



# 3 TONNE FIXED FRAME ENGINE CRANE WITH EXTENDABLE LEGS

MODEL NO: **PH30.V2**

Thank you for purchasing a Sealey product. Manufactured to a high standard, this product will, if used according to these instructions, and properly maintained, give you years of trouble free performance.

**IMPORTANT:** PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS & CAUTIONS. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. KEEP THESE INSTRUCTIONS SAFE FOR FUTURE USE.



Refer to instructions



Wear protective gloves



Wear safety footwear

## 1. SAFETY

- ✓ The user shall work in accordance with the instruction handbook.
- ✓ Keep crane, lifting slings, support and beams in good working order and condition. Follow the inspection requirements as described in Section 6, Maintenance. Take immediate action to repair or replace damaged parts by contacting your supplier.
- ✓ Ensure that all accessory lifting devices are suitably certified. If crane is damaged, remove from service immediately.
- ✓ Ensure the surface on which the crane is used is level, firm and capable of supporting the weight of the crane with maximum load - we recommend concrete. Never use the crane on tarmac or other soft surfaces, as the crane may sink in.
- ✓ Keep children and unauthorised persons away from the working area.
- ✓ Keep working area clean and tidy, free from unrelated materials and ensure that there is adequate lighting.
- ✓ Only suitably qualified and experienced persons should attempt to perform maintenance on the unit.
- ✓ Ensure that load does not exceed the maximum lifting capacity of the crane. Overloading the crane is dangerous. Where appropriate, use only the lifting points recommended by the manufacturer of the item to be lifted, e.g. vehicle engine.
- ✓ Before lifting the load ensure that the crane jib is in the lowest practical position, that there are no obstacles which may snag the load whilst it is being lifted and that the area above the jib is clear.
- ✓ To avoid injury, be fully aware of your own and other persons locations in relation to the lifting, and lowering, of the load.
- ✓ Keep a sound footing and balance, and ensure the floor is not slippery, and wear non-slip footwear.
- ✓ Ensure jib extension locking pin and 'R' pin are in position before lifting.
- ✓ Ensure the centre of gravity always remains inside the crane base.
- ✗ **DO NOT** harness the load at an angle or use any attachments not verified as fit for purpose.
- ✗ **DO NOT** attempt to lift persons.
- ✗ **DO NOT** allow the load to swing during lifting.
- ✗ **DO NOT** allow the load to drop suddenly. Lower load with care, ensuring that you are fully aware of the condition of the surface onto which the load is to be placed.
- ✗ **DO NOT** load crane beyond its rated capacity for each specified jib extension position as indicated in Section 3. The capacity of the crane reduces as the jib is extended.
- ✗ **DO NOT** position any part of your body beneath the load.
- ✗ **DO NOT** use the crane to move or transport a load other than for repositioning. The crane is a lifting device only.
- ✗ **DO NOT** apply any sideways pressure to any part of the crane during lifting or when a load is suspended.
- ✗ **DO NOT** attempt to adjust the safety valve, which has been set and sealed by the manufacturer.
- ✗ **DO NOT** use this crane to perform a task for which it is not designed.
- ✗ **DO NOT** use whilst under the influence of drugs, alcohol or intoxicating medication.
- ✗ **DO NOT** climb on the crane.
- ✗ **DO NOT** attempt to modify the crane as this may make it unsafe and will invalidate your warranty.
- ✗ When not in use store in a safe, dry, childproof area.
- ✓ This crane is designed for lifting within a garage or workshop environment.
- **WARNING!** Failure to heed safety and warning instructions may result in damage and/or personal injury and will invalidate the warranty.
- ✓ It is necessary that the operator can watch the lifting device and the load during all movements.
- ✗ It is not allowed to work under the raised load until it is secured by suitable means.
- ✓ The operator shall be provided with all necessary information about training and about pumping and translating forces.
- ✓ If more than 400N (41kg.) of effort is required in lifting, the efforts shall be lowered by an additional person.
- ✓ The owner and/or operator must be aware that repair of this equipment will require specialised knowledge and facilities. It is recommended that an annual examination of the workshop crane is made by an authorised service agent. Unauthorised parts may be dangerous and will invalidate the warranty.
- ✓ Take extra care when operating under extreme weather conditions i.e cold weather or heatwave.
- ✓ No modifications shall be carried out which adversely affect the compliance of the jack with this standard.
- ✓ In the event of a fire, refer to MSDS for guidance.

## 2. INTRODUCTION

Weights 155kg and is perfect for heavy commercial, industrial and workshop use. Extendable heavy-duty legs for improved stability, particularly when operating at maximum jib extensions. Beam can be set in 4-positions with a capacity of 1000kg at its full extension of 1820mm. Heavy-duty castors and pump access from side, for safe handling of heavy loads. Delivered in knock-down form for reduced freight cost. Some self-assembly required.

### 3. SPECIFICATION

Model: .....PH30.V2

Nett Weight: ..... 155kg

Lifting Capacity in Position 1:	3000kg
Lifting Capacity in Position 2:	2000kg
Lifting Capacity in Position 3:	1500kg
Lifting Capacity in Position 4:	1000kg
Height of jib down	1610mm
Height of frame	195mm
Length of jib Position 1:	1200mm
Length of jib Position 2:	1400mm
Length of jib Position 3:	1610mm
Length of jib Position 4:	1820mm
Length of jib Position 5:	N/A
Max. Lift Ht at jib Position 1:	1880mm
Max. Lift Ht at jib Position 2:	1970mm
Max. Lift Ht at jib Position 3:	2010mm
Max. Lift Ht at jib Position 4:	2220mm
Max Leg Length:	1940mm
Min Leg Length:	1555mm
Length Legs Extended	950mm
Rear Width	780mm
Width Front Frame:	855mm
Width Inside Front Frame	700mm



For a description of in-service and out-of-service conditions see Section 1 Safety, Section 6 Maintenance.

- 3.1. The crane is fitted with a bypass valve that will prevent the ram from over extending.
- 3.2. For applications see Section 1 Safety.
- 3.3. For control system, see fig.1 and fig.2 for release valve, pump assembly and handle. Operation is explained in Section 5.
- 3.4. For ground condition requirements, see Section 1 Safety.
- 3.5. For information on parts and materials requiring specialised repair techniques see Section 6 Maintenance.

### 4. ASSEMBLY

**NOTE:** Leave components loose until fully assembled.

**NOTE:** Numbers in brackets refer to item numbers as shown in the parts diagram.

- **WARNING:** Certain of the assembly procedures require two persons to carry out safely.
  - a). Assembly procedure is as follows. (Numbers in brackets refer to the parts diagram - please refer to this for appropriate positioning).
  - b). Attach castor (4) to the base (15) using washers, spring washers and nuts (24).
  - c). Insert wheels (27) into the housings in the outer ends of the legs (13,14) using bolts (2) and securing with washers, spring washers and nuts (26).
  - d). Slot the legs (13 & 14) into the base (15) and lock using the bolts (3). Ensure that the legs are each locked at the same length.
  - e). Attach the upright (18) to the base (15) using bolts (5), washers, spring washers and nuts.
  - f). Attach braces (17) to the base (15) using bolts, washers, spring washers and nuts (5, 23).
  - g). Attach the tops of the braces (17) to the post (18) using bolts (7), washers, spring washers and nuts.
  - h). Attach the base of the ram (1) to the lower fixing point of the post (18) using bolt (6), washer, spring washer and nut.
  - i). Attach the jib (20) to the top of the post (18) using bolt (12), washer, spring washer and nut.
  - j). Attach the piston head of the ram unit (1) to appropriate point on the boom (20) using bolt (11), washer, spring washer and nut.
  - k). Slot the jib extension (21) into the boom (20) and secure using pin (9) and use 'R' pin (10) to secure this. Be sure to select the correct extension for the weight to be lifted.
  - l). Attach the hook and chain (22) to the jib using bolt (2), washer, spring washer and nut (28).
  - m). Attach the handle (19) using bolt (8) and spring washer.
  - n). Open the release valve of the ram by turning the release valve (fig.1) anticlockwise. With the valve held open slightly pump the ram 10-20 times. This is necessary to flush the hydraulic system and purge any air that may be present.
  - o). Pull the jib up slightly, close the release valve (turn clockwise) and pump the handle. The jib should now raise. Pump the jib all the way up and then lower it slowly by opening the release valve. This is to confirm that the oil level is correct. Close the release valve. The crane is now ready for use. Ensure it is not damaged in any way. Should you experience any problems, contact your supplier immediately.
  - p). When transporting or moving the unit be aware that it may be unstable due to its configuration. Ensure it is firmly held if being carried by fork lift truck or trolley jack.

## 5. OPERATION

5.1. **OPERATION:** (Refer to Section 6.2 regarding inspection before each and every use).

**RAISE** refer to fig.1: a) Locate the slotted end of the pump handle, Parts List (16), onto the Hydraulic Release Valve at the base of the Ram assembly. Turn the nut clockwise until tight (do not over-tighten). Continue to pump until the jib reaches the height at which the load can be secured.

b) Ensure that the legs are adjusted so that the lift is always performed within the wheelbase of the crane, and that the legs are secured at equal lengths.

c) Connect the crane hook to the load using a suitable sling or support beam. Be aware of the load weight, and check that it is within the capacity of the crane (at the jib extension you are using) and the sling or support beam. When removing engines ensure that the weight is known. Use only the lifting points recommended by the vehicle manufacturer.

d) Lift only from directly above the load.

❑ **WARNING! DO NOT** lift the load at an angle!

e) **LOWER NOTE: this crane has descent control:** turn release valve, fig.1, **SLOWLY** in an anti-clockwise direction

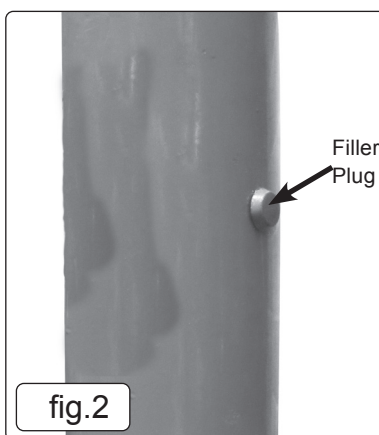
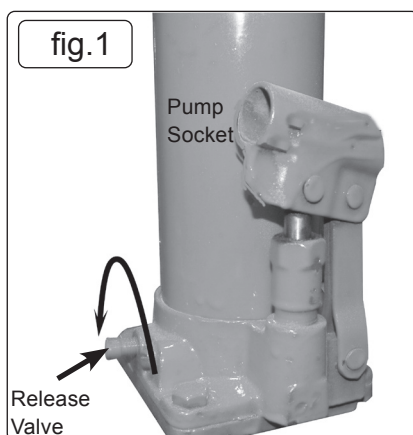
f) The crane is not a transportation device but may be used to reposition the load being worked on. To do so, lower load and jib with care, to the lowest possible point before attempting to move. **DO NOT** try to move crane in a sideways direction. The crane is not designed to support the load indefinitely. When the load has been repositioned, lower the load onto a secure and appropriate working base, being fully aware of your own and other persons locations in relation to the lowering load.

g) When load has been secured, remove lifting sling, support beam etc. and place crane in a safe location with jib fully lowered.

h) Ensure sufficient space is available around the working crane to enable free movement, ease of access and maintenance,

i) Perform risk assessment before using the crane in severe environmental conditions i.e. frost / heat.

## 6. MAINTENANCE/ INSPECTION



**NOTE:** The crane MUST be kept clean and dry and must be maintained in accordance with these instructions.

Jacks shall be maintained and repaired in accordance with the manufacturers instructions. Such maintenance and repair shall be carried out by qualified persons

### 6.1. LUBRICATION.

a) Oil all working parts monthly.

b) The ram is filled with oil and should only require occasional topping up. **DO NOT** use brake fluid, as this will damage the hydraulic seals and invalidate the warranty. Proceed as follows (see fig.2):

1) Use only good quality hydraulic jack oil available from your Sealey stockist.

2) **DO NOT OVERFILL** as this will cause failure. Only fill to lower edge of filler plug hole.

3) After filling with hydraulic oil, pump the crane up to its full height and pour off any excess oil.

When refilling the hydraulic system, the characteristics of the hydraulic fluid used in the jack and the level of hydraulic fluid as it is given by the manufacturer shall be observed.

### 6.2. INSPECTION AND EXAMINATION OF CRANE BEFORE USE.

a) Before each use of the crane, perform an inspection for leaks, damage, loose or missing parts.

b) The crane must be examined immediately if it has been subject to an abnormal load or shock. It is recommended that such an examination is made by an authorised service agent.

c) The owner and/or operator must be aware that repair of this equipment will require specialised knowledge and facilities. It is recommended that an annual examination of the workshop crane is made by an authorised service agent.

d) Unauthorised parts may be dangerous and will invalidate the warranty.

### 6.3. DEFINITION OF 'INSPECTION' AND 'EXAMINATION' BELOW.

#### INSPECTION:

Inspect the crane for defects and check the operation of controls, limiting and indicating devices without loading the crane.

This check but does not normally require any part of the crane to be dismantled other than removal or opening of covers or housings.

#### EXAMINATION:

Verification that the crane can continue safely in service including a functional test of all safety devices i.e. limiting, indicating equipment, brakes, clutches, safety valves etc. to verify that they operate within the required tolerances. An examination is more thorough than an inspection.

### 6.4. DAMAGED CRANES.

Any crane which appears to be damaged, badly worn, or operates abnormally **MUST BE REMOVED FROM SERVICE!** It is recommended that necessary repairs be made by an authorised service agent.

6.5. In the event of any oil spillage, clean unit and area (especially the floor) using suitable detergent / cleaning fluid. Refer to MSDS.

### 6.6. STORAGE.

Always store the crane fully closed so that the jib is in lowest position and the ram is closed.



#### ENVIRONMENT PROTECTION

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.



**Note:** It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice. Please note that other versions of this product are available. If you require documentation for alternative versions, please email or call our technical team on [technical@sealey.co.uk](mailto:technical@sealey.co.uk) or 01284 757505.

**Important:** No Liability is accepted for incorrect use of this product.

**Warranty:** Guarantee is 12 months from purchase date, proof of which is required for any claim.

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