

WARNING

- Do NOT operate this machine before reading the INSTRUCTION MANUAL which should remain located in PVC tube under valve block.
- Do Not operate this machine unless you are competent and have received training.
- This machine is designed for digging post holes and driving fence posts ONLY. (Please contact Lyco Parts and Service if in doubt regarding your application)
- NO part of the human body should be placed inside the safety guard, near the auger or under the 'hammer' during operation.
- Do NOT wear loose fitting clothes or untied long hair while operating the machine.
- Do NOT operate machine unless all safety systems and guards are operational.
- KEEP CLEAR of Overhead Power lines and Underground services
- DO NOT Operate Machine without HEARING and EYE protection
- If ANY part of the machine is not fully operational please contact Lyco Parts and Service for advice BEFORE operating the machine.

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**FAILURE TO COMPLY WITH THESE INSTRUCTIONS
MAY RESULT IN DEATH OR SERIOUS INJURY.**

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PowerHouse

Advantage

Post driver

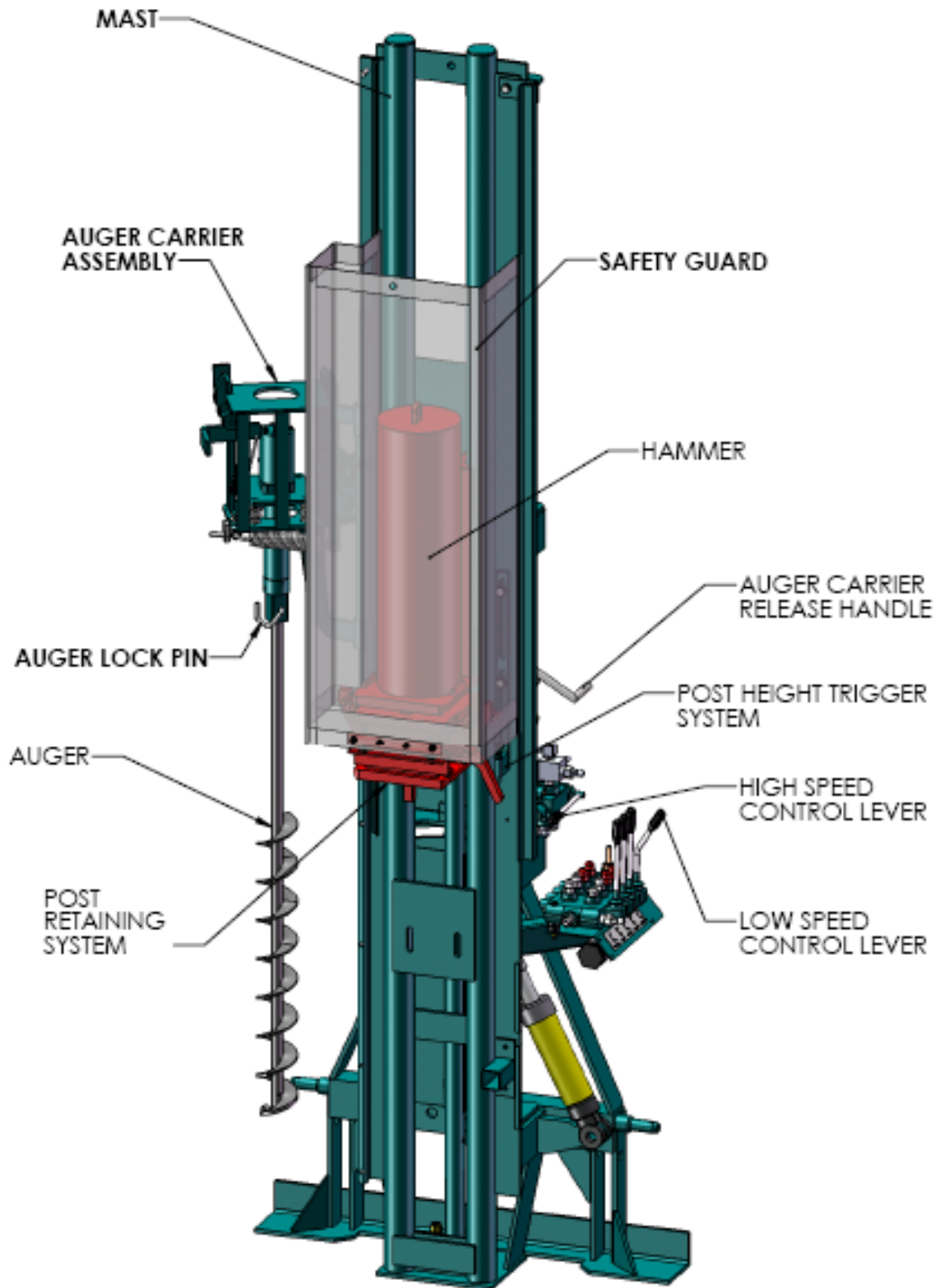


FIGURE 1 - ASSEMBLY DIAGRAM

SAFETY RULES

- **Do not operate post driver without guards fitted and in the operating position.**
- **Do not guide post being driven with hands - use PRS built into the post driver. Please note: chain is not to be hooked around post when driving posts.**
- **Do not operate post driver with damaged hydraulic hoses.**
- **Check all pivot pins, lynch pins and cylinder clevises regularly for wear, damage and integrity.**
- **Do not leave the hammer in the raised position when travelling or at any other time, except while in the process of driving posts.**
- **Keep feet clear of post driver base when operating machine on tractor three point linkage arms.**
- **Do not operate post driver without attaching and adjusting three point linkage stabiliser chains on tractor, to limit sideways movement.**
- **Do not travel if auger is not securely locked in stowing position.**
- **Ensure all bystanders are kept at least 10 metres away from an operating post driver.**
- **Hearing and Eye Protection MUST be worn when operating**
- **When Not operating Tractor must be turned off to immobilise post driver**

WARRANTY

Product Warranty.

Lyco Innovations warrant to the owner of each new product sold that for the specified period commencing from the date of purchase, that at its discretion, Lyco will repair or replace, free of charge, any product or component found to be defective in materials and/or workmanship. The standard product warranty period is for 12 months or 1040 hours of operation, whichever occurs first. Warranty periods different to this are specified on Lyco Innovations sales brochures.

This warranty shall exclude defects occurring through incorrect or inappropriate: storage, transport, non Lyco design, application, use, or, accident, or, wilful damage, or as a result of unauthorised or incompetent servicing by other than Lycos' staff or authorised persons.

Notwithstanding any statutory obligations under certain legislation, including the Trade Practices Act prevailing in the state or territory the product was sold, Lyco accepts no liability for any consequential loss or damage due to product failure or late delivery, and limits any liability that it might nevertheless have to a maximum amount being the invoiced price of the product.

To ensure ongoing warranty cover subsequent owners must notify Lyco in writing stating: the product, the serial number and the date of purchase.



Richard J. Lyons.
Managing Director.

PROCEDURE FOR WARRANTY CLAIMS ON LYCO PRODUCTS.

1. All claims for warranty must be authorised by Lyco Innovations prior to any warranty repairs commencing. Customers wanting to claim warranty must provide the following details in writing: date and proof of purchase (or have returned the "Guarantee Registration Card") the serial and/or identification number(s) of the product, and, the reason for such claim.
2. A unique warranty number will be issued to the customer or an agent of Lycos choice. This warranty number must be clearly labelled on all product returned for warranty assessment. Product received not clearly labelled with the warranty number will be returned direct to the sender.
3. If Lyco accepts the warranty claim, an "Application for Warranty" form will be raised, authorising warranty repairs. The repair time frame will be confirmed at this point. For sub contract repairs, the Application for Warranty form needs to be completed and accompany any invoice for the warranty claim.
4. Lyco will pay the cost of parts and/or reasonable costs of labour actually incurred in repairing the faulty component(s) by the customer or an agent. Usually Lyco will supply any replacement parts from its own stock. Warranty repairs will be completed to Lyco Innovations satisfaction.
5. Non warranty work will be repaired and charged out at commercial rates.
6. Freight and postage incurred to complete warranty claims is the responsibility of the customer. Freight should be with Lyco Innovations nominated carrier, as Lyco will only reimburse freight costs incurred with Lycos nominated carrier.
7. Travelling for warranty work is the responsibility of the customer. In its absolute discretion Lyco may pay travelling costs associated with the warranty claim. No labour will be paid for the time that travelling is claimed.
8. Warranty claims for products damaged in freight will not be accepted. The risk for damage, loss or delays in freight is the sole responsibility of the buyer. This is detailed in section 5.1 of the "Terms and Conditions of Sale" document (Credit Application). The only exception to this is where insurance has been taken out and paid for by the buyer, or, other written arrangements have been agreed with Lyco Innovations at time of order.

Note: Insurance is available from Lyco at 0.5% of invoice value, which covers replacement of damaged items.
9. Replaced parts and components are the property of Lyco Parts & Service Division. Replaced parts are to be returned to Lyco as directed on the "Application for Warranty" form.

PARTS AND ASSEMBLY

PARTS

Included with the post driver are the following parts:

- 2.1 m x 25mm I.D. Plastic oil return hose with hose clamps
- Augers (where applicable)
- Auger clip (where applicable)
- Operation & Maintenance Manual.
- Ear Muffs
- Riggers Gloves
- 2 x Post Spikes (located in manual holder)

UNPACKING

Upon receipt of your Lyco “PowerHouse Advantage” Post Driver remove all wire ties and packaging material. Check for any damage that may have occurred during transit from the factory. Please notify both the carrier and supplier within 3 days if any parts are missing or damaged.

ATTACHMENT TO YOUR TRACTOR

The Post Driver should only be operated on Category 2 three-point linkage tractors fitted with live hydraulics.

Recommended Minimum tractor specifications

Driver Type	Engine HP (Minimum)	Tractor Mass (Tonne)	Wheel Base (mm)
STD no 2	50	≥ 2	≥ 1900
With side shift	70	≥ 2.8	≥ 2200
With Hi-Lift	70	≥ 2.8	≥ 2200
With Side shift & Hi-Lift	100	≥ 3.2	≥ 2400

Note: Figures based on Flat ground use, if driving on uneven ground consult local tractor dealer for further information on required Tractor or Ballasting.

Appropriate slinging & lifting equipment must be used when attaching the Post Driver to the tractor three point linkage. The mass of the No: 2 Post Driver is approximately 660 kg. The Hi-Lift option adds 400 kg mass. The Side Shift option adds 165 kg mass.

The post driver is supplied with a pressure line that is coupled to one outlet of the tractor’s remote control hydraulics. The customer is responsible for supplying the break-away coupling to suit the tractor the post driver is to be fitted to. The return oil line from the post driver is connected into the filler plug located at the rear of most tractors.

See MODIFICATION INSTRUCTIONS below. It is important there is no restriction to oil flow in this line, as maximum hammer driving performance is dependent on the free return of oil to the

tractor's transmission. Note: The Oil Return Line Must Not Be Connected To The Remote Outlet.

MODIFICATION TO FILLER PLUG – FOR ATTACHING THE RETURN OIL HOSE

1. Use the existing tractor rear transmission filler plug. Drill $\frac{3}{4}$ " diameter hole through plug.
2. Counter bore $1\frac{1}{16}$ " (27mm) diameter hole approx. $\frac{1}{4}$ " deep from outside surface.
3. Weld in $\frac{3}{4}$ " B.S.P. threaded pipe 50mm long. Do not use galvanised pipe.
4. Supply $\frac{3}{4}$ " B.S.P. end cap to seal hydraulic system when post driver is removed from the tractor. Refer to Figure 2 below.

Note: This modification may not suit all applications. Contact your local tractor dealer for details on the most suitable modifications.

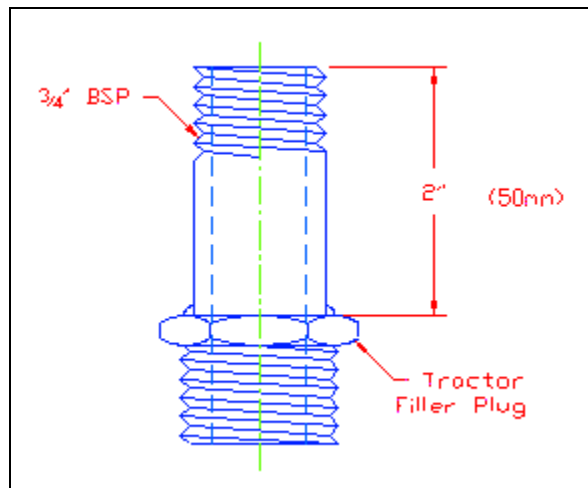


Figure 1 - Modification to Filler Plug

SETTING THE MAST VERTICALLY

When fitting the post driver to your tractor you may experience some difficulty in setting the mast vertically with the top link cylinder in mid-stroke position. With most tractors an 8" stroke top link cylinder in mid-stroke will position the mast vertically, however, if this is not the case the following options are available.

1. **If the mast lays back towards the tractor, i.e. top link too short.**

If the top link is too short an extension is required. To determine this extension, extend the cylinder until the mast is vertical and measure the eye-to-eye length of the cylinder. Subtract 24" (614mm) ($\frac{1}{2}$ stroke eye to eye length of an 8" cylinder) to give the extension required. NOTE: Contact the Parts and Service Division for further assistance or alternatively – fit a cylinder that has a 10" or 12" stroke.

2. If the mast lays away from the tractor, i.e. top link too long.

Exchange the 8" cylinder for a 6" cylinder. The $\frac{1}{2}$ stroke eye-to-eye length is 22.25" (538mm) which is 3" shorter than the 8" cylinder. This will of course then limit the tilt to 17.5° total. If the 6" cylinder is still too long or if you prefer to retain the 8" cylinder for its extra angular adjustment, the extension lugs can be removed from the A-Frame. These can be cut off, however there is a possibility of fouling problems with the base of the cylinder on the vertical members of the A-Frame.

NOTE: Linkage extensions are available for some applications. These are available in 100,150 and 200mm lengths. These position the "A" frame further away from the tractor and enable the standard 8" top link cylinder to be retained. Thus not limiting the Fore and Aft tilt to less than 12.5°. Contact the Parts and Service Division for further assistance.

OPERATION

COMPETANCE OF OPERATOR

The operator must be a competent person who has received specific training in the correct and safe use of the Post Driver. A checklist is attached at the rear of the Operation Manual to facilitate the employer/operator in this regard. (refer appendix A)

BY-STANDERS – CLEAR ZONE

The machine is designed for operation by one person only. Any bystanders must maintain a distance of at least 10 metres from the machine during operation.

HAMMER GUARD

The wrap around safety guard is integrated with the PRS (post retaining system) so the guard is covering the area of operation of the hammer at all times.

Safety Note: The hammer guard must be checked before the post driver is operated. If the guard is not on or in working condition – Do Not Operate the Post Driver.



VALVE CONTROLS

The Hydraulic control valve is an Oilpath mono-bloc valve with four spools for No.2 models and five spools for No.1 models. The valve spools control:

- Hammer Movement (Slow speed)
- Auger Rotation
- Side Tilt Movement
- Fore & Aft Tilt Movement
- Side Shift / Highlift (if option fitted)
- Hammer movement (High speed) (mounted separate)

The Figure below shows the valve set-up.

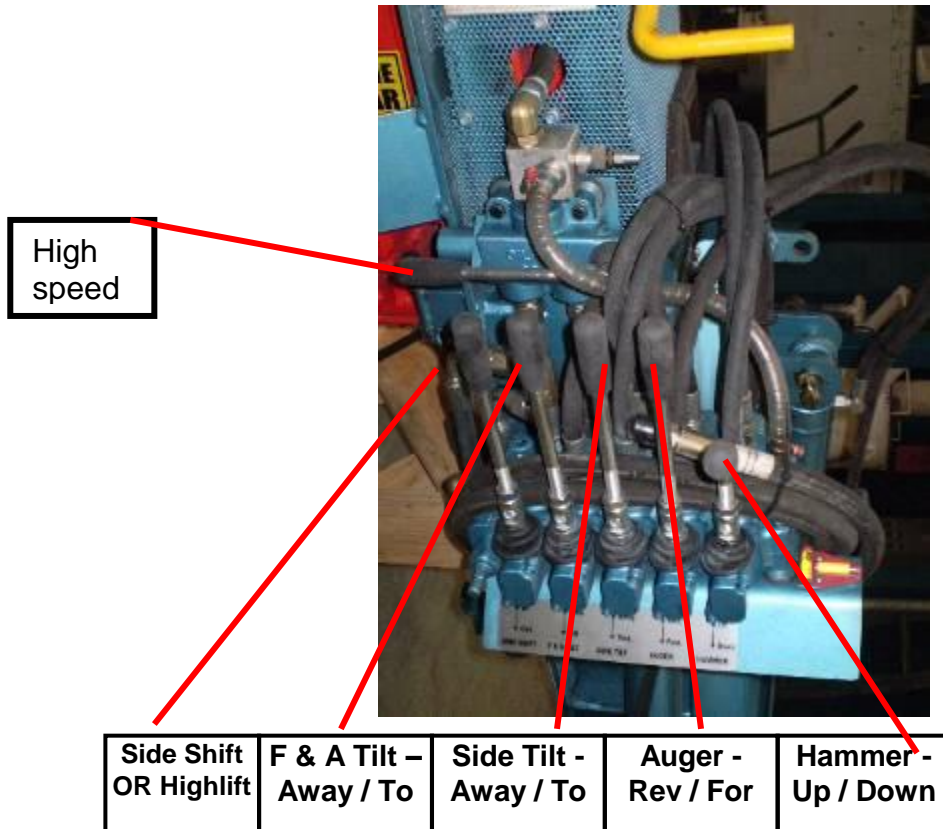


Figure 2 - Valve Controls

HAMMER AND HAMMER CONTROL

The 535lb (244kg) solid steel hammer is hydraulically raised and cushioned at the full extent of its stroke. The slide configuration of the hammer is a well proven method of providing maximum bearing surface and can be expected to give years of trouble-free service.

The control valve spool positions are arranged so as to enable best use to be made of the excellent flow characteristics of the valve. Thus, as the operator stands facing the control valve, the operating lever to the extreme right activates the hammer by movement away from the operator to lift and towards to lower. The operator has full control over the ascent and descent of the hammer. As a safety feature the hammer can be halted at any point by releasing the lever. The shock relief valve will protect the lift cylinder, hoses, fittings and the control valve from failing due to pressure spikes from normal operation.

The main hammer control will operate at a safe "Slow" speed for connecting the auger carrier and PRS. When driving the post you will need to operate this control in tandem with the "High" speed control lever.

Safety Note: Do not leave the hammer in the raised position, especially if the Post Driver is left unattended.

NOTE: It is recommended that the mast tubes be lubricated with graphite grease to reduce friction. In dusty conditions remove old grease and replenish with new grease regularly.

AUGER ATTACHMENT AND CONTROL

The auger assembly is mounted to the slide bar located on the mast stiffener. The slide tube assembly allows for both rotational and vertical movement of the auger assembly. The auger assembly is normally kept in the 'stowed' position. When the auger is required for use, the hammer should be raised to its highest position with the PRS attached. Pull the release handle, as shown in Figure 3 below, and the auger assembly will automatically rotate around onto the mast ready for attachment.

NOTE: The Mast must be in vertical position for this operation.



Figure 3 - Auger Carrier Release Handle

Lower the hammer smoothly until the attaching latches are engaged. The auger can now be inserted into the drive shaft socket. Insert the auger and fasten with the auger clip provided, see the Figure 4 below.



Figure 4 – Auger Attachment

The hammer can now be lowered until the auger tip contacts the ground. The auger is operated using the lever on the valve labelled 'AUGER'. Pulling the lever towards yourself operates the auger in the clockwise direction; conversely pushing the lever away operates the auger in the reverse direction.

Safety Note: Ensure that your feet are not under the descending auger and that you are behind the hammer guard while operating the auger.

For safety reasons, operator attendance is required while drilling the pilot hole. Rotary motion of the auger will cease when the control lever is released. While operating the lever, occasionally 'crack' the hammer control lever to allow the weight of the hammer to push the auger into the ground a little at a time. The applications of excessive weight by allowing the full weight of the hammer on to the auger can, in some conditions, cause the auger to stall. This may be due to the auger 'cork-screwing' into the earth in soft or wet conditions or stalling in very hard conditions. The auger will dig a hole directly under the hammer to any depth up to 3'3" (990mm).

To disengage the auger assembly, raise the hammer/PRS to its upper most position. The auger assembly will automatically disengage and return to its 'stowed' position ready for the next application. Lower the hammer to the rest position.

NOTE: The auger assembly connection and release operations have been designed to work effectively when the post driver mast is directly vertical. If the post driver is not operated in this position, the auger carrier may not engage and disengage effectively.

TILTS AND TILT CONTROLS

When the tilt options are fitted the mast can be adjusted between 8°-12.5° either side of vertical (depending on top link cylinder stroke length) in the fore and aft plane and 13° either side of vertical for side tilt. This enables vertical positioning of the mast in most terrain. For best results adjust tractor linkage stabilisers to reduce sideways movement of the "A" frame.

DRIVING POSTS

Posts may be driven directly into the ground or a pilot hole may be dug first depending on soil conditions. Pilot hole size depends on ground geology & moisture content, shape and size of posts. As a guide, an auger 1"- 2" (25mm-50mm) smaller than the post will give best results. A rock tip is available to fit 4" (100mm) and 6" (150mm) augers for digging in extremely hard conditions, including some types of rock. It should be noted however, that progress would be significantly slower when digging in rocky conditions with this tip.

When using **steel (railway-iron) and/or concrete fence posts** with your Power House Advantage post driver, a mild steel cap must be used on top of the iron post to prevent impact damage to the hammer bottom plate. A rubber pad is available from manufactures of concrete posts to reduce the shock at impact. If these are not used warranty will be void for weld cracking and/or impact damage to the hammer.

Note: It is suggested that when driving pine posts the Cap screws located at the base of the PRS be removed and the post spikes found in the manual holder be inserted. Cap screws may damage top of posts if used on pine.

Post Retaining System (PRS) (Patent Applied for)

The PRS holds the post in position whilst it is pounded into the ground.

This means that the operator, having lowered the PRS at safe speed onto the top of the post, no longer needs to hold the post whilst operating the controls or needs an assistant for this task.

Set post height trigger system adjusting the slide as required. (*When the PRS strikes the trigger pin at the height you set the PRS will automatically re-connect the PRS to the hammer*) The hammer/PRS will need to be in a raised position to make this adjustment.

Position post over hole and with the hammer control lever (B) only, lower the PRS onto the top of the post. (*During this operation the hammer will travel at slow speed*) Two spikes will embed themselves in the top of the post and the PRS will disengage from the hammer.

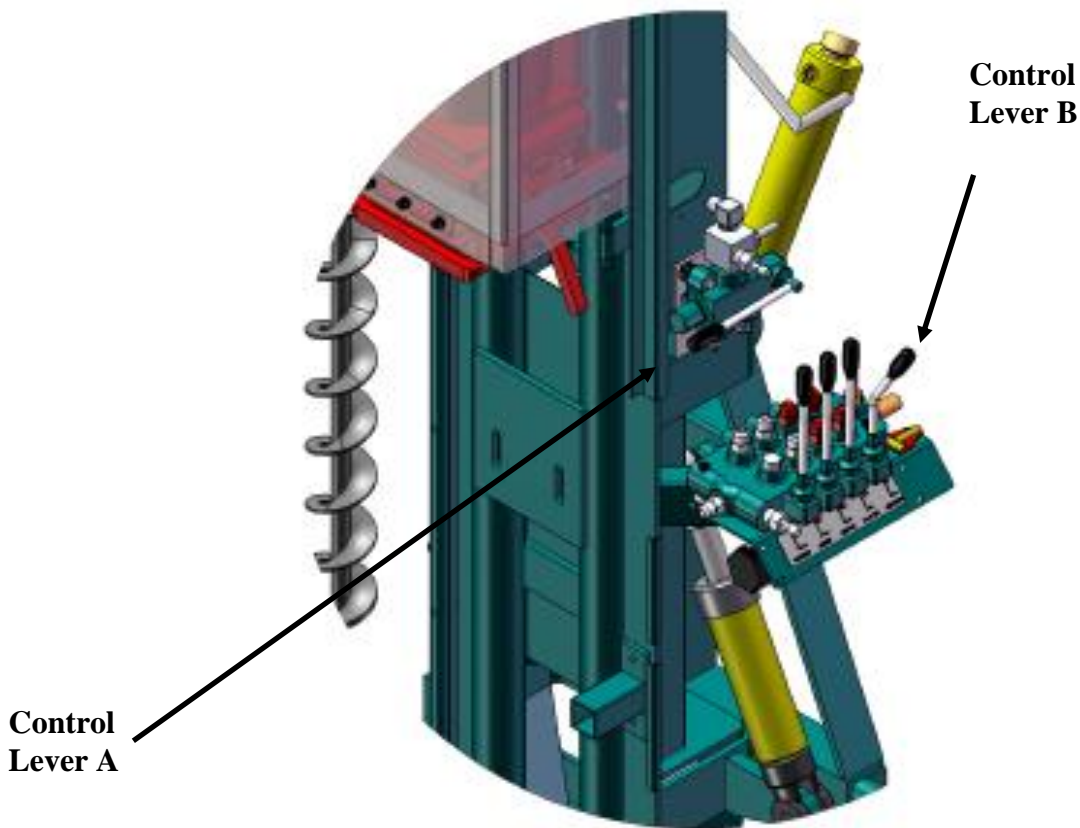


Figure 5 – Hammer controls

Put on ear protection provided with your post driver.

To drive in the post, hold the high speed control lever (A) with your left hand and operate the hammer control lever (B) with your right hand. The hammer will now travel at full speed to drive in the post.

Watch for the post height arriving at your set height so that the PRS automatic re-connect action can occur smoothly.

Use lever on side of PRS to manually re-connect PRS to hammer where your desired post height is different from that set with post height trigger.

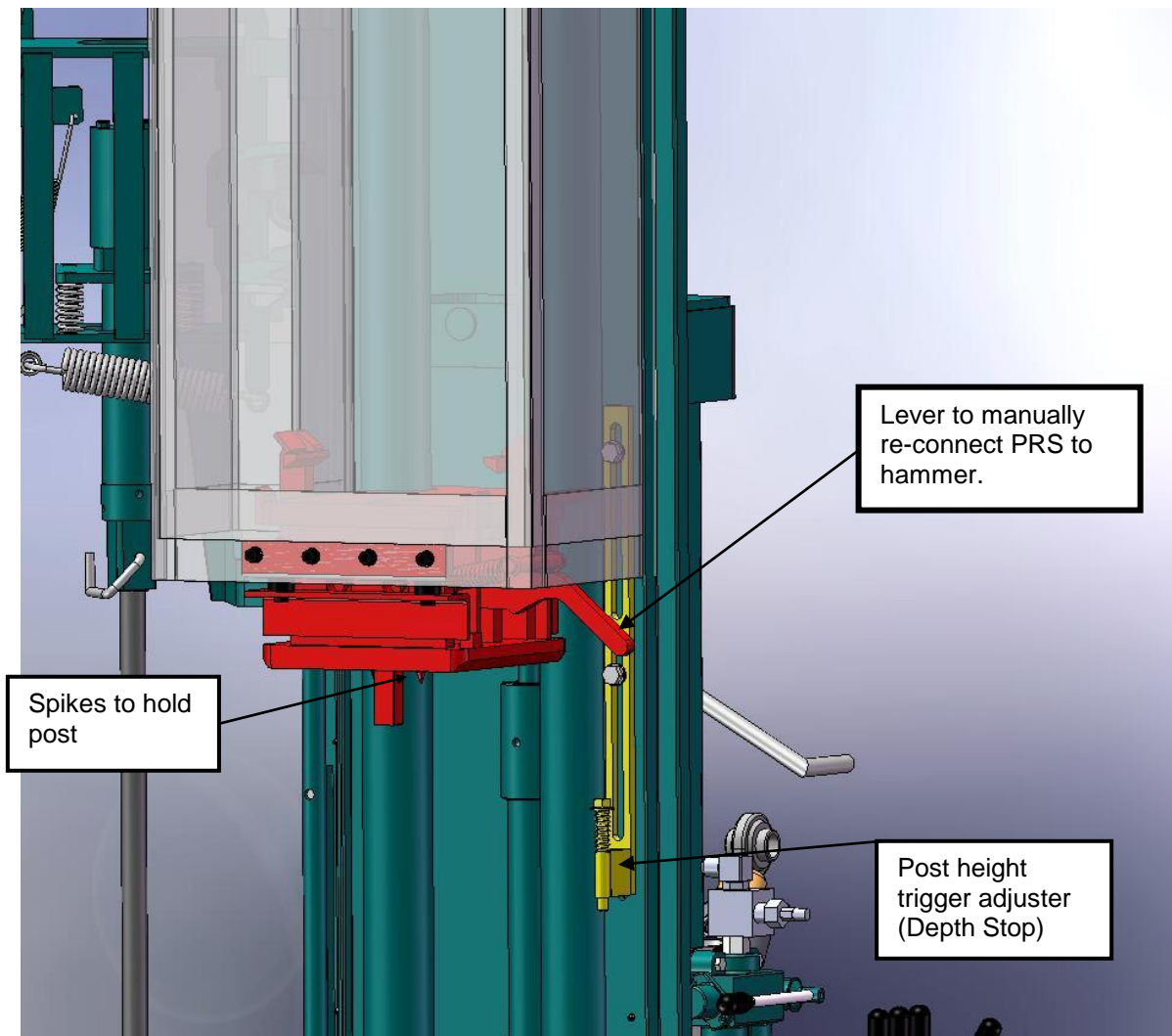


Figure 6 - Driving a Post – The PRS unit

Note: Do not place the chain in the chain hook on the mast when driving in posts. The chain hook must only be used for storage of the post driver.

Posts longer than 8 ft. (2.4m) can be driven by fitting an optional extension foot. This extension foot can be attached to the base of the post driver if a considerable number of posts over 8ft. (2.4m) are going to be driven.

NOTE: Contact the Parts and Service Division for further information on the optional extension foot. Also note, a Highlift option is available, see page 23.

CAUTION: Keep feet clear of post driver base when lowering the post driver using the tractor's three point linkage arms.

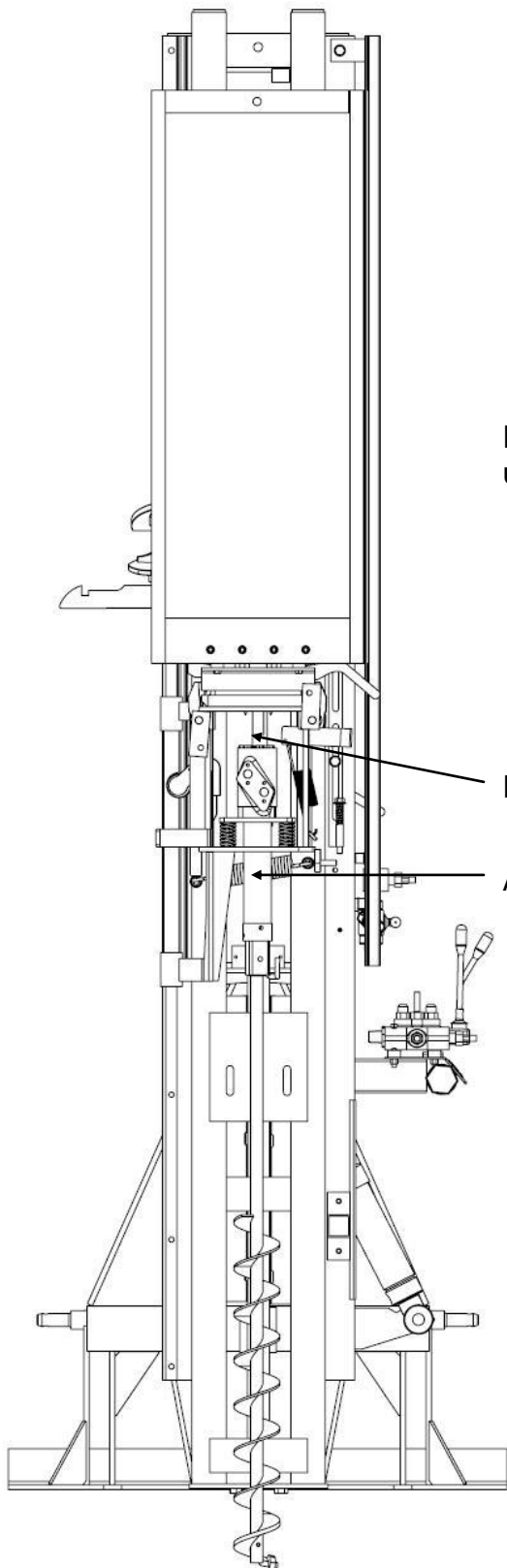
CAUTION: Do not leave the hammer in the raised position, especially if the Post Driver is left unattended. The Hammer guard must always be deployed during operation

Refer to pages 17-20 for example of using PRS

1. Auger Operation as per normal,
Auger attaches to bottom of PRS
(Post restraint system)

2. Plunger Hangs through auger
top plate hence does not
disengage from dolly

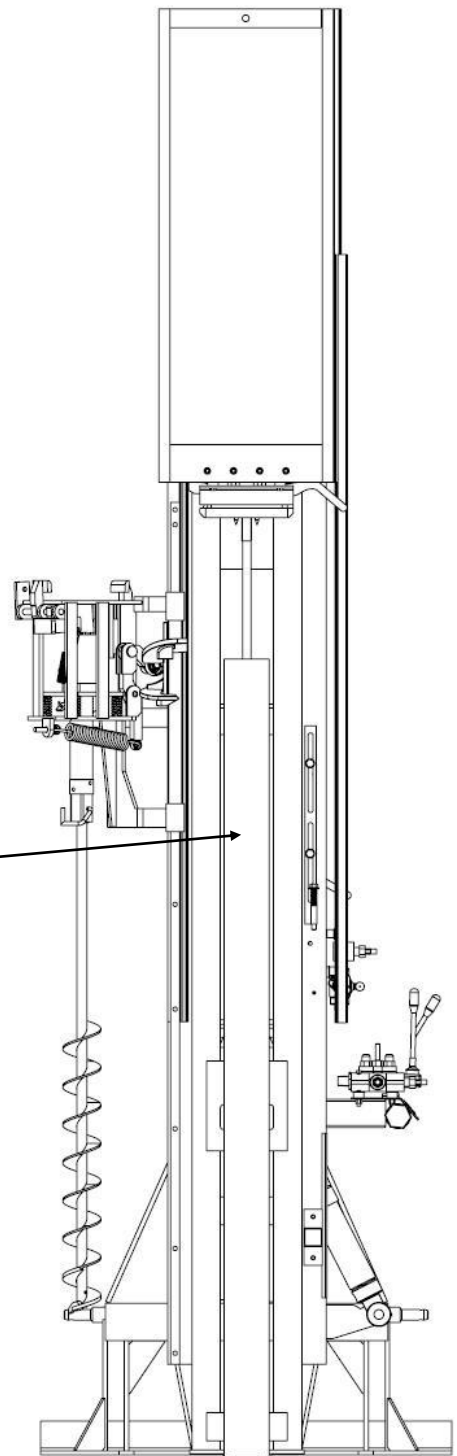
3. Drill hole as normal



Post positioned in hole
under PRS

Plunger Hangs Through

Auger attaches to PRS



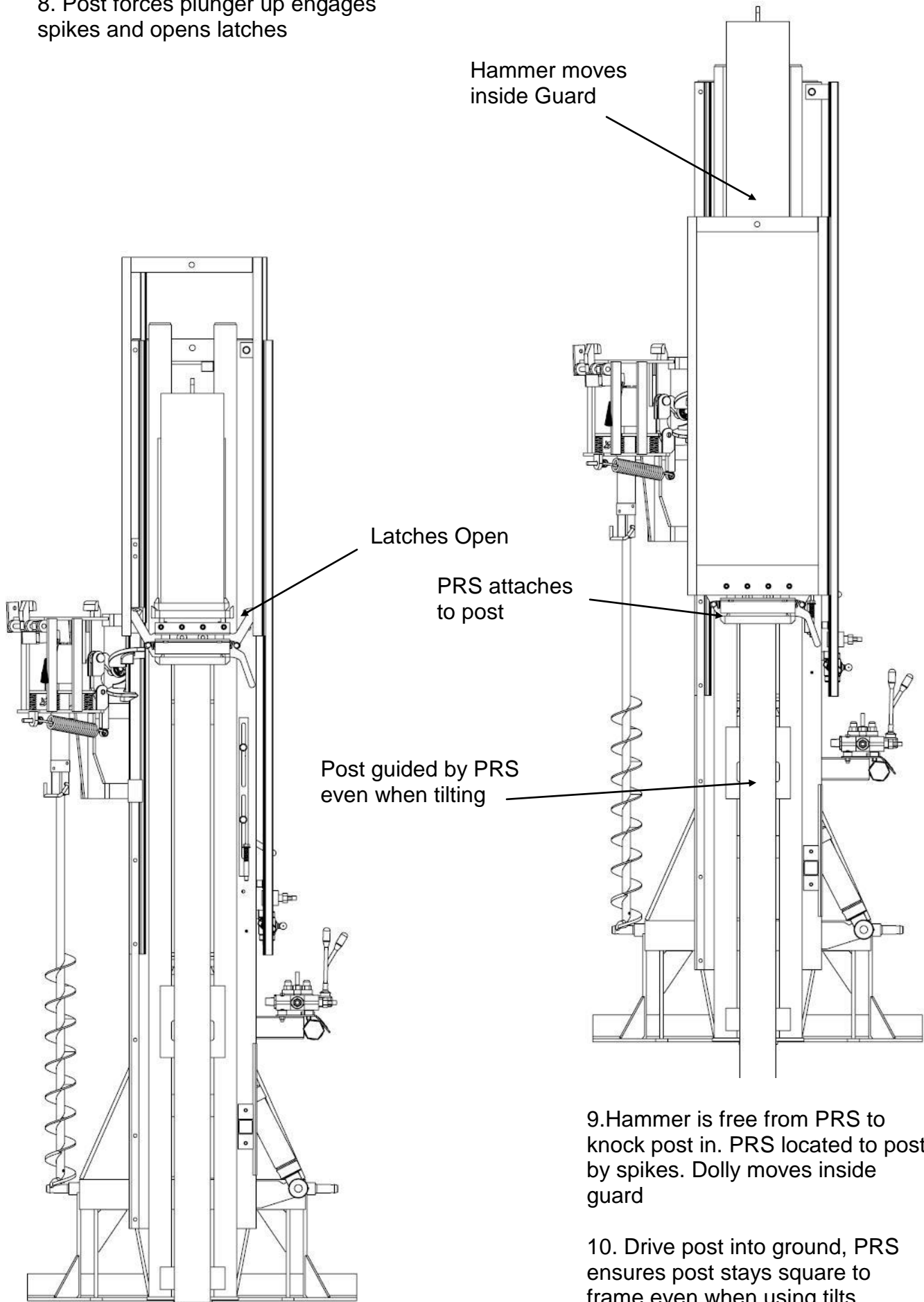
4. Return Hammer to top of stroke

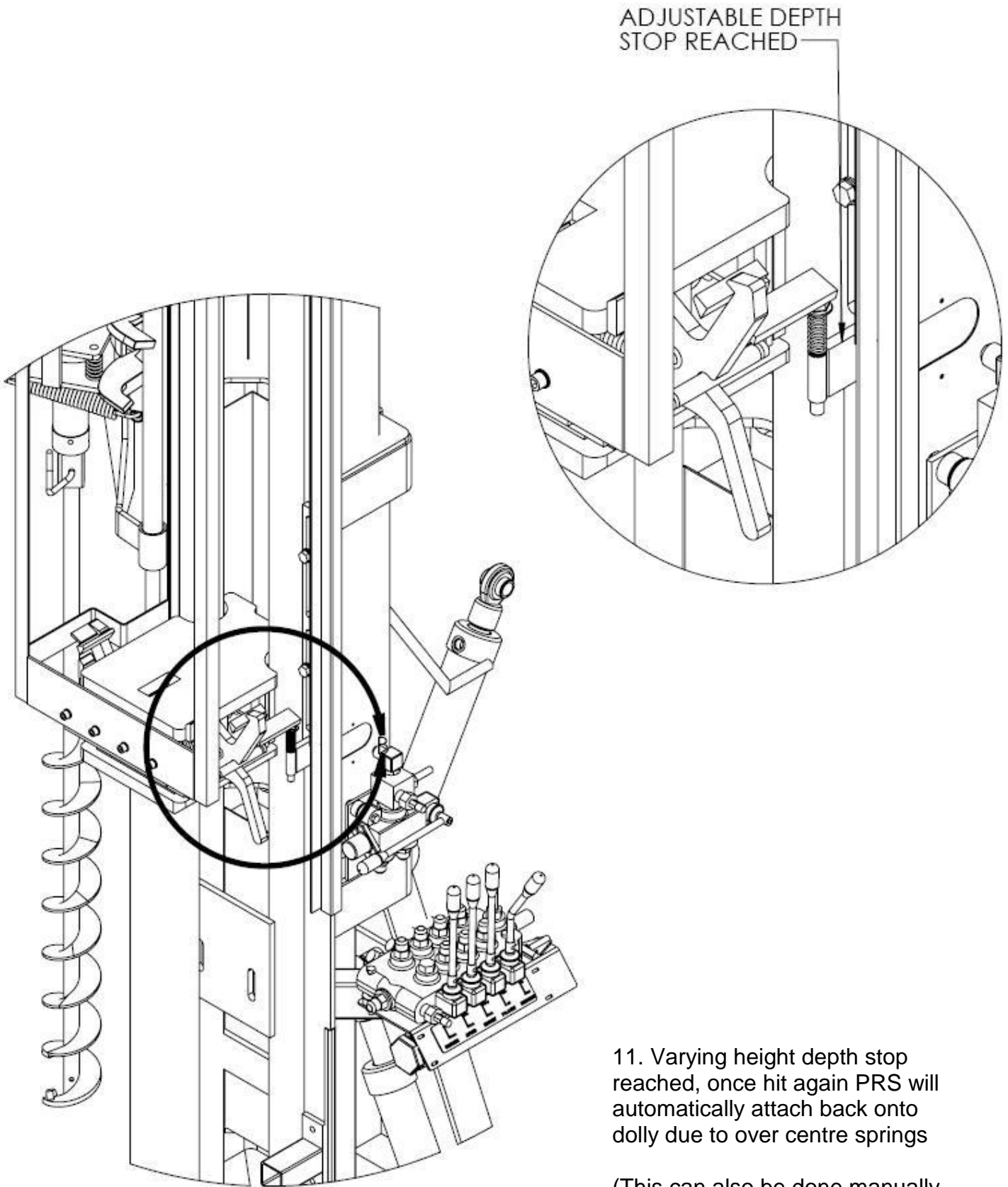
5. Auger disengages from dolly
automatically

6. Place post under PRS

7. Lower PRS onto post, engaging spikes to
hold post secure

8. Post forces plunger up engages spikes and opens latches



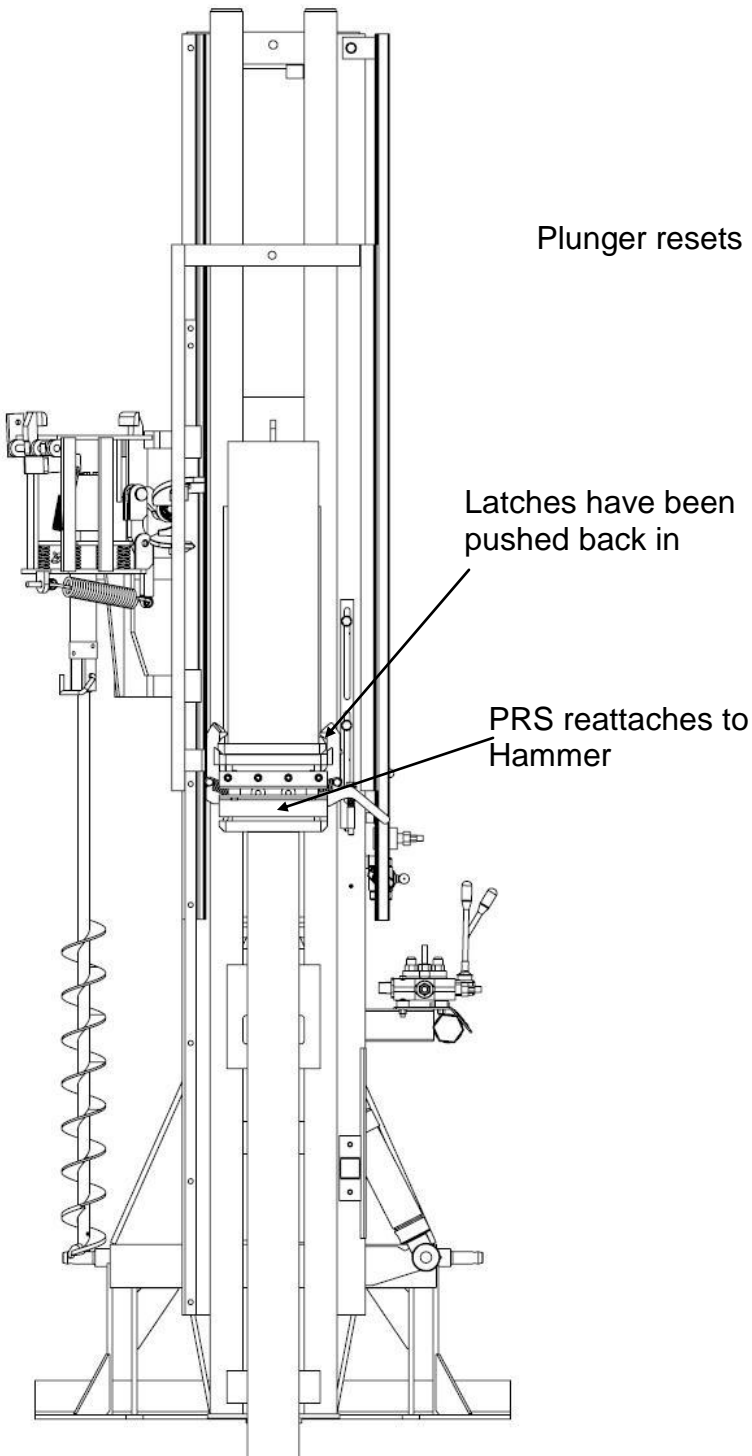


ADJUSTABLE DEPTH
STOP REACHED

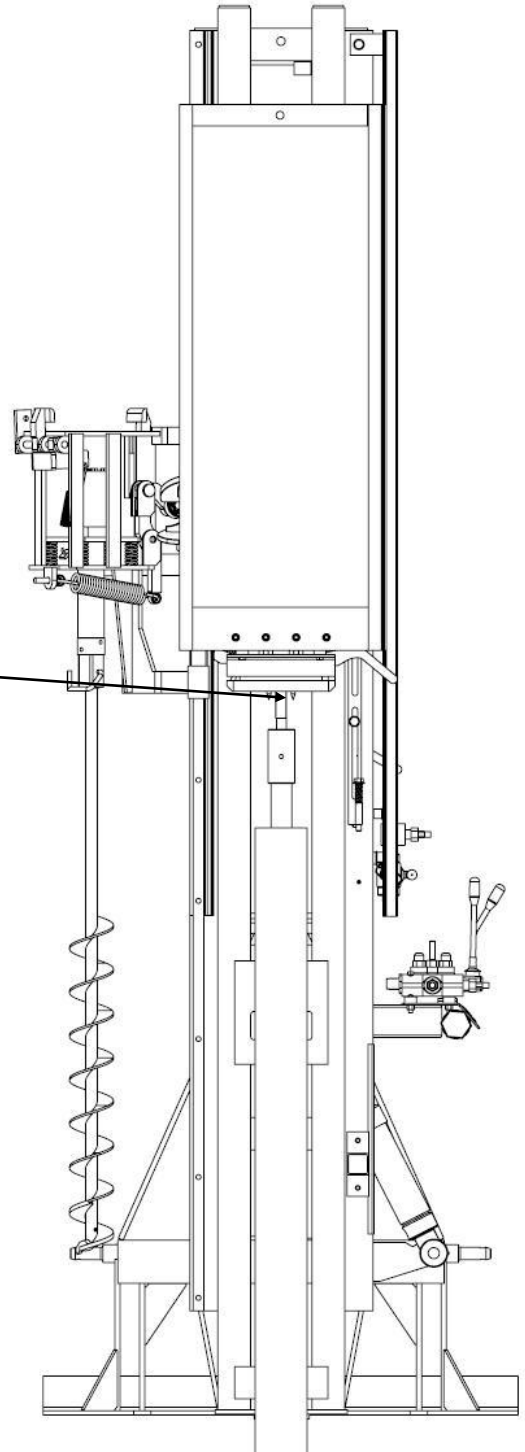
11. Varying height depth stop reached, once hit again PRS will automatically attach back onto dolly due to over centre springs

(This can also be done manually using handle if required)

12. Latches have been pushed back in by adjustable depth stop, PRS re attaches to Hammer. (Even when Hammer is dropped from full height)



Plunger resets

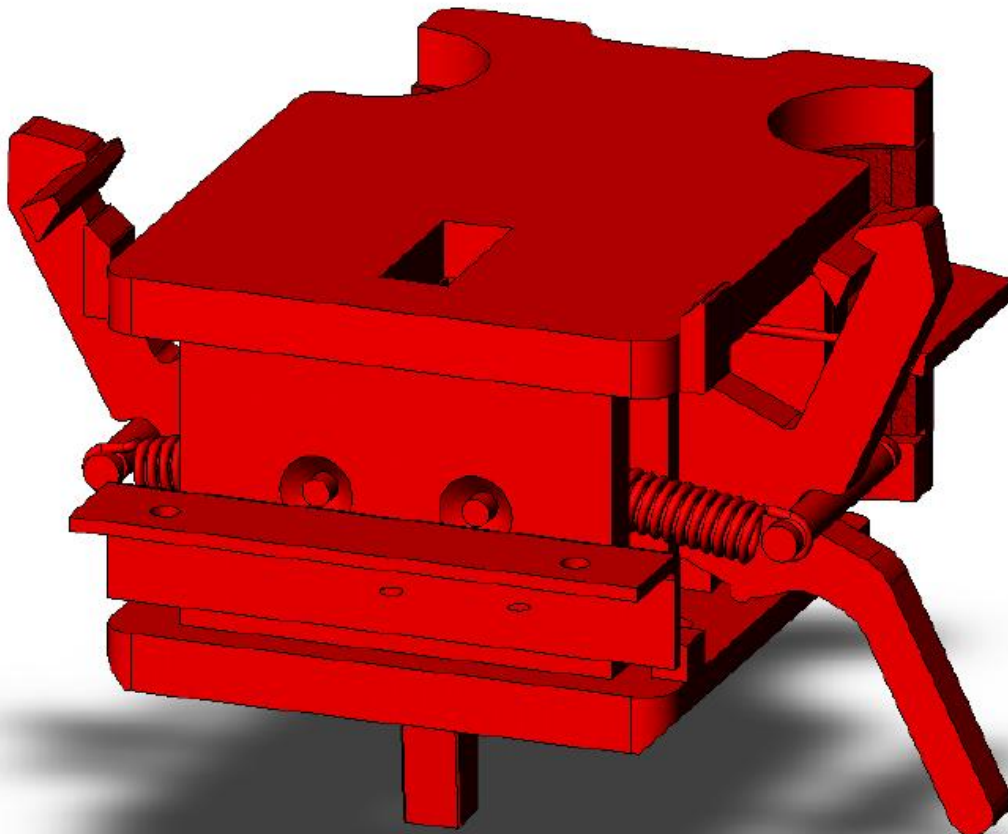


13. Spikes disengage & plunger resets due to gravity ready for next post.

SAFTY INSPECTIONS, MAINTENANCE AND SERVICING SCHEDULE.

The following safety inspections, maintenance & service schedule has been developed to ensure that the Post Driver delivers safe & reliable service for the owner.

Item / Component.	Safety Inspection frequency	Lubrication details
Guards – check for correct operation & integrity of all covers & guards.	Daily	None.
Pins – check all lynch pins for integrity, top link pins, 3-point linkage pins, Mast pivot pin.	Daily	None.
Hydraulic hoses – check all hydraulic hoses and fittings for abrasion to outer sheath and integrity of fittings.	Daily	None.
Correct operation of the control valve.	Daily	None.
Top link & tilt cylinder – check rod ends for integrity & cracks.	Daily	None.
Safety & Warning Decals – check for integrity & legibility. See illustration below for example of decals	Daily	None.
All bolts & fasteners for integrity & correct tension including: <ul style="list-style-type: none"> • Bolt on lift cylinder rod to hammer frame mount. • Bolts on slide rod to mast. • Cap screws of Auger carrier ramp to mast. • Cap screws of auger motor to pedestal drive plate. 	Weekly	None.
Pivot bolt to “A” frame & radius plate.	Weekly	Grease to slide.
Hammer frame to mast guide pads for wear.	Weekly	Grease daily.
Mast Pivot	Daily	Grease – weekly
Auger carrier guide rod and safety cage sides slides	Daily	Grease upon use
Auger carrier latch assembly, linkages & bushes etc.	Weekly	Oil.



Item / Component.	Safety Inspection frequency	Lubrication details
Check PRS for wear or fatigue in latches, arms, pins, etc. and replace/repair as required	Daily	None
Ensure all PRS moving parts are lubricated	Daily	Oil
That the plunger is hanging vertically (as in this position the latches are interlocked)	On-Going	None
That all cir-clips, split pins, springs, etc. are in place and secure	Daily	None

NOTE: Contact Lyco - Parts and Service Division for technical assistance for the servicing of your post driver. See page 27 or cover for address details.

Safety Warning

- Read the Instruction Manual before operating this machine.
- This machine is designed for digging post holes and driving fence posts only. (Please contact Lyco if in doubt regarding your application)
- No part of the human body should be placed inside the safety cage, near the auger or under the 'hammer' during operation.
- Do Not wear loose fitting clothes or untied long hair while operating the machine.
- Do Not operate machine unless all safety systems and guards are operational.
- If any part of the machine is not fully operational please contact Lyco for advice before operating the machine.

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Failure to comply with these instructions may result in death or serious injury. Item No: 100312

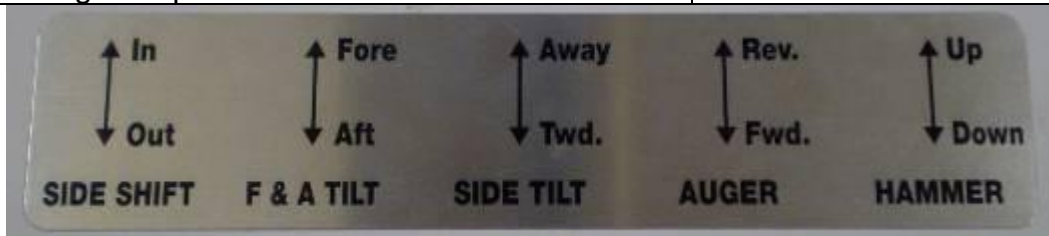
! Safety Warning !

The swivel eyes on this cylinder should be regularly checked to ensure that:

- the rod threads are tight.
- the swivel eyes are not stretched or cracked.
- any excessive sideways movement is prevented by the use of stabiliser chains or bars.

Safety Warning Decal. Located on the Top Link three point linkage cylinder facing upward. Part No: 105180

Safety Warning Decal. Located on rear guard facing the operator. Part No: 100312



Control Valve Decal. Located on the mount plate below the control valve facing the operator. Part No: 115928

CRUSH ZONE KEEP CLEAR

Crush Zone Decal. Located on the lower sides of the hammer, also on the rear guard above the "A" frame Pivot Bolt. Part No:104970



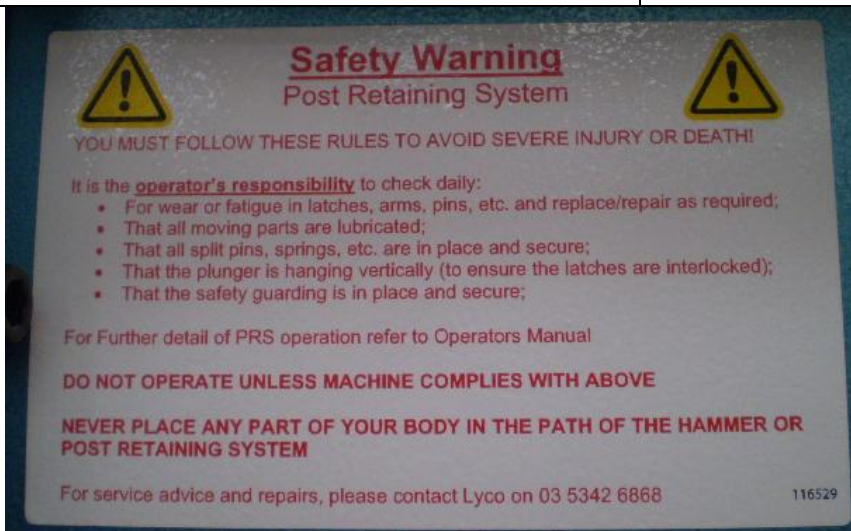
Set of 4 warning decals, located on operator side & rear guard of post driver Part No. 115766



Eye Protection Decal. Located on operator side of post driver Part No. 115848



Hearing Protection decal. Located on operator side of post driver Part No. 115847



Post Retaining System (PRS) daily check decal. Located on operator side of post driver Part No. 116259

OPTIONS

HIGHLIFT

The highlift option is available to provide extra hammer height, allowing for the driving of longer posts, up to 12' (3.65m). The highlift attaches to the three-point linkage of the tractor, with the titling facilities still available. The standard post driver is connected to the highlift, as shown in Figure 8 below.



Figure 5 - Highlift Option

The highlift has a double acting cylinder that raises the post driver mast off the ground to the required height. The cylinder can then be lowered, thus lowering the mast, as the post is being driven in.

NOTE: When using the No.1 Highlift with Side Shift the total weight is 1105kg. Check the tractor specifications before operating.

SIDE-SHIFT

The side shift comprises two basic parts, the main frame and the sliding carriage. The tractor's top link is adjusted so that the frame is in a vertical position with the post driver resting on the ground. It is recommended that category 2 is a minimum requirement to efficiently handle the loads applied to the linkage.

The hydraulically operated carriage slides across the main frame and is operated by an additional spool on the post driver control valve. The flexible hydraulic lines to the cylinder are fitted with male and female hose ends in order that they can be coupled together if the post driver is used without the side shift. The post driver attaches to the carriage by using category 1 linkage clevis on the A-Frame and the 8" top link cylinder. All necessary lynch-pins are provided for this purpose. A 7ft. (2.1m) pressure hose and 15ft. (4.5m) return hose are also provided. Adjust the stabiliser chains on the tractor linkage arms to eliminate side movement of the frame.

The post driver may be extended beyond the line of the near side rear wheel of the tractor when attached to the side shift (in normal wheel track situations). This operation is controlled by the control handle on the Far left of the post driver operation valve. It may be operated with the linkage either partly raised or with the driver resting on its base plate.

Note: **Keep feet clear of the Side Shift** if the side shift unit is raised on the three point linkage arms of the tractor.



Figure 6 - Side Shift Option

If the post driver is in contact with the ground it is desirable to tilt the machine so that the leading edge of the base plate is just clear of the surface to be traversed, otherwise bogging may occur. This will place considerable side load on the linkages. Always check the mast for vertical position prior to shifting to the transport position (carriage cylinder fully retracted). This is necessary particularly when a 10" auger is attached to avoid colliding the auger with the main frame. In the transport position the mast may be tilted to close up the top link cylinder and centralise the load. The auger cannot be attached to the hammer unless the carriage is in the extended or work position, as there is insufficient space. The side shift enables the post driver to be adjusted so as to position the auger and/or post on the sight line, the amount of side adjustment past the wheel being regulated by the size of the rear tyres and also the wheel track width.

STEEL CAP

When driving steel or concrete posts a Mild steel cap like that seen below is required in order to get the post restraint system to de-latch from the hammer. These are available from Lyco upon request

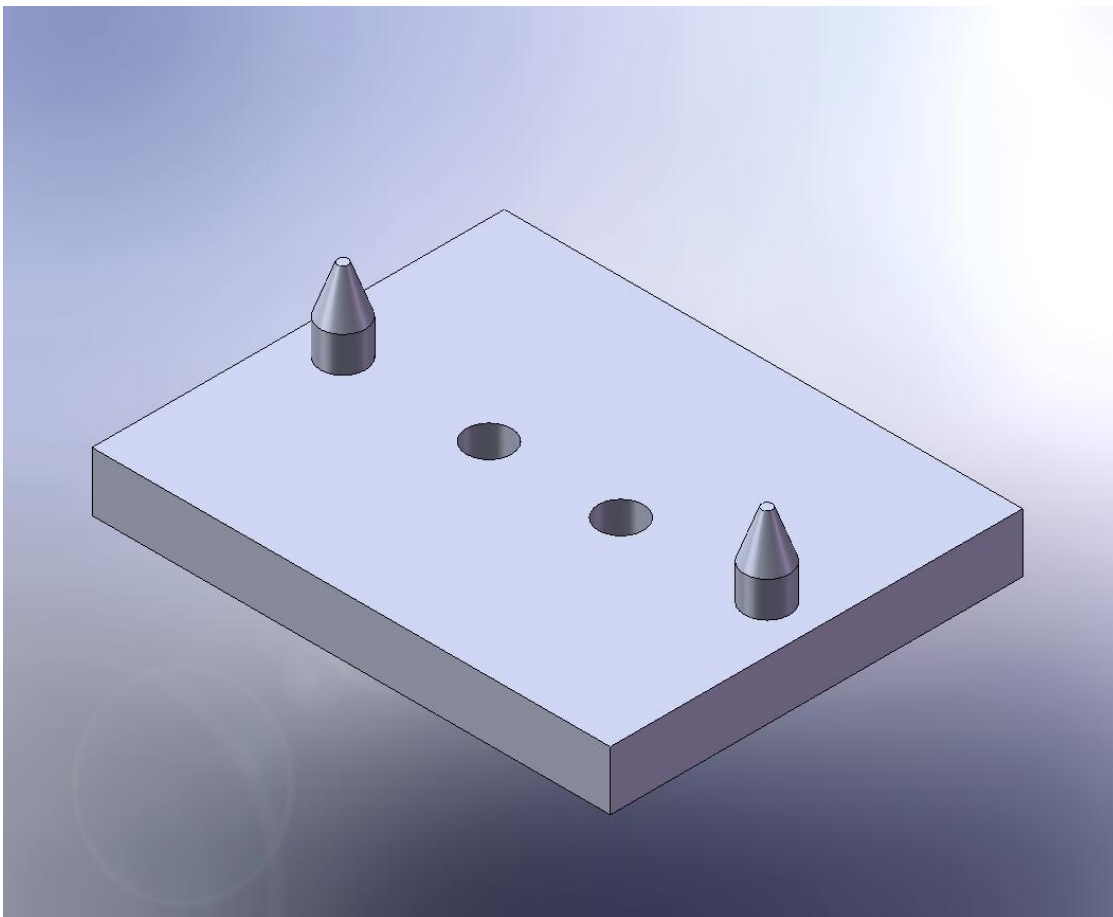


Figure 7 – Mild steel Post Cap

SPECIFICATIONS

MINIMUM HYDRAULIC REQUIREMENTS 17 l/min. @ 2500 P.S.I.

HAMMER WEIGHT 535 LBS. (244 kg)
 Optional heavy Hammer 640 LBS. (291 kg)

APPROXIMATE POTENTIAL ENERGY 2250 lbft. (3052 Nm)

MAXIMUM POST LENGTH 9 ft. (2.7m)
 with machine lifted up on optional extension feet.

FOR HIGHLIFT OPTIONS 12 ft. (3.65m) for Highlift

AUGER MOTORS AVAILABLE

NOTE Optimum rotational speed of auger is in the range of 100 - 150 rpm. To achieve this range the auger motor size should be matched to tractor hydraulic flow rates.

SIZE	E	G	K	H (optional)
THEORETICAL TORQUE @ 2200 P.S.I.	3520 in.lb (398 Nm)	4378 in.lb (495 Nm)	5412 in.lb (612 Nm)	7656 in. lb (836 Nm)
MIN/MAX FLOW RANGE l.p.m. (G.P.M.- U.S.)	17 lpm 25 4.5 GPM 6.6	20 lpm 30 5.3 GPM 7.9	25 lpm 38 6.6 GPM 10	35 lpm 52 9 GPM 13.5
RPM @ MIN/MAX FLOW	104 RPM 153	100 RPM 150	100 RPM 152	100 RPM 150

AUGER SIZES AVAILABLE

2" (50mm), 3" (75mm), 4" (100mm), 5" (125mm), 6" (150mm), 7" (175mm), 8" (200mm), 10" (250mm), 12"(300mm)

- Other sizes made to order

TILTS

Fore & aft tilt: 6" top link cylinder, 8° either side of vertical
 8" top link cylinder, 12.5° either side of vertical
 Side tilt: 13° either side of vertical

SERVICE AND REPAIR

Your Lyco Post Driver is manufactured to the highest possible standards and is well tested before it leaves our factory. However, if the driver does not function as it should, carefully follow the procedure below.

1. Examine the driver in operation and accurately note down the exact area and description of the problem using the correct part names (refer pages 27-34 for part numbers and names).
2. Also note unfamiliar noises or functions that could aid in problem diagnosis (minor details are important).
3. Make note of the driver Serial No. - located on top of the A-Frame.
4. Phone Lyco Innovations Parts and Service Division with handbook, serial number, and notes of the problem handy to you.

Munro Engineers Pty. Ltd.

418-420 Winter St

Ballarat 3350

Telephone: +61 3 5334 2770

Fax: +61 3 5334 2755

Email: sales@munroeng.com

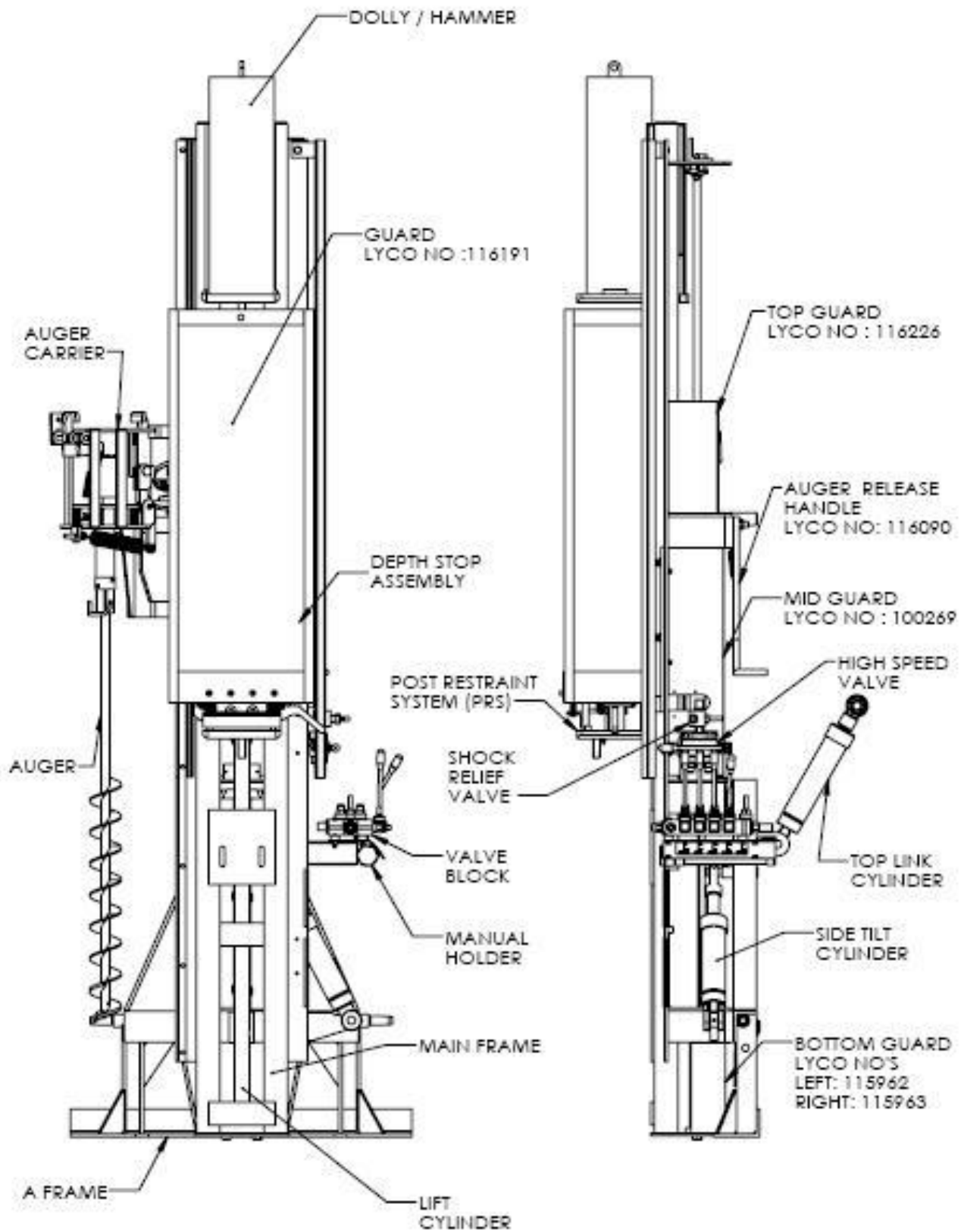
Website: www.munroeng.com

It is necessary to follow this procedure so that our service technicians may quickly solve any malfunction that may exist either by minor adjustment or changeover part.

A comprehensive range of spare parts and consumable parts are available, including: augers, tips, seal kits and wear pads. Contact the Parts & Service Division for further assistance.

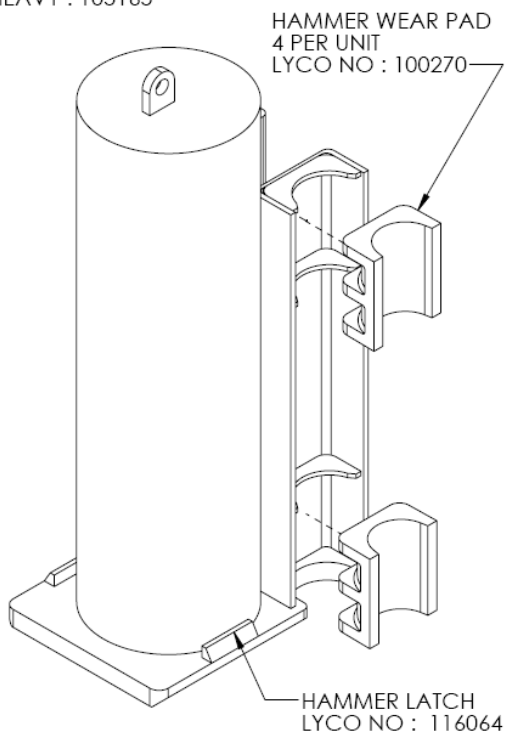
PARTS

POST DRIVER ASSEMBLY



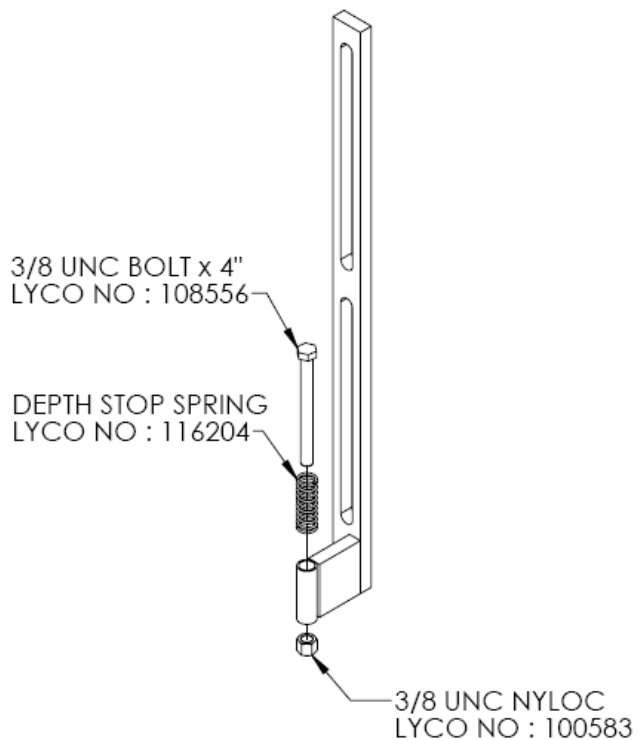
HAMMER / DOLLY ASSEMBLY

LYCO NO'S
STD : 116149
HEAVY : 105165

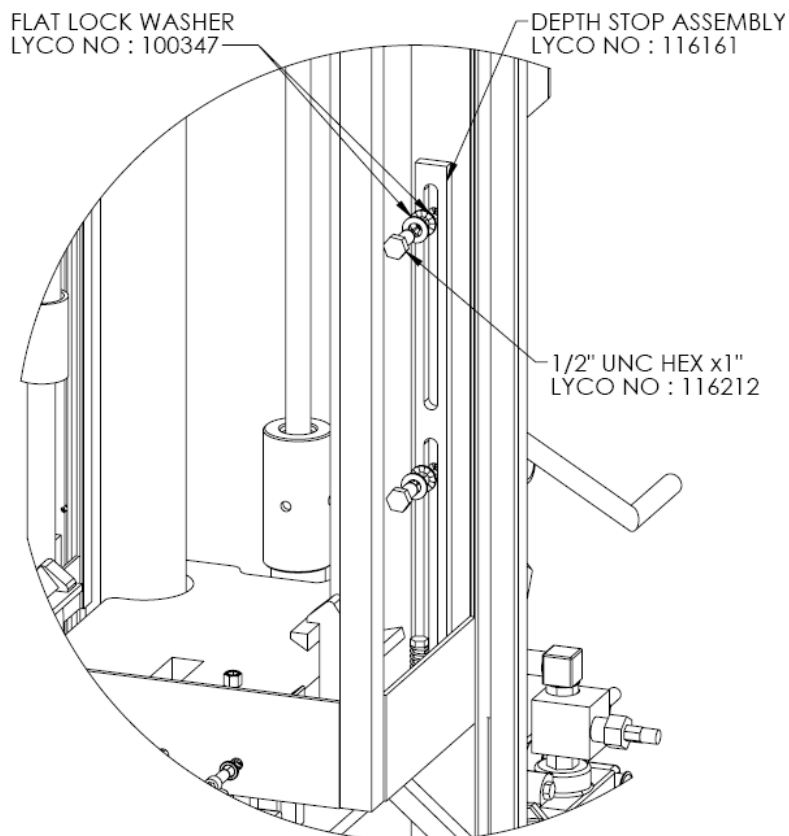


DEPTH STOP

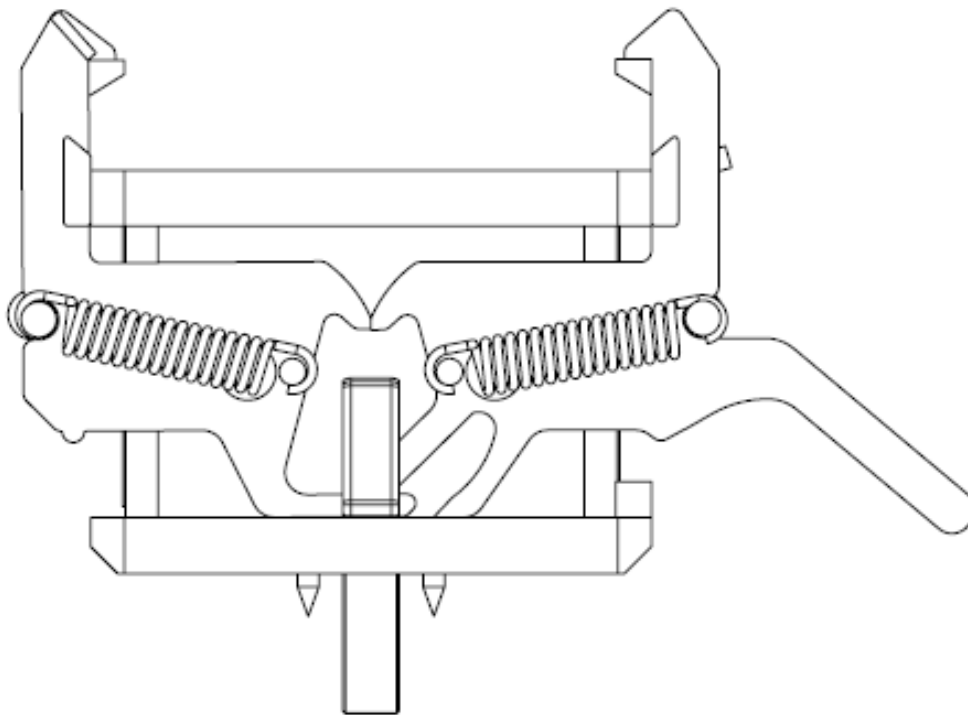
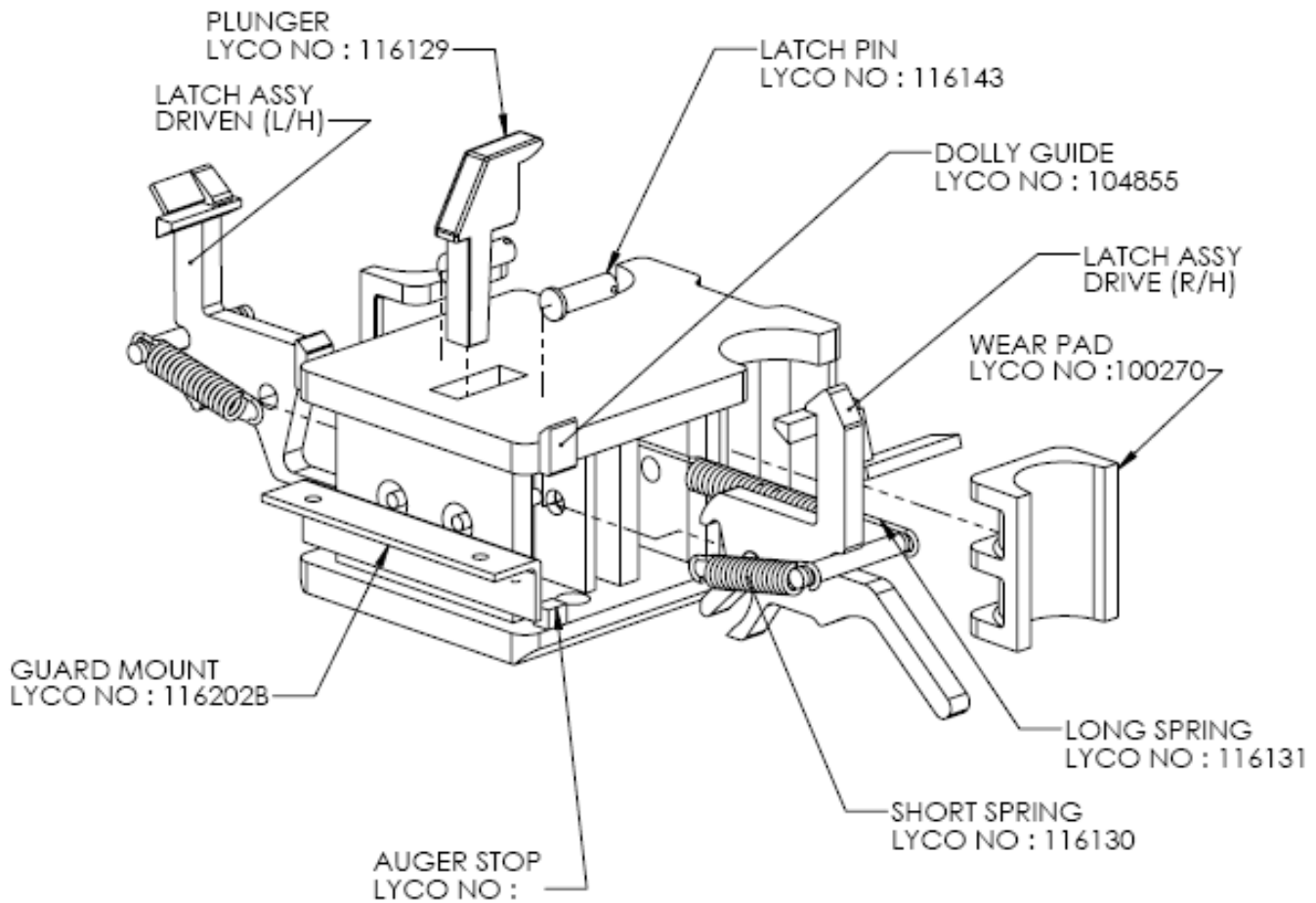
LYCO NO:116161



DEPTH STOP ATTACHMENT



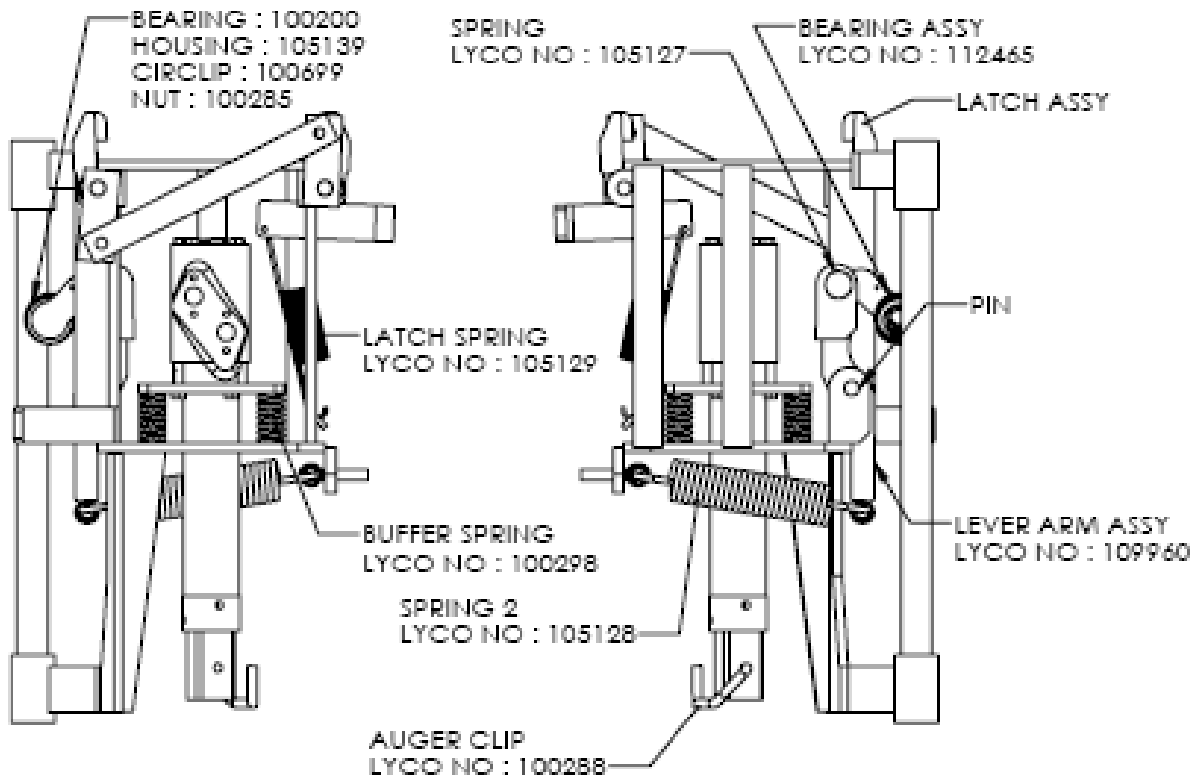
POST RESTRAINT SYSTEM (PRS)



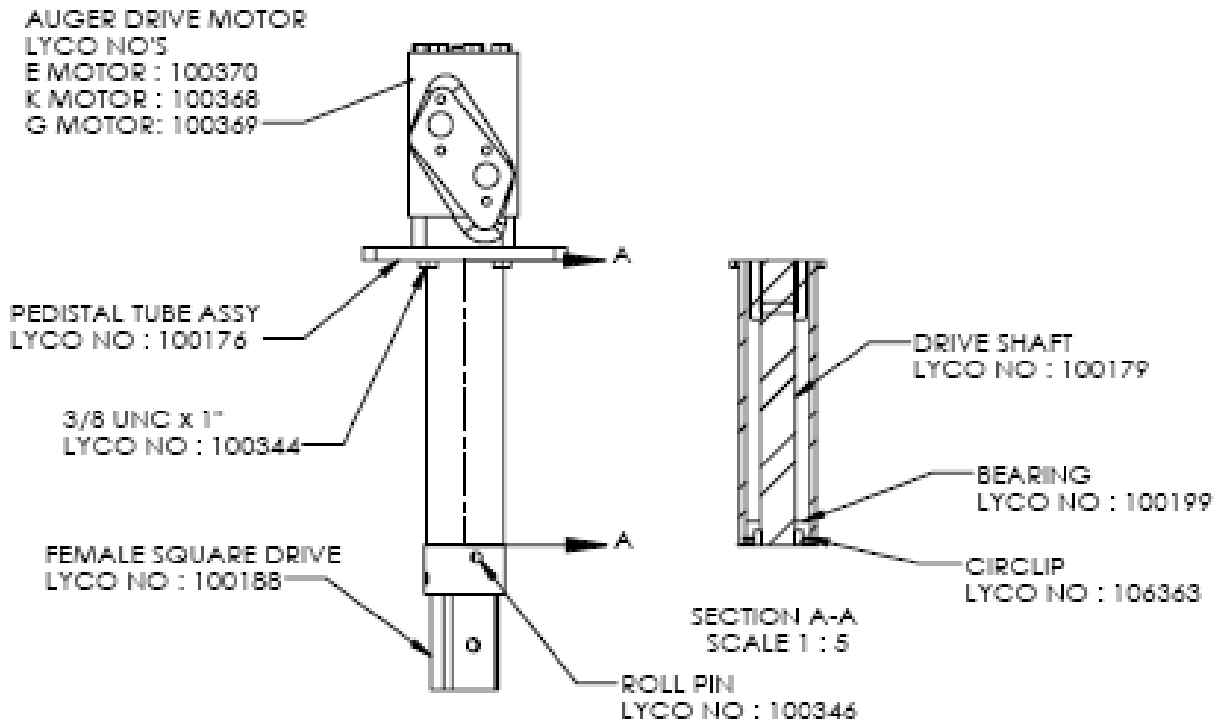
FRONT VIEW

NOTE: SOME COMPONENTS REMOVED FOR EASE OF VIEWING

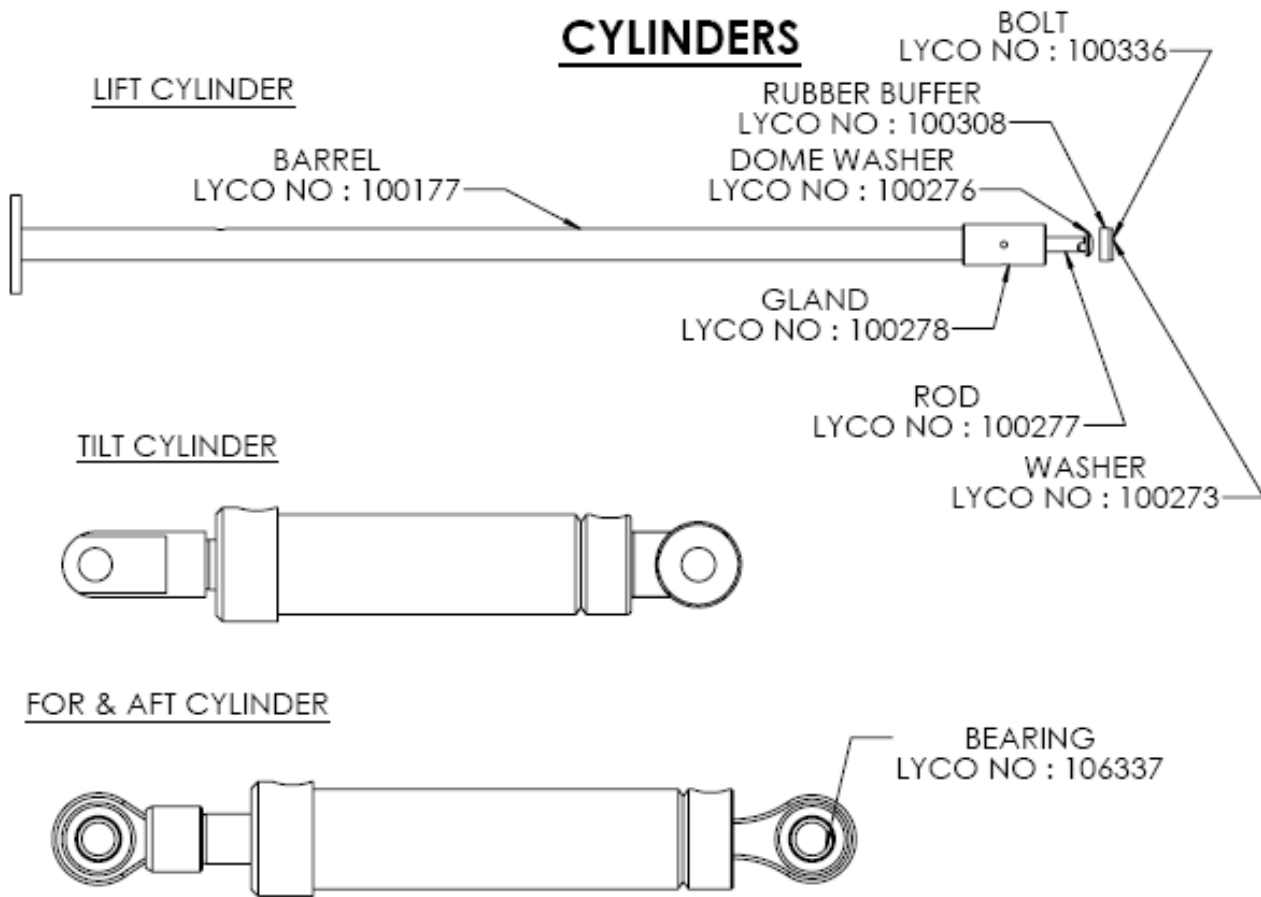
AUGER CARRIER



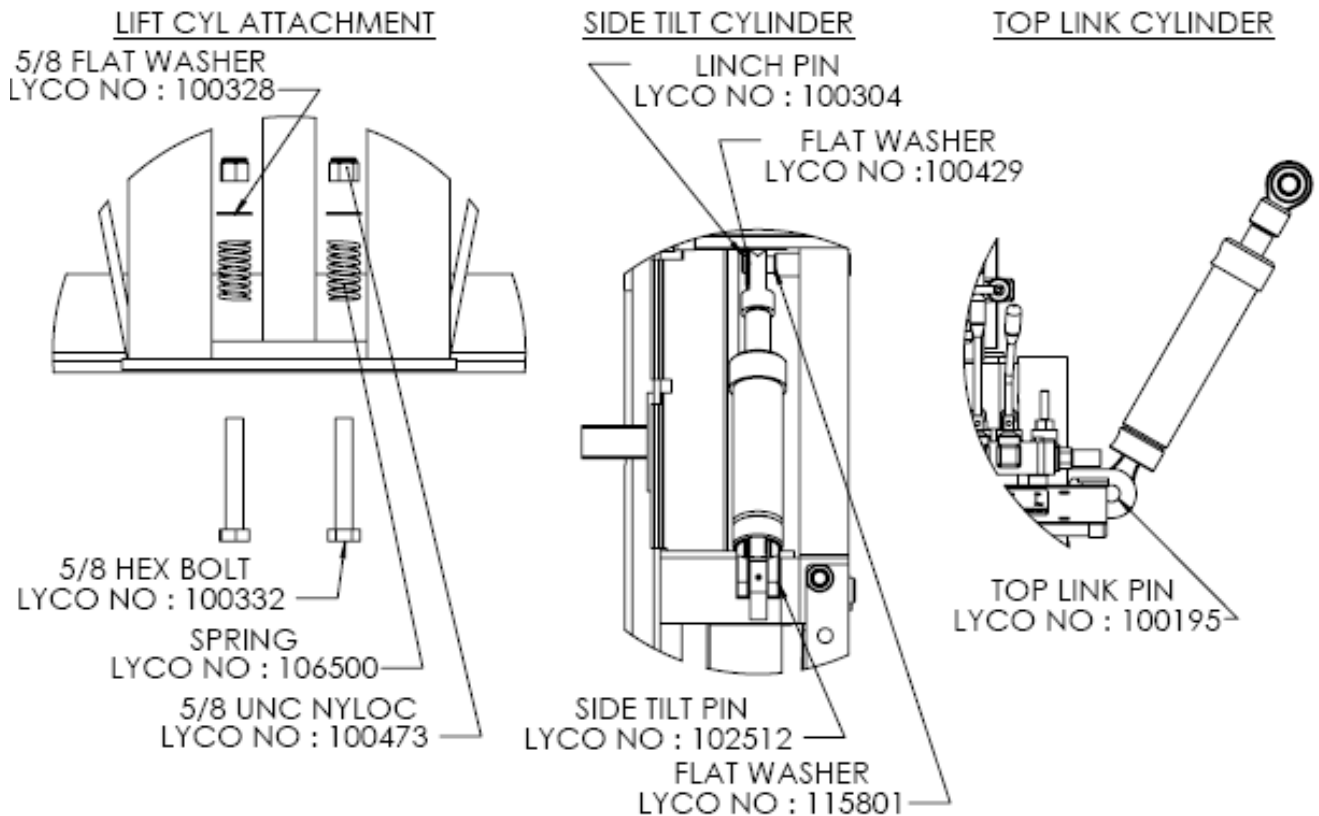
AUGER MOTOR & DRIVE ASSY



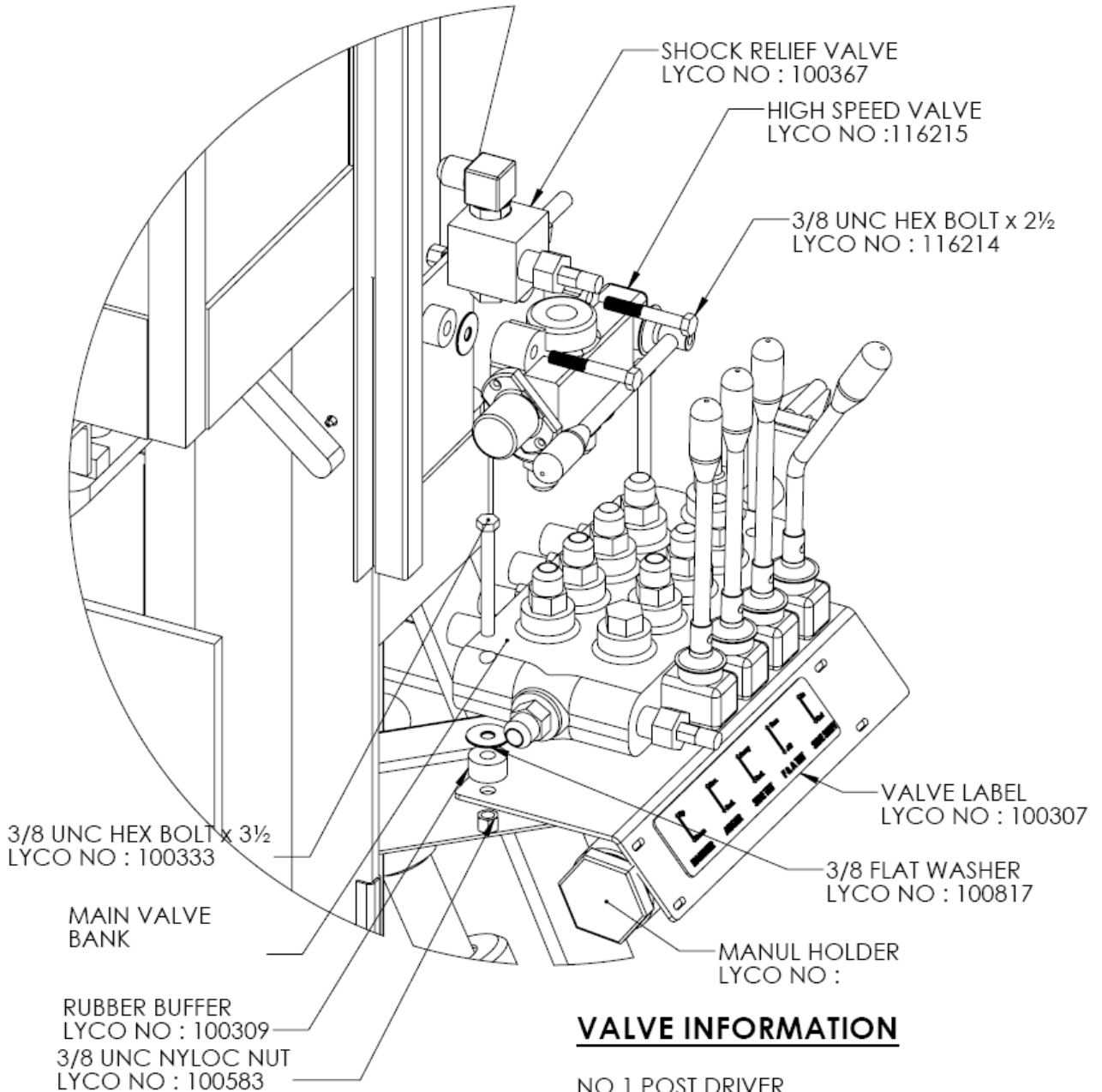
CYLINDERS



CYLINDER ATTACHMENT



VALVE ATTACHMENT



VALVE INFORMATION

NO 1 POST DRIVER
5 SPOOL OP20 (DDDDS) : 116256

NO 1 POST DRIVER WITH HI-LIFT
5 SPOOL OP20 (DDDDS) : 116256
1 SPOOL : 100440

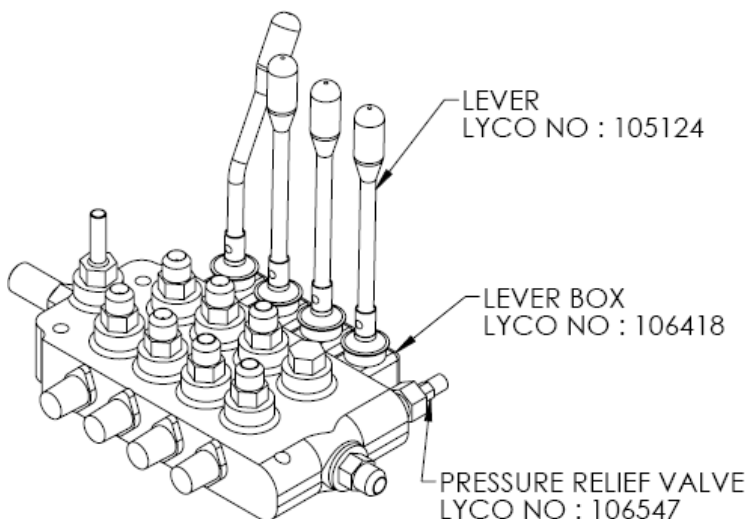
NO 2 POST DRIVER
4 SPOOL STD OP20 (DDDS) : 116255

NO 2 WITH HIGHLIFT
5 SPOOL OP20 (DDDDS) : 116256

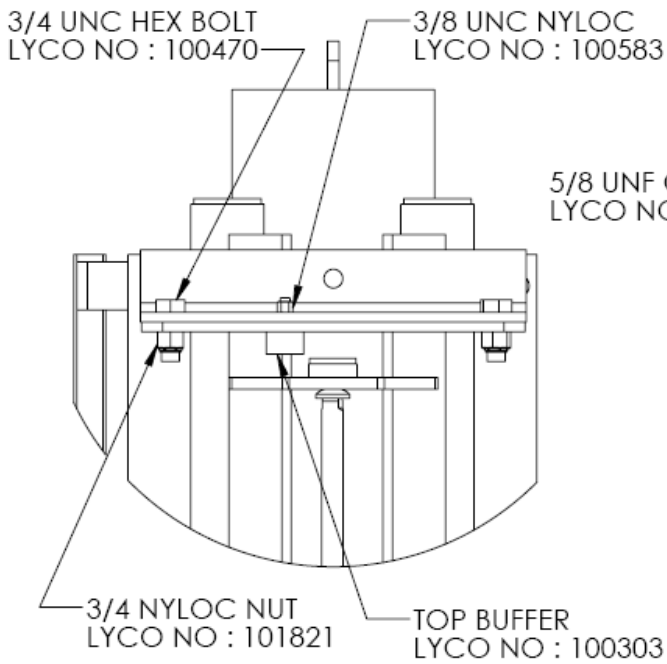
NO 3 POST DRIVER
3 SPOOL OP20 (DDS) : 116254

NO 3 POST DRIVER WITH HI-LIFT OR SIDESHIFT
4 SPOOL STD OP20 (DDDS) : 116255

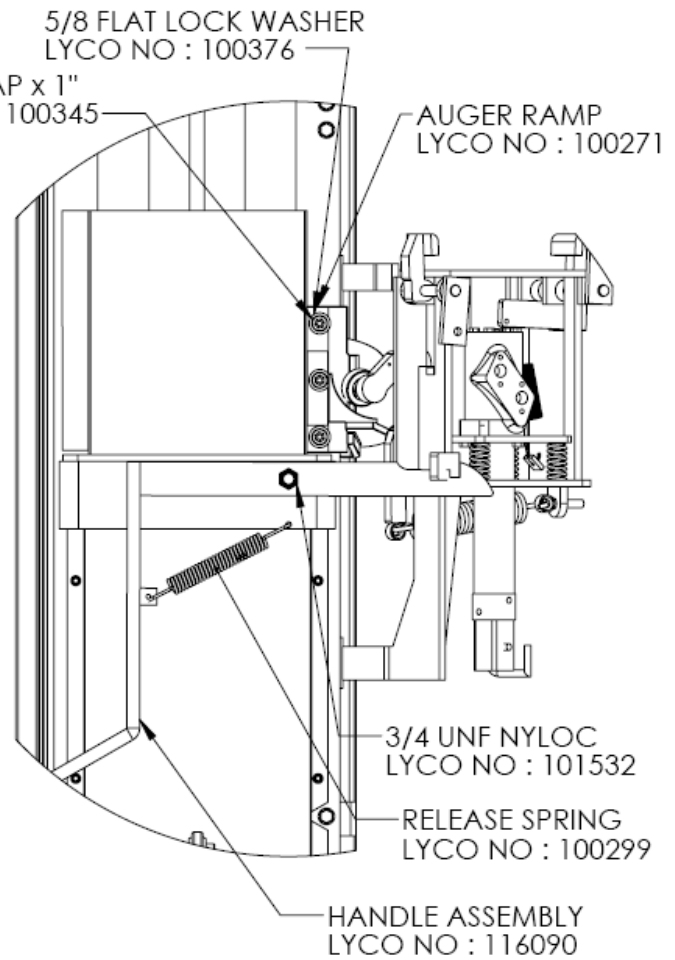
NO 3 POST DRIVER WITH HI-LIFT & SIDE SHIFT
5 SPOOL OP20 (DDDDS) : 116256



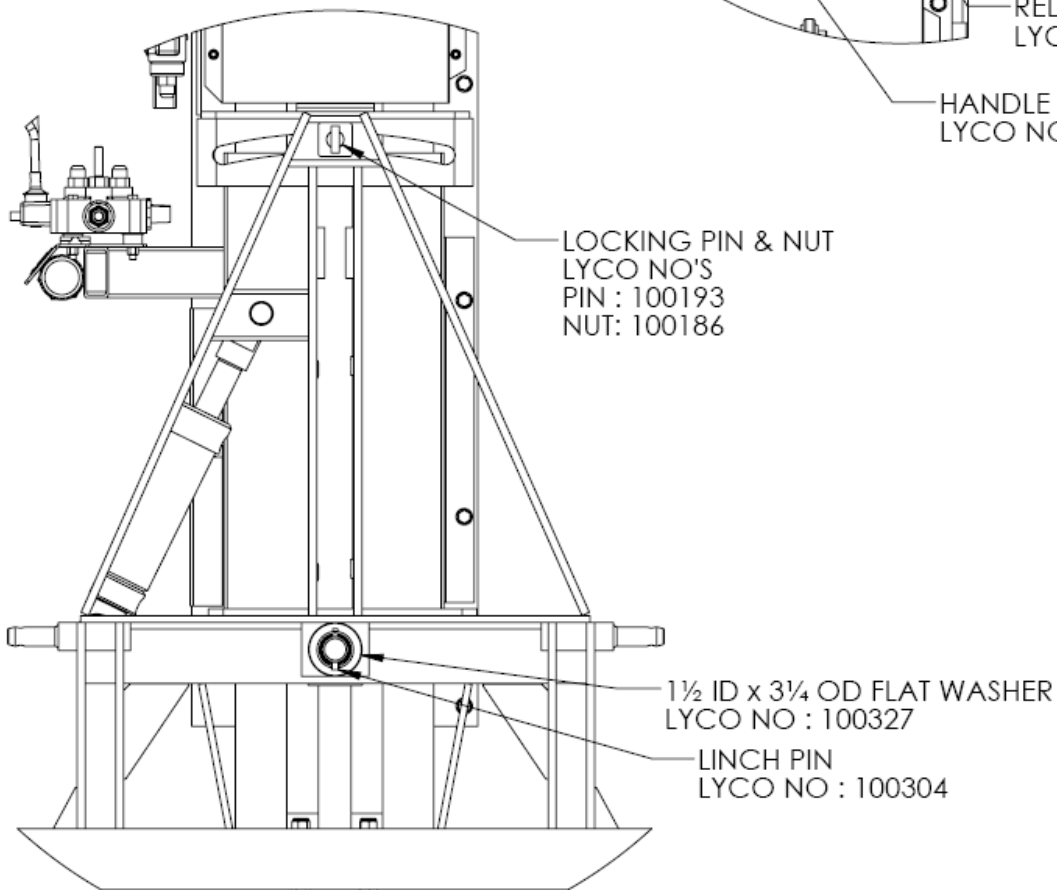
TOP BRACE



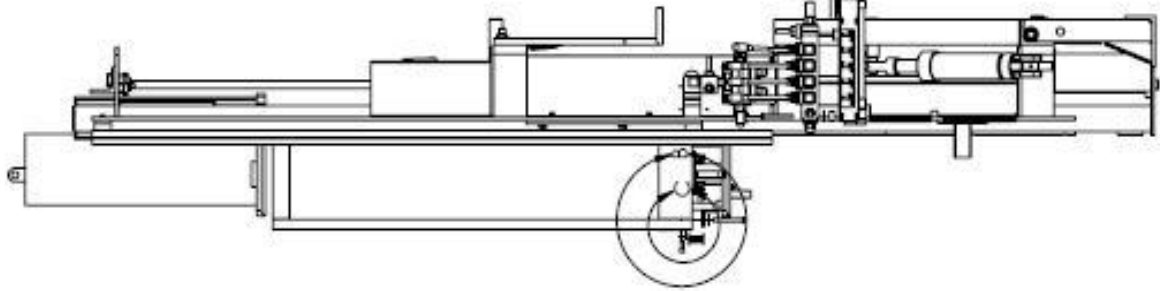
AUGER RELEASE HANDLE & RAMP



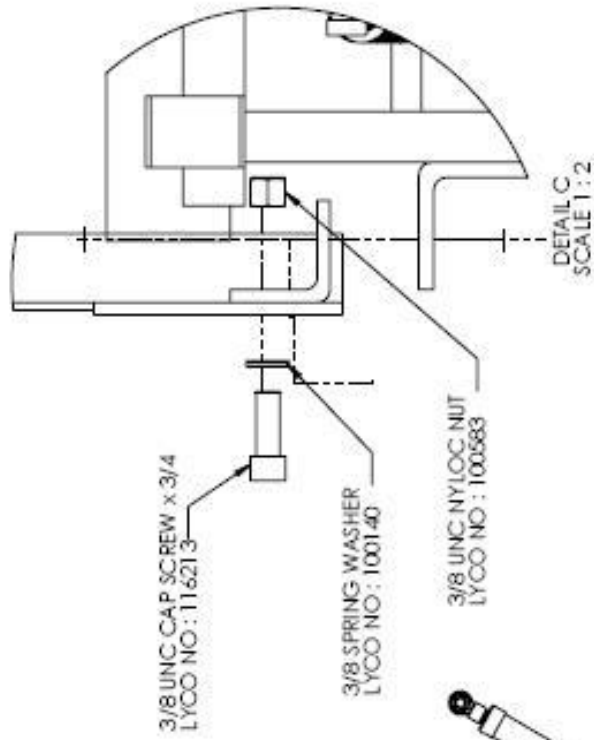
AFRAME ATTACHMENT



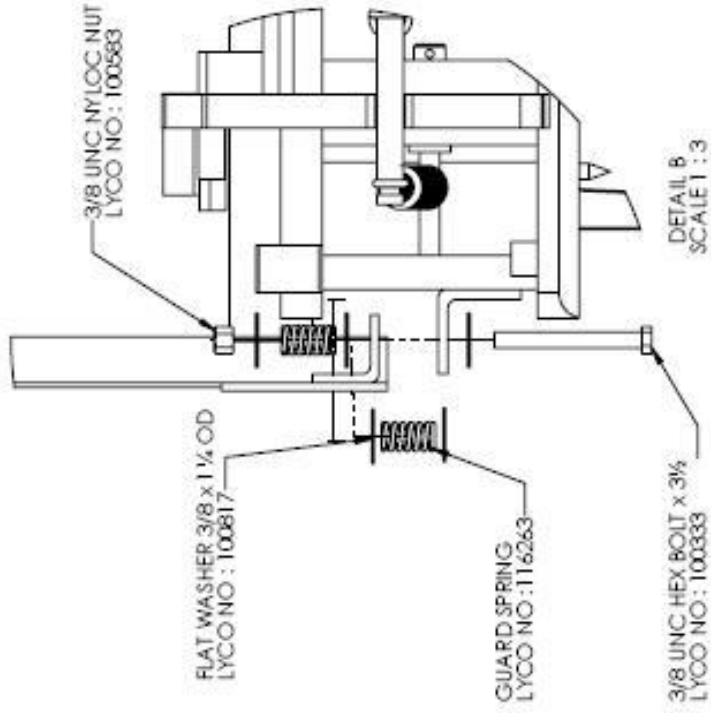
GUARD ATTACHMENT



GUARD TO ANGLE ATTACHMENT STEP 1



GUARD TO PRS ATTACHMENT STEP 2



Appendix A

Safety Information Checklist.

Item & Notes:	Dealer Initial	Purchaser Initial
Intended uses (normal):		
Operator competency and/or licence:		
Handbook and safe operating procedures explained and understood.		
Hazards and risks:		
Safety features:		
Care and use of safety equipment:		
Safe operating practices: <ul style="list-style-type: none"> • Inspection • Cleaning • Maintenance • Storage • Transportation 		
<i>Dealer certifies all above is explained to owner/purchaser:</i> I have explained the safe normal operation of machine and ensured the owner/purchaser fully understands the maintenance and safety issues of this machine. Signed: _____ Dated: _____	<i>Owner/purchaser certifies all above is understood:</i> I have been instructed in the safe operation of machine. Should there be any aspect of this manual not absolutely clear to me, I shall seek clarification from selling dealer. Signed: _____ Dated: _____	

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PowerHouse “Advantage” Post Hole Auger & Post Driver

*Complies with Work Cover Industry Safety Standard
(Nov 2007)*



INSTRUCTION MANUAL

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