

Protech Machinery

P30 CONTRACTOR Post Driver

Operator and Parts Manual



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EC DECLARATION OF CONFORMITY
Conforming to EEC Directive 98/37/EC

We Protech Machinery Ltd

of Woolridge Farm
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Hereby declare that the product: **POSTDRIVER**
Product Code **P30 CONTRACTOR**
Serial Number series

Manufactured by the above Company complies with the required provisions of the Directive 98/37/EC

To effect the correct application of the safety requirements stated in the EEC Directives, the following standards and/or technical specification have been used:

BS EN 292-1: 1991 Safety of Machinery – Basic concepts, general principals for design – Basic terminology, methodology.

BS EN 292-2: 1991 Safety of Machinery – Basic concepts, general principals for design – Technical principals and specifications.

BS EN 294: 1992 Safety of Machinery – Safety distances to prevent danger zones being reached by the upper limbs.

BS 5401: 1990 Guide to information content and presentation of operator's manuals provided for tractors and machinery for agriculture and forestry.

Signed.....
On behalf of Protech Machinery

Status..... Director.....

Date..... 30th August, 2011.....

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IMPORTANT NOTICE

Please read this manual before fitting or operating this machine. Whenever any doubt exists please contact Protech Machinery for assistance. If the machine is resold the Manual must be given to the new owner.

Introduction

Dear Customer

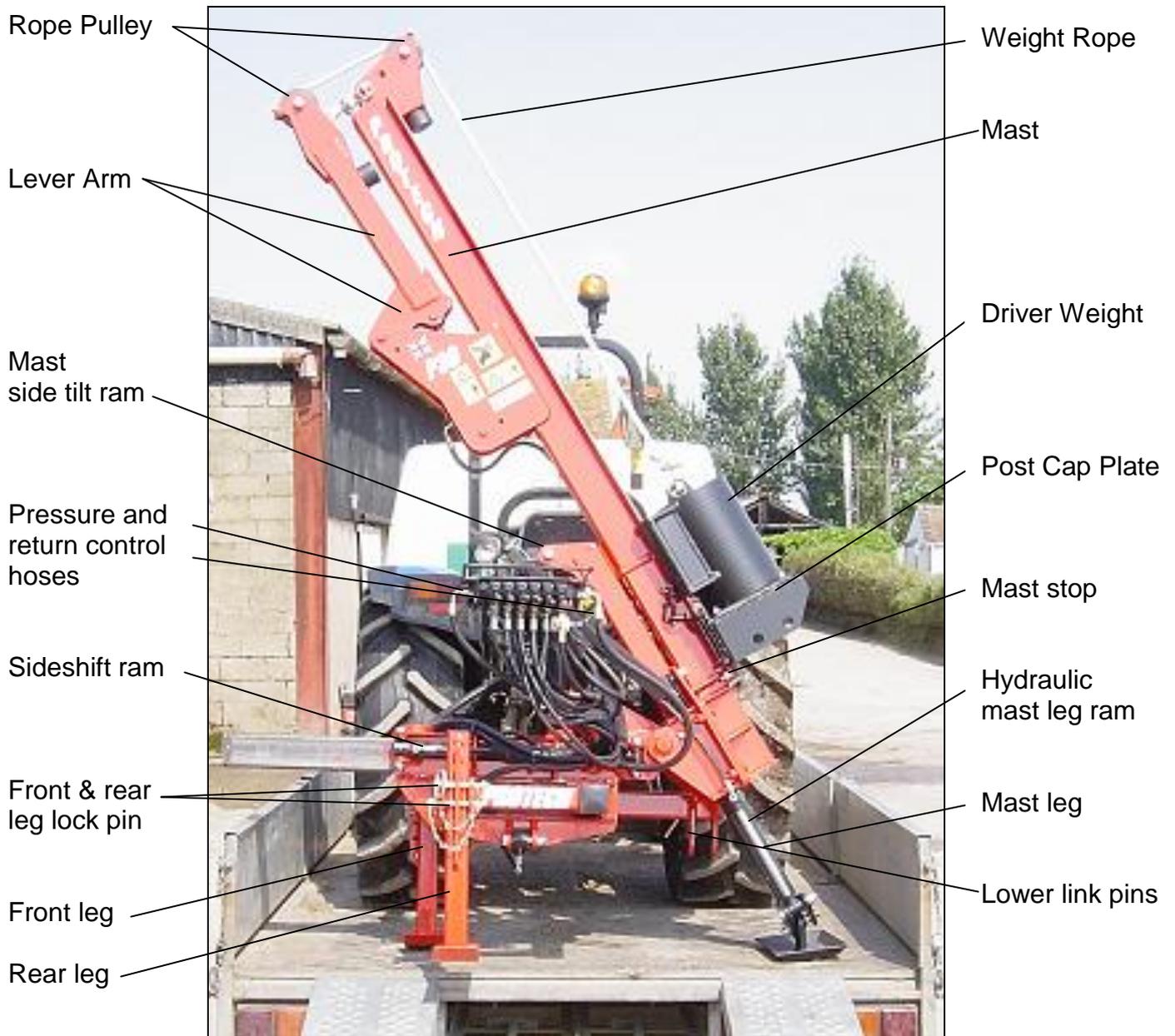
Thank you for purchasing a Protech P30 CONTRACTOR Post Driver. Protech Machinery Ltd has produced this User Guide to assist and help you to get the most from your post driver.

This manual is line with the relevant Health and Safety regulations to assist you with operating this machinery without harm to yourself.

You should be aware that any person operating this machine with your permission must be given adequate guidance and information to allow him or her to use the machine safely.

Where as every effort has been made to ensure the Post Driver conforms to Protech policy of quality, the machine cannot be expected to withstand abuse caused by misuse and negligence by the operator.

Product Specification



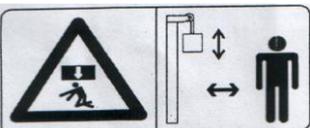
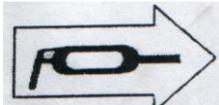
Total Weight	600kg
Min Tractor Horsepower	From 35 HP
Max oil flow	50L/MIN
Oil pressure	150 bar
Linkage type	Cat 1

Safety Rules

	<p>Whenever possible, warning Pictograms {Labels without words} or warning labels are used on both the machine near the point of danger, and in this user manual near the relevant instructions</p>
	<p>Before fitting the Post Driver to the Loader, it is the operator's responsibility to ensure the stability of the Loader and Post Driver in all anticipated conditions, and that the Loader is suitable for the Post Driver.</p>
	<p>Before using the Loader, check that it is in correct working condition, with correct fluid levels and correct tyre pressure.</p>
	<p>Only the operator must control the Post Driver, Spectators must be kept away from the machine at all times.</p>
	<p>The post cap plate must be used to hold posts at all times. Under no circumstances should the post be held manually while operating the Post Driver.</p>
	<p>Before using the Post Driver, test the hydraulic system for leaks. If a small leak is obvious, check the location using a piece of cardboard. Small high pressure leaks can penetrate the skin which need medical attention.</p>
	<p>During maintenance or adjustments:</p> <ul style="list-style-type: none"> • Ensure that the weight is fully down, with the rope relaxed. • Ensure that the hydraulic pressure is released. • Ensure that the Loader engine is switched off and the handbrake is secure on.
	<p>During Transport ensure:</p> <ul style="list-style-type: none"> • That the weight is fully down • That the Post Driver is carried low to the ground and with the mast crowded back for stability and maximum clearance from overhead obstructions. • Ensure that the transport lock is fitted to the mast tilt ram. • Always drive at a safe speed and in complete control of the vehicle. <p>When working on sliding ground, it is far safer to drive up and down rather than across the slopes.</p>
	<p>Always check for worn hydraulic components. Any damaged rope must be replaced before failure occurs – and must be a certified Protech replacement.</p>
	<p>No mast supporting components must be moved until the mast is securely held in the vertical position.</p>

Label Identification

Where possible, warning labels are used both on the machine near the point of danger and in this user Manual.

	<p>Standard Triangle to indicate Alert/Warning</p>
	<p>Warning read Product Manual</p>
	<p>Warning danger area from tilting mast</p>
	<p>Warning danger of feet being crushed.</p>
	<p>Warning eye protection must be worn</p>
	<p>Warning ear protection must be worn</p>
	<p>Warning Danger of falling weight</p>
	<p>Warning Danger of overhead cables</p>
	<p>Lubrication Point</p>
	<p>Lifting point</p>

Delivery and installation of the Post driver.

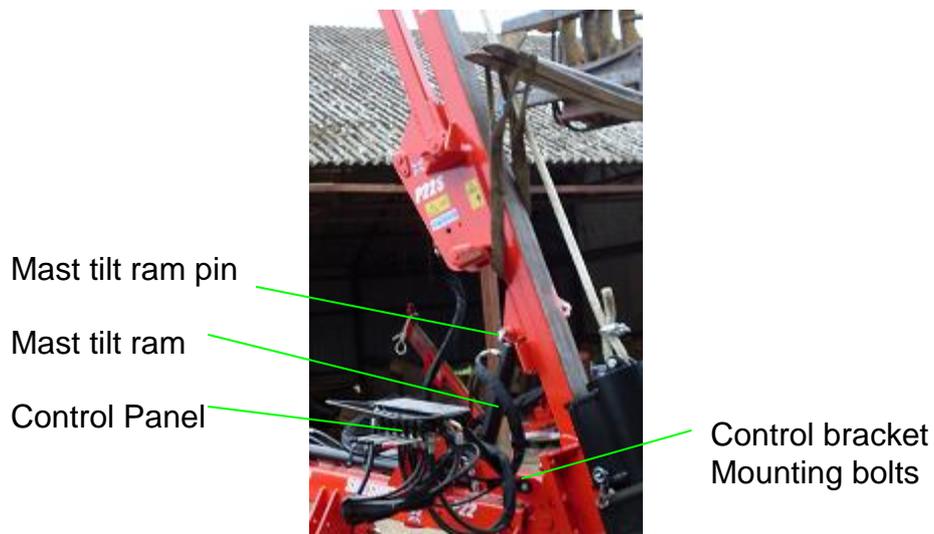
If the Post Driver has been delivered on a pallet then follow this assembly procedure. To unload the pallet from the delivery lorry you will need a minimum 1 ton lift capacity loader with pallet tines. Position the pallet onto level and hard ground.

1. Using a loader with a 1 ton minimum lift capacity and with pallet tines, attach a lifting sling (minimum 2 ton lifting sling) around the mast of the post driver and onto both pallet tines of the loader as shown.



Raise the loader just so the lifting sling becomes taut.

2. Remove all banding which strapped the post driver to the wooden pallet.
3. To connect the mast tilt ram, carefully raise the loader to tilt the mast.

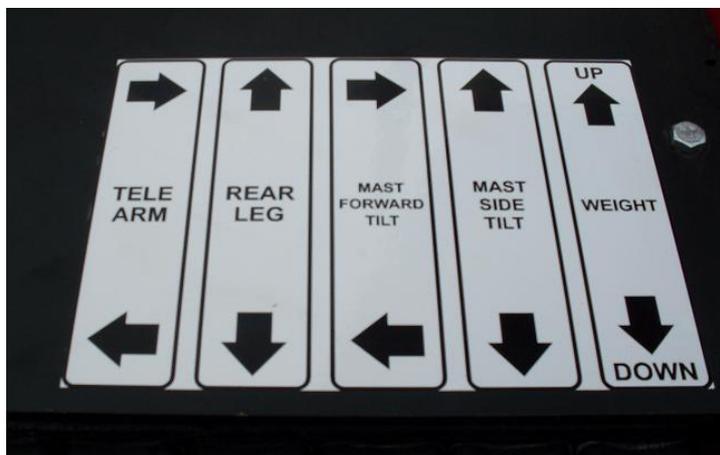


Once the mast tilt ram holes are aligned then fit the mast tilt ram pin. **Never put your fingers through these holes to align the pin.** If the control panel is not attached then bolt the control panel with the mounting bolts supplied.

- Carefully raise the loader to lift the Post driver off the ground and remove wooden pallet.



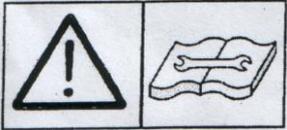
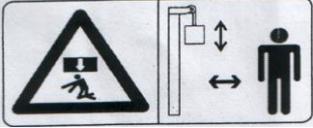
- All legs must now be levelled. With the post driver still raised off the ground connect the pressure and return control hoses to the tractor. Be careful not to stretch these hydraulic hoses.



- Operate the rear leg control lever which will raise and lower the mast leg. Carefully lower the loader to rest the post driver onto the ground and operate the rear leg so all legs are level and touching the ground. This will make the machine level and stable. With the post driver on the ground remove the lifting sling and disconnect the pressure and return control hoses from the tractor.
- Backshift option is available which travels at 90° to the sideshift and parallel to the fenceline allowing forward & backward adjustment.

The post driver is now ready to be attached to the tractor.

Safe use of post driver

<p>1.</p> 	<p>Before the Post Driver is used, ensure that every single person who works with or works close to the post driver reads and understands this manual.</p>
<p>2.</p> 	<p>Ensure that all Personnel working near to the post driver must wear protective clothing, i.e. Eye and Ear defenders, strong safety boots and gloves.</p>
<p>3.</p> 	<p>There is a danger of injuring feet under the foot, so no person must be in this area when the Post Driver is raised or lowered by the Loader.</p>
<p>4.</p> 	<p>There is a danger from crushing under the falling weight. No person must be near the post when the weight is falling. Never put a hand on top of the post under any circumstances.</p>
<p>5.</p> 	<p>Be aware of overhead cables</p>
<p>6.</p> 	<p>There is a danger of the mast tilting and creating a trapping zone, no person must be in this area.</p>

7. Reverse the Tractor to the Post Driver and attach the lower link arms to the link brackets on the Post Driver. Fit the supplied pins and securing lynch pins.
8. Connect the Pressure and return control hoses to the tractor hydraulic service.
9. Operate the mast side tilt control lever to work the hydraulic top link. Extend the hydraulic top link to align with the top link mounting hole of the tractor and fit top link pin and secure with lynch pin.

10. Adjust the Tractor link arm stabilisers to centralise the Post Driver and reduce excessive lateral sway.
11. Raise the tractor links arms to raise the post driver of the ground and remove the stabilising leg stand.
12. For the first use of the post driver, carefully operate all control levers to clear any air that might be trapped in the hydraulic system.
13. Manually start a post in the desired location so it becomes self supported. Make sure the tractor and post driver are at a safe distance away from the manual process.
14. Make sure the Post Cap chain on the side of the Post cap is hooked onto the driver weight and secured with the lynch pin. Then drive the tractor and post driver into position with the weight and post cap raised a short distance as to clear the top of the post. **Never put your hand on top of the post cap plate or underneath the driver weight.**
15. Once in position and with the hydraulic rear leg in the fully closed position fully lower the post driver on the tractors linkage until the front legs are resting on the ground. For uneven ground the front leg lock pin can be removed which allows the front legs to pivot and rest more level. The Tele arm, Mast forward tilt and mast side tilt control levers can be operated to align the machine with the post. Once at the desired position, operate the rear leg control lever to lower the mast leg onto the ground and stabilise the machine.
16. Carefully lower the post cap and driver weight onto the post and release the post cap plate by unhooking both post cap chains.
17. With all persons at a safe distance from the post driver, operate the weight control lever to raise weight and then lower, allowing the weight to fall to hit the post
18. Raise and drop the weight until the driven position of the post has been achieved.
19. Never drop the weight with the post cap resting on the mast stop. This will cause damage to the machine.
20. Once at the driven position then connect the post cap back onto the driver weight using the post cap chain and secure with lynch pins. Carefully raise the driver weight and cap plate off the post using either the weight control lever. Then drive the tractor and post driver away from the post. Once clear of the post fully lower the weight. **Do not drive around with the driver weight raised up in the air.**

<p style="text-align: center;">NEVER PUT HANDS ON TOP OF THE POST UNDER ANY CIRCUMSTANCES.</p>

Safe Use of Telescopic Mast Option



Telescopic Mast raised
up and down

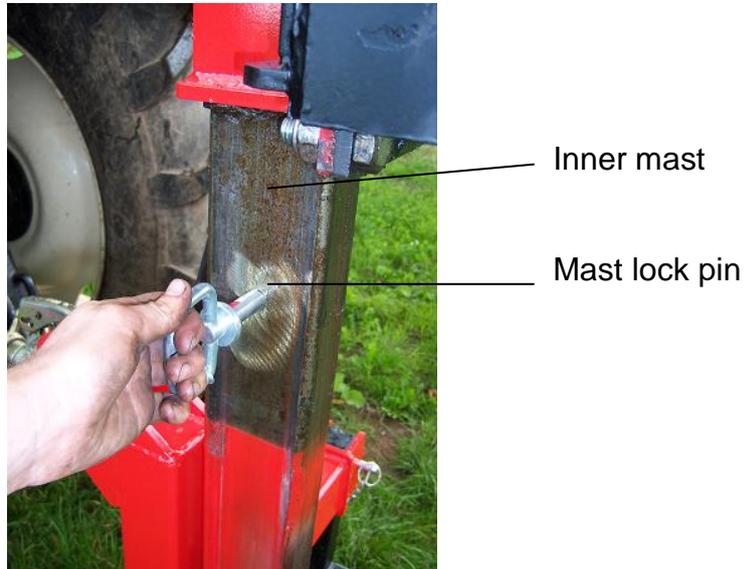
**NEVER
PUT HANDS ON TOP
OF THE POST
UNDER ANY
CIRCUMSTANCES**

1. The Telescopic Mast option enables up to 12 foot posts to be driven in the ground.
2. Operate the Tele Mast lever to familiarise yourself with this function. This will raise and lower the mast.
3. Depending on the post height, operate the Telescopic Mast ram to raise the Mast clear of the post.
4. Carefully lower the post cap and driver weight onto the post and release the post cap plate by unhooking both post cap chains.
5. With all persons at a safe distance from the post driver, raise the driver weight then move the Tractor valve to exhaust the system, allowing the weight to fall to hit the post.
6. Raise and drop the weight until the driven position of the post has been achieved.
7. Never drop the weight with the post cap resting on the mast stop. This will cause damage to the machine. Always lower the telescopic mast first to give distance (minimum 300mm) between the post cap and mast stop.
8. Once at the driven position then connect the post cap back onto the driver weight using both post cap chains and secure with lynch pins. Carefully raise the driver weight and cap plate off the post using either the lever ram or telescopic mast ram. Then drive the tractor and post driver away from the post. Once clear of the post fully lower the telescopic mast and lever ram. Do not drive around with the driver weight raised up in the air.

2nd stage Telescopic Mast

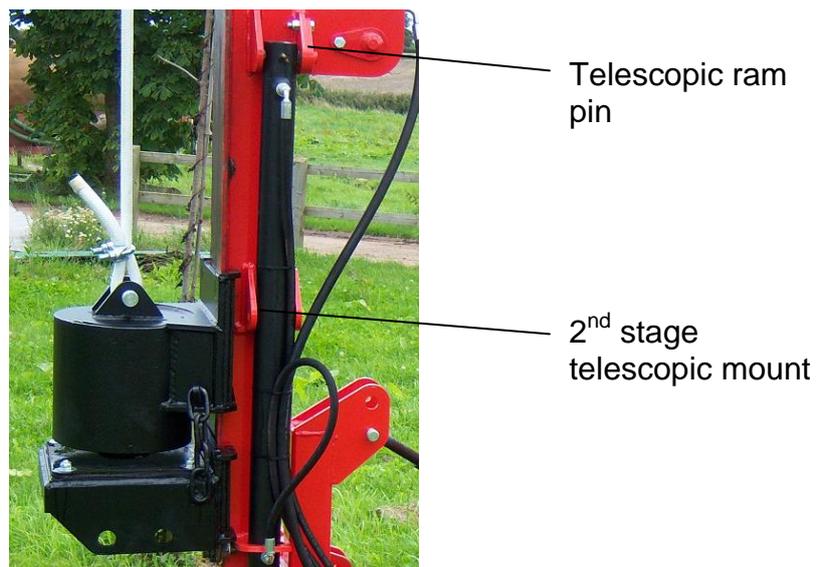
**This position is only used for tall posts (12ft and over)
such as for deer fencing**

1. Fully raise the telescopic mast, then fit the mast lock pin through the inner mast hole and secure with the lynch pin.



If there are multiple holes in the inner mast then always use the uppermost hole.

2. Carefully lower the telescopic mast onto the pin just enough to carry the weight of the mast. Do not power down onto the pin.
3. Turn off the tractor and operate the telescopic ram to relieve any pressurised oil; then remove the telescopic ram pin. Restart the tractor and retract the telescopic ram to align with the 2nd stage mounting holes. **Never ever use your finger to align the holes.** Once the holes are aligned re fit the telescopic ram pin.



Raise the telescopic mast and remove the mast lock pin. The post driver is now ready for use. To adjust back to the 1st position apply the same procedure. Never remove post driver from the tractor with the mast in the 2nd stage position.

Transportation of the Post Driver.

Always lower the weight and release any hydraulic pressure.

Always carry the Post Driver on the Tractor Linkage as low as possible but without hitting the ground.

Storage and unhitching the Post Driver

Before unhitching from the tractor always fit the stabilising leg stand & front leg locking pins and secure with lynch pins.

Where possible, store the Post Driver away from areas that have public access

Store the Post Driver on level, stable ground.

Lower the weight and release any residual hydraulic pressure.

Store the hydraulic hose in a clean, secure place.

The Post Driver must be stored in a position to be easily reconnected to the tractor.

Maintenance of the Post Driver

Daily

Check weight rope for any signs of wear. If in doubt, change the rope.

Check hydraulic hoses for any signs of wear. If in doubt change the hose.

Grease rope pulleys.

Apply grease to the face of the mast.

Weekly

Check the hydraulics for leaks.

Grease all arm pivots.

Check the rope pulleys turn freely.

Check all pivots for wear.