

**TWOSE**  
**POSTDRIVERS**  
PD170HL / PD200HL / PD200HLT  
  
OPERATOR & PARTS MANUAL

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# IMPORTANT VERIFICATION OF WARRANTY REGISTRATION



## DEALER WARRANTY INFORMATION & REGISTRATION VERIFICATION

It is imperative that the selling dealer registers this machine with Twose of Tiverton Limited before delivery to the end user – failure to do so may affect the validity of the machine warranty.

To register machines go to the Twose web site at [www.twose.com](http://www.twose.com), log onto 'Dealer Inside' and select the 'Machine Registration button' which can be found in the Service Section of the site. Confirm to the customer that the machine has been registered in the section below.

Should you experience any problems registering a machine in this manner please contact the Twose Office on 01884 253691.

### Registration Verification

Dealer Name: .....
Dealer Address: .....
Customer Name: .....
Date of Warranty Registration: ...../...../..... Dealer Signature: .....

### NOTE TO CUSTOMER / OWNER

*Please ensure that the above section above has been completed and signed by the selling dealer to verify that your machine has been registered with Twose of Tiverton Limited.*

**IMPORTANT:** During the initial 'bedding in' period of a new machine it is the customer's responsibility to regularly inspect all nuts, bolts and hose connections for tightness and re-tighten if required. New hydraulic connections occasionally weep small amounts of oil as the seals and joints settle in – where this occurs it can be cured by re-tightening the connection – *refer to torque settings chart below*. The tasks stated above should be performed on an hourly basis during the first day of work and at least daily thereafter as part of the machines general maintenance procedure.

### TORQUE SETTINGS FOR HYDRAULIC FITTINGS

HYDRAULIC HOSE ENDS		
BSP	Setting	Metric
1/4"	18 Nm	19 mm
3/8"	31 Nm	22 mm
1/2"	49 Nm	27 mm
5/8"	60 Nm	30 mm
3/4"	80 Nm	32 mm
1"	125 Nm	41 mm
1.1/4"	190 Nm	50 mm
1.1/2"	250 Nm	55 mm
2"	420 Nm	70 mm

PORT ADAPTORS WITH BONDED SEALS		
BSP	Setting	Metric
1/4"	34 Nm	19 mm
3/8"	47 Nm	22 mm
1/2"	102 Nm	27 mm
5/8"	122 Nm	30 mm
3/4"	149 Nm	32 mm
1"	203 Nm	41 mm
1.1/4"	305 Nm	50 mm
1.1/2"	305 Nm	55 mm
2"	400 Nm	70 mm

# WARRANTY POLICY

## WARRANTY REGISTRATION

All machines must be registered, by the selling dealer with Twose of Tiverton Ltd, before delivery to the end user. On receipt of the goods it is the buyer's responsibility to check that the Verification of Warranty Registration in the Operator's Manual has been completed by the selling dealer.

### 1. LIMITED WARRANTIES

- 1.01. *All machines supplied by Twose of Tiverton Ltd are warranted to be free from defects in material and workmanship from the date of sale to the original purchaser for a period of 12 months, unless a different period is specified.*
- 1.02. *All spare parts supplied by Twose of Tiverton Ltd and purchased by the end user are warranted to be free from defects in material and workmanship from the date of sale to the original purchaser for a period of 6 months. All parts warranty claims must be supported by a copy of the failed part invoice to the end user. We cannot consider claims for which sales invoices are not available.*
- 1.03. *The warranty offered by Twose of Tiverton Ltd is limited to the making good by repair or replacement for the purchaser any part or parts found, upon examination at its factory, to be defective under normal use and service due to defects in material or workmanship. Returned parts must be complete and unexamined. Pack the component(s) carefully so that any transit damage is avoided. All ports on hydraulic items should be drained of oil and securely plugged to prevent seepage and foreign body ingress. Certain other components, electrical items for example, may require particular care when packing to avoid damage in transit.*
- 1.04. *This warranty does not extend to any product from which Twose of Tiverton Ltd's serial number plate has been removed or altered.*
- 1.05. *This warranty does not apply to any part of the goods, which has been subjected to improper or abnormal use, negligence, alteration, modification, fitment of non-genuine parts, accident damage, or damage resulting from contact with overhead power lines, damage caused by foreign objects (e.g. stones, iron, material other than vegetation), failure due to lack of maintenance, use of incorrect oil or lubricants, contamination of the oil, or which has served its normal life. This warranty does not apply to any expendable items such as blades, belts, clutch linings, filter elements, flails, flap kits, skids, soil engaging parts, shields, guards, wear pads, pneumatic tyres or tracks.*
- 1.06. *Temporary repairs and consequential loss - i.e. oil, downtime and associated parts are specifically excluded from the warranty.*
- 1.07. *Warranty on hoses is limited to 12 months and does not include hoses which have suffered external damage. Only complete hoses may be returned under warranty, any which have been cut or repaired will be rejected.*
- 1.08. *Machines must be repaired immediately a problem arises. Continued use of the machine after a problem has occurred can result in further component failures, for which Twose of Tiverton Ltd cannot be held liable, and may have safety implications.*
- 1.09. *If in exceptional circumstances a non Twose of Tiverton Ltd part is used to effect a repair, warranty reimbursement will be at no more than Twose of Tiverton Ltd's standard dealer cost for the genuine part.*
- 1.10. *Except as provided herein, no employee, agent, dealer or other person is authorised to give any warranties of any nature on behalf of Twose of Tiverton Ltd.*
- 1.11. *For machine warranty periods in excess of 12 months the following additional exclusions shall apply:*
  - 1.11.1. *Hoses, exposed pipes and hydraulic tank breathers.*
  - 1.11.2. *Filters.*
  - 1.11.3. *Rubber mountings.*
  - 1.11.4. *External electric wiring.*
  - 1.11.5. *Bearings and seals.*

- 1.12. All service work, particularly filter changes, must be carried out in accordance with the manufacturer's service schedule. Failure to comply will invalidate the warranty. In the event of a claim, proof of the service work being carried out may be required.
- 1.13. Repeat or additional repairs resulting from incorrect diagnosis or poor quality previous repair work are excluded from warranty.

**NB Warranty cover will be invalid if any non-genuine parts have been fitted or used. Use of non-genuine parts may seriously affect the machine's performance and safety. Twose of Tiverton Ltd cannot be held responsible for any failures or safety implications that arise due to the use of non-genuine parts.**

## **2. REMEDIES AND PROCEDURES**

- 2.01. The warranty is not effective unless the Selling Dealer registers the machine, via the Twose of Tiverton Ltd web site and confirms the registration to the purchaser by completing the confirmation form in the operator's manual.
- 2.02. Any fault must be reported to an authorised Twose of Tiverton Ltd dealer as soon as it occurs. Continued use of a machine, after a fault has occurred, can result in further component failure for which Twose of Tiverton Ltd cannot be held liable.
- 2.03. Repairs should be undertaken within two days of the failure. Claims submitted for repairs undertaken more than 2 weeks after a failure has occurred, or 2 days after the parts were supplied will be rejected, unless the delay has been authorised by Twose of Tiverton Ltd. Please note that failure by the customer to release the machine for repair will not be accepted as a reason for delay in repair or submitting warranty claims.
- 2.04. All claims must be submitted, by an authorised Twose of Tiverton Ltd Service Dealer, within 30 days of the date of repair.
- 2.05. Following examination of the claim and parts, Twose of Tiverton Ltd will pay, at their discretion, for any valid claim the invoiced cost of any parts supplied by Twose of Tiverton Ltd and appropriate labour and mileage allowances if applicable.
- 2.06. The submission of a claim is not a guarantee of payment.
- 2.07. Any decision reached by Twose of Tiverton Ltd is final.

## **3. LIMITATION OF LIABILITY**

- 3.01. Twose of Tiverton Ltd disclaims any express (except as set forth herein) and implied warranties with respect to the goods including, but not limited to, merchantability and fitness for a particular purpose.
- 3.02. Twose of Tiverton Ltd makes no warranty as to the design, capability, capacity or suitability for use of the goods.
- 3.03. Except as provided herein, Twose of Tiverton Ltd shall have no liability or responsibility to the purchaser or any other person or entity with respect to any liability, loss, or damage caused or alleged to be caused directly or indirectly by the goods including, but not limited to, any indirect, special, consequential, or incidental damages resulting from the use or operation of the goods or any breach of this warranty. Notwithstanding the above limitations and warranties, the manufacturer's liability hereunder for damages incurred by the purchaser or others shall not exceed the price of the goods.
- 3.04. No action arising out of any claimed breach of this warranty or transactions under this warranty may be brought more than one (1) year after the cause of the action has occurred.

## **4. MISCELLANEOUS**

- 4.01. Twose of Tiverton Ltd may waive compliance with any of the terms of this limited warranty, but no waiver of any terms shall be deemed to be a waiver of any other term.
- 4.02. If any provision of this limited warranty shall violate any applicable law and is held to be unenforceable, then the invalidity of such provision shall not invalidate any other provisions herein.
- 4.03. Applicable law may provide rights and benefits to the purchaser in addition to those provided herein.



# DECLARATION OF CONFORMITY

*Conforming to EU Machinery Directive 2006/42/EC*

We,

**TWOSE of TIVERTON LIMITED,**  
6 Chinon Court, Lower Moor Way,  
Tiverton Business Park, Tiverton, Devon, EX16 6SS, UK

*Hereby declare that:*

The Product; *Tractor Mounted Post Driver*

Product Code; *TWPD*

Serial No. & Date ..... Type .....

Manufactured in; *United Kingdom*

Complies with the required provisions of the Machinery Directive 2006/42/EC  
The machinery directive is supported by the following harmonized standards;

- BS EN ISO 12100 (2010) Safety of machinery – General principles for design – Risk assessment and risk reduction.
- BS EN 349 (1993) + A1 (2008) Safety of machinery - Minimum distances to avoid the entrapment with human body parts.
- BS EN 953 (1997) + A1 (2009) Safety of machinery - Guards general requirements for the design and construction of fixed and movable guards.
- BS EN 4413 (2010) Hydraulic fluid power. Safety requirements for systems and their components.

Signed  ..... *Responsible Person*  
*CHRISTIAN DAVIES on behalf of TWOSE OF TIVERTON LIMITED*

Status: *General Manager*

Date: *September 2015*

# LIST OF CONTENTS

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## **Operator Section**

Introduction	2
Features	3
Technical data	4
Safety Information	5
Preparation & Attachment	7
Operation	8
Hydraulic Valves	9
Machine Handling	15
Transporting the Machine	16
Maintenance	16

## **Parts Section**

PD200HL / PD200HLT Parts	19
PD170HL Parts	23





## INTRODUCTION

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A range of Postdrivers offering tilt and rake to the mast together with 120° radial movement from the 3-point tractor linkage.

Left or right hand operation can be achieved together with 3-point hitch or front mount loader brackets, to give forward position, using control from the tractor or hydraulic lever option.

The re-enforced 'I' section beam and fabricated frame design ensures stability and gives strength where needed. The 200kg weight is raised using a hydraulic ram designed to give 'free-fall' to the weight, this increases the efficiency of the Postdriver and minimizes wear in the mast jaw. The unique sliding shoe arrangement allows the user to raise and lower the mast, increasing the drop speed by a factor of two for larger diameter posts. The control valve is well situated to maintain clear visibility whilst postdriving.

The tapered 200kg weight is designed so that the centre of gravity is maintained directly above the rope lifting point and the centre of the post; this reduces friction between mast and weight ensuring maximum impact on the post head.

Machines are capable of 120° of slew which is switchable to either the left or right side of the 'A' frame by transferring the ram and valve block positions. The hydraulic system on all models allows mechanical free lift together with free fall of the weight. Adjustment of the Mast is either using hydraulic valve or manual bottle jacks. Alternatively a combination of either can be supplied. A single mast support leg is located directly on the mast adjacent to the post area with additional 2 legs on the 'A' Frame to maintain stability. The rear leg is available for standard or Hi-Lift operation.

The 200kg weight is held to the ram through a pulley system using a 22mm rope knotted at the top of the mast and double clamped at the weight. The pulleys are made from cast plastic and have sealed bearings. For a single stroke of the ram the weight travels four times its distance.

To assist operation the mast is marked to give the operator guidance on drop distances. The post is held using a half moon spike on the thumper plate which has a special plastic pad between plate and weight to protect the striking surfaces.

In operation the mast can be angled to 15° tilt and rake, and for transit the mast can be angled to 35°.

Machines can be used in conjunction with a hydraulic top link to increase the mast height.

Options of telescopic arm and direct fitment to loader brackets are available.

## FEATURES

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### PD170HL

Inline Post Driver.  
3-point linkage mounted.  
200kg tapered weight.  
Striker Plate.  
Suitable for Tractors from 50HP.

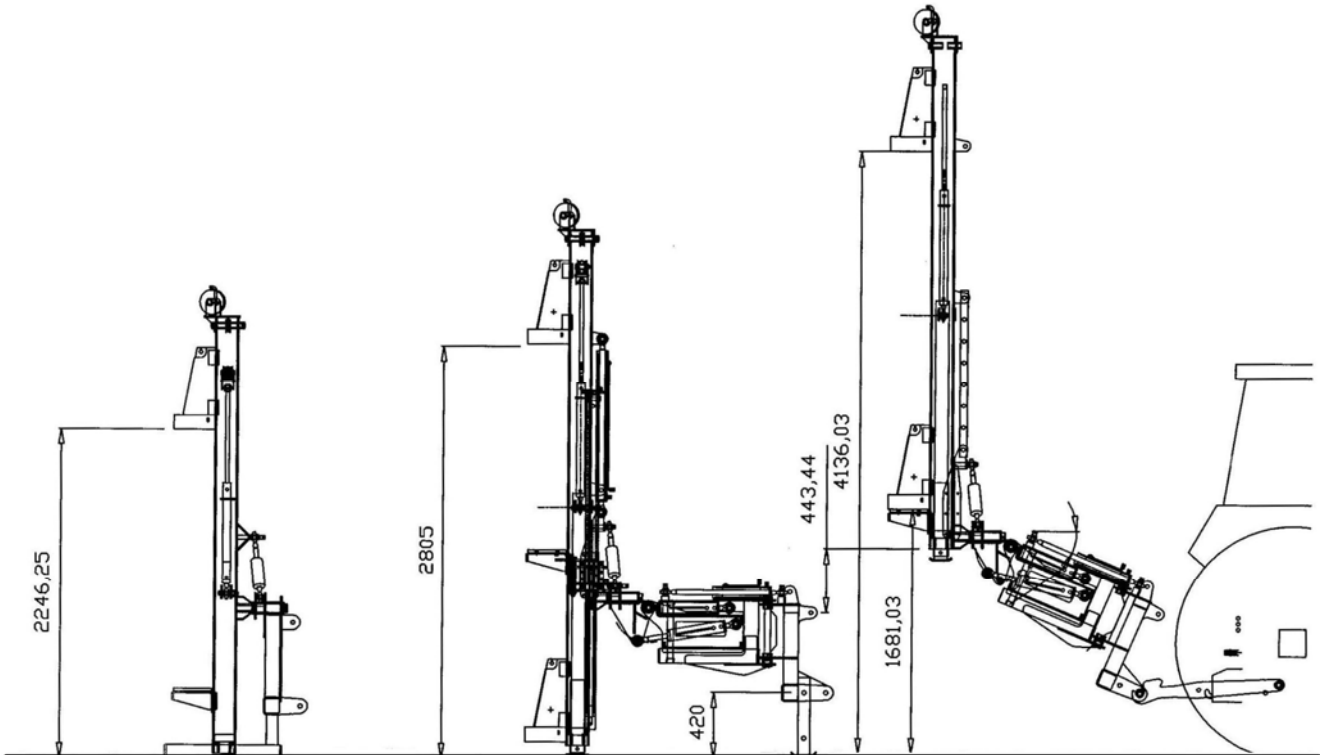
### PD200HL

Swing Round Post Driver.  
3-point linkage mounted.  
Operates to either side or behind the tractor.  
200kg tapered weight.  
Hydraulic adjustment for mast tilt and rake angle (15° in any direction).  
Adjustable post clamp Striker Plate.  
Suitable for Tractors from 65HP.

### PD200HLT

Swing Round Post Driver.  
3-point linkage mounted.  
Operates to either side or behind the tractor.  
200kg tapered weight.  
Hydraulic adjustment for mast tilt and rake angle (15° in any direction).  
Telescopic boom extension.  
Striker Plate.  
Suitable for Tractors from 75HP

# TECHNICAL DATA



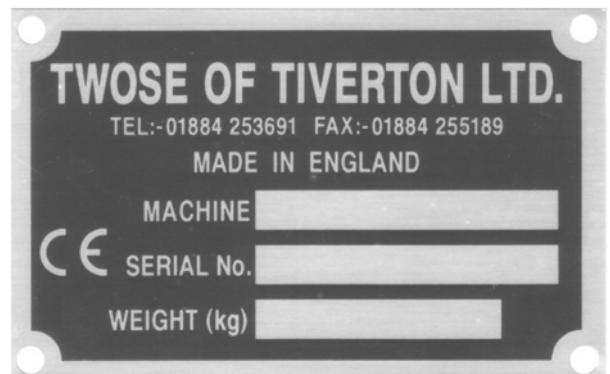
Specifications	PD170HL	PD200HL	PD200HLT
Post Driver Weight (kg)	200	200	200
Lift Ram	yes	yes	yes
Valve	option	yes	yes
Maximum Mast Height	4.7m	4.7m	5.1m
Weight Drop (maximum)	4.0m	4.0m	4.0m
Fully Hydraulic	yes	yes	yes
360° Mast Adjustment	option	yes	yes
Machine Weight (kg)	410	485	525
Tractor HP (minimum)	65	65	75

*Note: Published dimensions may vary*

## Machine Serial Number Plate

All machines will have a serial number plate fitted to them stating machine model, serial number, and machine's weight.

When ordering replacement parts or requesting service information always quote the machine model and serial number as stated on this serial number plate.



## SAFETY INFORMATION

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**In the interest of safety it is important that great care is adopted at all times during the attachment, transportation, operation and maintenance of this machine. Both the owner and the operator of the machine should read and understand the following section to ensure the safety of themselves and all other persons who enter into the close proximity of the machine.**

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**Caution:** Instruction preceded by the word Caution must be followed

**Note:** Information preceded by the word Note is to emphasise points

**Noise Emission:** Sound level at the work position does not exceed 74dB.

### **Caution**

Never attempt to assemble or operate any machinery until you have fully read and understood the instruction manual.

### **Caution**

Look for warning decals and notices on the machine and obey the instructions stated. If you are unsure in any way, contact your supplier or Twose direct.

### **Caution**

If you are not sure about attaching the machine to the tractor or have not attached a machine or a similar machine to a tractor before consult your authorised local stockist or contact Twose direct. Some tractors may need linkage stabilizers, again contact your local authorised stockist or Twose direct.

### **Note**

When attaching to the tractor 3-point linkage make sure that tractor's top and lower links are in good working order. The lower link check chains and stabilizers need to be tight.

### **Caution**

Switch off tractor engine and make sure weight is resting on its retaining plate before carrying out routine service and adjustments to the machine.

### **Caution**

Operational areas should be inspected prior to Postdriving. Any objects liable to cause a hazard should be avoided or removed.

**Caution**

**Never** operate the Postdriver weight when hands are near the top of the post.

**Never** operate if the machine with members of the public in the immediate vicinity.

**Never** transport the machine unless the mast tilt ram is over 20° angle towards the tractor cab and the weight fully lowered.

**Never** fit any parts other than genuine parts supplied by Twose of Tiverton Ltd.

**Always** wear eye and foot protection when setting posts in position.

**Always** stand at least 2-metres clear of the mast when the weight is operated.

**Always** ensure post being driven is secured to the mast before operating the Postdriver.

**Always** park the machine on a firm level base with the mast at maximum tilt towards tractor cab, and all legs fitted.

**Caution**

Check all bolts and pins are secure daily before using the machine.

**Caution**

Use ear protection if tractor noise level exceeds 74dB.

**Caution**

Each time the Postdriver is fitted to the tractor check hydraulic hoses and quick release fittings to ensure they are not damaged and check linkage pins are secure.

**Caution**

Check all fasteners and rope on the mast on a regular basis. The rope should always be checked prior to work and at least once or twice during the working day.

**Caution**

If the operation of the Postdriver becomes sluggish, check the tractor oil level and return back pressure.

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**Although the information given here covers a wide range of safety subjects it is impossible to predict every eventuality that can occur under differing circumstances whilst operating this machine. No advice given here can replace 'good common sense' and 'total awareness' at all times but will go a long way towards the safe use of your Twose machine.**

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## PREPARATION & ATTACHMENT

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### Preparation

It is important to be aware there is no oil in the hydraulic system.

Oil flow from the tractor must be restricted to 40 litres per minute.

Transport stays **must** be left on the machine until the Post Driver is connected to the tractor and all the rams charged with oil.

It is recommended that each ram is primed in turn, just enough to hold its position but not too much as to overload the transport struts.

When the rams have been primed, remove stays and operate slowly one by one to full stroke and fully prime the system. Adjust pressure from the tractor to achieve a smooth weight lift with minimum bounce.

### Initial Attachment

For ease of initial attachment to the tractor, machines can be raised using a suitable overhead lifting gear.

**Ensure lifting gear and slings used are capable of safely lifting a minimum weight in excess of the total overall weight of the machine.**

On PD200HL & PD200HLT models the lifting sling should be looped under the slide shoe on the mast.

PD170HL models have different weight balance characteristics and therefore should be slinged on the shackles provided either side of the mast.

In these instances the machines will lift in a balanced manner and allow leg adjustment to be made.

**Sling placement for PD200HL & PD200HLT models ►**



## OPERATION

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PD170HL



PD200HL



PD200HLT

### All models

- have the ability to extend mast height by sliding mast shoe lower down the mast.
- has double pulley system hydraulic lift on weight & freefall taper weight.
- fully hydraulic on slew, reach, yawl & extend.
- the option to increase the mast higher by use of hydraulic top link.
- options of long mast leg, telescopic arm, 200 or 250kg weights.
- option to have mast height hydraulically operated.

Model PD170HL can be easily fitted to a front-end loader bracket using slotted breast plate and has outrigger legs for hard standing storage.

# HYDRAULIC VALVES

## Typical Operating Valve Layout



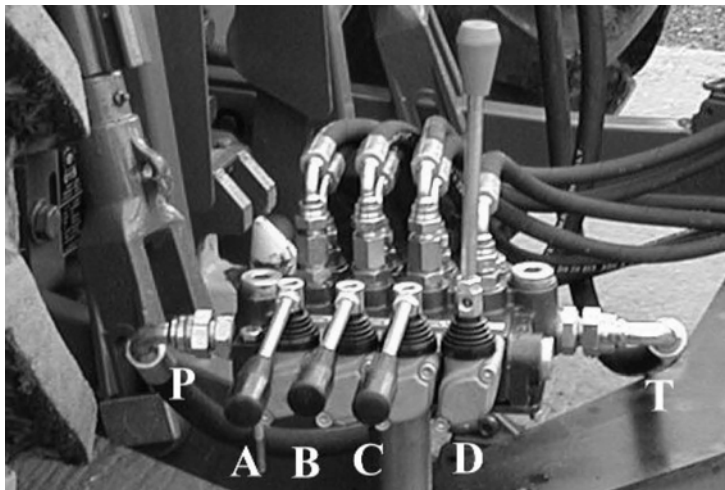
All levers 'spring return' on release holding pressure.

### Isolator Valves

Isolator valves are supplied as optional on all ram connections to secure hydraulic pressure in the circuit.



### PD200HL Valve Block

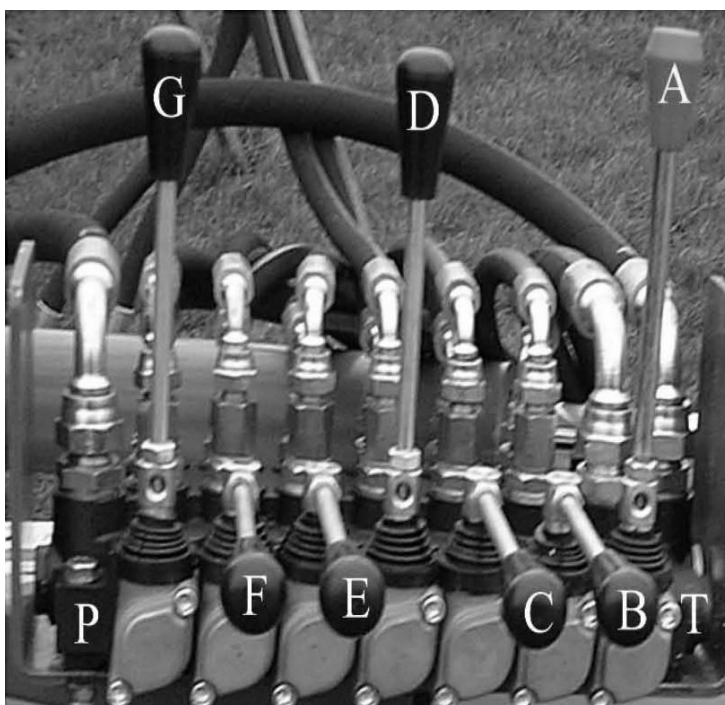


- P. Pressure  
- Bottom connection on tractor.
- T. Tank Return (\*)  
- Top connection on tractor.
- A. Mast side to side adjustment.
- B. Mast forward backward adjustment.
- C. Mast Slew left and right 120° (\*\*).
- D. Weight lift and freefall (single acting).

*Note (\*) John Deere dump to tank port second service or adaptor kit available).*

*Note (\*\*) Ram position can be moved to enable 120° from opposite side of headstock.*

### PD200HLT Valve Block



- P. Pressure  
- Bottom connection on tractor.
- T. Tank Return (\*)  
- Top connection on tractor.
- A. Weight lift and freefall (single acting).
- B. Mast Slew left and right 120° (\*\*).
- C. Mast forward backward adjustment.
- D. Mast side to side adjustment.
- E. Telescopic.
- F. Post Spike.
- G. Mast raise and lower.

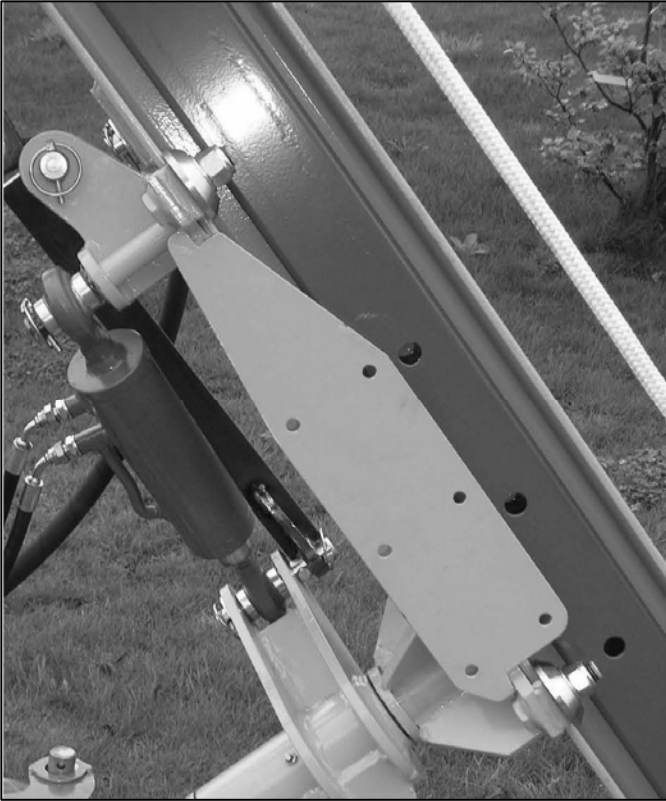
*Note (\*) John Deere dump to tank port second service or adaptor kit available).*

*Note (\*\*) Ram position can be moved to enable 120° from opposite side of headstock.*

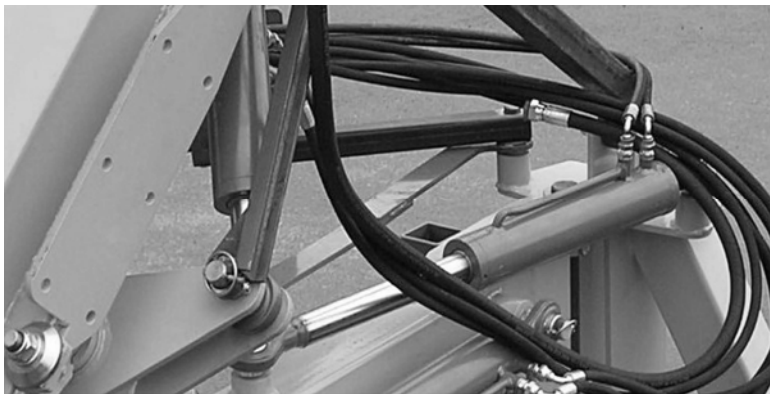


## Mast Slide

The mast is held in position by 4 retaining collars located on the slider. Mast adjustment is performed with the mast foot located on the ground; loosen the collars before dropping or lifting the tractor linkage then re-tighten the 4 retaining collars. A stay is optional between mast & slider.



The mast slider also houses the main pivot spindle for yawl (side movement) and the 6 hole fixings are for the post spike. When lifting the machine with a jib crane use a rope sling around shoe ram - this will lift the machine level when the legs are in the transport position.



### ◀ Mast Slew Ram

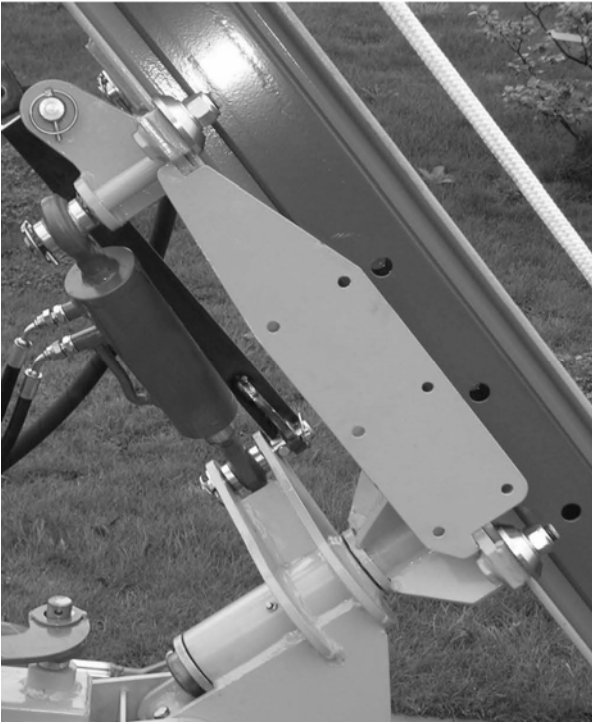
Mast slew left and right up to 120° - ram position can be moved to enable 120° slew on opposite side of headstock.



### ◀ Position Ram

Mast forward backward adjustment.

## Mast Side to Side Adjustment



Hydraulic



Manual

### CAUTION!



Do not stand between Mast and Headstock when adjusting Mast working position.

### WARNING!



Top Link turnbuckles by their nature can be fully unscrewed. The maximum recommended angle from vertical of the mast tilting away from the tractor is 15° (590mm centres). A check chain is fitted to stop the mast exceeding its design limit.

**CAUTION:** Never exceed the safe working thread length of the Turnbuckles.

## Thumper Plate

The thumper plate fits into the mast profile and allows the post to be accurately set into the ground without the need of a strap. The weight strikes the hardened 20mm nylon block fixed to the plate. There is a locating ring welded to the plate that holds the post – *this allows the mast to be moved in any direction, assisting vertical post driving.*

Two chains are attached to the thumper plate, these allow the Plate to be raised off the post when correct height achieved. Chains are looped over pegs welded to the sides of the weight.

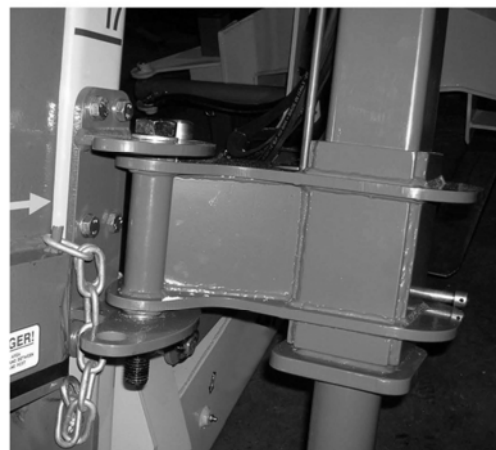


## Post Spike

A post spike attachment is available to assist post driving where stone and shale demand pre-post hole preparation. The spike bolts to the side of the mast and when needed hinges around under the thumper plate located in the jaws of the mast. The top of the spike is located in the thumper gussets and locating peg.



Special Thumper Plate



Hinge Bracket



Transport Storage Position



Working Position

Raise the weight by operating the lifting ram with special thumper plate attached using lifting chains. Remove the retaining pin on spike pivot from 'transport position' and swing the whole assembly into the mast area under the thumper plate and locate retaining pin into 'work position'.

Position the mast into the vertical work position, there can be up to 100mm gap between spike nose and ground level to release the spike for work.

Activate spike ram until pressure on the ground.

Remove the spike holding pin.

Retract ram spike allowing body to drop into nose scamber, all load will then be off the ram whilst the spike is breaking into the soil.

**Warning do not place hands on top of spike assembly**

Release weight slowly allowing thumper plate to slide down the mast and locate on the post spike peg.

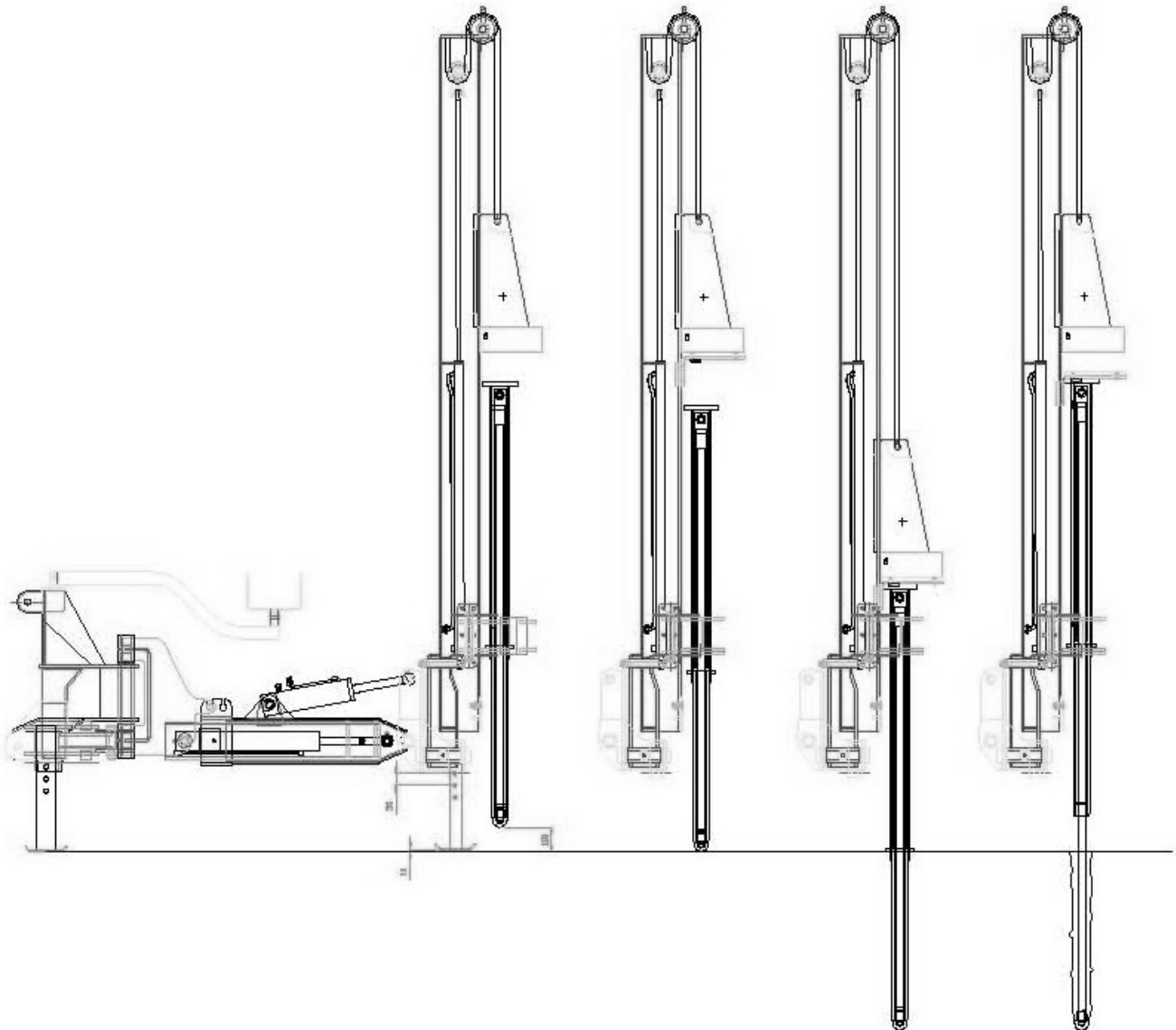
Release the chains on thumper plate from weight.

Use the weight as normal to force the spike into the ground until required depth is achieved.

### To Remove Spike

Activate the valve for the ram attached to the spike nose so it extends pushing the spike out of the hole and retain using the spike holding pin.

Retract ram until the nose is fully returned into spike – *ensure there is no earth compacted between nose and tube housing.*



## Parking the Machine (PD200HD & PD200HDT Models)

The most stable parking position for the machine is with the 2 headstock legs set to down position, the mast leg at its lowest position and the mast at its maximum angle towards the tractor cab with the weight at its lowest position.

Lower the Postdriver onto a hard level surface suitable to take the machines weight.

Release hydraulic coupling connection to tractor.

Adjust top link to take the weight off the top link.

Remove tractor top link pin position.

Uncouple lower tractor lower links.

Carefully drive the tractor clear of the machine making sure there are no obstructions.

## Machine Handling

**PD200HD & PD200HDT models** have the option of two types of lifting points for handling, these are stated below;

- 1) Fork truck lifting points welded to the underside of the headstock; *access is via tractor mounting side with the fork truck as close to the headstock as mast will allow - the unit can then be moved with caution on even ground.*
- 2) The machine can be lifted using a choker rope sling around the mast & slide bracket - *lifting here will raise the machine at its optimum balance point.*

**PD170HD models** should only be lifted or removed off the tractor using the lifting shackle points marked on the mast slider. When suspended, swing the front legs to align with bottom link holes and lock in position using bottom link pins. Only store on level concrete and check stability before removing slings.

Storage after use should be with the machine strapped to a post secured in the ground or removed off the tractor and supported at its sling points.



## **Transporting the Machine**

Transport stays are fitted to each ram pivot to ensure the Postdriver is locked rigid during transport.

When transporting the machine mounted on the tractor, speed should be kept to a minimum especially on bumpy or uneven terrain – do not travel across rough ground without all hydraulic rams primed.

**CAUTION** – On initial delivery from the factory the hydraulic rams will not have any oil in them; therefore hydraulic machines, without transport stays, are unstable until they have been primed with oil from the tractor.

## **MAINTENANCE**

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### **Daily Maintenance**

- Visual inspection of rope.
- Check all hydraulic connections for leaks.
- Check retaining pins are secure.
- Check mast shoe retaining nuts are secure.

### **Weekly Maintenance**

- Grease all points.
- Check hydraulic connections.
- Check lift ram pulley retaining nut.
- Check rope fixing points.

### **Rope Replacement**

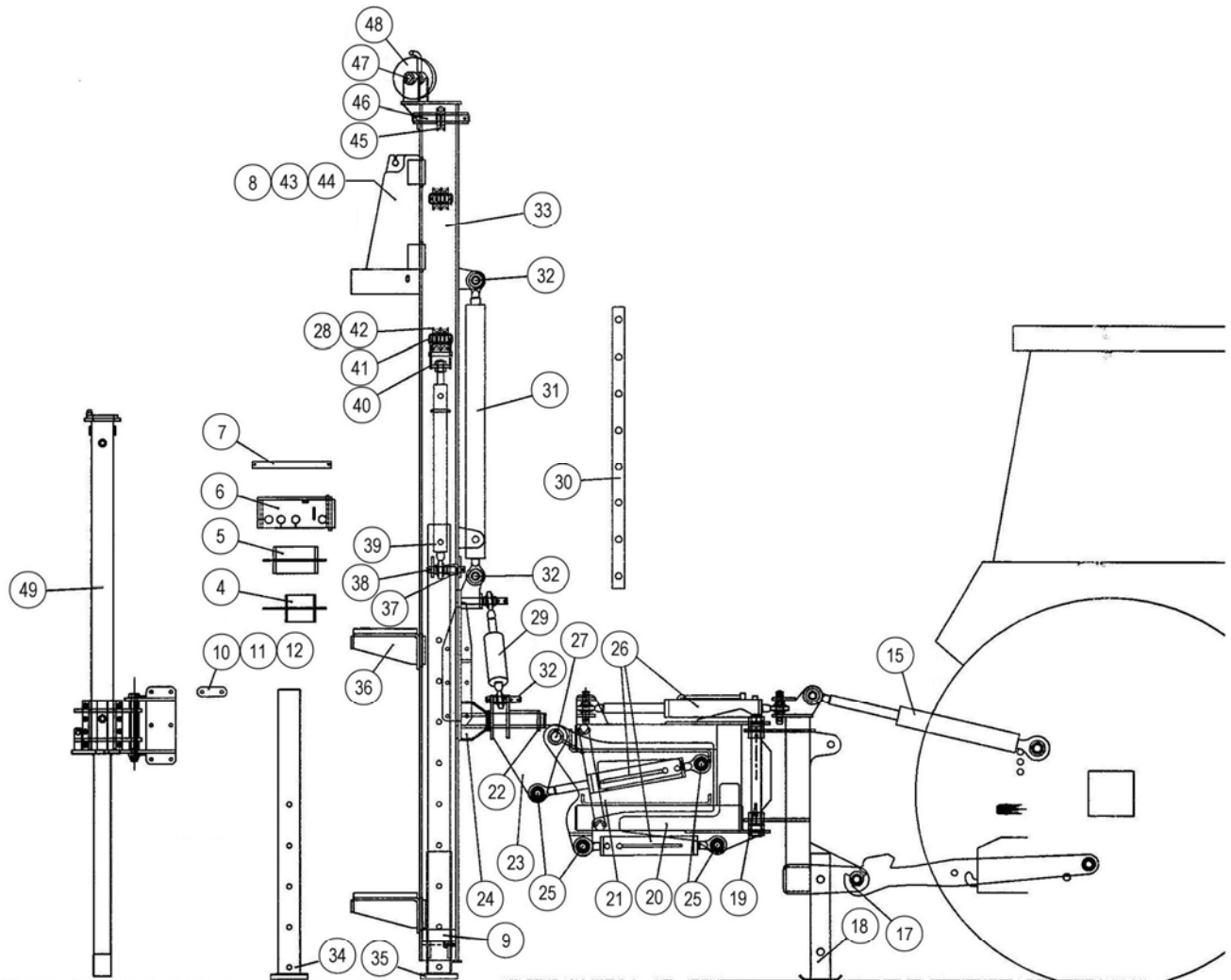
The rope supplied is a double braid quality and as such has great flexibility combined with strength and durability. The rope must be checked regularly and always prior to using the machine use; where the rope is damaged or shows signs of weakness or wear it must be removed immediately and replaced as stated below.

- 1) Feed rope end through hole in top of mast plate and knot in place - *use a figure of eight knot.*
- 2) To remove the 'set' in the rope due to its newness, pull rope against knot and create whipping action - *carry out this action several times.*
- 3) Loosen lift ram hose connection, allowing rod to be moved by hand.
- 4) Fit rope around ram pulley and over mast pulley.
- 5) Pull rope making ram piston reach full stroke, repeat a couple of times.
- 6) Re-secure the rope to weight with two clamps - *leave some slack in the rope.*
- 7) Re-tighten feed hose to main lift.
- 8) Initially lift the weight up the mast slowly to check rope and ensure the weight stops before it hits the top of the mast – *adjust if required.*

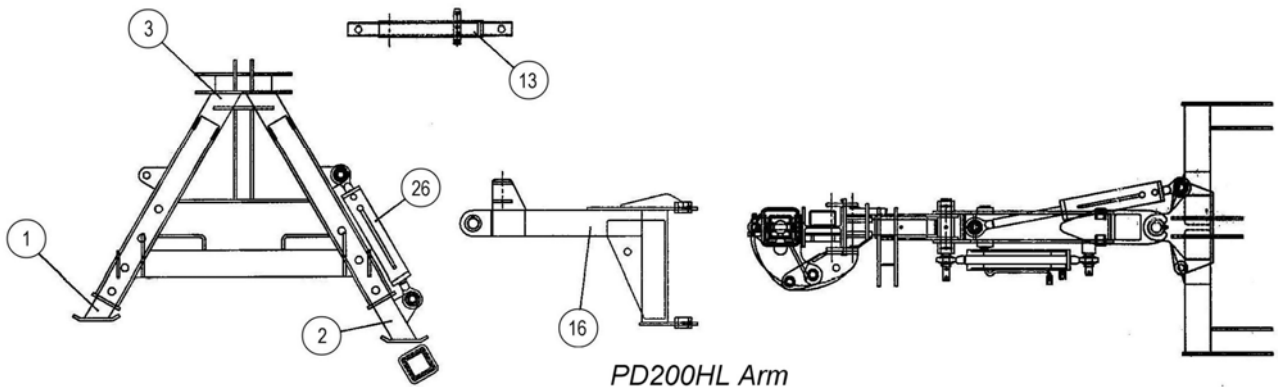




**TWOSE POSTDRIVER**  
**PD170HL / PD200HL / PD200HLT**  
**PARTS SECTION**



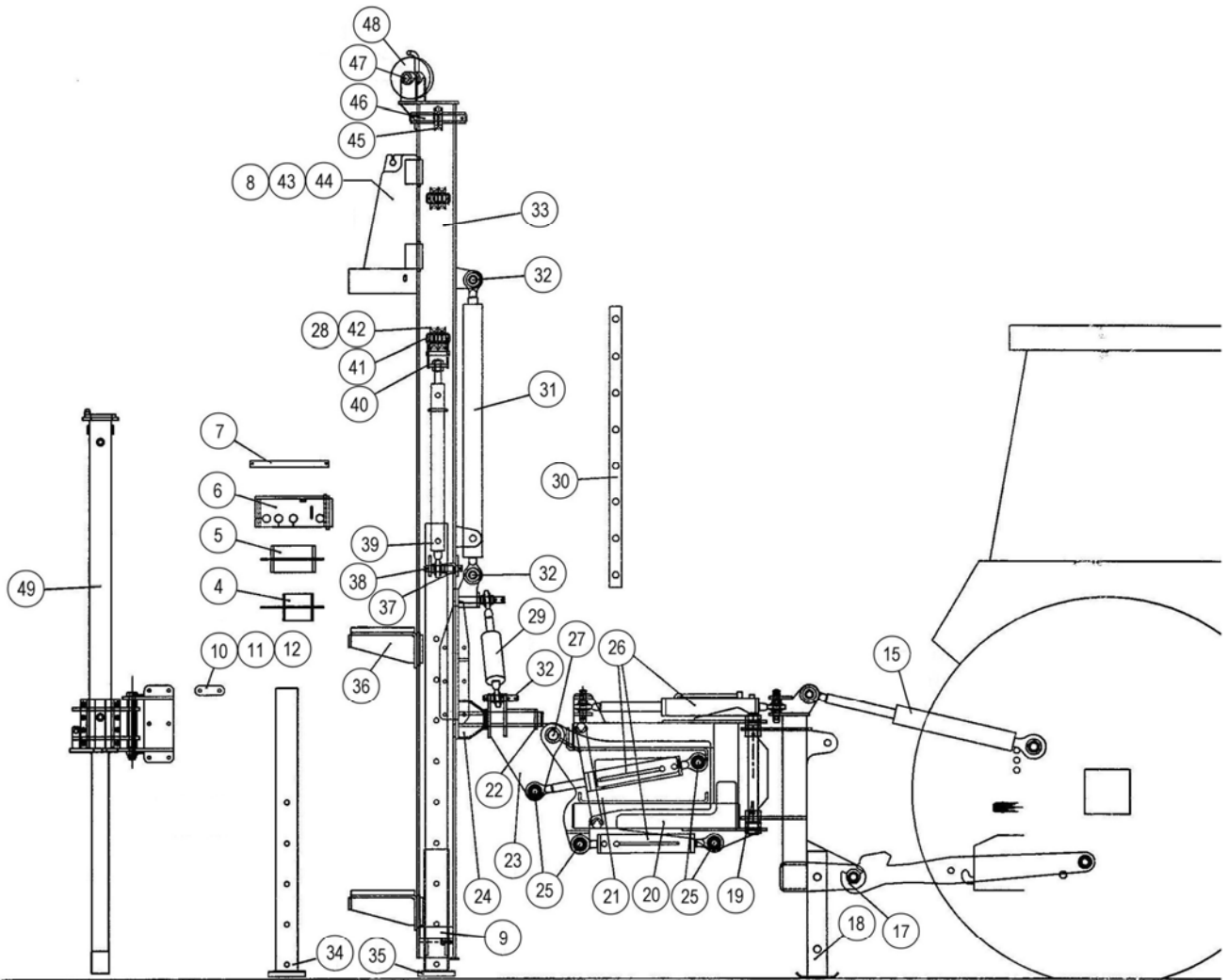
PD200HLT



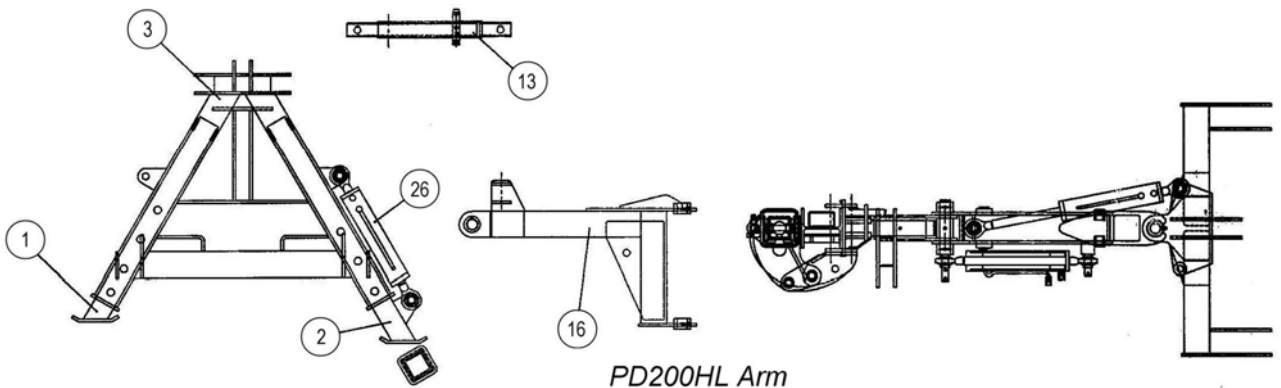
PD200HL Arm

## PD200HL / PD200HLT MODELS

REF.	QTY.	PART No.	DESCRIPTION
			<b>POSTDRIVER PD200HL / PD200HLT</b>
1	2	220.002	LEG
2	2	220.003	LEG
3	1	220.004	'A' FRAME
4	A/R	220.005	POST GUIDE (4")
5	A/R	220.006	POST GUIDE (6")
6	A/R	220.007	POST HOLDER
7	A/R	220.008	GUIDE BAR
8	1	220.009	120KG WEIGHT
9	1	220.010	WEIGHT STOP
10	A/R	220.011	SHIM - 3mm
11	A/R	220.012	SHIM - 2mm
12	A/R	220.013	SHIM - 1mm
13	1	220.014	STAY
14	1	220.015	VALVE SUPPORT
15	1	220.016	HYDRAULIC TOP LINK
16	1	220.017	GATE
17	1	220.018	'A' FRAME
18	2	220.019	LEG
19	1	220.020	PIN
20	1	220.021	TELESCOPIC GATE
21	1	220.022	TELESCOPIC SLIDER
22	1	220.023	WASHER
23	1	220.024	ROCKER
24	1	220.025	SHOE
25	4	220.026	PIN
26	3/5	220.027	RAM
27	1	220.028	PIN
28	1	220.029	SPACER
29	1	220.030	RAM
30	1	220.031	STRUT
31	1	220.032	RAM
32	3	220.033	PIN
33	1	220.034	MAST
34	1	220.035	STAND LEG
35	1	220.036	STAND LEG
36	1	220.037	POST HOLDER
37	1	220.038	SPACER
38	1	220.039	PIN
39	1	220.040	RAM
40	1	220.041	CLEAT
41	1	220.042	PIVOT PIN
42	1	220.043	PULLEY



PD200HLT

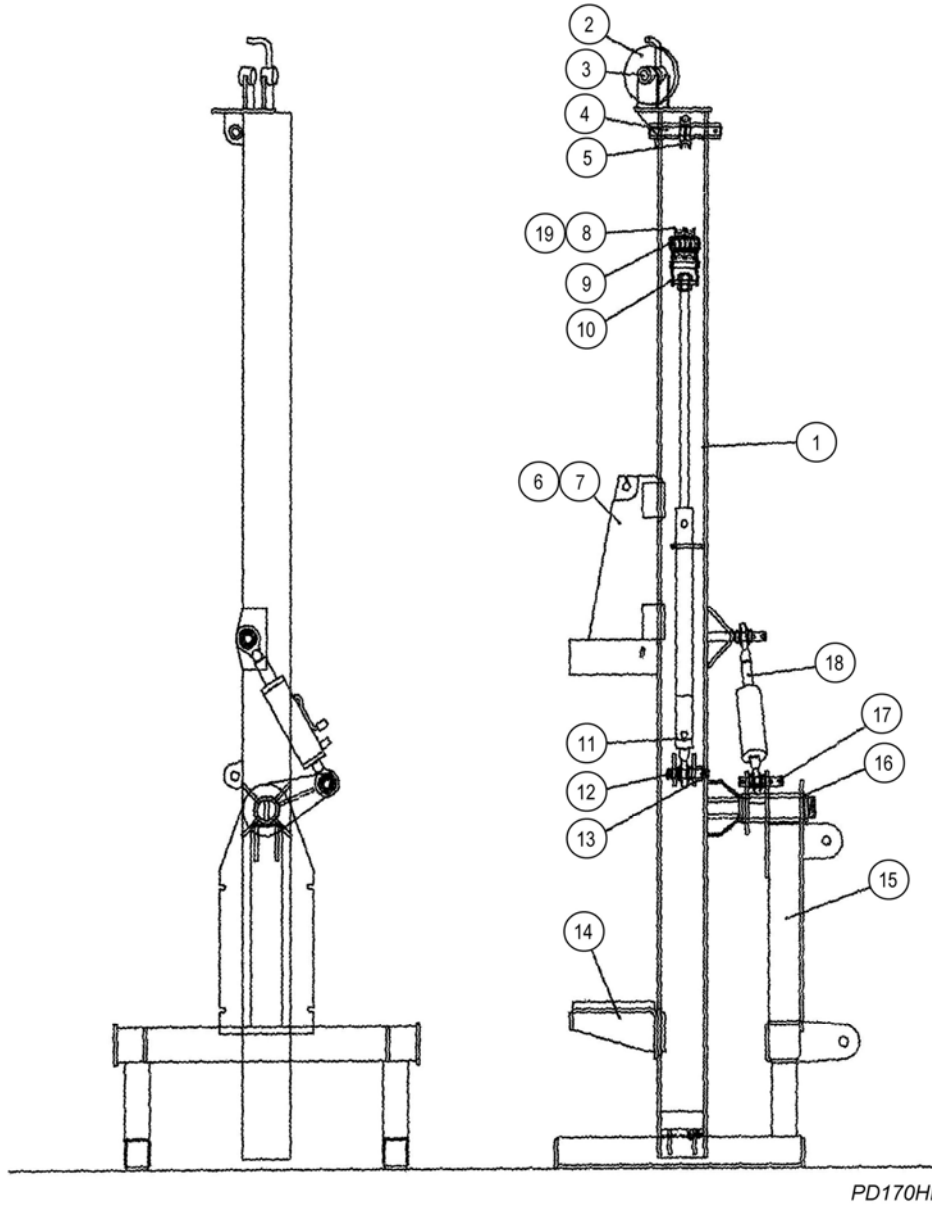


PD200HL Arm

## PD200HL / PD200HLT MODELS

REF.	QTY.	PART No.	DESCRIPTION
			<b>POSTDRIVER PD200HL / PD200HLT</b>
43	1	220.044	250KG WEIGHT
44	1	220.045	200KG WEIGHT
45	1	220.046	PULLEY
46	1	220.047	PIVOT PIN
47	1	220.048	PIVOT PIN
48	1	220.049	PULLEY
49	1	220.050	ROCK SPIKE
50	1	220.001	BRAIDED ROPE - <i>not shown</i>

PD170HL MODEL



PD170HL

## PD170HL MODEL

REF.	QTY.	PART No.	DESCRIPTION
			<b>POSTDRIVER PD170HL</b>
1	1	220.055	MAST
2	1	220.049	PULLEY
3	1	220.048	PIVOT PIN
4	1	220.047	PIVOT PIN
5	1	220.043	PULLEY
6	1	220.045	200KG WEIGHT
7	1	220.044	250KG WEIGHT
8	1	220.043	PULLEY
9	1	220.042	PIVOT PIN
10	1	220.041	CLEAT
11	1	220.054	RAM
12	1	220.053	PIN
13	1	220.052	SPACER
14	1	220.037	POST HOLDER
15	1	220.051	FRAME
16	1	220.023	WASHER
17	1	220.033	PIN
18	1	220.030	RAM
19	1	220.029	SPACER

