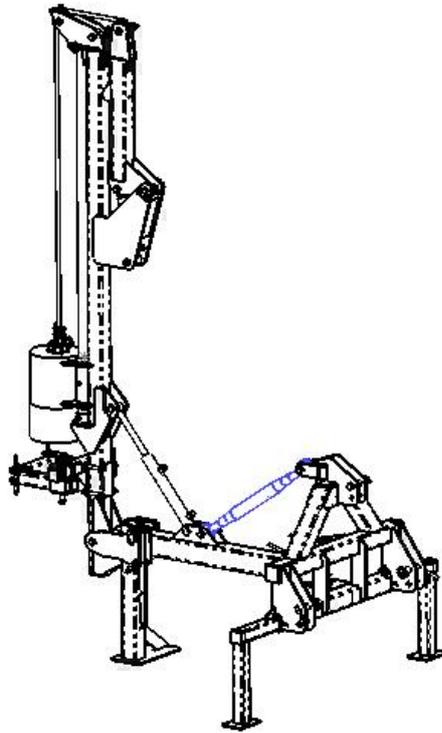


**Protech Machinery**

# **P180 and P180s 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  
Gloucester Road  
Hartpury  
Gloucestershire  
GL19 3BG

Hereby declare that the product:                   **POSTDRIVER**  
Product Code   **P180**  
Serial Number series                               **10160411**

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**.....

**Date**.....

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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

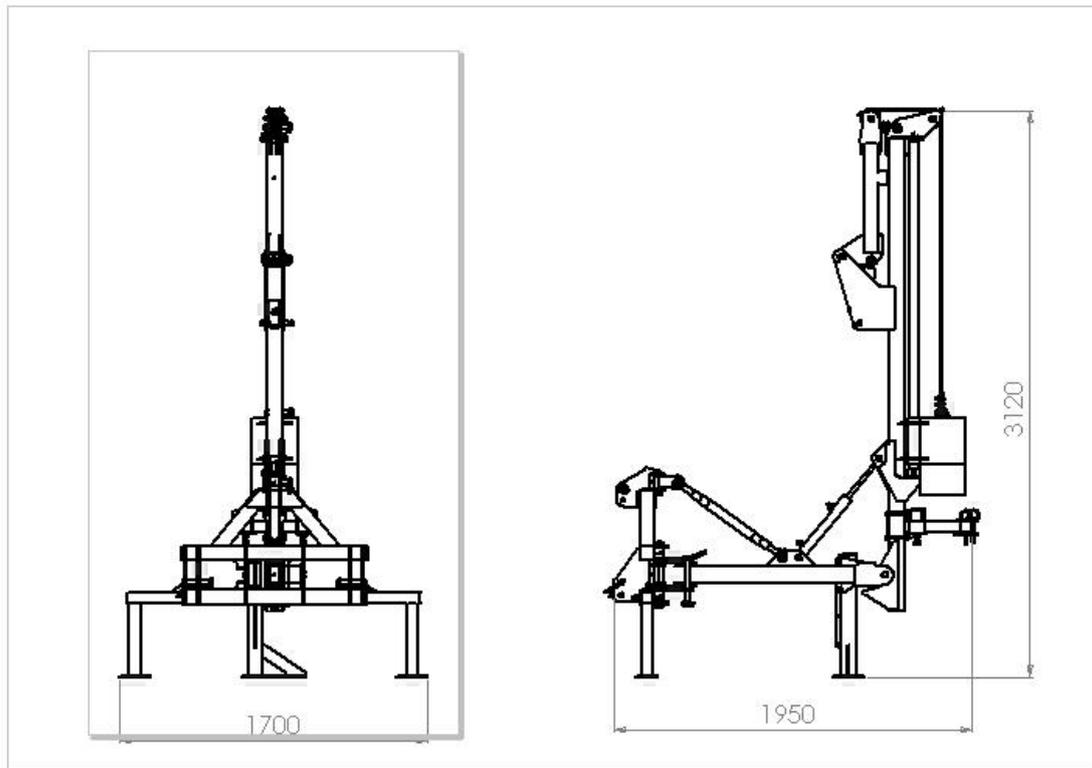
Thank you for purchasing a Protech P220+ Post Driver. Protech Machinery Ltd has produced this User Guide to assist and help you get the most from your post driver.

This manual is line with the relevant Health and Safety regulations to assist you with operating this machine 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.

Whereas 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/or negligence by the operator.

## Product Specification



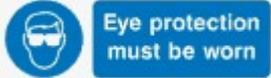
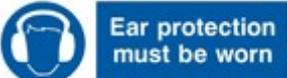
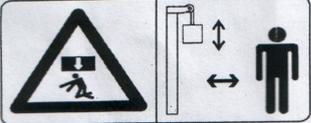
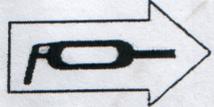
Total Weight	495kg
Tractor Horsepower	80HP
Max oil flow	50L/MIN
Oil pressure	130 bar
Linkage type	Cat 1 or 2

## Safety Rules

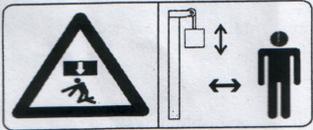
	<p>Whenever possible, warning Pictograms {Labels without words} or warning labels are used on both the machine near the point of danger, and in this user manual near the relevant instructions</p>
	<p>Before fitting the Post Driver to the Loader, it is the operator's responsibility to ensure the stability 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"> <li>• Ensure that the weight is fully down, with the rope relaxed.</li> <li>• Ensure that the hydraulic pressure is released.</li> <li>• Ensure that the Loader engine is switched off and the handbrake is secure on.</li> </ul>
	<p>During Transport ensure:</p> <ul style="list-style-type: none"> <li>• That the weight is fully down</li> <li>• That the Post Driver is carried low to the ground and with the mast crowded back for stability and maximum clearance from overhead obstructions.</li> <li>• Ensure that the transport lock is fitted to the mast tilt ram.</li> <li>• Always drive at a safe speed and in complete control of the vehicle.</li> </ul> <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.

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

## 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 linch pins.
8. Fit and adjust the Tractor top link (not supplied with machine) to bring the main beam level with the ground.
9. Adjust the Tractor link arm stabilisers to centralise the Post Driver and reduce excessive lateral sway.

10. Connect the lever driver weight ram hose to the Tractor hydraulic service
11. Connect the mast tilt ram hoses to the Tractor hydraulic service.
12. For the first use of the post driver, carefully raise and lower the weight several times and adjust the mast tilt angle 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. Adjust the Post Clamp to suit the post size so that the post can run freely within the clamp without restriction while keeping the post vertical. Always make sure post clamp adjustments are made with the weight fully lowered.
15. Open the post clamp gate then drive the tractor and post driver into position with the weight raised a short distance as to clear the top of the post.
16. Fully lower the Post Driver on the Tractors Linkage until the feet are resting securely on the ground. In some cases, with uneven ground, it may be necessary to raise or lower the rear leg to ensure that the mast is fully supported during driving operations.
17. Close and secure the post clamp gate with the locking pin.
18. Fully raise the weight to get maximum impact then move the Tractor valve to exhaust the system, allowing the weight to fall to hit the post.
19. Raise and drop the weight until the driven position of the post has been achieved.
20. Once at the driven position then open the post clamp gate. Raise the machine off the ground and away from the post.

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

## **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.

Lower the mast by fully closing the mast tilt ram.

## **Storage of the Post Driver**

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.

### **Weekly**

Check the hydraulics for leaks.

Grease all arm pivots.

Lightly grease the weight slide and driver weight.

Check the rope pulleys turn freely.

Check all pivots for wear

## **Possible Misuse of the Post Driver**

The Post Driver must not be used as a materials, personnel carrier or lifting device.

## P180 POST DRIVER PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	P120 0001	MAIN FRAME	1
2	P120 0002	SLEW ARM	1
3	P120 0003	SLEW PIVOT BRACKET	1
4	P120 0004	MAST ARM	1
5	P120 0005	MAST ARM GUIDE BAR	1
6	P180 0006	LEVER ARM	1
7	P120 0007	SIDE LEG	2
8	P120 0008	REAR LEG	1
9	P120 0009	GUIDE BAR RETAINING PLATE	1
10	P180 0010	DRIVER WEIGHT	1
11	P120 0013	ROPE PULLEY	2
12	P120 0014	GREASER PIN	1
13	P120 0015	GREASER PIN	1
14	F25	TOP LINK	1
15	P120 0016	SLEW LOCK PIN	2
16	F144	PIN	2
17	F172	PIN	1
18	M6SGNIP	GREASE NIPPLE	7
19	F163	PIN	6
20	F442	LINCH PIN	13
21	P120 0017	PIVOT PIN	1
22	P120 0018	PIVOT PIN	1
23	199211	PLASTIC CAP	7
24	199247	PLASTIC CAP	3
25	S16738	PIN WITH HANDLE	4
26	HFR2300150	RAM	1
27	P120 0019	RUBBER CUSHION	1
28	HFR1250300	RAM	1
29	M1050HB	BOLT	1
30	M1065HB	BOLT	3
31	M1240HB	BOLT	2
32	M20110HB	BOLT	2
33	M1090HB	BOLT	1
34	M1290HB	BOLT	1
35	M12NN	NYLOCK NUT	7
36	M20NN	NYLOCK NUT	4
37	M10NN	NYLOCK NUT	5
38	RMP 149	ROPE	1
39	SUG035	ROPE GRIP	4
40	M10FN	FULL NUT	8
41	38BS	BONDED SEAL	4
42	38MMA	ADAPTOR	1
43	38M14M1MMR	RESTRICTOR	2
44	P120 0020	HOSE	1
45	12MMA	ADAPTOR	1
46	12BS	BONDED SEAL	3
47	12QRC	QUICK RELEASE COUPLING	3
48	P120 0021	HOSE	2
49	14M12MA	ADAPTOR	2
50	RPASEP060000	BREATHER	1
51	P120 0023	SPACER	2
52	P180 0011	POST CLAMP BACK BRACKET	1
53	P180 0013	POST CLAMP ADJUSTER BRACKET	2
54	P180 0014	POST CLAMP KEEPER BRACKET	1
55	P180 0015	POST CLAMP PIVOT BRACKET	1
56	P180 0016	POST CLAMP GATE BRACKET	1
57	P180 0017	POST CLAMP BACK PLATE	1
58	M1630HB	M1630HB	2
59	M12120HB	M12120HB	4
60	P180 0018	PIN	1
61	P180 0019	RETAINING PLATE	1
62	F166	PIN	1
63	M1020SCS	COUNTERSUNK SCREW	2

# P180 POST DRIVER

