve, arrow 2, together with a 3/4" x 2" N.P.T. nipple, arrow 3. Next, fasten (3) control levers, arrow 5, to 3 spool valve. Attach handles so that they point up.
If your post pounder is equipped with hydraulic hitch extension kit, proceed to section 12.
If hydraulic hitch extension kit is not used, fasten valve assembly to valve bracket, arrow 4, with (6) 3/8" x 2" N.C. hex bolts c/w nuts lockwashers and flatwashers. Place flatwasher on bottom side of mount plate.

NOTE: IF HYDRAULIC HITCH EXTENSION KIT IS USED, SEE SECTION 13 ON NEXT PAGE BEFORE ATTACHING VALVE TO BRACKET.

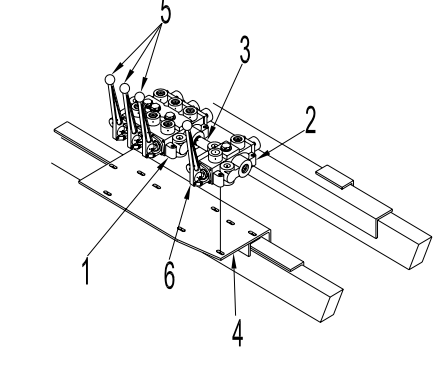
ILL. 4.



NOTE:

- a) INSTALL 2" x 16" CYLINDER, ARROW 2, WITH PORTS FACING REAR.
- b) INSTALL 2" x 12" CYLINDER, ARROW 8, WITH PORTS FACING UP.

ILL. 5.



13. HITCH EXTENSION KIT. (OPTIONAL)

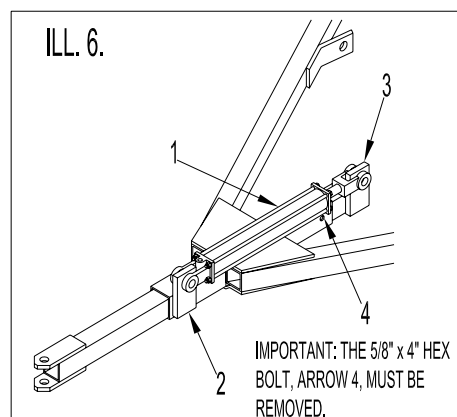
- (A) Hydraulic Cylinder Installation See ILL. 6.
Fasten barrel end of 2" x 16" hydraulic cylinder, arrow 1, to front cylinder lug, arrow 2. Fasten shaft end of 2" x 16" cylinder to rear cylinder lug, arrow 3. Use cylinder pins supplied with cylinder to attached cylinder.

IMPORTANT: FOR POST DRIVERS WITH HITCH EXTENSION KIT, THE 5/8" x 4" N.C. HEX BOLT, ARROW 4, **MUST BE REMOVED.**

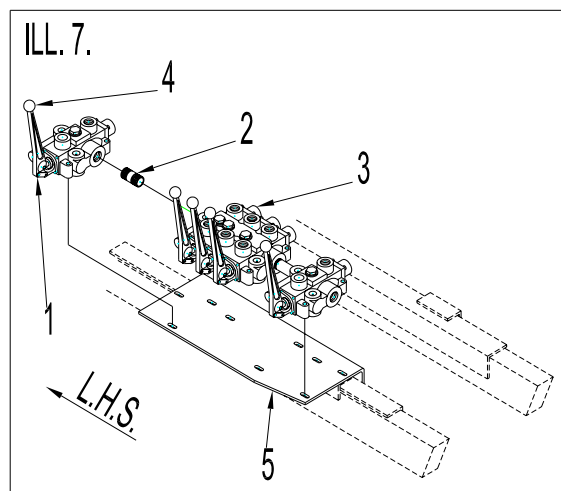


CAUTION:

ALWAYS STAND CLEAR WHEN POSITIONING POST DRIVER WITH HYDRAULIC EXTENDABLE HITCH. THE R.H. TIRE MAY ROLL OVER THE FEET OF OPERATOR OR PERSON(S) NEARBY CAUSING SERIOUS INJURY.



- (B) Single Spool Valve Installation. See ILL. 7
Connect single spool valve, arrow 1, to AIN" port on L.H.S. of 3 spool valve, arrow 3. Next attach handle, arrow 4, to single spool valve arrow 1. Attach handle so it points up.
- (C) See Ill. 7. Fasten valve assembly to valve bracket, arrow 5, (9) 3/8" x 2" N.C. hex bolt c/w nuts, lockwashers and flatwashers. Place flatwashers on bottom side of mount pl

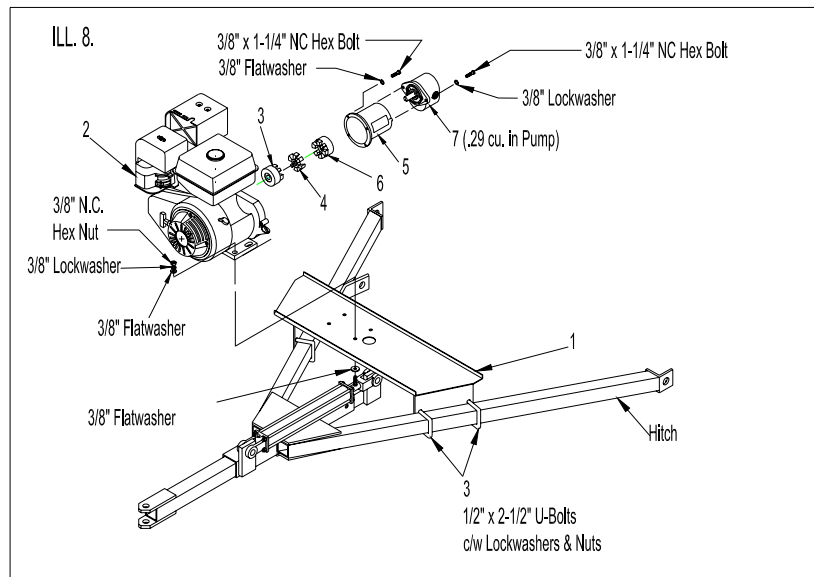


ASSEMBLY CONTINUED:

14. MOUNTING HONDA ENGINE - ENGINE DRIVE ONLY

- See ILL. 8

- a) Attaching engine mount plate, arrow 1. The L.H.S. of the motor mount plate is fastened to the inside of the L.H.S. hitch tube, using two (2) 1/2" x 2 1/2" U-bolts c/w nut and lockwasher, arrow 3. The R.H.S. of the motor mount plate is fastened to the outside of the R.H.S. hitch tube. The motor mount plate is fastened this way so the engine is not damaged when the post rack pivots forward.
- b) Fasten Honda engine, arrow 2, to top of mount plate, arrow 1. Secure with (4) 3/8" x 1-3/4" hex. bolts c/w nuts, lockwashers and flatwashers. Place 7/16" I.D. flatwashers, over engine mount holes and bottom of mount plate. Tighten bolts.
- c) Install 1" I.D. drive coupling, arrow 3, on engine drive shaft, leave screw loose. (Besure key is installed).
- d) Place 6 spoke rubber spider, arrow 4, over drive of coupling, arrow 3.
- e) Place 4 hole end on pump mount housing, arrow 5, over engine drive shaft and fasten to four (4) threaded holes in engine. Secure with four (4) 3/8" x 1-1/4" N.C. hex bolt c/w pressure treated bolts.
- f) Next install 3/4" I.D. drive coupling, arrow 6, on pumps, arrow 7, drive shaft leave. Set screw loose (Besure key is installed)



- g) Place shaft end of pump, arrow 7, over end of pump mount housing, arrow 5. Besure pump orientation is correct. The "Cassappa" letter on back side pump must not be upside down. If pump is upside down, "IN" and "OUT" pump will not be on correct side. Also besure drive coupler on pump shaft engages pump side of engine drive shaft. Remove one of the side access covers (yellow) on pump housing to view flex coupler from the side. Next, secure pump to housing with two (2) 3/8" x 1-1/4" N.C. hex bolt c/w lockwashers.
- h) Using side access on pump housing, adjust flex coupler of engine and pump shafts so both metal couplings are tight against rubber spider and fully engaged. Then tighten set screws to secure couplings to shafts.
- i) Replace the side access cover(s) (yellow) on pump mount housing.

ASSEMBLY CONTINUED:

15. ATTACHING HYDRAULIC HOSES and FITTINGS-

See ILL.9, on page 12 for P.T.O. System **less** horizontal hitch cylinder.
See ILL. 10, on page 13 for engine plane system **less** horizontal hitch cylinder
See ILL. 11, on page 14 for P.T.O. system **with** horizontal hitch cylinder
See ILL. 12, on page 15 for engine drive system **with** horizontal hitch cylinder

IMPORTANT: 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.

IMPORTANT: CLEANLINESS IS ABSOLUTELY NECESSARY TO PREVENT CONTAMINATION WHEN HOOKING UP THE HYDRAULIC SYSTEM COMPONENTS. HANDLE FITTINGS CAREFULLY. DO NOT REMOVE THE CAPS FROM HOSE ENDS, VALVES, OR OIL TANK.

a) Attach hoses and fittings of hydraulic system to hydraulic pump, valves, cylinders and oil reservoir as shown in ILL.9, 10,11 and 12.

IMPORTANT: BE SURE THE 3/8" MALE-FEMALE SWIVELS WITH RESTRICTED ORIFICE, PAINTED BLACK, ARE INSTALLED IN THE 2" x 8" HITCH TILT CYLINDER AND THE 2" x 12" HAMMER TILT CYLINDER. TWO FITTINGS ARE REQUIRED PER CYLINDER.

b) P.T.O. TYPE PUMP ONLY - See ILL. 9 or 11

b1) Fasten torque arm and chain assembly to pump with two (2) 3/8" x 1-1/2" N.C. hex. bolts complete with nuts and lockwashers. Fasten as shown in ILL. 9 or 11 from bottom of pump.

b2) Install 3/16" key in pump shaft, then slide P.T.O. adapter over shaft. Secure by tightening set screw. See ILL.9 or 11.

c) **IMPORTANT:** WHEN THE POST DRIVER HAS BEEN IDLE FOR A PERIOD OF TIME, THE HAMMER AND TILT CYLINDERS MAY CREEP CAUSING A VOID IN THE CYLINDER. 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.

THE VOID IN BOTH TILT CYLINDERS MUST BE FILLED TO PREVENT CYLINDER MOVEMENT WHEN DRIVING POSTS. THEREFORE, BEFORE OPERATING THE POST DRIVER, CYCLE THE HAMMER TILT CYLINDER AND HITCH TILT CYLINDER ONCE DAILY. PUSH OR PULL THE VALVE HANDLE TO MAXIMUM POSITION WHEN CYCLING OR OPERATING THE CYLINDERS. DO NOT FEATHER. FEATHERING OR HOLDING VALVE HANDLES IN A PARTIALLY OPEN POSITION WILL ALSO CAUSE A VOID IN THE CYLINDERS.



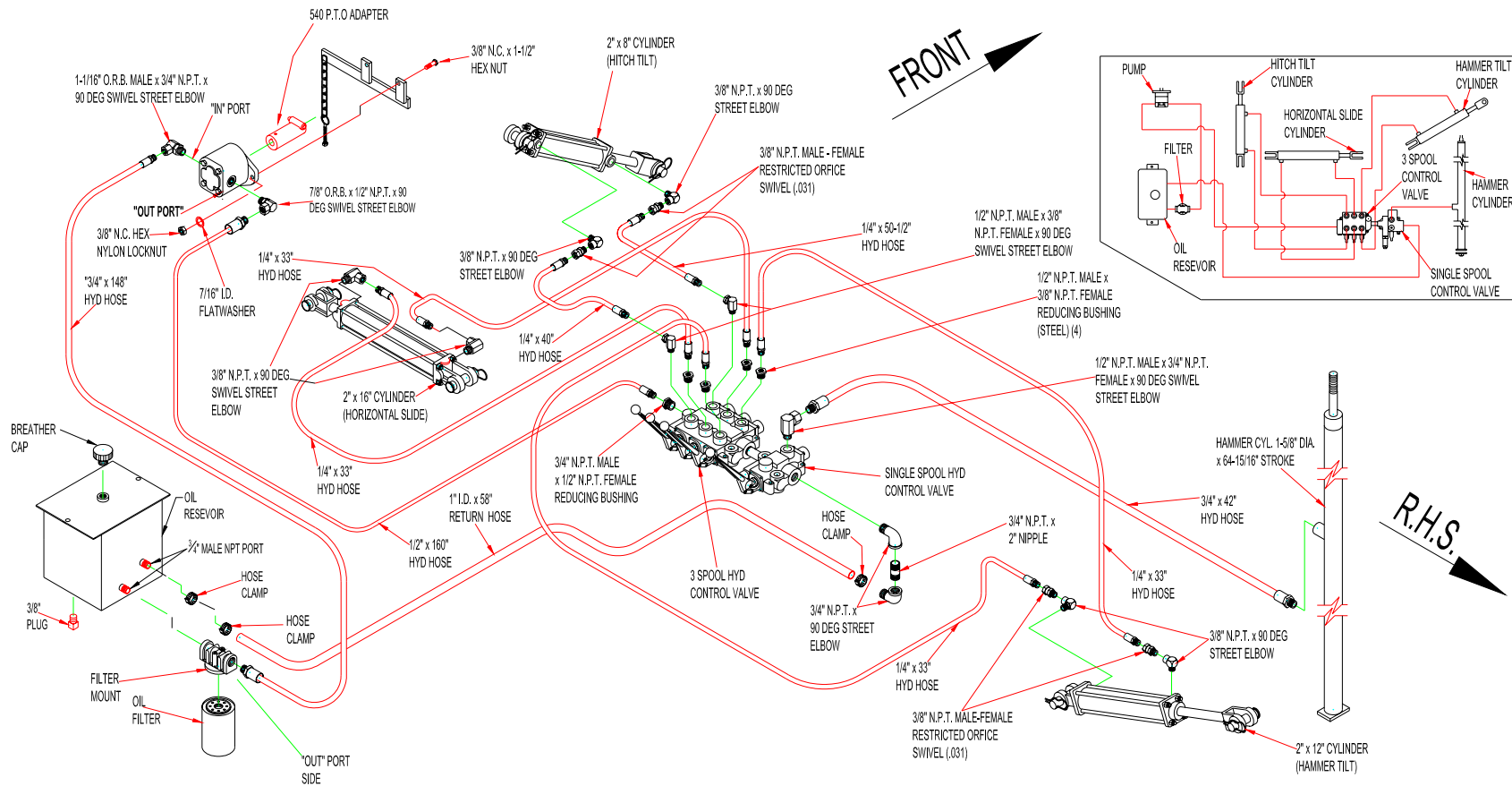
WARNING: USE CARDBOARD OR WOOD AS A BACKSTOP WHEN SEARCHING FOR HYDRAULIC LEAKS. ESCAPING HYDRAULIC OIL UNDER PRESSURE CAN CAUSE SERIOUS INJURY IF IT PENETRATES THE SKIN. SEE A DOCTOR IMMEDIATELY IF INJURED.



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.

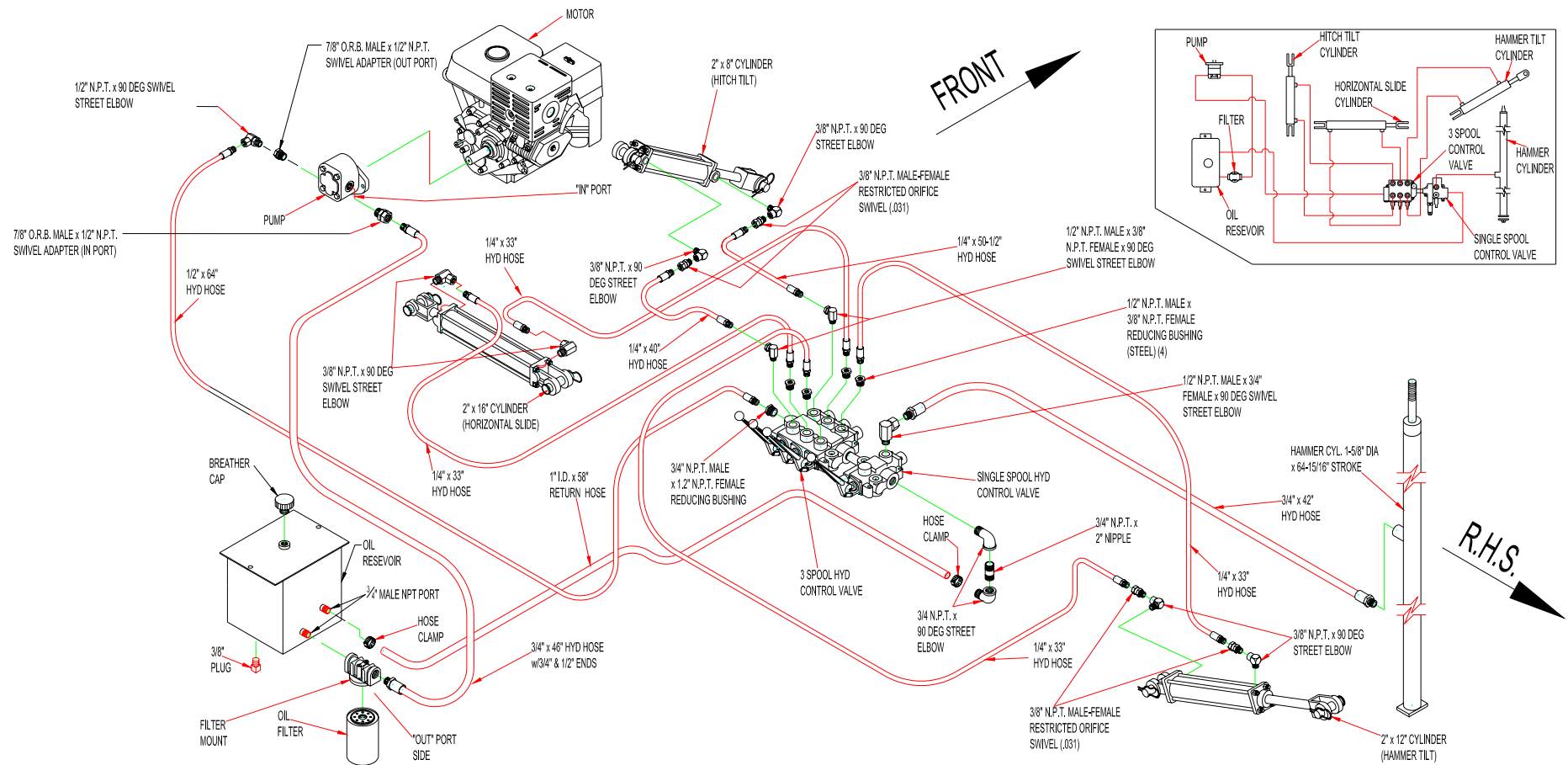
POST DRIVER MODEL 2400 HYDRAULIC SYSTEM FOR P.T.O DRIVE

ILL. 9



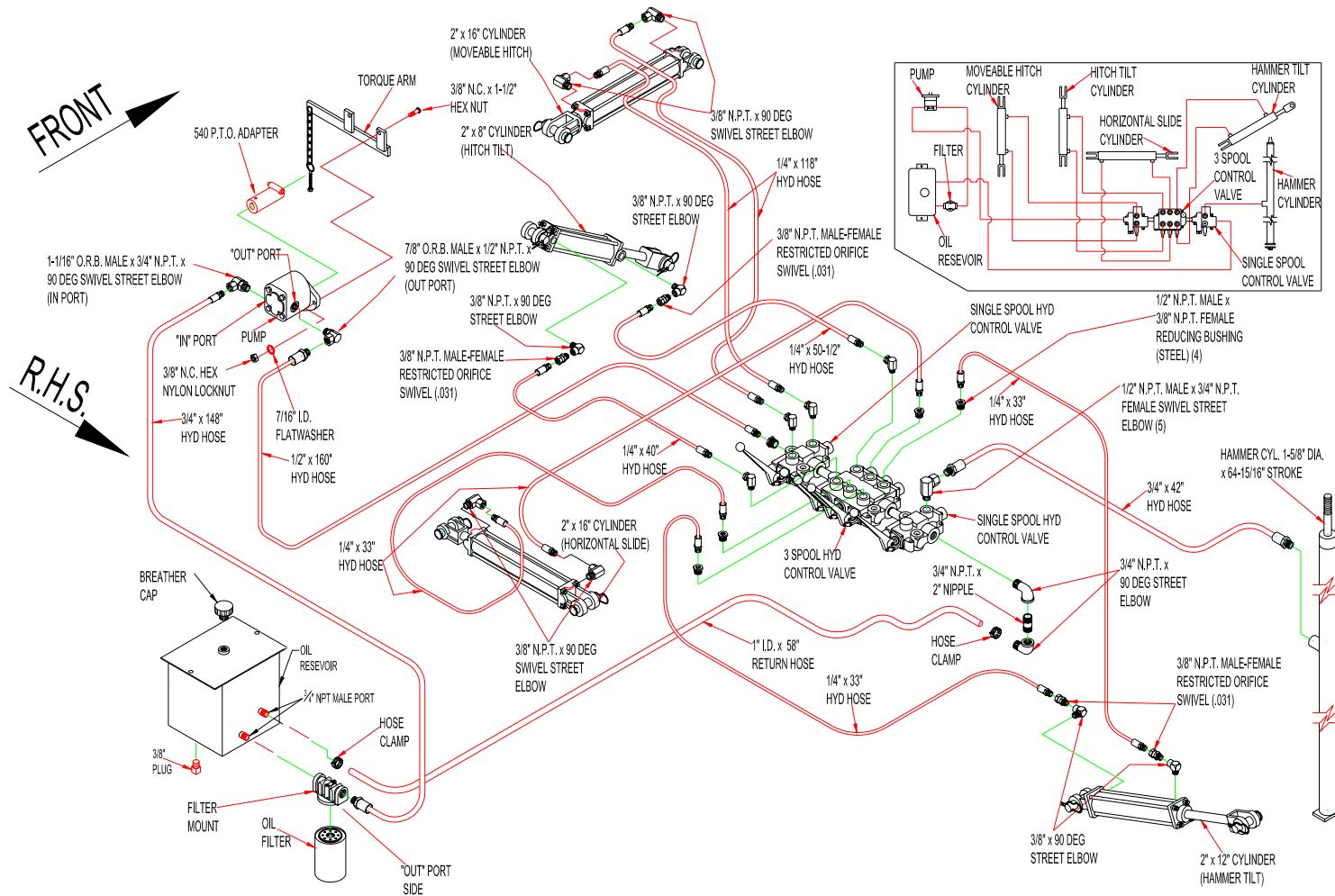
MODEL 2400 POST DRIVER HYDRAULIC SYSTEM ENGINE DRIVE

ILL. 10



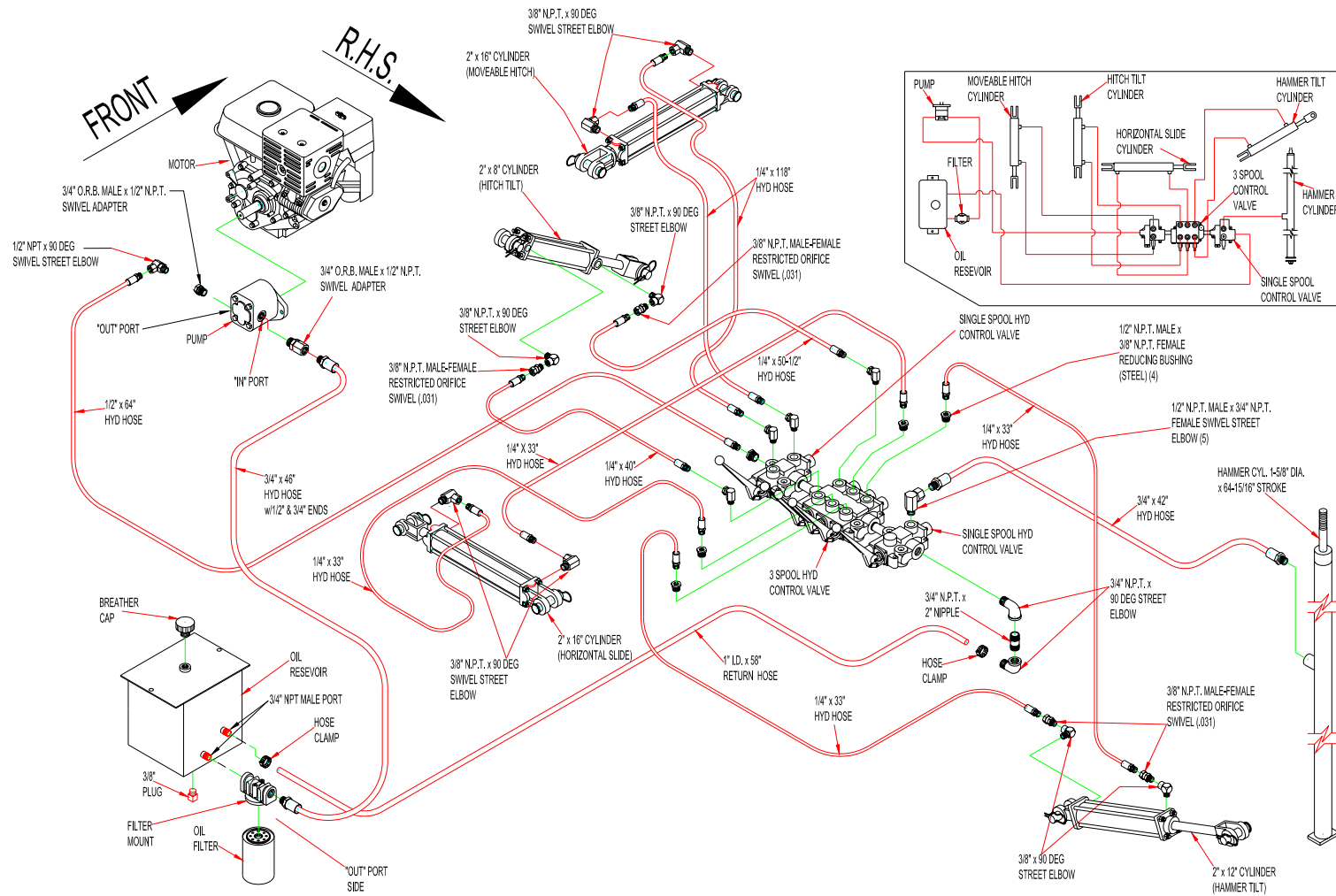
MODEL 2400 POST DRIVER **P.T.O. DRIVE HYDRAULIC SYSTEM** **(c/w OPTIONAL HITCH EXTENSION KIT)**

ILL. 11



MODEL 2400 POST DRIVER ENGINE DRIVE HYDRAULIC SYSTEM (c/w OPTIONAL HITCH EXTENSION KIT)

ILL. 12



16. FILLING HYDRAULIC SYSTEM - See ILL. 7, ILL. 8, and ILL. 10.

- a) Fill oil reservoir with hydraulic oil. Use Esso Hydro 56 or equivalent.
- b) Hitch post driver to tractor and install pump to P.T.O. See Section 1 or OPERATING INSTRUCTIONS. (PTO installation not required for engine drive models.
- c) Engage P.T.O. or start ENGINE. Using hydraulic valve control levers, see Section 2 of OPERATING INSTRUCTIONS, 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 1 inch from top of tank. Oil reservoir is shown in ILL. 7 and 8.



CAUTION: BEFORE APPLYING PRESSURE TO HYDRAULIC SYSTEM, BE SURE ALL CONNECTIONS ARE TIGHT AND COMPONENTS ARE NOT DAMAGED.

17. INSTALLING POST RACK (OPTIONAL)

See ILL. 13.

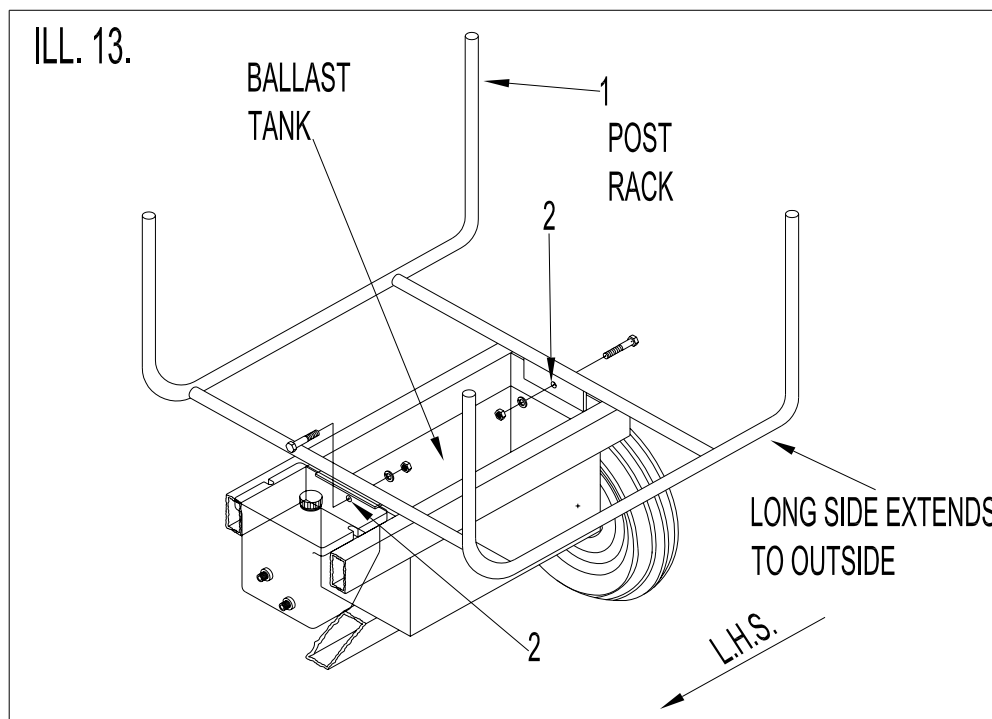
Bolt post rack, arrow 1, to top L.H.S. or post driver frame. Fasten two (2) holes, arrow 2, drilled in frame. Secure (2) 5/8" x 3-1/2" hex. bolts c/w nuts and lockwashers. Post rack is made so uprights are offset to one side. Be sure post rack is installed so long side is extended to outside.

IMPORTANT: IF POST RACK IS ASSEMBLED SO LONG SIDE OF OFFSET EXTENDS TO THE **INSIDE**, THE RACK WILL BE PLACED OVER THE HYDRAULIC TANK WHICH MAY DAMAGE TANK WHEN POSTS ARE LAID IN RACK.

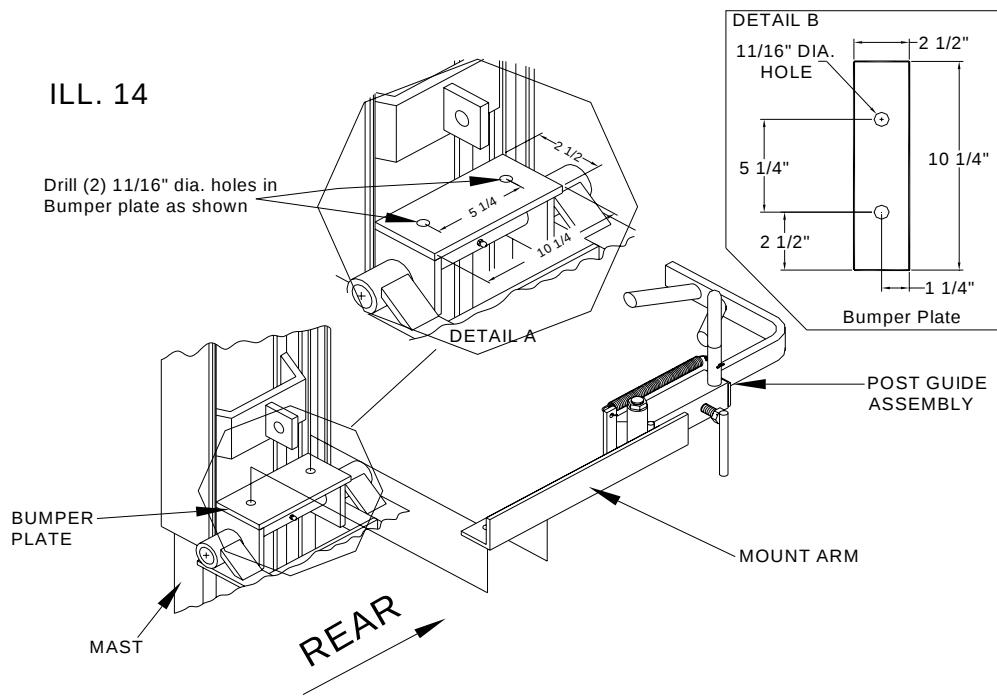
18. See ILL. 13. To help keep post driver stable when driving post, fill **ballast tank** on left hand side of trailer with suitable material. Approximately 250 lbs (113 kg) of material.



CAUTION: BE SURE ALL BOLTS AND HYDRAULIC FITTINGS ARE TIGHT, AND ALL COTTER PINS ARE INSTALLED IN PINS.



ILL. 14



19. POST GUIDE INSTALLATION INSTRUCTIONS - SEE ILL. 14.

STEP I: Operate Post Driver to move hammer and mast to vertical position. Raise hammer approximately 12".



CAUTION: BLOCK HAMMER IN RAISED POSITION. IF HYDRAULIC SYSTEM FAILED OR IF HYDRAULIC LEVER WAS ACCIDENTALLY OPERATED, HAMMER COULD FALL CAUSING SERIOUS INJURY OR DEATH.

STEP II: If Post Driver does not have installation holes in bumper plate, then proceed as follows:

- See ILL. 14. Mark location of holes on bumper plate and drill two (2) 11/16" diameter holes. Detail AA≡ and AB≡ show where holes must be located in bumper plate.

STEP III: See ILL.14. Fasten mount arm of post guide assembly to two (2) holes in bumper plate of mast. Position as shown. Secure with two (2) 5/8" x 1-1/2" N.C. hex bolt c/w nuts and lockwashers. Tighten bolts.

OPERATING INSTRUCTIONS

1. PREPARING POST DRIVER FOR OPERATION

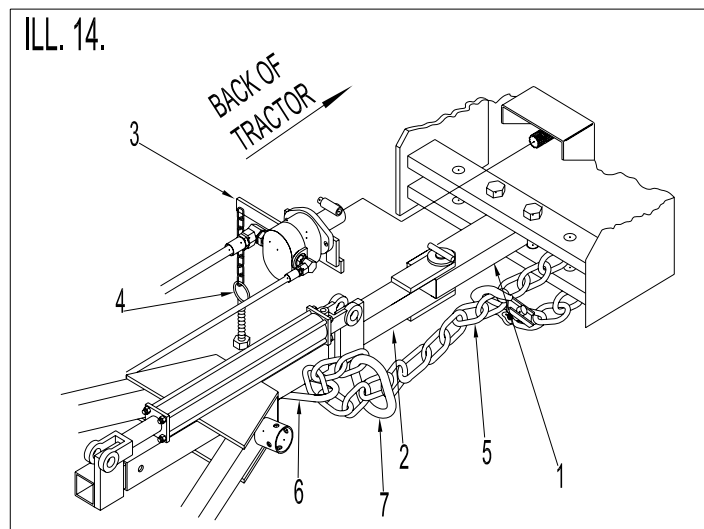
- Check the oil level in oil reservoir. The level should be 1 inch from top of reservoir. If filling is required, use ESSO Hydro 56 or equivalent.
- Check that the rubber bumpers on upper and lower hammer stops are in place and in good condition.
- Ensure tire pressure is 28 PSI.
- Be sure ballast box on trailer, shown in ILL. 9, has a minimum of 250 lbs of ballast.



WARNING:

ALWAYS HAVE A MINIMUM BALLAST OF 250 lbs (113 kg) IN WEIGHT BOX OF THE TRAILER FOR STABILITY. IF MAST EXTENSION KIT IS INSTALLED OR HAMMER IS WEIGHTED, OPERATOR MUST USE OWN DISCRETION WHEN ADDING SUFFICIENT BALLAST TO TRAILER WEIGHT BOX TO ENSURE SAFE AND STABLE OPERATION OF POST DRIVER.

- Ensure both sides of hammer slide are greased before activating controls.
- Check all bolts for tightness.



2. TRACTOR HOOK-UP - See ILL. 14

- Before hitching the post driver to the tractor, pin the tractor drawbar, arrow 1, in a fixed, center position. A fixed drawbar provides greater stability.
- Back tractor into position and attach the post driver hitch, arrow 2, to tractor drawbar.



DANGER:

LIFT THE HITCH SLOWLY AND KEEP IT NO HIGHER THAN THE TOW BAR WHEN ATTACHING OR RELEASING IT FROM THE TRANSPORT VEHICLE.



WARNING:

ALWAYS ENSURE TRACTOR'S P.T.O. SAFETY SHIELD IS INSTALLED.

OPERATING INSTRUCTIONS CONTINUED:

1) FOR P.T.O. DRIVE ONLY - See ILL. 10

- c1) With torque arm, arrow 3, on left hand side, connect the spline adapter of pump, arrow 4, onto the tractor P.T.O. shaft.
- c2) Place I-bolt of torque arm and chain, arrow 4, through a convenient hole in drawbar. Secure with flatwasher and locknut.



CAUTION: BEFORE CONNECTING (OR DISCONNECTING) HYDRAULIC PUMP TO (OR FROM) TRACTOR'S P.T.O. SHAFT, DISENGAGE P.T.O. AND SHUT OFF TRACTOR ENGINE.



CAUTION: IF THE TORQUE ARM CHAIN OF P.T.O. PUMP IS NOT PROPERLY SECURED, SEVERE DAMAGE TO THE PUMP AND HYDRAULIC CIRCUITRY COULD OCCUR.



DANGER: ALWAYS STAY CLEAR OF P.T.O. WHEN IT IS ENGAGED. SERIOUS INJURY OR DEATH WILL RESULT IF CLOTHING, HAIR OR LIMBS ARE CAUGHT IN P.T.O. DRIVE SHAFT.

d) INSTALL SAFETY CHAIN- See ILL. 14

- d1) Thread chain, arrow 5, through loop, arrow 6, on front R.H.S. of hitch.
- d2) To fasten chain to loop, arrow 6, create a loop by threading end of chain through large link, arrow 7 at one end.
- d3) Next, connect opposite end of chain to tractor drawbar support.

IMPORTANT: WHEN TRANSPORTING POST DRIVER, ALWAYS USE A SAFETY CHAIN. THE SAFETY CHAIN SHOULD HAVE A MINIMUM ULTIMATE TENSILE STRENGTH ALONG THE LINE OF TRAVEL EQUAL TO OR GREATER THAN THE GROSS WEIGHT OF THE POST DRIVER.

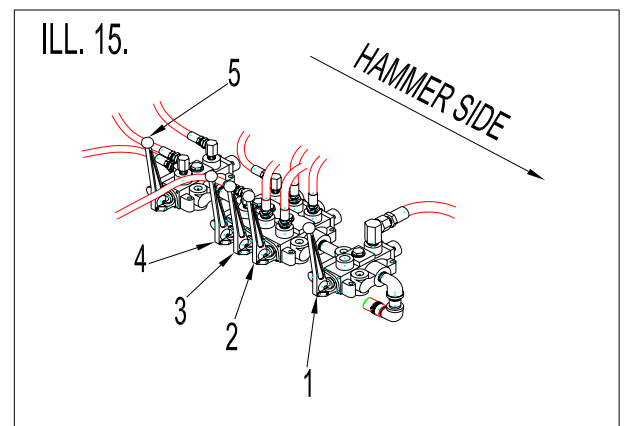


DANGER: ALWAYS ATTACH A SAFETY CHAIN TO THE TRACTOR OR VEHICLE HITCH BEFORE TRANSPORTING POST DRIVER. SERIOUS DAMAGE TO THE POST DRIVER AND SERIOUS INJURY OR DEATH COULD RESULT FROM POST DRIVER SEPARATING FROM TRACTOR OR THE VEHICLE HITCH.

3. OPERATION OF HYDRAULIC CONTROLS
- See ILL. 15

The four control levers operate post driver as follows:

- a) Lever, arrow 1, raises and lowers hammer.
- b) Lever, arrow 2, tilts hammer in and out.
- c) Lever, arrow 3, moves hammer in and out horizontally.
- d) Lever, arrow 4, tilts hammer forward and backwards.
- e) Lever, arrow 5, extends and contracts front of hitch. This moves trailer back and forth to align with post. (Optional)



CAUTION: ALWAYS STAND CLEAR WHEN POSITIONING POST DRIVER WITH HYDRAULIC EXTENDABLE HITCH. THE R.H. TIRE MAY ROLL OVER THE FEET OF OPERATOR OR PERSON(S) NEARBY CAUSING SERIOUS INJURY.



CAUTION: KNOW THE FUNCTIONS OF EACH OPERATING LEVER BEFORE PROCEEDING WITH OPERATIONS.



CAUTION: WHEN TILTING, EXTENDING, RETRACTING, RAISING OR LOWERING THE HAMMER, KEEP ALL PERSONS AWAY FROM POST DRIVER.



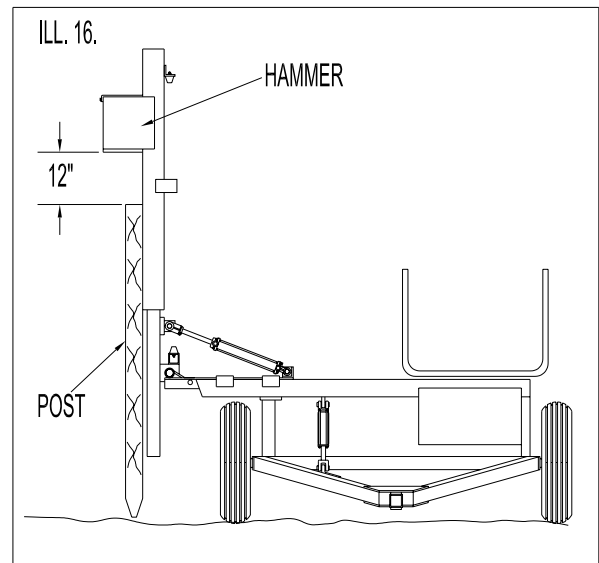
WARNING: FLUID ESCAPING FROM A VERY SMALL HOLE CAN BE ALMOST INVISIBLE. USE A PIECE OF CARDBOARD OR WOOD, RATHER THAN HANDS, TO SEARCH FOR SUSPECTED LEAKS. IF INJURED BY ESCAPED FLUID, SEE A DOCTOR AT ONCE. SERIOUS INFECTION OR REACTION CAN DEVELOP IF PROPER MEDICAL TREATMENT IS NOT ADMINISTERED IMMEDIATELY.

4. DRIVING POST - See ILL. 16.

- a) Before starting to drive posts, cycle tilt cylinders. When 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 cylinder to deform seal. This seal deformation pushes the seal against wall of cylinder and piston block giving a tight oil 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 P.T.O. OR ENGINE DRIVE SHAFT WHEN THEY ARE IN OPERATION. SERIOUS INJURY OR DEATH WILL RESULT IF CLOTHING, HAIR OR LIMBS ARE CAUGHT IN THESE DRIVE SHAFTS.

- b) Manoeuvre post driver trailer into position.
- c) Turn on P.T.O. or start POST DRIVER ENGINE.
- d) See ILL. 15. Position and align hammer by operating valve levers, arrow 2, 3, and 4. These levers will locate hammer in desired working position. See Section 3 of OPERATING INSTRUCTIONS on page 18.
- e) Raise hammer approximately 12 inches above post as shown in ILL. 16.



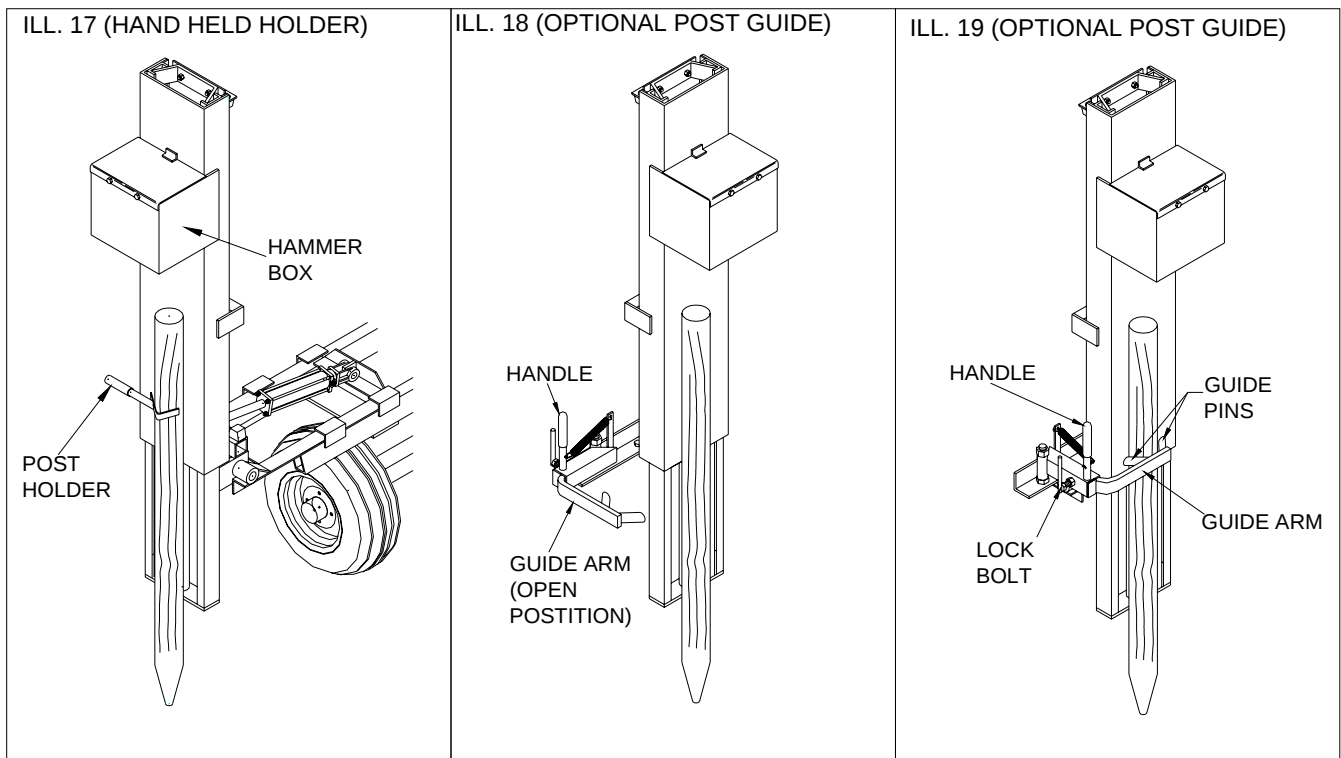
DANGER: NEVER REMOVE STABILIZER BAR FROM REAR OF POST DRIVER. STABILIZER BAR PREVENTS POST DRIVER FROM FALLING BACKWARDS WHEN POST DRIVER IS DISCONNECTED FROM TRANSPORT VEHICLE.



DANGER: DO NOT OPERATE POST DRIVER WHEN IT IS DISCONNECTED FROM TRANSPORT VEHICLE.



CAUTION: MAKE CERTAIN EVERYONE IS CLEAR BEFORE OPERATING OR MOVING THE POST DRIVER.



DANGER: 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.

f) HOLDING POST UNDER HAMMER - USE SUBSECTION f1 or f2.

f1) HAND HELD HOLDER - See ILL. 17. Position post under hammer. Using the hand held post holder, hold post against hammer. Start to drive post, see Paragraph g, h and i below.

f2) OPTIONAL POST GUIDE - SEE ILL. 18 and 19.

Step 1 - Place guide arm in open position and place post under hammer. ILL. 18 shows guide arm in open position.

Step 2 - See ILL. 19. Close post guide over post so guide pins hold post.

Step 3 - See ILL. 19. 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. See Paragraphs g, h and i below.



CAUTION: ALWAYS USE HAND HELD POST HOLDER OR OPTIONAL POST GUIDE TO POSITION POSTS UNDER HAMMER WHEN DRIVING POSTS. USING ONE OF THESE DEVICES MAY PREVENT INJURY TO HAND OR ARM.

g) Push hammer valve lever, arrow 1 (ILL. 15), "IN" to drop hammer on post. Use 12" strokes to start post and increase stroke as required.

h) **IMPORTANT:** DO NOT USE TOO MUCH FORCE WHEN OPERATING HAMMER VALVE LEVER. HANDLE MOUNT RACKETS WILL BE DAMAGED IF LEVER IS PUSHED TOO HARD TO DROP HAMMER.

i) **IMPORTANT:** 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 OR TILTING HAMMER.





CAUTION: IF MAST EXTENSION KIT IS INSTALLED OR HAMMER IS WEIGHTED, OPERATOR MUST USE OWN DISCRETION WHEN ADDING SUFFICIENT BALLAST TO TRAILER WEIGHT BOX TO ENSURE SAFE AND STABLE OPERATION OF POST DRIVER.



DANGER: CONTACT LOCAL UTILITY COMPANIES FOR UNDERGROUND SERVICES BEFORE INSTALLING POSTS.



DANGER: WHEN DRIVING POSTS, ALWAYS WATCH FOR OVER HEAD POWER LINES. IF POST DRIVER MAKES CONTACT WITH POWER LINES, OPERATOR OR THOSE NEARBY COULD BE SERIOUSLY INJURED.



DANGER: ALWAYS MAKE SURE THE HITCH OF THE POST DRIVER HAS A DOWNWARD WEIGHT.



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 COULD DAMAGE HYDRAULIC SYSTEM.



CAUTION: 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.

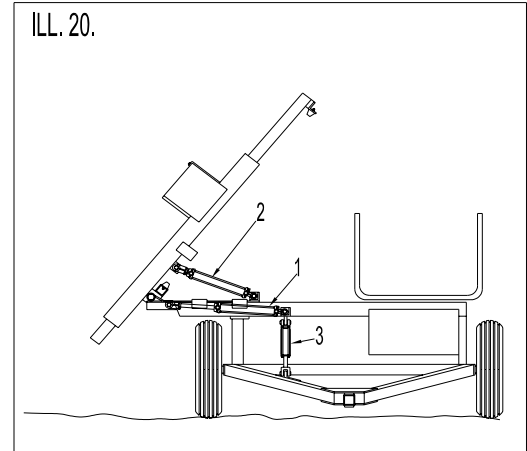


DANGER: ALWAYS LOWER HAMMER AND SHUT OFF POWER WHEN POST DRIVER IS LEFT UNATTENDED OR IS NOT IN OPERATION. SERIOUS INJURY OR DEATH MAY RESULT IF HAMMER FELL UNEXPECTEDLY AND STRUCK PERSON(S) NEARBY.

OPERATING INSTRUCTIONS:

5. To transport post driver, proceed as follows:
- See ILL. 20

- a) Lower hammer cylinder to bottom.
- b) Move hammer "IN" by contracting horizontal slide cylinder, arrow 1.
- c) Tilt hammer in over trailer by contracting hammer tilt cylinder, arrow 2.
- d) Tilt trailer all the way forward by contracting hitch cylinder, arrow 3.
- e) Contract hitch extension cylinder, arrow 4. (Optional)
- f) Now disengage P.T.O. or POST DRIVER ENGINE.
- f) Ensure that safety chain is installed between tractor vehicle and post driver hitch. See ILL. 14 on page 17.



CAUTION: ALWAYS ATTACH A SAFETY CHAIN TO THE TRACTOR OR VEHICLE HITCH BEFORE TRANSPORTING POST DRIVER. SERIOUS DAMAGE TO THE POST DRIVER AND SERIOUS INJURY OR DEATH COULD RESULT FROM POST DRIVER SEPARATING FROM TRACTOR OR THE VEHICLE HITCH.

CAUTION: NEVER ALLOW ANYONE NEAR THE POST DRIVER WHEN YOU ARE PERFORMING OPERATING FUNCTIONS.

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 OPERATORS 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: NEVER EXCEED 40 KM/H (25 MPH) WHEN TRANSPORTING POST DRIVER.

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 ALL CYLINDERS BEFORE TRANSPORTING POST DRIVER.

DANGER: ALWAYS TEST THE HITCH WEIGHT BEFORE RELEASING THE POST DRIVER FROM THE TRANSPORT VEHICLE OR HOLD DOWN.

DANGER: DO NOT MOVE THE POST DRIVER BY HAND. MAKE CERTAIN THE POST DRIVER TRAILER IS PROPERLY SECURED TO A TRANSPORT VEHICLE.

6) MAST EXTENSION KIT (INSTALLATION) - Instructions to convert from **low** hammer to **high** hammer. (OPTIONAL)

IMPORTANT: TO PREVENT POST DRIVER FROM FALLING WHILE CONVERTING HAMMER, HITCH POST DRIVER TO TRACTOR OR OTHER TRANSPORT VEHICLE.

- a) See ILL. 21. With post driver hitched to transport vehicle, 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.



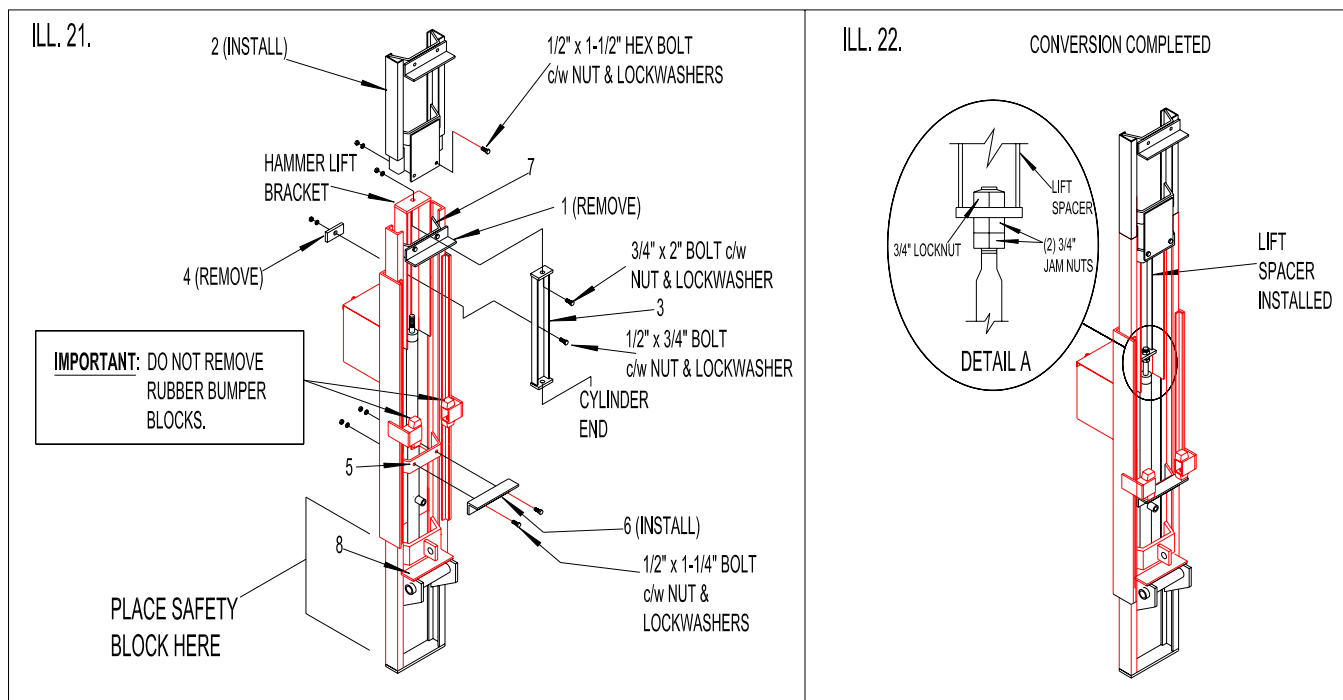
CAUTION: PLACE A BLOCK BETWEEN BOTTOM OF HAMMER AND BOTTOM OF MAST. IF HYDRAULIC SYSTEM FAILED OR IF HYDRAULIC LEVER WAS ACCIDENTLY OPERATED, HAMMER COULD FALL CAUSING SERIOUS INJURY OR DEATH.

- 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" 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. 21. Insert mast extension, arrow 2, into top of mast. Secure to bracket, arrow 7, with (2) 1/2" x 1-1/2" 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. 21. Install lift spacer, arrow 3, inside the hammer lift bracket as shown. Fasten top of lift spacer with (1) 3/4" x 2" 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" bolt c/w nut and lockwasher. Locate backing plate, arrow 4, over front of hammer lift bracket.
- g) See ILL. 21. Next install hammer cylinder shaft in hole in bottom of lift spacer, arrow 3. Secure shaft with three (3) 3/4" nuts, one 3/4" locknut on top of lift spacer and two (2) 3/4" jam nuts at bottom of lift spacer. Turn locknut until 1/4" 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. 22, Detail "A".

IMPORTANT: BE SURE ALL BOLTS AND CYLINDER SHAFT NUTS ARE TIGHT BEFORE USING POST DRIVER.



CAUTION: IF MAST EXTENSION KIT IS INSTALLED OR HAMMER IS WEIGHTED, OPERATOR MUST USE OWN DISCRETION WHEN ADDING SUFFICIENT BALLAST TO TRAILER WEIGHT BOX TO ENSURE SAFE AND STABLE OPERATION OF POST DRIVER.



MAST EXTENSION KIT (REMOVAL) - Instructions to convert from **high** hammer to **low** hammer position. (OPTIONAL)

IMPORTANT: TO PREVENT POST DRIVER FROM FALLING WHILE CONVERTING HAMMER, HITCH POST DRIVER TO TRACTOR OR OTHER TRANSPORT VEHICLE.

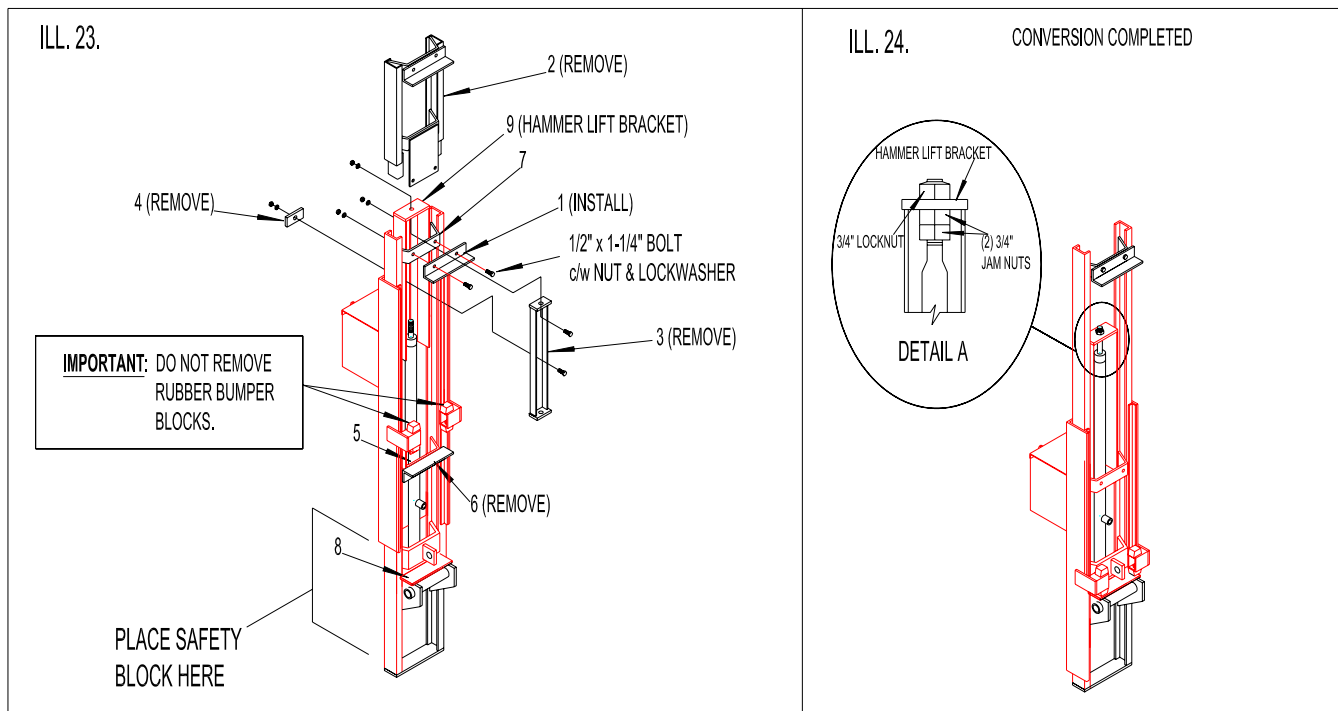
- 1) See ILL. 23. With post driver hitched to transport vehicle, position hammer so it is in a vertical position and lower hammer on to bumper stop, arrow 6.
- 2) Remove mast extension, arrow 2, from top of mast.
- 3) See ILL. 23. Remove nut from top of hammer cylinder and allow shaft to retract into cylinder.
- 4) See ILL. 23. Remove lift spacer, arrow 3, front top of hammer.
- 5) See ILL. 23. 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" nuts, one 3/4" locknut on top of bracket and two (2) 3/4" jam nuts at bottom of bracket. Turn locknut until 1/4" 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. 24, Detail "A".
- 6) See ILL. 23. 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 ACCIDENTLY OPERATED, HAMMER COULD FALL CAUSING SERIOUS INJURY OR DEATH.

- 7) See ILL. 23. 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.
- 8) See ILL. 23. Fasten hammer stop, arrow 1, to bracket, arrow 7, with two (2) 1/2" x 1-1/2" bolts c/w nuts and lockwashers. (This is the same bracket (arrow 6) that was removed earlier).

IMPORTANT: BE SURE ALL BOLTS AND CYLINDER SHAFT NUTS ARE TIGHT BEFORE USING POST DRIVER.



MAINTENANCE

1. Lubricate post driver as follows:

- See ILL. 25.

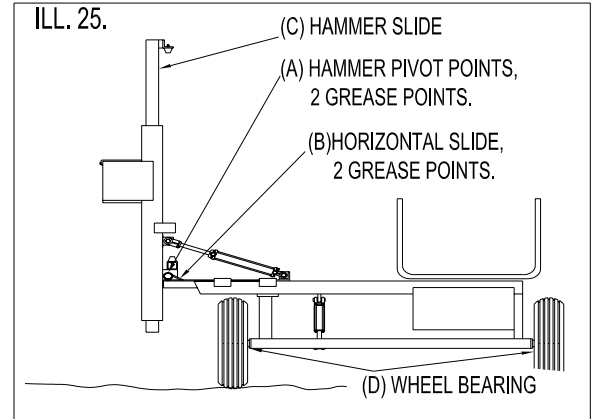
- a) Grease hammer pivots every 50 hours of operation.
- b) Grease horizontal slide every 50 hours of operation.
- c) Raise hammer and grease both sides of hammer slide every 10 hours of operation.
- d) Replace wheel bearings and hub seals every 150 hours of operation or 1 year of service, whichever comes first. Pack bearing with high quality grease.



CAUTION: DO NOT LUBRICATE OR ADJUST POST DRIVER WHEN IT IS BEING OPERATED OR WHILE IT IS IN MOTION.



CAUTION: ALWAYS RETRACT ALL CYLINDERS, SHUT OFF TRACTOR ENGINE AND DISENGAGE P.T.O. OR SHUT OFF POST DRIVER ENGINE BEFORE LUBRICATING POST DRIVER.



2. HYDRAULIC SYSTEMS

- a) Periodically check level of hydraulic oil in reservoir. Oil should be within 1" of the top of reservoir.
- b) Change oil filter every 200 hours of operation.

3. WHEEL and TIRES

- a) Check wheel bolts for tightness during first week of operation and periodically thereafter.
- b) Tighten wheel bearings as follows:
 - b1) Remove dust cap.
 - b2) Remove cotter pin from slotted nut.
 - b3) Tighten slotted nut until there is a slight drag on bearings after adjustment is complete.
- c) Keep tire pressure at 28 PSI. Low or over inflated tires can cause serious damage to tires.

4. Check for any loose bolts and tighten if required.
5. Be sure all pins have cotter pins or hair pin cotters installed.
6. Replace any safety decals that are damaged or are illegible.



CAUTION: ALWAYS SUPPORT POST DRIVER TRAILER AND HAMMER ON STANDS OR BLOCKS AND HAVE SUFFICIENT WEIGHT ON THE HITCH, OR HAVE THE HITCH ATTACHED TO A TRANSPORT VEHICLE BEFORE PERFORMING ASSEMBLY OR REPAIR WORK UNDER OR AROUND POST DRIVER.



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 INJURY 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 HOSES 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 BEFORE ADJUSTING, SERVICING OR CLEANING THE POST DRIVER.

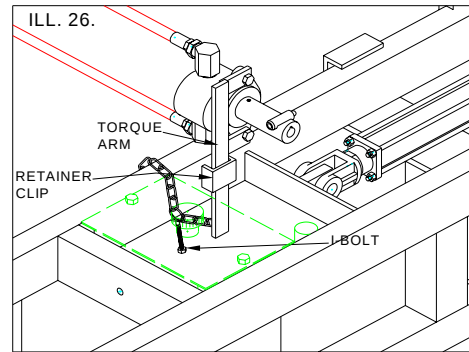


IMPORTANT: REPLACE ANY SAFETY DECALS THAT ARE DAMAGED OR ARE ILLEGIBLE.

STORAGE

1. Fully contract all cylinders. Be sure hammer is lowered to bottom position.
2. Clean and lubricate all grease points and hammer slide when storing post driver for extended period of time.
3. Inspect the post driver for any missing, worn, or damaged parts. Replace parts as required.
4. Check for any loose bolts and tighten if required.
5. Be sure all pins have cotter pins or hair pin cotters installed.
6. Disconnect the post driver from the transport vehicle.

7. For PTO Drive Machines Only -
After removing pump from tractor's PTO, the pump assembly can be stored on the trailer frame by inserting torque arm into a retainer clip welded to frame as shown in ILL. 26. Secure pump in place by wrapping the torque arm chain around frame and inserting I-Bolt through a link. Install nut and washer on I-Bolt.



CAUTION: LIFT THE HITCH SLOWLY AND KEEP IT NO HIGHER THAN THE TOW BAR WHEN ATTACHING OR RELEASING IT FROM THE TRANSPORT VEHICLE.



CAUTION: DO NOT STORE POST DRIVER WITH HAMMER IN RAISED POSITION. IF HAMMER FELL PERSON(S) NEARBY COULD BE SERIOUSLY INJURED.



DANGER: ALWAYS MAKE SURE THE HITCH OF THE POST DRIVER HAS A DOWNWARD WEIGHT.

BEGINNING OF SEASON SERVICE

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 damage or are illegible.

END OF SEASON SERVICE

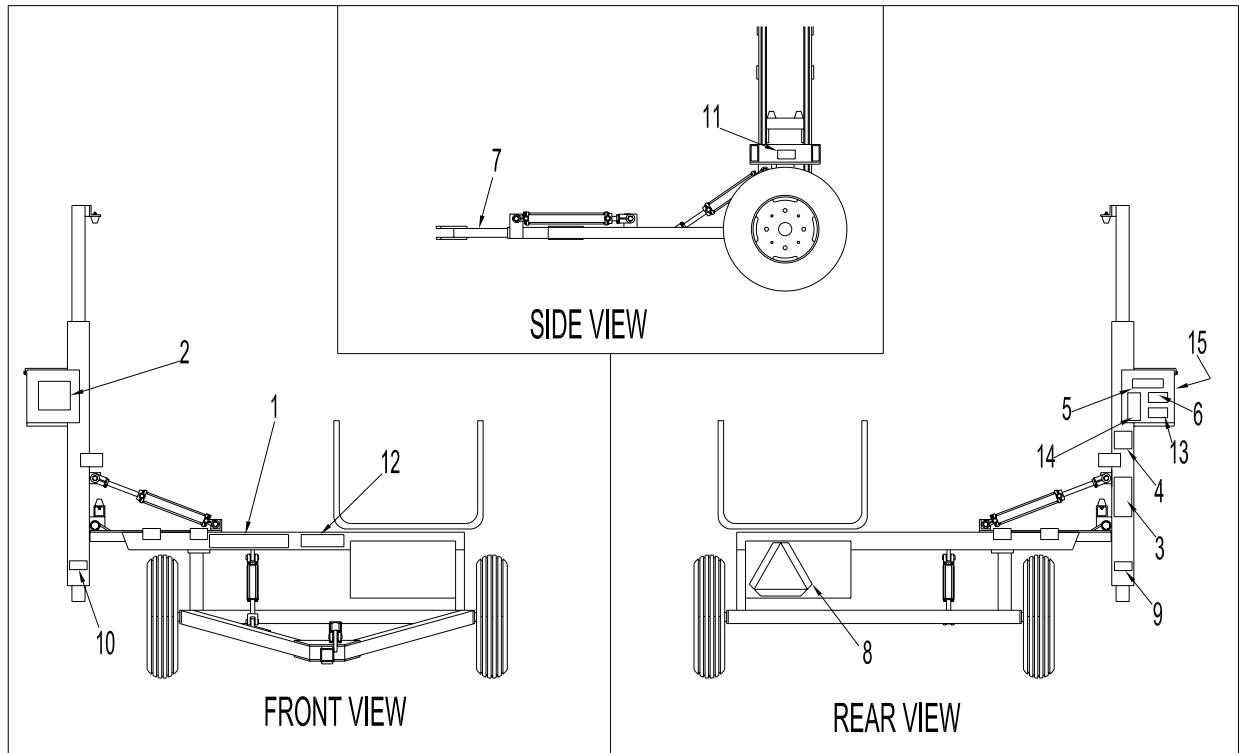
1. Coat all sliding parts with a layer of grease to prevent rust. The chief enemies of your post driver, rust and corrosion, are busy the year-around. A little time and effort spent protecting the post driver from destructive moisture will repay you in longer service, easier operation, and higher resale 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.



CAUTION: WHEN SERVICING THE POST DRIVER, MAKE SURE THE HITCH IS SECURELY ATTACHED TO TRANSPORT VEHICLE, OR HITCH HOLD DOWN.

MODEL 2400 POST DRIVER **PARTS LIST** **INDEX**

DESCRIPTION	PAGE
DECALS	30
FRAME and HITCH ASSEMBLY	32
HAMMER ASSEMBLY - NON EXTENDABLE TYPE	33
HAMMER ASSEMBLY - EXTENDABLE TYPE	34
MOUNT and DRIVE SYSTEM - 6:1 ENGINE DRIVEN PUMP	35
MOUNT and DRIVE SYSTEM - 1:1 ENGINE DRIVEN PUMP	36
HYDRAULIC SYSTEM - P.T.O. DRIVE	38
HYDRAULIC SYSTEM – P.T.O. w/OPTIONAL HITCH EXTENSION KIT	40
HYDRAULIC SYSTEM - ENGINE DRIVE – 6:1 REDUCTION DRIVE	42
HYDRAULIC SYSTEM - ENGINE DRIVE - 6:1 REDUCTION DRIVE w/OPTIONAL HITCH EXTENSION KIT	44
HYDRAULIC SYSTEM - ENGINE DRIVE – w/DIRECT DRIVE PUMP	46
HYDRAULIC SYSTEM - ENGINE DRIVE – w/OPTIONAL HITCH EXTENSION KIT	48
HAMMER CYLINDER	49
SEAL KIT	49
HYDRAULIC CYLINDER - MONARCH	50
POST GUIDE (OPTIONAL)	51

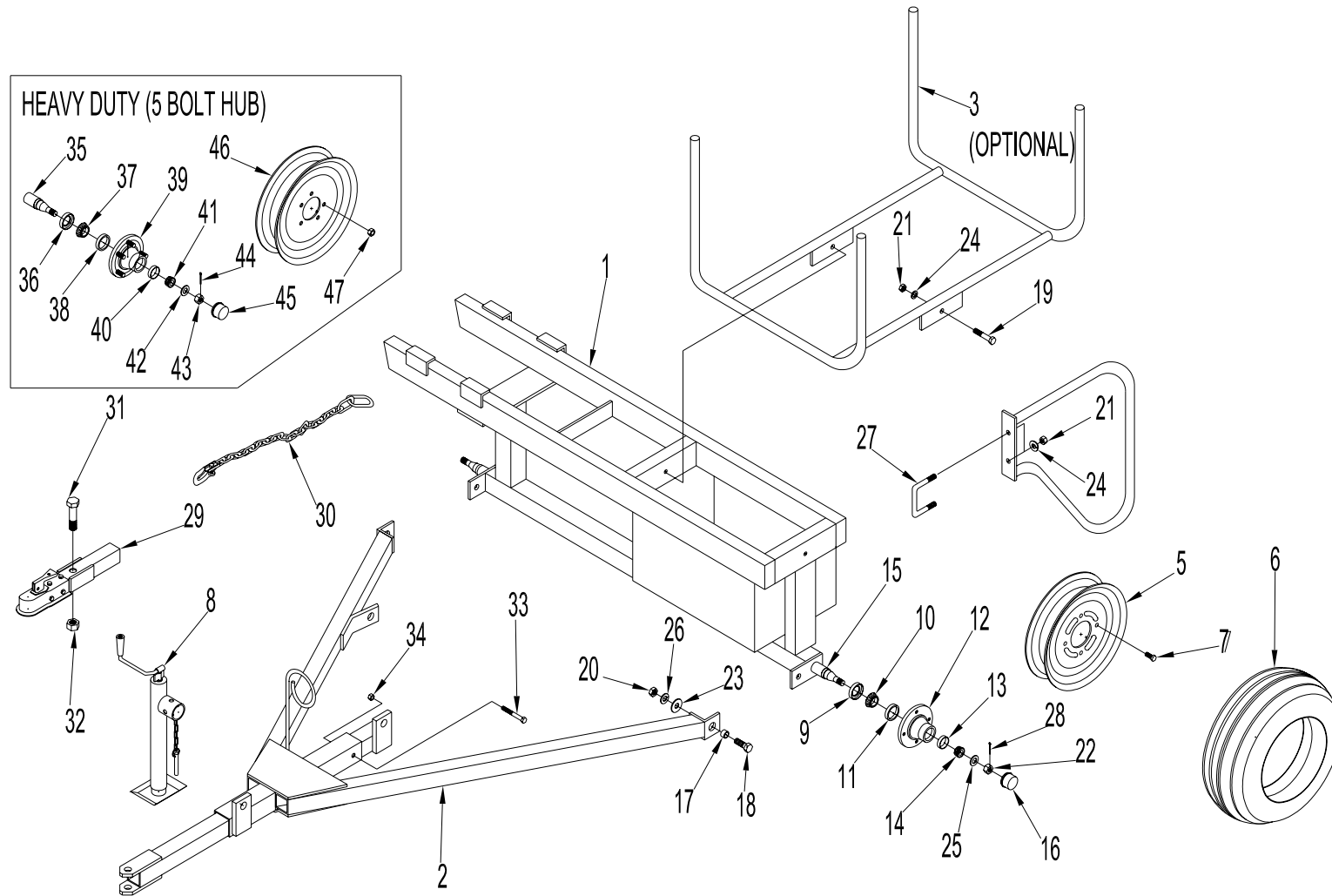


MODEL 2400 POST DRIVER DECALS and PAINT

REF. NO.	PART NO.	DESCRIPTION	QTY REQ'D
1	S81504	Ezee-on Decal 3" x 18"	1
2	80501	Danger Decal (6" x 8")	1
3	80503	Warning & Caution Decal (4" x 9")	1
4	80504	Important Decal (4" x 4")	1
5	80500	Danger Decal (3-1/2" x 7")	1
6	80502	Caution Decal (2-3/4" x 4-1/2")	1
7	80505	Danger Decal (1-7/8" x 5-1/8")	1
8	A70007	SMV Decal	1
9	DF10050	Red Reflector Decal (4" x 2")	1
10	DF10057	Yellow Reflector Decal (4" x 2")	1
11		Serial No. Tag	1
12	P80509	Model A2400" Decal	1
13	A75764	Warning Decal (4-1/2" x 2-5/16")	1
14	P80532	Danger Decal (4-1/4" x 8")	1
15	DF13002	Ezee-On Decal (2-1/2" x 15-1/2")	1
	DF7161	1/2 Pint New Ezee-On Yellow Paint	*
	L016	1/2 Pint New Ezee-On Black Paint	*

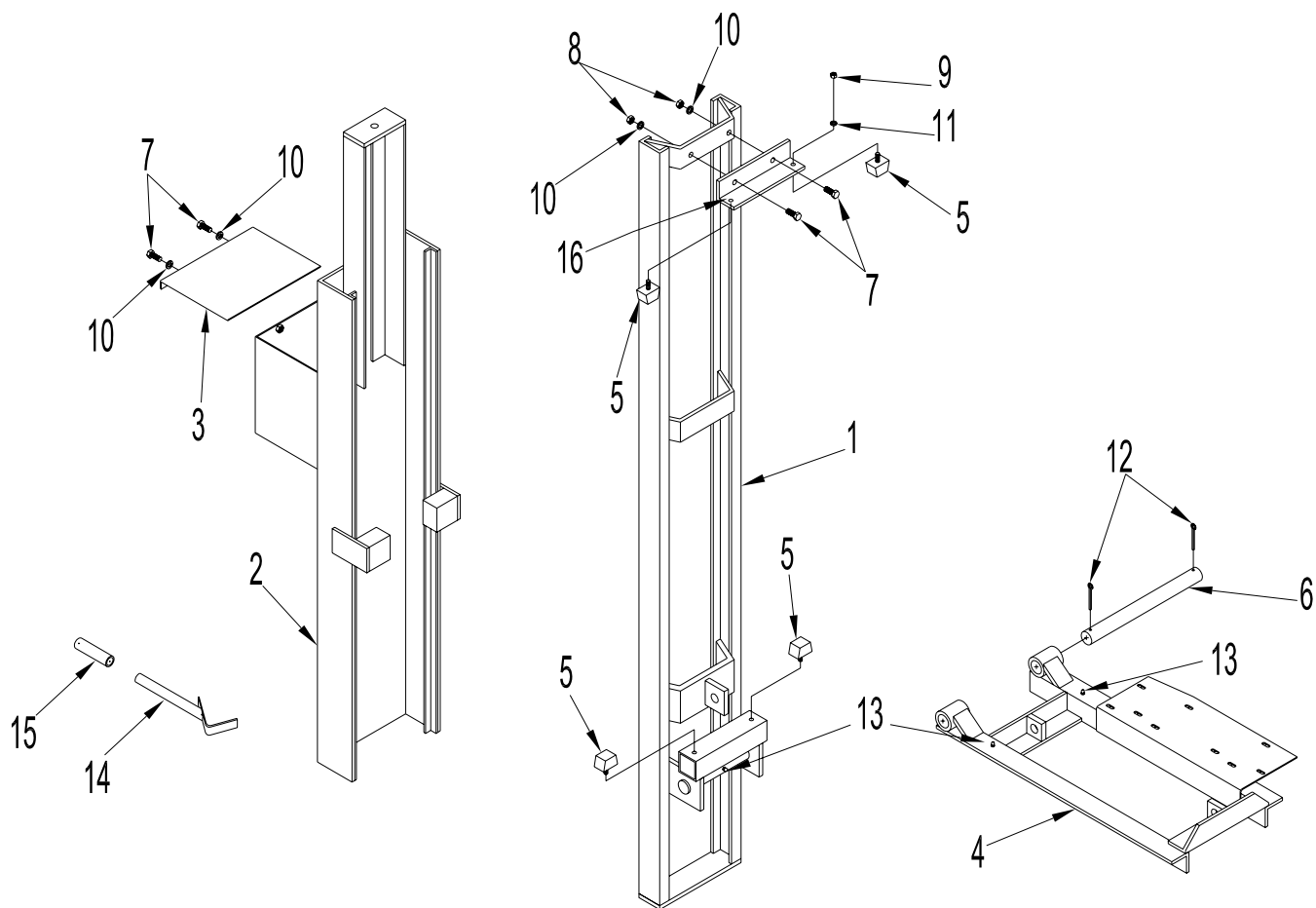
* As required

FRAME and HITCH ASSEMBLY



MODEL 2400 POST DRIVER FRAME and HITCH ASSEMBLY

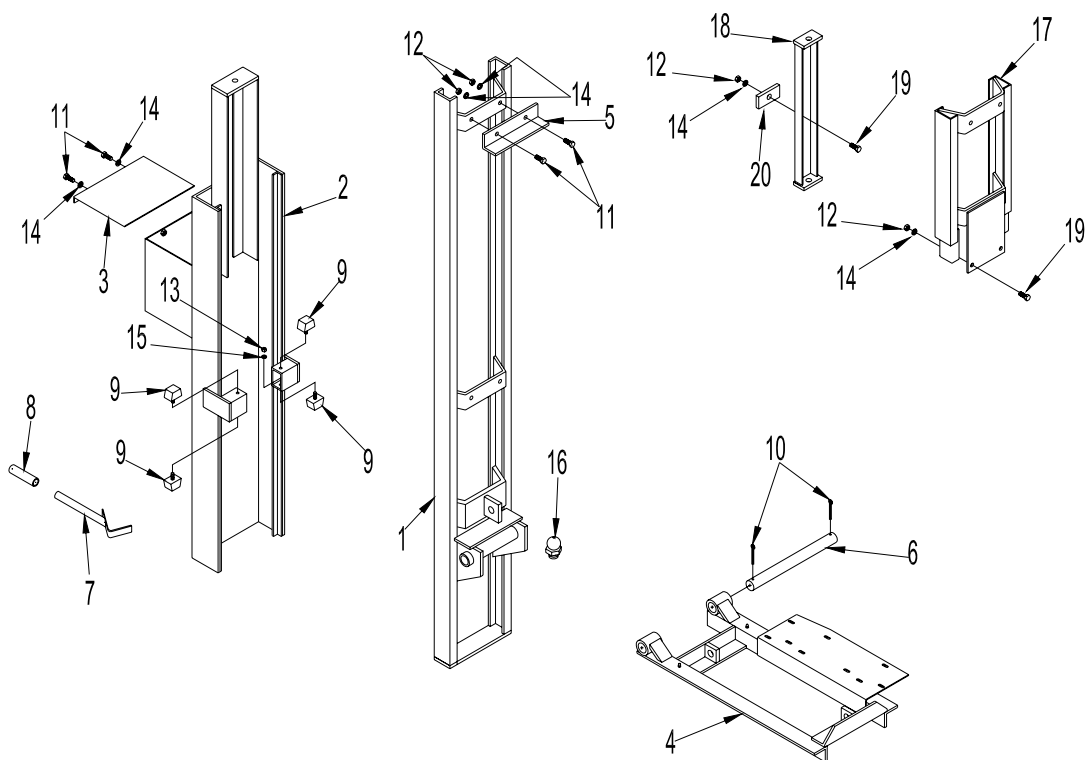
REF NO.	PART NO.	DESCRIPTION	QTY REQ'D
1	P80570	Main Frame Assembly	1
2	P80571	Hitch Assembly	1
3	P80572	Post Rack Assembly (Option) (Fits Model 2400 Only)	1
4	P80674	Rear Stabilizer Bar	1
5	P80547	4 Bolt Rim (15")	2
6		Tire - 6.70 x 15 4 PR	2
7	P80546	1/2" x 1" N.F. Wheel Stud	8
8	P80594	Hitch Jack (Option)	1
9	P80545	Hub Seal (411)	2
10	DR89	Inner Bearing 67048	2
11	DR90	Inner Cup 67010	2
12	P80548	411 Hub (Complete With Cups)	2
13	P80543	Outer Cup 11910	2
14	P80544	Outer Bearing 11949	2
15	P80540	411 Spindle c/w 3/4" Slotted Nut (Weld-on)	2
16	P80549	Hub Cap	2
17	P80596	1" O.D. x 25/32" I.D. x 5/8" Long Bushing	2
18	B075025	3/4" x 2-1/2" N.C. Hex. Bolt	2
19	B062035	5/8" x 3-1/2" N.C. Hex. Bolt	2
20	BN075L	3/4" N.C. Hex. Nylon Lock Nut (Prior to June/03 3/4" Std. Nut was used with 3/4" lockwasher)	2
21	BN062	5/8" N.C. Hex. Nut	2
22	DR82	3/4" N.F. Slotted Hex. Nut	2
23	---	2" O.D. x 13/16" I.D. Flat Washer	2
24	BW062L	5/8" Lockwasher	2
25	---	1-1/2" O.D. x 13/16" I.D. Flat Washer	2
26	BW075L	3/4" Lockwasher (Used with Std. Hex nut prior to June/03)	2
27	C50541	5/8" x 4" x 3-7/16" U-bolt (Plated)	1
28	BP01075	5/32" x 3/4" Cotter Pin	2
29	P80574	2" Ball Style Hitch Tongue (Option) – Note: If you are replacing older 1-7/8" hitch tonque, the 1-7/8" ball must be replaced with 2" ball. Ball not supplied by Ezee-On.	
30	P80508	Safety Chain - 10100 lbs (Option)	1
31	B100040	1" x 4" N.C. Hex Bolt (Used With Optional Ball Style Hitch)	
32	BN100	1" N.C. Hex Nut (Used With Optional Ball Style Hitch)	1
33	B050040	1/2" x 4" N.C. Hex Bolt (Used With Optional Horizontal Hitch Cylinder Kit)	1
34	BN050L	1/2" N.C. Nylon Hex Lock Nut (Used With Optional Horizontal Hitch Cylinder Kit)	1
35	DR77	517 Spindle - For 5 Bolt Hub	2
36	DR85	Grease Seal	2
37	DR91	Inner Bearing LM48548	2
38	DR92	Inner Cup LM48510	2
39	DRA3	Hub c/w Cups And Wheel Studs (DR87)	2
40	DR90	Outer Cup LM67010	2
41	DR89	Outer Bearing LM67048	2
42	---	1-3/4" OD. x 15/16 I.D. x 1/8" Flatwasher (Plated)	2
43	DR83	7/8" N.F. Hex Slotted Nut	2
44	BP18100	3/16" x 1" Cotter Pin	2
45	DR88	Hub Cap	2
46	DR93	15" x 5" - 5 Hole Rim	2
47	DR86	1/2" N.F. Tapered Wheel Nut	10



MODEL 2400 POST DRIVER - for S/N prior to 46120

HAMMER ASSEMBLY - NON-EXTENDABLE TYPE

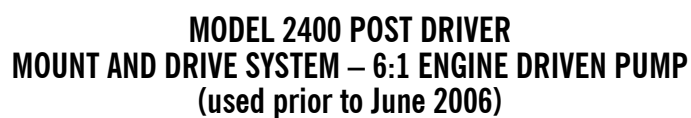
REF. NO.	PART NO.	DESCRIPTION	QTY. REQ'D
1	P80616	Mast Assembly	1
2	P80640	Hammer Assembly	1
3	P80650	Hammer Lid	1
4	P80575	Horizontal Slide - Rear Mount Valve	1
5	P80628	Rubber Stop Block	4
6	P80661	Pivot Pin (Mast)	1
7	B050012	1/2" x 1-1/4" Hex. Bolt	4
8	BN050	1/2" Hex. Nut	2
9	BN037	3/8" Hex. Nut	2
10	BW050L	1/2" Lockwasher	8
11	BW037L	3/8" Lockwasher	4
12	BP31200	5/16" x 2" Cotter Pin	2
13	10GN1	1/4" - 28" Straight Grease Fitting (Zirk)	3
14	P80601	Post Holder	1
15	P80602	Rubber Grip - Post Holder	1
16	P80523	Hammer Stop Bracket - Top	1

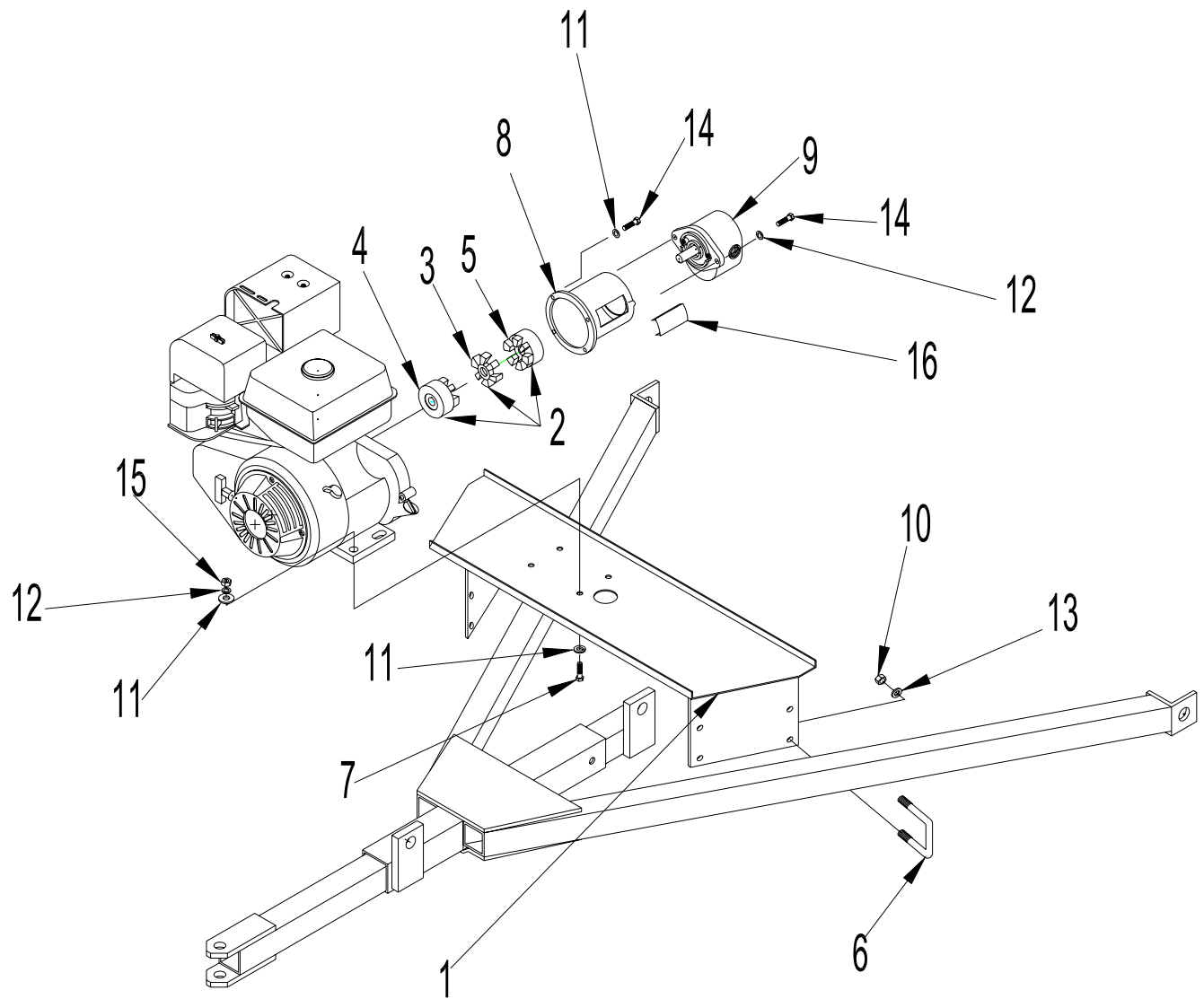


MODEL 2400 POST DRIVER - for S/N 46120 and later

HAMMER ASSEMBLY - EXTENDABLE TYPE

REF. NO.	PART NO.	DESCRIPTION	QTY. REQ'D
1	P80761	Mast Assembly	1
2	P80762	Hammer Assembly	1
3	P80650	Hammer Lid	1
4	P80575	Horizontal Slide - Rear Mount Valve	1
5	P80757	Bumper Stop	
6	P80661	Pivot Pin (Mast)	1
7	P80601	Post Holder	1
8	P80602	Rubber Grip - Post Holder	1
9	P80628	Rubber Stop Block	4
10	BP37200	3/8" x 2" Cotter Pin	2
11	B050012	1/2" x 1-1/4" N.C. Hex Bolt	4
12	BN050	1/2" N.C. Hex Nut	5
13	BN037	3/8" N.C. Hex Nut	4
14	BW050L	1/2" Lockwasher	5
15	BW037L	3/8" Lockwasher	4
16	10GN1	1/4 - 28 Grease Zirk	3
17	P80763	Mast Extension - Hi-Lift Hammer (Optional)	1
18	P80764	Spacer Block - Hi-Lift Hammer (Optional)	1
19	B050015	1/2" x 1-1/2" N.C. Hex Bolt	3
20	P80766	Backing Plate - Lift Spacer (Optional)	1

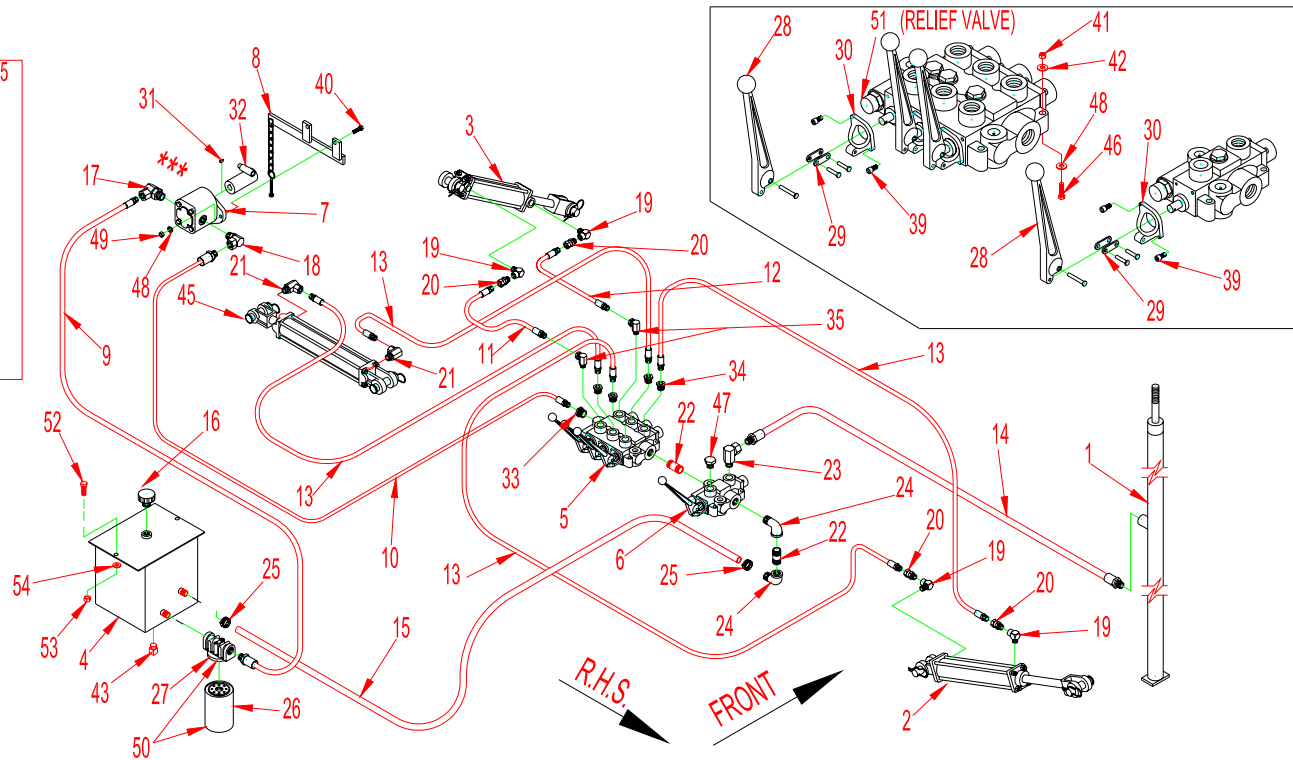
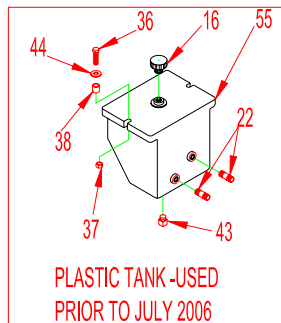
Page 35



**MODEL 2400 POST DRIVER
MOUNT AND DRIVE SYSTEM – 1:1 ENGINE DRIVE PUMP
(used after June 2006)**

REF. NO.	PART NO.	DESCRIPTION	QTY. REQ'D
1		Motor Mount Plate – 1:1 Drive Engine	1
2	P80587	Flex Coupler Complete – 6 Spoke type	1
3	P80608	Coupling Insert – 6 Spoke type	1
4	P80609	1" Coupling Half – 6 Spoke type	1
5	P80610	¾" Coupling Half – 6 Spoke type	1
6	M80010	½"x 2-1/2" x 3-9/16" U-Bolt	4
7	B037017	3/8" x 1-3/4" N.C. Hex Bolt	4
8	P80603	Pump Mount Housing c/w Access Covers	1
9	P80599	.29 cu. in. Pump - Cassappa	1
10	BN050	½" N.C. Hex Nut	8
11	---	9/16" I.D. Flatwasher	12
12	BW037L	3/8" Lockwasher	6
13	BW050L	½" Lockwasher	8
14	B037012	3/8" x 1-1/4" N.C. Hex Bolt	6
15	BN037	3/8" N.C. Hex Nut	4
16	P80604	Access Cover – Pump Mount Housing	2

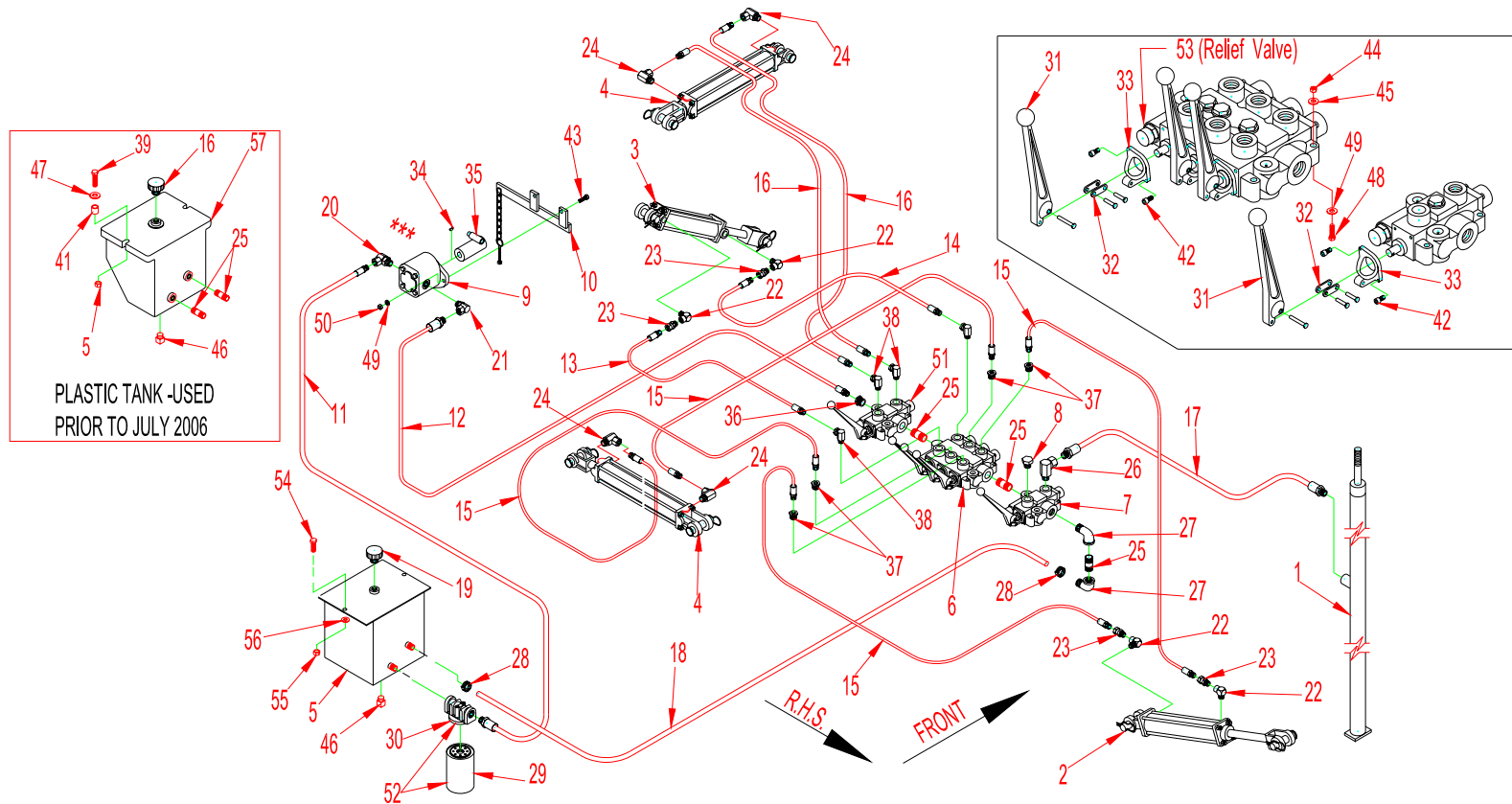
MODEL 2400 POST DRIVER HYDRAULIC SYSTEM P.T.O DRIVE



**MODEL 2400 POST DRIVER
HYDRAULIC SYSTEM - P.T.O. DRIVE**

REF. NO.	PART NO.	DESCRIPTION	QTY. REQ'D
1	281	Hammer Cylinder - 1-5/8" Dia. x 64-15/16" Stroke c/w Nuts And Mount Pad	1
2	282	2" x 12" Cylinder c/w Pins (For Hammer Tilt)	2
3	283	2" x 8" Cylinder c/w Pins (For Frame Tilt)	1
4	P80511	Hydraulic Oil Reservoir - Steel	1
5	P80681	3 Spool Hyd. Control Valve	1
6	P80682	Single Spool Hyd. Control Valve	1
**	P80530	Seal Kit - Cross 3 Spool Valve	1
**	P80528	Seal Kit - Cross Single Spool Valve	1
7	P80689	Pump - P.T.O. - With N.P.T. Ports (Danfoss)	1
	P80703	Pump - P.T.O. - With O.R.B. Ports (Cassappa)	1
***	P80518	Seal Kit - Danfoss Pump	1
***	P80517	Seal Kit- Cassappa Pump	1
***	P80516	Shaft Seal Only - Cassappa Pump	1
8	P80512	Torque Arm	1
9	P3045	3/4" x 148" Hyd. Hose c/w 3/4" Ends (P.T.O.)	1
10	P3044	1/2" x 160" Hyd. Hose c/w 1/2" Ends	1
11	P3028	1/4" x 40" Hyd. Hose c/w 3/8" Ends	1
12	P3029	1/4" x 50-1/2" Hyd. Hose c/w 3/8" Ends	1
13	P3030	1/4" x 33" Hyd. Hose c/w 3/8" Ends	4
14	P3033	3/4" x 42" Hyd. Hose c/w 3/4" Ends	1
15	P3048	1" I.D. x 58" Return Hose	1
16	P80510	Breather Cap	1
17	A70670	1-1/16" O.R.B. Male x 3/4" N.P.T. Female x 90 Degree Swivel Street Elbow (For Cassappa Motor Only)	1
	P80691	1" Male N.P.T. x 3/4" N.P.T. Female x 90 Degree Swivel Street Elbow (For Danfoss Motor Only)	1
18	P80706	7/8" O.R.B. Male x 1/2" N.P.T. Female x 90 Degree Swivel Street Elbow (For Cassappa Motor Only)	1
	DL9775	1/2" N.P.T. Male x 1/2" N.P.T. Female x 90 Degree Swivel Street Elbow (For Danfoss Motor Only)	1
19	DL5283	3/8" N.P.T. x 90 Degree Street Elbow - Steel	4
20	P80704	3/8" N.P.T. Male-Female Restricted Orifice Swivel (0.31)	4
21	DL9769	3/8" N.P.T. x 90 Degree Swivel Street Elbow	2
22	P80693	3/4" N.P.T. x 2" Nipple	2
23	P80694	1/2" N.P.T. Male x 3/4" N.P.T. Female 90 Degree Female Swivel Street Elbow	1
24	P80695	3/4" N.P.T. x 90 Degree Street Elbow	2
25	A70278	1-1/2" Hose Clamp	2
26	P80700	Oil Filter	1
27	P80699	Filter Mount	1
28	P80680	Handle	4
29	P80679	Link Kit	4
30	P80685	Handle Bracket - Cross	4
31	P80588	3/16" Square x 1-1/4" Key	1
32	P80687	540 P.T.O. Adapter 3/4" Dia.	1
33	P80698	3/4" N.P.T. Male x 1/2" N.P.T. Female Reducing Bushing - Steel	1
34	P80702	1/2" N.P.T. Male x 3/8" N.P.T. Female Reducing Bushing - Steel	4
35	P80675	1/2" N.P.T. Male x 3/8" N.P.T. Female x 90 Deg. Swivel Street Elbow	2
36	B050020	1/2" x 2" N.C. Hex Bolt	2
37	BN050L	1/2" N.C. Hex. Nylon Locknut	2
38	P80584	7/8" O.D. x 7/8" Long Spacer	2
39	P80676	1/4" N.C. x 1/2" Socket Head Capscrew	8
40	B037015	3/8" x 1-1/2" N.C. Hex Bolt	2
41	BN037	3/8" N.C. Hex Nut	6
42	BW037L	3/8" Lockwasher	6
43	P80584	3/8" N.P.T. Plug - Square Head	1
44	---	9/16" I.D. Flatwasher	2
45	302	2" x 16" Cylinder c/w Pins (For Horizontal Slide)	1
46	B037020	3/8" x 2" N.C. Hex Bolt (Plated)	6
47	P80585	1/2" N.P.T. Plug	1
48	---	7/16" I.D. x 1" O.D. Flatwasher (Plated)	8
49	BN037L	3/8" N.C. Hex Nylon Locknut	2
50	P80701	Filter and Filter Mount Assembly	1
51	P80709	Relief Valve - 1500 PSI - Cross	1
52	B050012	1/2" x 1-1/4" N.C. Hex Bolt	2
53	BN050	1/2" N.C. Hex Nut	2
54	BW050L	1/2" Lockwasher	2
55	P80513	Hydraulic Oil Reservoir - Plastic	1

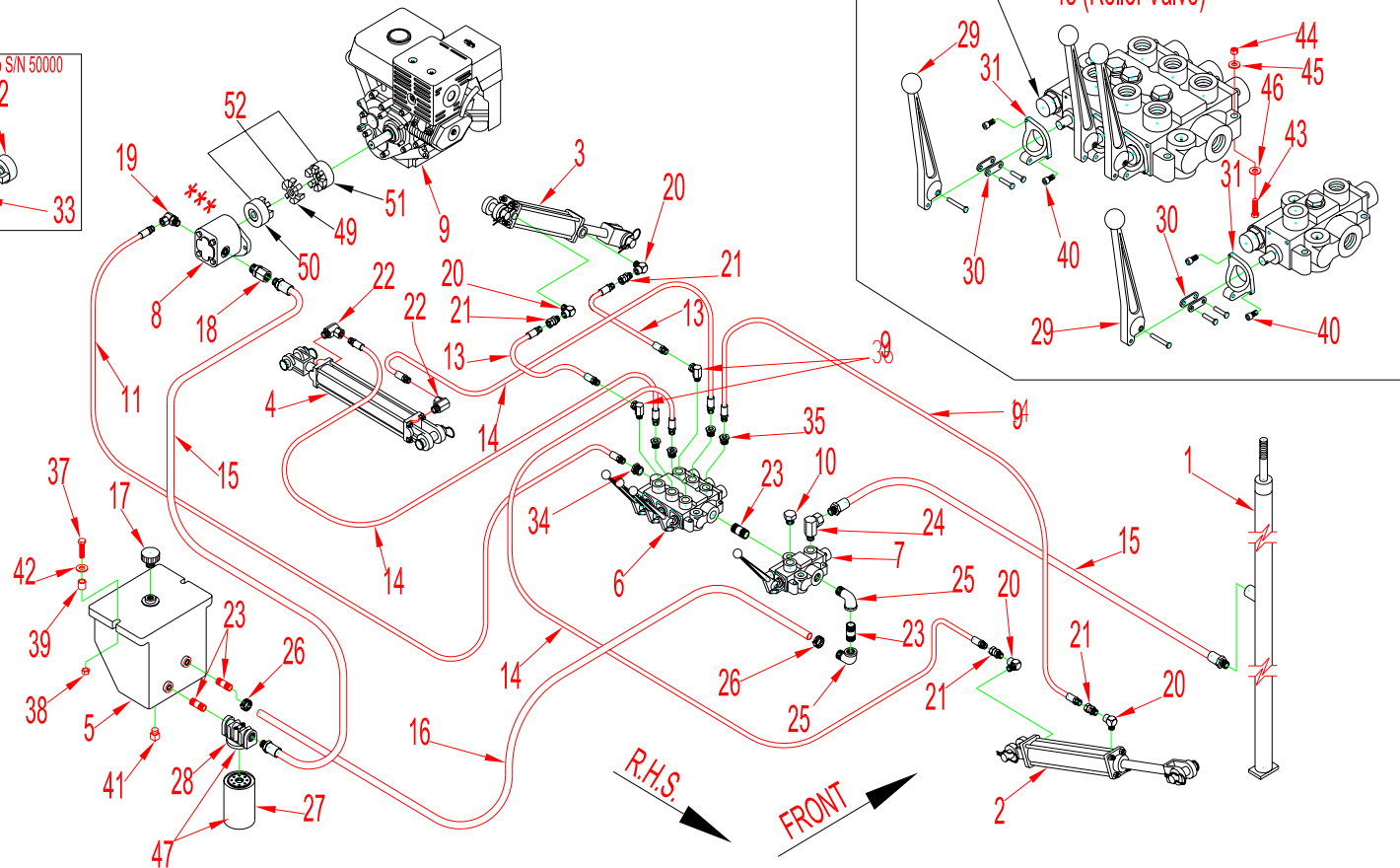
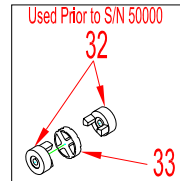
MODEL 2400 POST DRIVER **HYDRAULIC SYSTEM P.T.O DRIVE** **(c/w OPTIONAL HITCH EXTENSION KIT)**



**MODEL 2400 POST DRIVER
HYDRAULIC SYSTEM(PTO DRIVE)
c/w OPTIONAL HITCH EXTENSION KIT**

REF. NO.	PART NO.	DESCRIPTION	QTY. REQ'D
1	281	Hammer Cylinder - 1-5/8" Dia. x 64-15/16" Stroke c/w Nuts And Mount Pad	1
2	282	2" x 12" Cylinder c/w Pins (For Hammer Tilt)	1
3	283	2" x 8" Cylinder c/w Pins (For Frame Tilt)	1
4	302	2" x 16" Cylinder c/w Pins (For Horizontal Slide And Hitch Extension)	2
5	P80511	Hydraulic Oil Reservoir - Steel	1
6	P80681	3 Spool Hyd. Control Valve	1
7	P80682	Single Spool Hyd. Control Valve - single acting for hammer	2
**	P80530	Seal Kit - Cross 3 Spool Valve	1
**	P80528	Seal Kit - Cross Single Spool Valve	1
8	P80585	1/2" N.P.T. Plug	1
9	P80689	Pump P.T.O. With N.P.T. Ports (Danfoss)	1
	P80703	Pump P.T.O. With O.R.B. Ports (Cassappa)	1
***	P80518	Seal Kit - Danfoss Pump	1
***	P80517	Seal Kit - Cassappa Pump	1
***	P80516	Shaft Seal Only - Cassappa Pump	
10	P80512	Torque Arm	1
11	P3045	3/4" x 148" Hyd Hose c/w 3/4" Ends (P.T.O.)	1
12	P3044	1/2" x 160" Hyd. Hose c/w 1/2" Ends	1
13	P3028	1/4" x 40" Hyd. Hose c/w 3/8" Ends	1
14	P3029	1/4" x 50-1/2" Hyd. Hose c/w 3/8" Ends	1
15	P3030	1/4" x 33" Hyd. Hose c/w 3/8" Ends	2
16	P4300	1/4" x 118" Hyd. Hose c/w 3/8" Ends	2
17	P3033	3/4" x 42" Hyd. Hose c/w 3/4" Ends	1
18	P3048	1" I.D. x 58" Return Hose	1
19	P80510	Breather Cap	1
20	A70670	1-1/16" O.R.B. Male x 3/4" N.P.T. Female x 90 Deg. Swivel Street Elbow (For Cassappa Pump)	1
	P80691	1" Male N.P.T. x 3/4" N.P.T. Female x 90 Deg. Swivel Street Elbow (For Danfoss Pump)	1
21	P80706	7/8" O.R.B. Male x 1/2" N.P.T. Female x 90 Deg. Swivel Street Elbow (For Cassappa Pump)	1
	DL9775	1/2" N.P.T. Male x 1/2" N.P.T. Female x 90 Deg. Swivel Street Elbow (For Danfoss Pump)	1
22	DL5283	3/8" N.P.T. x 90 Deg. Street Elbow (Steel)	4
23	P80704	3/8" N.P.T. x Male-Female Restricted Orifice Swivel (0.31)	4
24	DL9769	3/8" N.P.T. x 90 Degree Swivel Street Elbow	4
25	P80693	3/4" N.P.T. x 2" Nipple	3
26	P80694	1/2" N.P.T. Male x 3/4" N.P.T. Female x 90 Deg. Female Swivel Street Elbow	1
27	P80695	3/4" N.P.T. x 90 Degree Street Elbow	2
28	A70278	1-1/2" Hose Clamp	2
29	P80700	Oil Filter	1
30	P80699	Filter Mount	1
31	P80680	Handle	5
32	P80679	Link Kit	5
33	P80685	Handle Bracket - Cross	1
34	P80588	3/16" Square x 1-1/4" Key	1
35	P80687	540 P.T.O. Adaptor 3/4" Diameter	1
36	P80698	3/4" N.P.T. Male x 1/2" N.P.T. Female Reducing Bushing - Steel	1
37	P80702	1/2" N.P.T. Male x 3/8" N.P.T. Female Reducing Bushing - Steel	4
38	P80675	1/2" N.P.T. Male x 3/8" N.P.T. Female x 90 Degree Swivel Street Elbow	4
39	B050020	1/2" x 2" N.C. Hex. Bolt	2
40	BN050L	1/2" N.C. Hex. Nylon Locknut	2
41	P80584	7/8" O.D. x 7/8" Long Spacer	2
42	P80676	1/4" N.C. x 1/2" Socket Head Capscrew	10
43	B037015	3/8" x 1-1/2" N.C. Hex. Bolt	2
44	BN037	3/8" N.C. Hex. Nut	8
45	BW037L	3/8" Lockwasher	8
46	P80584	3/8" N.P.T. Plug - Square Head	1
47	---	9/16" I.D. Flatwasher	2
48	B037020	3/8" x 2" N.C. Hex Bolt	6
49	---	7/16" I.D. x 1" O.D. Flatwasher	10
50	BN037L	3/8" N.C. Hex Nylon Locknut	2
51	P80531	Single Spool Hyd. Control Valve - double acting for hitch	1
52	P80701	Filter and Filter Mount Assembly	1
53	P80709	Relief Valve - 1500 PSI - Cross	1
54	B050012	1/2" x 1-1/4" N.C. Hex Bolt	7
55	BN050	1/2" N.C. Hex Nut	2
56	BW050L	1/2" Lockwasher	2
57	P80513	Hydraulic Oil Reservoir - plastic	1

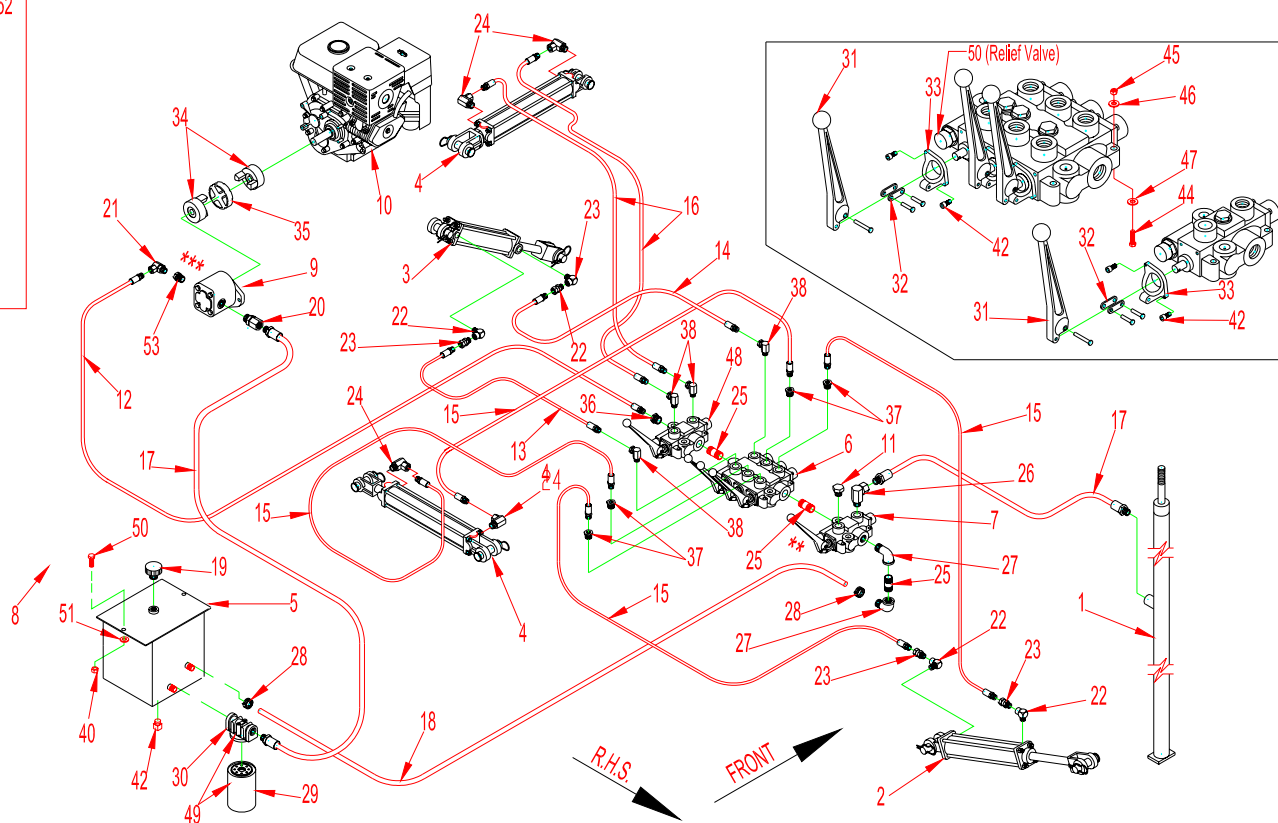
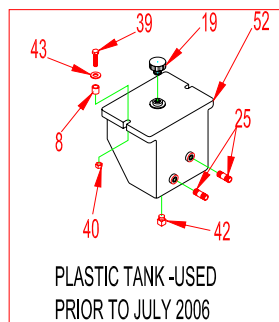
MODEL 2400 POST DRIVER HYDRAULIC SYSTEM ENGINE (w/6:1 REDUCTION DRIVE)



MODEL 2400 POST DRIVER
HYDRAULIC SYSTEM (ENGINE DRIVEw/6:1 REDUCTION DRIVE)

REF. NO.	PART NO.	DESCRIPTION	QTY. REQ'D
1	281	Hammer Cylinder - 1-5/8" Dia. x 64-15/16" Stroke c/w Nuts And Mount Pad	1
2	282	2" x 12" Cylinder c/w Pins (For Hammer Tilt)	2
3	283	2" x 8" Cylinder c/w Pins (For Frame Tilt)	1
4	302	2" x 16" Cylinder c/w Pins (For Horizontal Slide)	1
5	P80513	Hydraulic Oil Reservoir - Plastic	1
6	P80681	3 Spool Hyd. Control Valve	1
7	P80682	Single Spool Hyd. Control Valve - (single acting for hammer)	1
**	P80528	Seal Kit - Cross Single Spool Valve	1
**	P80530	Seal Kit - Cross 3 Spool Valve	1
8	P80598	Pump - Engine Drive With O.R.B. Ports (Cassappa) - 1.99 cu. in. - used w/ Honda Engine - 6:1 Drive	1
	P80597	Pump - Engine Drive With N.P.T. Ports (Danfoss) - 1.99 cu. in. - used w/ Honda Engine - 6:1 Drive	1
***	P80518	Seal Kit - Danfoss Pump	1
***	P80517	Seal Kit - Cassappa Pump	1
***	P80516	Shaft Seal Only - Cassappa Pump	1
9	P80600	Honda Engine (9 H.P.) - w/6:1 Reduction Drive	1
10	P80585	1/2" N.P.T. Plug	1
11	P4301	1/2" x 64" Hyd. Hose c/w 1/2" Ends	1
12	P3028	1/4" x 40" Hyd. Hose c/w 3/8" Ends	1
13	P3029	1/4" x 50-1/2" Hyd. Hose c/w 3/8" Ends	1
14	P3030	1/4" x 33" Hyd. Hose c/w 3/8" Ends	4
15	P3033	3/4" x 42" Hyd. Hose c/w 3/4" Ends	1
16	P3048	1" I.D. x 58" Return Hose	1
17	P80510	Breather Cap	1
18	P80707	1" N.P.T. Male x 3/4" N.P.T. Female Swivel Adapter (For Danfoss Pump)	1
	A70706	1-1/16" O.R.B. Male x 3/4" N.P.T. Female Swivel Adapter (For Cassappa Pump)	1
19	DL9775	1/2" N.P.T. Male x 1/2" N.P.T. Female x 90 Degree Swivel Street Elbow (For Danfoss Pump)	1
	A70670	7/8" O.R.B. Male x 1/2" N.P.T. 90 Degree Swivel Street Elbow (For Cassappa Pump)	1
20	DL5283	3/8" N.P.T. x 90 Degree Street Elbow (Steel)	1
21	P80704	3/8" N.P.T. Male-Female Restricted Orifice Swivel (0.31)	4
22	DL9769	3/8" N.P.T. x 90 Degree Swivel Street Elbow	2
23	P80693	3/4" N.P.T. x 2" Nipple	2
24	P80694	1/2" N.P.T. Male x 3/4" N.P.T. Female 90 Degree Swivel Street Elbow	1
25	P80695	3/4" N.P.T. x 90 Degree Street Elbow	2
26	A70278	1-1/2" Hose Clamp	2
27	P80700	Oil Filter	1
28	P80699	Filter Mount	1
29	P80680	Handle	4
30	P80679	Link Kit	4
31	P80685	Handle Bracket - Cross	4
32	P80591	1" Flex Coupling - 4 Spoke Type - (used prior to S/N 50000)	1
	P80590	3/4" Flex Coupling - 4 Spoke Type - (used prior to S/N 50000)	1
33	P80589	Coupling Insert - 4 Spoke Type - (used prior to S/N 50000)	1
34	P80698	3/4" N.P.T. Male x 1/2" N.P.T. Female Reducing Bushing (Steel)	1
35	P80702	1/2" N.P.T. Male x 3/8" N.P.T. Female Reducing Bushing (Steel)	1
36	P80675	1/2" N.P.T. Male x 3/8" N.P.T. Female x 90 Deg. Swivel Street Elbow	2
37	B050020	1/2" x 2" N.C. Hex Bolt	2
38	BN050L	1/2" N.C. Hex. Nylon Locknut	2
39	P80583	7/8" O.D. x 7/8" Long Space	2
40	P80676	1/4" N.C. x 1/2" Socket Head Capscrew	8
41	P80584	3/8" N.P.T. Plug (Square Head)	1
42	---	9/16" I.D. Flatwasher	2
43	B037020	3/8" x 2" N.C. Hex Bolt	6
44	BN037	3/8" N.C. Hex Nut	6
45	BW037L	3/8" Lockwasher	6
46	---	7/16" I.D. x 1" O.D. Flatwasher	6
47	P80701	Filter and Filter Mount Assembly	1
48	P80709	Relief Valve - 1500 PSI - Cross	1
49	P80608	Coupling Insert - 6 Spoke Type - (used on S/N 50000 and later)	1
50	P80609	1" Coupling Half - 6 Spoke Type - (used on S/N 50000 and later)	1
51	P80610	3/4" Coupling Half - 6 Spoke Type - (used on S/N 50000 and later)	1
52	P80587	Flex Coupler Complete	1

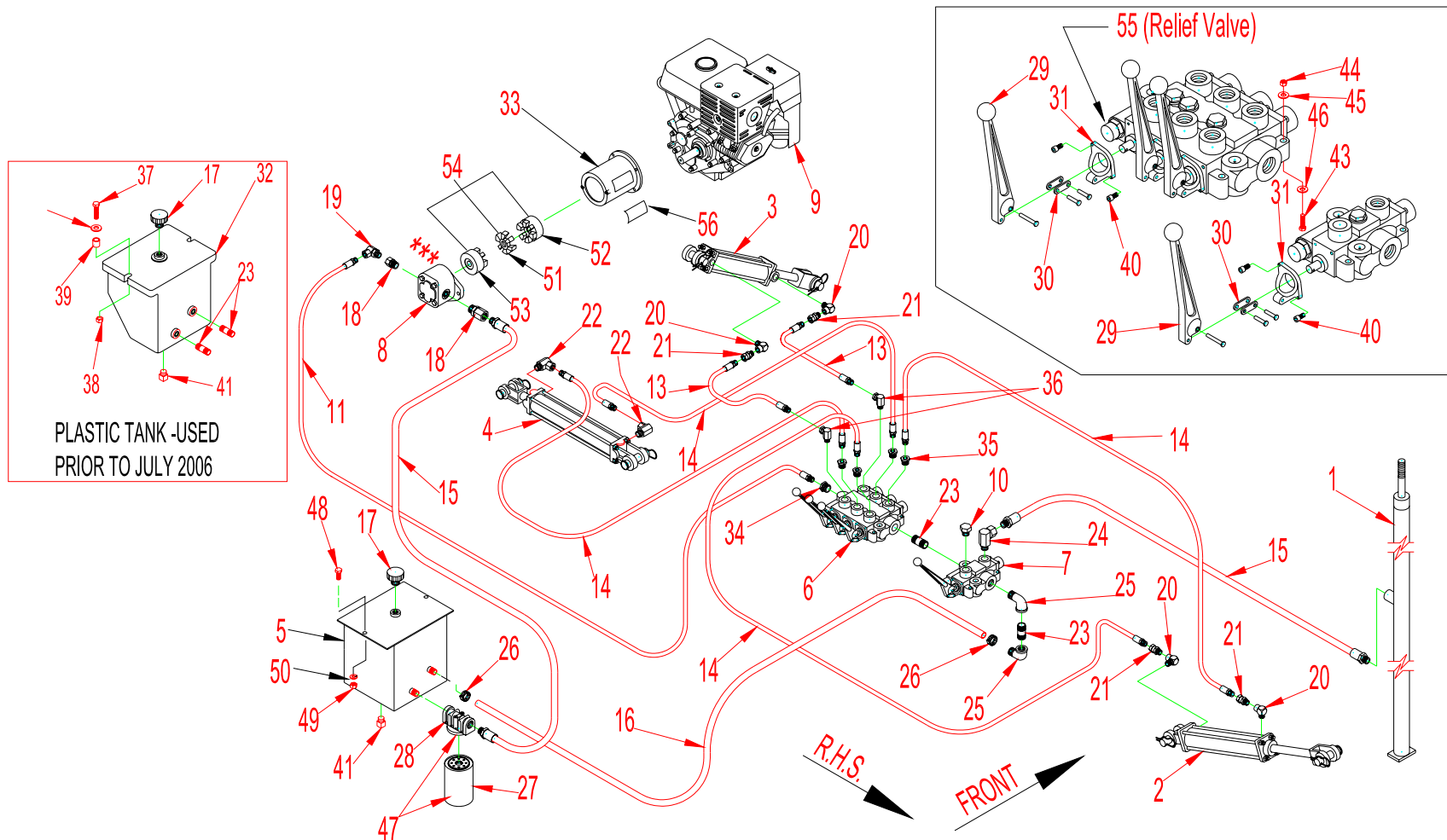
MODEL 2400 POST DRIVER **HYDRAULIC SYSTEM ENGINE DRIVE** **(w/6:1 REDUCTION DRIVE)** **(c/w OPTIONAL HITCH EXTENSION KIT)**



MODEL 2400 POST DRIVER
HYDRAULIC SYSTEM (ENGINE DRIVE w/6:1 REDUCTION DRIVE)
c/w OPTIONAL HITCH EXTENSION KIT

REF. NO.	PART NO.	DESCRIPTION	QTY. REQ'D
1	281	Hammer Cylinder - 1-5/8" Dia. x 64-15/16" Stroke c/w Nuts And Mount Pad	1
2	282	2" x 12" Cylinder c/w Pins (For Hammer Tilt)	1
3	283	2" x 8" Cylinder c/w Pins (For Frame Tilt)	1
4	302	2" x 16" Cylinder c/w Pins (For Horizontal Slide And Hitch Extension)	2
5	P80513	Hydraulic Oil Reservoir - Plastic	1
6	P80681	3 Spool Hyd. Control Valve	1
7	P80682	Single Spool Hyd. Control Valve	1
**	P80528	Seal Kit - Cross Single Spool Valve	1
**	P80530	Seal Kit - Cross 3 Spool Valve	1
8	P80583	7/8" O.D. x 7/8" Long Spacer	1
9	P80598	Pump (Engine Drive) With N.P.T. Ports (Danfoss) - 1.99 cu. in. - (used with Honda Engine - 6:1 drive)	1
	P80597	Pump (Engine Drive) With O.R.B. Ports (Cassappa) - 1.99 cu. in. - (used with Honda Engine - 6:1 drive)	1
***	P80518	Seal Kit - Danfoss Pump	1
***	P80516	Seal Kit - Cassappa Pump	1
***	P80517	Shaft Seal Only - Cassappa Pump	1
10	P80600	Honda Engine (9 H.P.) - w/6:1 Reduction Drive	1
11	P80585	1/2" N.P.T. Plug	1
12	P4301	1/2" x 64" Hyd. Hose c/w 1/2" Ends	1
13	P3028	1/4" x 40" Hyd. Hose c/w 3/8" Ends	1
14	P3029	1/4" x 50-1/2" Hyd. Hose c/w 3/8" Ends	1
15	P3030	1/4" x 33" Hyd. Hose c/w 3/8" Ends	2
16	P4300	1/4" x 118" Hyd. Hose c/w 3/8" Ends	2
17	P3033	3/4" x 42" Hyd. Hose c/w 3/4" Ends	1
18	P3048	1" I.D. x 58" Return Hose	1
19	P80510	Breather Cap	1
20	P80707	1" N.P.T. Male x 3/4" N.P.T. Female Swivel Adapter (For Danfoss Pump)	1
	P80708	1-1/16" O.R.B. Male x 3/4" N.P.T. Female Swivel Adapter (For Cassappa Pump)	1
21	DL9775	1/2" N.P.T. Male x 1/2" N.P.T. Female x 90 Deg. Swivel Street Elbow (For Danfoss Pump)	1
	P80706	7/8" O.R.B. Male x 1/2" N.P.T. x 90 Deg. Swivel Street Elbow (For Cassappa Pump)	1
22	DL5283	3/8" N.P.T. x 90 Deg. Street Elbow (Steel)	4
23	P80704	3/8" N.P.T. x Male-Female Restricted Orifice Swivel (0.31)	4
24	DL9769	3/8" N.P.T. x 90 Deg. Swivel Street Elbow	4
25	P80693	3/4" N.P.T. x 2" Nipple	3
26	P80694	1/2" N.P.T. Male x 3/4" N.P.T. Female x 90 Deg. Female Swivel Street Elbow	1
27	P80695	3/4" N.P.T. x 90 Deg. Street Elbow	2
28	A70278	1-1/2" Hose Clamp	2
29	P80700	Oil Filter	1
30	P80699	Filter Mount	1
31	P80680	Handle	5
32	P80679	Link Kit	5
33	P80685	Handle Bracket	5
34	P80591	1" Flex Coupling - 4 Spoke Type - used prior to S/N 5000	1
	P80590	3/4" Flex Coupling - 4 Spoke Type - used prior to S/N 5000	1
35	P80589	Coupling Insert - 4 Spoke Type - used prior to S/N 5000	1
36	P80698	3/4" N.P.T. Male x 1/2" N.P.T. Female Reducing Bushing - Steel	1
37	P80702	1/2" N.P.T. Male x 3/8" N.P.T. Female Reducing Bushing - Steel	4
38	P80675	1/2" N.P.T. Male x 3/8" N.P.T. Female x 90 Degree Swivel Street Elbow	4
39	B050020	1/2" x 2" N.C. Hex. Bolt	2
40	BN050	1/2" N.C. Hex. Nylon Locknut	2
41	P80676	1/4" N.C. x 1/2" Socket Head Capscrew	10
42	P80584	3/8" N.P.T. Plug (Square Head)	1
43	---	9/16" I.D. Flatwasher	2
44	B037020	3/8" x 2" N.C. Hex Bolt	8
45	BN037	3/8" N.C. Hex Nut	8
46	BW037L	3/8" Lockwasher	8
47	---	7/16" I.D. x 1" O.D. Flatwasher (Plated)	8
48	P80531	Single Spool Hyd. Control Valve (double acting for hitch)	1
49	P80701	Filter and Filter Mount Assembly	1
50	P80709	Relief Valve - 1500 PSI - Cross	1
51	P80608	Coupling Insert - 6 Spoke Type (used on S/N 50000 and later)	1
52	P80609	1" Flex Coupling - 6 Spoke Type (used on S/N 50000 and later)	1
53	P80610	3/4" Flex Coupling - 6 Spoke Type (used on S/N 50000 and later)	1
54	P80587	Flex Coupler Complete	1

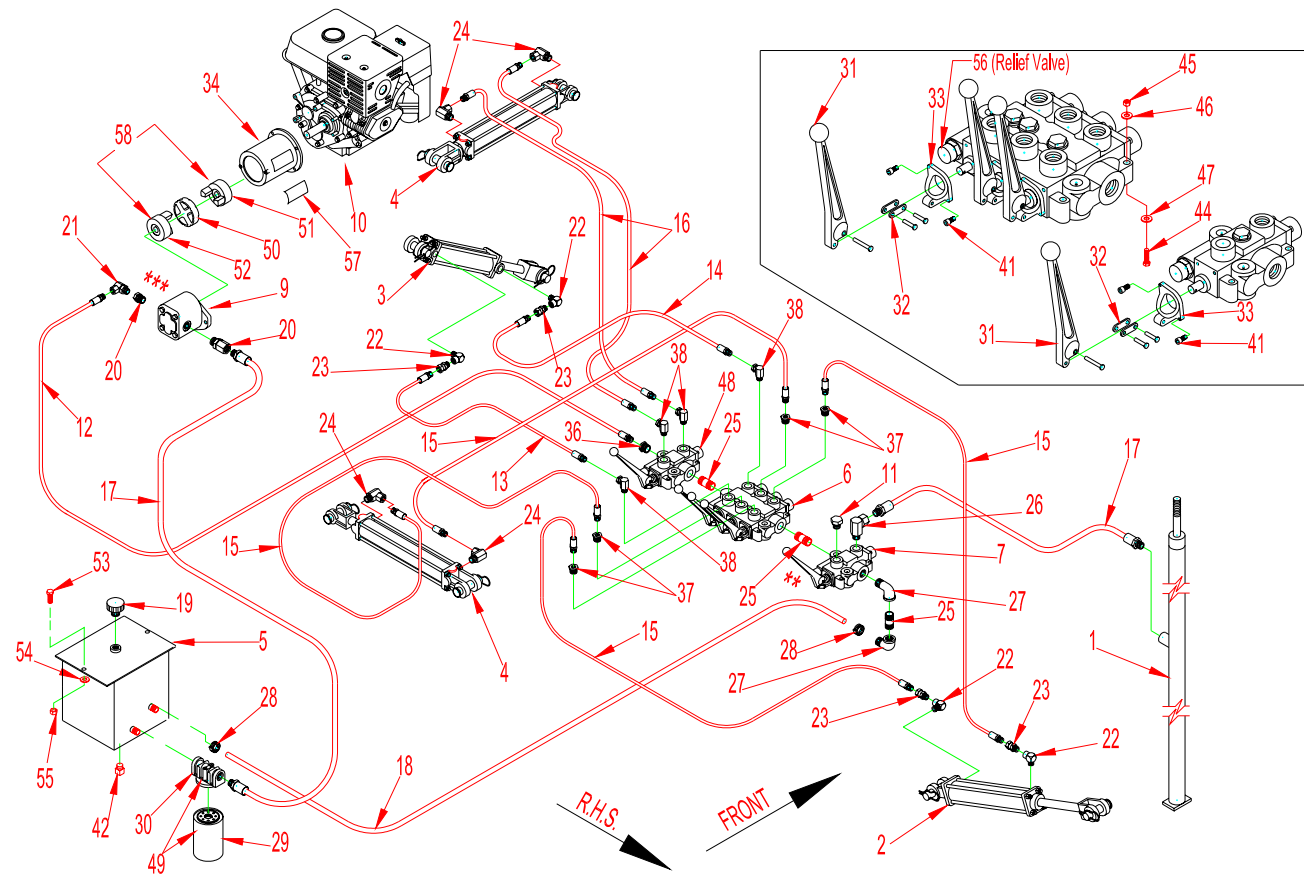
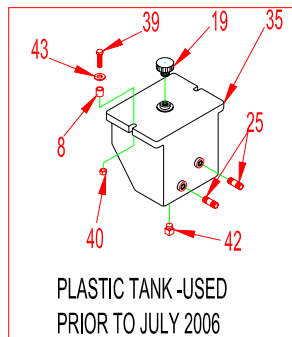
MODEL 2400 POST DRIVER HYDRAULIC SYSTEM ENGINE DRIVE (w/DIRECT DRIVE PUMP)



MODEL 2400 POST DRIVER
HYDRAULIC SYSTEM (ENGINE DRIVE w/DIRECT DRIVE PUMP)
(after JULY 1/06)

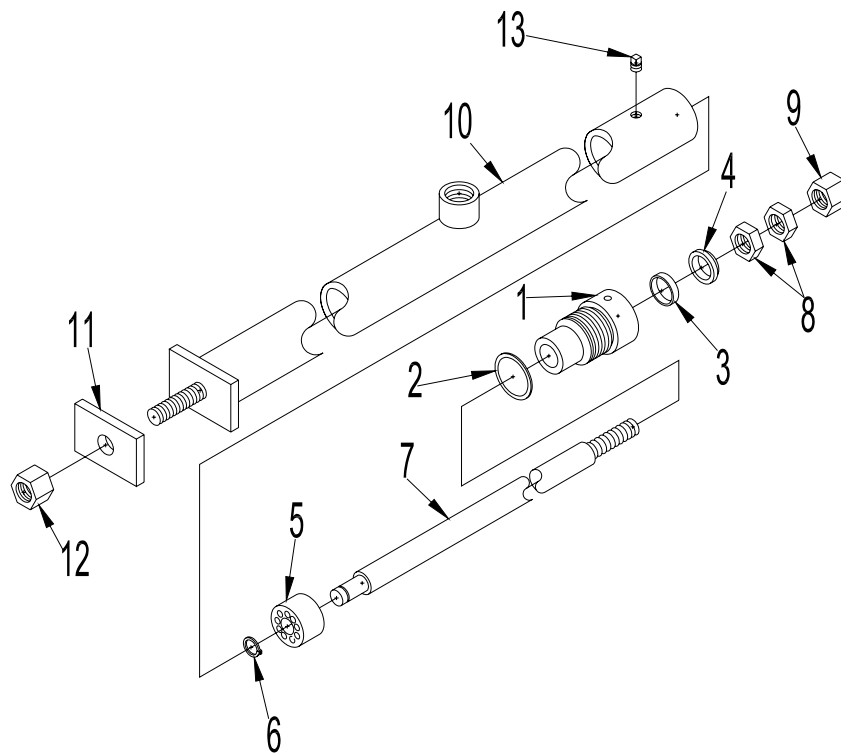
REF. NO.	PART NO.	DESCRIPTION	QTY. REQ'D
1	281	Hammer Cylinder - 1-5/8" Dia. x 64-15/16" Stroke c/w Nuts And Mount Pad	1
2	282	2" x 12" Cylinder c/w Pins (For Hammer Tilt)	2
3	283	2" x 8" Cylinder c/w Pins (For Frame Tilt)	1
4	302	2" x 16" Cylinder c/w Pins (For Horizontal Slide)	1
5	P80511	Hydraulic Oil Reservoir - Steel	1
6	P80681	3 Spool Hyd. Control Valve	1
7	P80682	Single Spool Hyd. Control Valve - (single acting for hammer)	1
**	P80528	Seal Kit - Cross Single Spool Valve	1
**	P80530	Seal Kit - Cross 3 Spool Valve	1
8	P80599	.29 cu. in. Pump - Engine Drive (Cassappa)	1
***	P80517	Seal Kit - Cassappa Pump	1
***	P80516	Shaft Seal Only - Cassappa Pump	1
9	P80611	Honda Engine (9 H.P.) - (no Reduction Drive)	1
	P80612	Hy-Spec Engine (9 H.P.) - (no Reduction Drive)	1
10	P80585	1/2" N.P.T. Plug	1
11	P4301	1/2" x 64" Hyd. Hose c/w 1/2" Ends	1
12	P3028	1/4" x 40" Hyd. Hose c/w 3/8" Ends	1
13	P3029	1/4" x 50-1/2" Hyd. Hose c/w 3/8" Ends	1
14	P3030	1/4" x 33" Hyd. Hose c/w 3/8" Ends	1
15	P3033	3/4" x 46" Hyd. Hose c/w 3/4" and 1/2" Ends	4
16	P3048	1" I.D. x 58" Return Hose	1
17	P80510	Breather Cap	1
18	A70706	7/8" - 14 O.R.B. Male x 1/2" N.P.T. Female Swivel Adapter	2
19	DL9775	1/2" N.P.T. x 90 Degree Swivel Street Elbow	1
20	DL5283	3/8" N.P.T. x 90 Degree Street Elbow (Steel)	1
21	P80704	3/8" N.P.T. Male-Female Restricted Orifice Swivel (0.31)	4
22	DL9769	3/8" N.P.T. x 90 Degree Swivel Street Elbow	2
23	P80693	3/4" N.P.T. x 2" Nipple	2
24	P80694	1/2" N.P.T. Male x 3/4" N.P.T. Female 90 Degree Swivel Street Elbow	1
25	P80695	3/4" N.P.T. x 90 Degree Street Elbow	2
26	A70278	1-1/2" Hose Clamp	2
27	P80700	Oil Filter	1
28	P80699	Filter Mount	1
29	P80680	Handle	4
30	P80679	Link Kit	4
31	P80685	Handle Bracket - Cross	4
32	P80513	Hydraulic Oil Reservoir - Plastic	1
33	P80603	Pump Mount Housing	1
34	P80698	3/4" N.P.T. Male x 1/2" N.P.T. Female Reducing Bushing (Steel)	1
35	P80702	1/2" N.P.T. Male x 3/8" N.P.T. Female Reducing Bushing (Steel)	1
36	P80675	1/2" N.P.T. Male x 3/8" N.P.T. Female x 90 Deg. Swivel Street Elbow	2
37	B050020	1/2" x 2" N.C. Hex Bolt	2
38	BN050L	1/2" N.C. Hex. Nylon Locknut	2
39	P80583	7/8" O.D. x 7/8" Long Space	2
40	P80676	1/4" N.C. x 1/2" Socket Head Capscrew	8
41	P80584	3/8" N.P.T. Plug (Square Head)	1
42	---	9/16" I.D. Flatwasher	2
43	B037020	3/8" x 2" N.C. Hex Bolt	6
44	BN037	3/8" N.C. Hex Nut	6
45	BW037L	3/8" Lockwasher	6
46	---	7/16" I.D. x 1" O.D. Flatwasher	6
47	P80701	Filter and Filter Mount Assembly	1
48	B050012	1/2" x 1-1/4" N.C. Hex Bolt	2
49	BN050	1/2" N.C. Hex Bolt	2
50	BW050L	1/2" Lockwasher	2
51	P80608	Coupling Insert - 6 Spoke Type	1
52	P80609	1" Flex Coupling - 6 Spoke Type	1
53	P80610	3/4" Flex Coupling - 6 Spoke Type	1
54	P80587	Flex Coupler Complete	1
55	P80709	Relief Valve - 1500 PSI - Cross	1
56	P80604	Access Cover - Pump Mount Housing	2

MODEL 2400 POST DRIVER **HYDRAULIC SYSTEM ENGINE DRIVE** **(w/DIRECT DRIVE PUMP)** **(c/w OPTIONAL HITCH EXTENSION KIT)**



MODEL 2400 POST DRIVER
HYDRAULIC SYSTEM (ENGINE DRIVE w/DIRECT DRIVE PUMP) c/w OPTIONAL HITCH EXTENSION KIT
(after JULY 1/06)

REF. NO.	PART NO.	DESCRIPTION	QTY. REQ'D
1	281	Hammer Cylinder - 1-5/8" Dia. x 64-15/16" Stroke c/w Nuts And Mount Pad	1
2	282	2" x 12" Cylinder c/w Pins (For Hammer Tilt)	2
3	283	2" x 8" Cylinder c/w Pins (For Frame Tilt)	1
4	302	2" x 16" Cylinder c/w Pins (For Horizontal Slide)	1
5	P80511	Hydraulic Oil Reservoir - Steel	1
6	P80681	3 Spool Hyd. Control Valve	1
7	P80682	Single Spool Hyd. Control Valve	1
**	P80528	Seal Kit - Cross Single Spool Valve	1
**	P80530	Seal Kit - Cross 3 Spool Valve	1
8	P80583	7/8" O.D. x 7/8" Long Spacer	1
9	P80599	.29 Engine Drive Pump - Cassappa	1
***	P805617	Seal Kit - Cassappa Pump	1
***	P80516	Shaft Seal Only - Cassappa Pump	1
10	P80611	Honda Engine (9 H.P.) - (no reduction drive)	1
	P80612	Hy-Spec Engine (9 H.P.) - (no reduction drive)	1
11	P80585	1/2" N.P.T. Plug	1
12	P4301	1/2" x 64" Hyd. Hose c/w 1/2" Ends	1
13	P3028	1/4" x 40" Hyd. Hose c/w 3/8" Ends	1
14	P3029	1/4" x 50-1/2" Hyd. Hose c/w 3/8" Ends	1
15	P3030	1/4" x 33" Hyd. Hose c/w 3/8" Ends	2
16	P4300P	1/4" x 118" Hyd. Hose c/w 3/8" Ends	2
17	P3033	3/4" x 46" Hyd. Hose c/w 3/4" and 1/2" Ends	1
18	P3048	1" I.D. x 58" Return Hose	1
19	P3048	Breather Cap	1
20	L4043	7/8" O.R.B. Male x 1/2" N.P.T. Female Swivel Adapter	2
21	DL9775	1/2" N.P.T. x 90 Degree Swivel Street Elbow	1
22	DL5283	3/8" N.P.T. x 90 Degree Street Elbow (Steel)	4
23	P80704	3/8" N.P.T. Male-Female Restricted Orifice Swivel (0.31)	4
24	DL9769	3/8" N.P.T. x 90 Degree Swivel Street Elbow	4
25	P80693	3/4" N.P.T. x 2" Nipple	3
26	P80694	1/2" N.P.T. Male x 3/4" N.P.T. Female 90 Degree Swivel Street Elbow	1
27	P80695	3/4" N.P.T. x 90 Degree Street Elbow	2
28	A70278	1-1/2" Hose Clamp	2
29	P80700	Oil Filter	1
30	P80699	Filter Mount	1
31	P80680	Handle	5
32	P80679	Link Kit	5
33	P80685	Handle Bracket	5
34	P80603	Pump Mount Housing	1
35	P80513	Hydraulic Oil Reservoir - Plastic	1
36	P80698	3/4" N.P.T. Male x 1/2" N.P.T. Female Reducing Bushing (Steel)	1
37	P80702	1/2" N.P.T. Male x 3/8" N.P.T. Female Reducing Bushing (Steel)	4
38	P80675	1/2" N.P.T. Male x 3/8" N.P.T. Female x 90 Deg. Swivel Street Elbow	4
39	BO50020	1/2" x 2" N.C. Hex Bolt	2
40	BN050L	1/2" N.C. Hex. Nylon Locknut	2
41	P80676	1/4" N.C. x 1/2" Socket Head Capscrew	10
42	P80584	3/8" N.P.T. Plug (Square Head)	1
43	---	9/16" I.D. Flatwasher	2
44	BO37020	3/8" x 2" N.C. Hex Bolt	8
45	BN037	3/8" N.C. Hex Nut	8
46	BW037L	3/8" Lockwasher	8
47	---	7/16" I.D. x 1" O.D. Flatwasher	8
48	P80531	Single Spool Hyd. Control Valve - (double acting for hitch)	1
49	P80701	Filter and Filter Mount Assembly	1
50	P80608	Coupling Insert - 6 Spoke Type	1
51	P80609	1" Flex Coupling - 6 Spoke Type	1
52	P80610	3/4" Flex Coupling - 6 Spoke Type	1
53	BO50012	1/2" x 1-1/4" N.C. Hex Bolt	2
54	BN050L	1/2" Lockwasher	2
55	BN050	1/2" N.C. Hex Nut	2
56	P80709	Relief Valve - 1500 PSI - Cross	1
57	P80604	Access Cover - Pump Mount Housing	2
58	P80587	Flex Coupler Complete	1

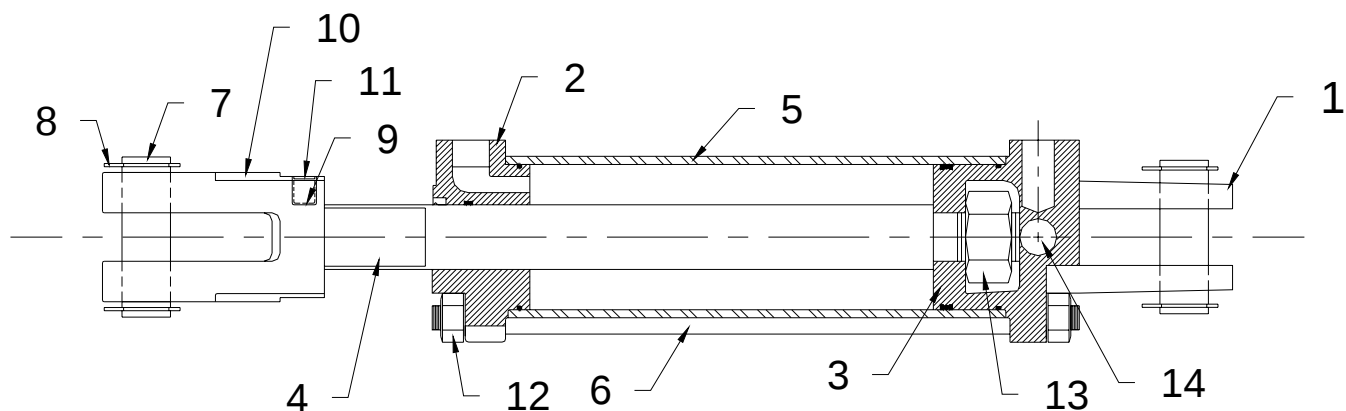


MODEL 2400 POST DRIVER HAMMER CYLINDER

REF. NO.	PART NO.	DESCRIPTION	QTY. REQ'D
1	16HP1	1-5/8" O.D. x 7/8" I.D. Headplate (N5)	1
2	10OR5	1-3/4" O.D. x 1-1/2" I.D. x 1/8" O-Ring	1
3	10RS8	7/8" I.D. Rod Seal	1
4	10WS8	7/8" I.D. Wiper Seal	1
5	16PB1	1-5/8" Diameter Rod Guide	1
6	10RR1	5/8" Dia. Shaft Retaining Ring	1
7	10SH56	7/8" Diameter x 73-1/8" Long Cylinder Shaft	1
8	10NU7	3/4" - 16 U.N.F. Hex. Jam Nut (Grade 2)	2
9	10NU8	3/4" - 16 U.N.F. 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 U.N.F. Hex. Nylon Locknut (Grade 5)	1
13	P80705	1/8" N.P.T. Square Head Plug	1

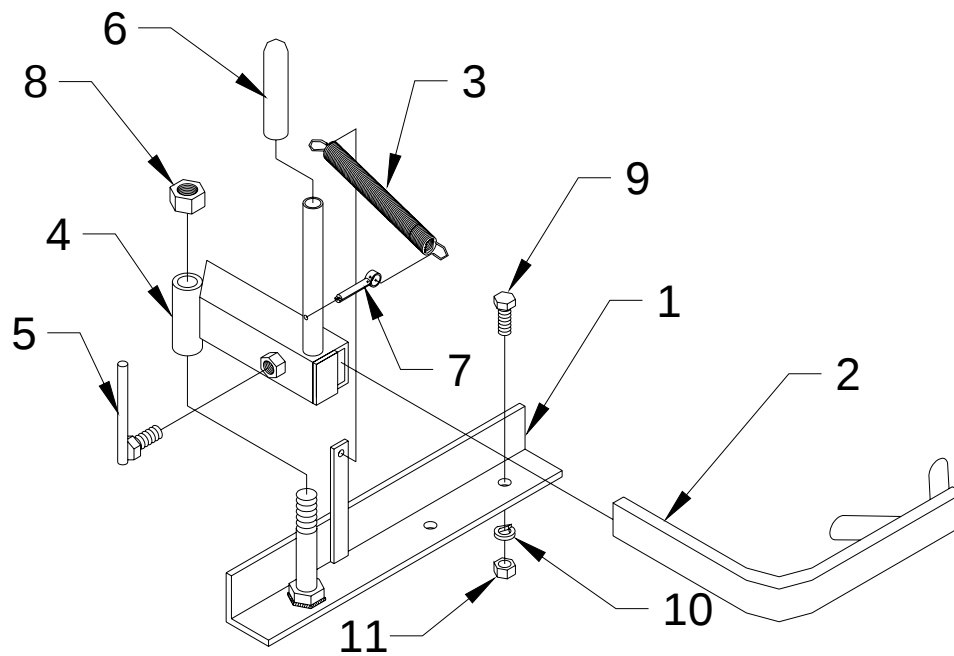
SEAL KIT - NO. 1608N5

KIT NO.	DESCRIPTION	QTY. REQ'D
10OR5	1-3/4" O.D. x 1-1/2" I.D. x 1/8" O-Ring	1
10RS8	7/8" I.D. Rod Seal	1
10WS8	7/8" I.D. Wiper Seal	1



**MODEL 2400 POST DRIVER
HYDRAULIC CYLINDERS - MONARCH (HITCH, SLIDE, and TILT)**

REF. NO.	MONARCH PART NO.	DESCRIPTION	MONARCH 2" x 8" QTY. REQ'D	MONARCH 2" x 12" QTY. REQ'D	MONARCH 2" x 16" QTY. REQ'D
1	492805	Clevis Cap (For 1" Pin)	1	1	1
2	492806	Rod Cap	1	1	1
3	492548	2" Dia. Piston	1	1	1
4	492851	Rod (8" Stroke)	1	--	--
	492853	Rod (12" Stroke)	--	1	--
	492355	Rod (16" Stroke)	--	--	1
5	491608	Tube (8" Stroke)	1	--	--
	491612	Tube (12" Stroke)	--	1	1
	491616	Tube (16" Stroke)	--	--	--
6	492216	Tie Rod (8" Stroke)	4	--	1
	492222	Tie Rod (12" Stroke)	--	4	--
	492226	Tie Rod (16" Stroke)	--	--	4
7 & 8	640091	Pin (2) (For 1" Dia.)	2	2	2
9	498006	Thread. Lock	1	1	1
10	492650	Rod Clevis (For 1" Pin)	1	1	1
11	148390	Set Screw	1	1	1
12	128230	Nut - Tie Rod	8	8	8
13	129090	Nut - Piston	1	1	1
14	196530	Plug	1	1	1
**	639572	Seal Kit (Rod Dia. 1-1/8")	1	1	1



POST GUIDE (OPTIONAL)

REF. NO.	PART NO.	DESCRIPTION	QTY REQ'D
1	P80732	Mounting Bracket	1
2	P80733	Post Holding Arm	1
3	A70157	Extension Spring	1
4	A80734	Arm Actuator	1
5	A80735	Lock Bolt	1
6	P80602	Rubber Grip	1
7	BP25200	1/4" x 2" Cotter Pin	1
8	BN100L	1" N.C. Hex Nylon Lock Nut	1
9	B062015	5/8" x 1-1/2" N.C. Hex Bolt	2
10	BW062L	5/8" Lockwashers	2
11	BN062	5/8" Hex Nut	2