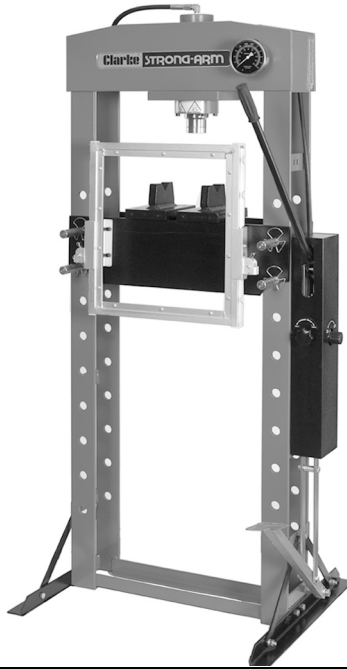


Clarke®

STRONG-ARM



30 TONNE HYDRAULIC PRESS

MODEL NO: CSA30FP

PART NO: 7615200

OPERATION & MAINTENANCE INSTRUCTIONS



WARNING: Read these instructions before using the machine

GC1118 - ISS 3

INTRODUCTION

Thank you for purchasing this CLARKE 30 Tonne Hydraulic Press.

Before attempting to operate the machine, it is essential that you read this manual thoroughly and carefully follow all instructions given. In doing so you will ensure the safety of yourself and that of others around you, and you can also look forward to the press giving you long and satisfactory service.

GUARANTEE






This CLARKE product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt as proof of purchase.

This guarantee is invalid if the product is found to have been abused or tampered with in any way, or not used for the purpose for which it was intended.

Faulty goods should be returned to their place of purchase, no product can be returned to us without prior permission.

This guarantee does not effect your statutory rights.

SAFETY SYMBOLS

	Hazard;-shattered workpiece		Hazard:- crushed hands
	Wear Safety Shoes		Wear safety glasses
	Read instruction manual before use		

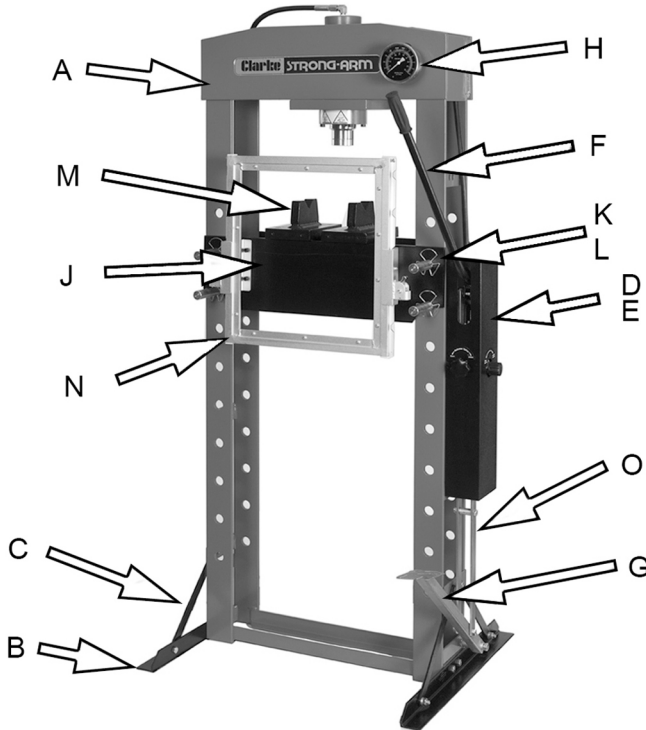
The above safety symbols appear on the product.

SAFETY PRECAUTIONS

- Due to the weight of the press, lifting equipment and the help of an assistant will be required during installation. Secure the press to a firm level floor using suitable anchor bolts (not supplied).
- Before starting work, check for signs of cracked welds, loose or missing bolts, damaged screen, or any other structural damage. Do not operate if any of these conditions exist. Have repairs made only by authorised service centre.
- Before work, always ensure that hydraulic hoses and couplings are completely sound.
- Never tamper with the press components or modify them. The safety valve is calibrated and sealed at the factory; do not attempt to change the setting.
- Use only the recommended hydraulic oil.
- The components of this press are designed to withstand the rated load. Do not substitute any other components or exceed the rated load of the press.
- Before applying pressure, ensure the workpiece is firmly secure and stable.
- Always clean up spills of hydraulic oil immediately as this can be dangerous in a workshop environment.
- Do not allow any person who is unfamiliar with hydraulic presses, to use the press unless they are under direct supervision.
- Keep children and unauthorised personnel away from the work area.
- Always position the safety screen directly front of the workpiece.
- Always apply the load under the centre of the ram. Offset loads can damage the ram and may cause the work piece to be ejected.
- Always ensure the work piece is properly supported by the press bed.
- When using accessories such as pressing plates, be certain they are centered below the ram and are in full contact with the bed.
- Parts being pressed may shatter or be ejected from the press. Always use adequate guards, and wear eye protection and protective clothing when using this press.
- Keep hands and fingers away from parts that may pinch or shift.
- Never use extension tubes to increase the length of the pump handle. Excessive effort can cause damage and/or accidents.
- Wear approved impact safety goggles and heavy duty work gloves.
- Failure to heed these warnings may result in damage to the equipment, or serious personal injury.

UNPACKING & INVENTORY

Ensure the press and its components suffered no damage during transit and that all components are present. Should any loss or damage become apparent, please contact your CLARKE dealer immediately. The following items should be present in their packages.



A	1 x Frame with ram / carrier assembly & hose
B	2 x Base Supports
C	4 x Stay Bars
D	1 x Pump with hose attached
E	1 x Pump Protective Cover
F	1 x Pump Handle
G	1 x Foot Pedal
H	1 x Pressure Gauge

J	1 x Pressing Bed
K	4 x Bed Support Pins
L	8 x Retaining Spring Clips
M	2 x Bed Blocks (V-blocks)
N	1 x Protective Screen Assembly
O	2 x Foot Pedal Connecting Bars
	1 x Fixing Kit (bolts, nuts, washers)

ASSEMBLY



WARNING: DUE TO THE WEIGHT OF THE PRESS, LIFTING EQUIPMENT OR THE HELP OF AN ASSISTANT WILL BE REQUIRED DURING INSTALLATION.

TOOLS REQUIRED

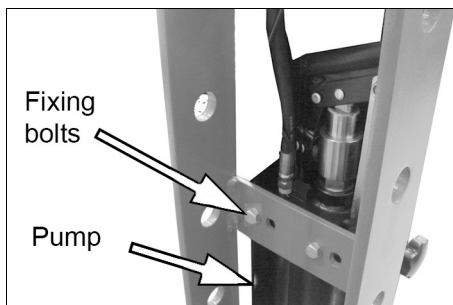
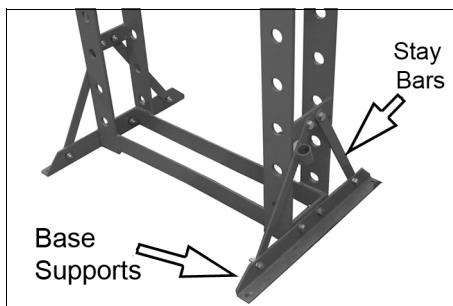
- Wrench/socket set
- PTFE tape
- Hex key set

ASSEMBLY PROCEDURE

IMPORTANT: The press must be firmly secured to a firm and level floor using expansion bolts (not supplied). Holes are provided in the feet for this purpose.

IMPORTANT: Do not locate your press where it will be open to the elements, as severe weather conditions will damage the hydraulic parts.

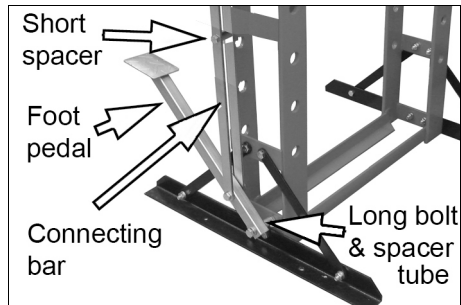
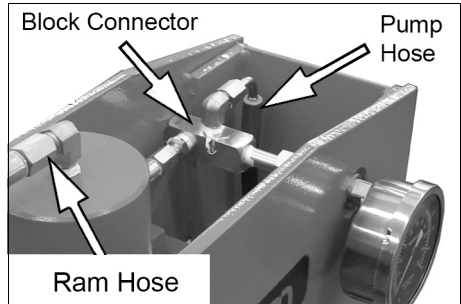
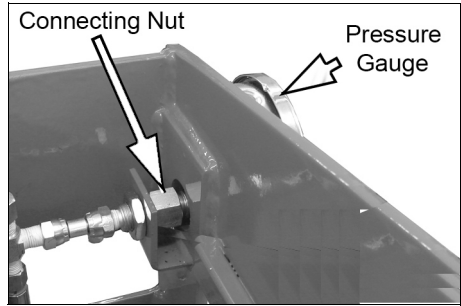
1. With the help of an assistant, attach the base supports to the frame using the nuts, bolts and washers.
2. Add the stay bars to each side and bolt into place.
3. Using suitable lifting equipment if required, lift the frame assembly upright and manoeuvre it to its intended location in the workshop.
4. Bolt the hydraulic pump into position on the side of the frame using the fixing bolts and washers.



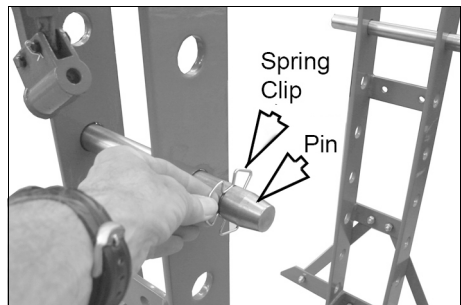
5. Fit the pressure gauge through the frame and secure loosely with the large nut supplied. Remove any protective bung from the gauge before fitting.

We recommend sealing all threads with PTFE tape where hydraulic oil is to be contained. Take care not to let any oil escape while connecting the hoses.

6. Screw the block connector and the connecting piece to the pressure gauge inlet.
7. Bolt the block connector to the back of the frame and connect the pump hose to the block connector as shown.
8. Connect the ram hose to the block connector.
9. Bolt the foot pedal to the frame using the long bolt, spacer tube, nut and washers.



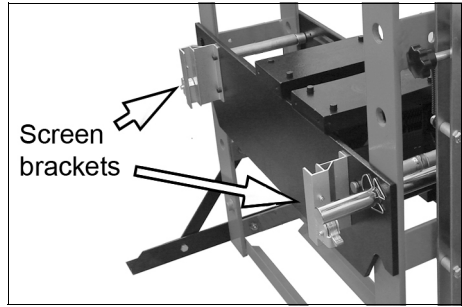
10. Insert the bed support pins into the holes in the frame side supports at a height of your choosing. Secure them in position using the spring clips.



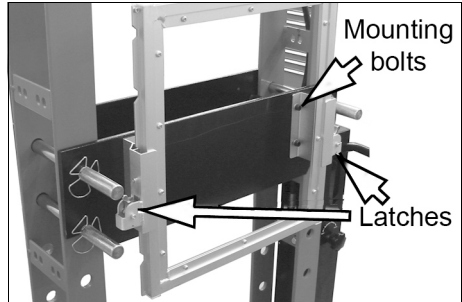
11. Lift the pressing bed into position on the pins.

IMPORTANT: Due to the weight of the bed, we recommend that you get assistance from another person.

12. Bolt the protective screen brackets to the pressing bedplate.



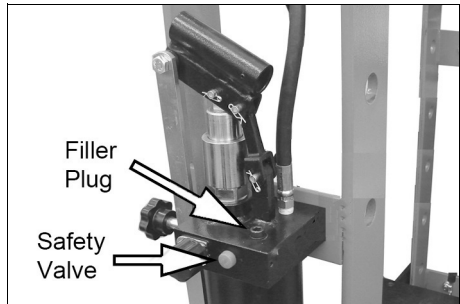
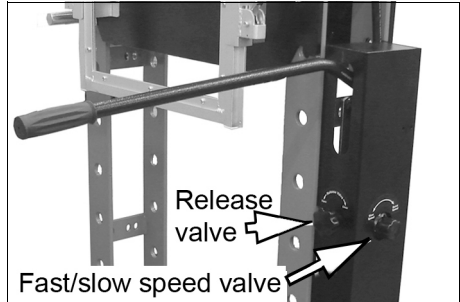
13. Fit the protective screen to the pressing bed and ensure it can be set in one of the available positions using the latches on each side.



PREPARATION FOR USE

PURGING THE HYDRAULIC SYSTEM

1. Insert the pump handle into the actuating lever.
2. Open the release valve by turning anti-clockwise.
3. Pump several full strokes to eliminate any air bubbles from the system. Use either the handle or the foot pedal.
4. Close the release valve by turning clockwise.
5. Top up the hydraulic oil to the lower level of the filler plug with CLARKE hydraulic oil, Part No. 3050830.



POSITIONING THE PRESSING BED

IMPORTANT: Due to the weight of the press bed, we recommend that you get assistance from another person when adjusting the bed height.

1. Position the pressing bed so that it will be as close as possible to the ram when the workpiece is mounted on it.
2. Raise one side of the bed and insert a bed supporting pin into the next locating hole.
3. Repeat at the other end to level the bed.
4. Repeat until the bed is at the required height, with the bed supporting pins are secured using the spring clips.

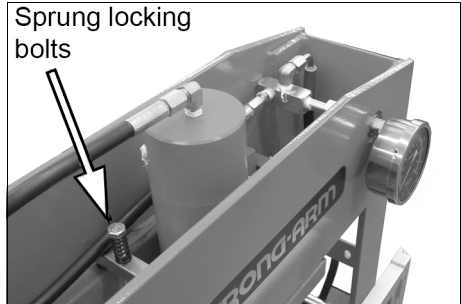


CAUTION: THE BED HEIGHT SHOULD ONLY BE RAISED OR LOWERED ONE HOLE AT A TIME, WORKING ALTERNATELY FROM ONE SIDE AND THEN THE OTHER, FAILURE TO WORK IN THIS WAY MAY CAUSE THE BED TO FALL AND CAUSE INJURY TO THE OPERATOR.

POSITIONING THE RAM

1. Slide the carriage along the cross-beam.
2. Lock it in position with the four sprung locking bolts.

IMPORTANT: Always position the ram directly above the workpiece.

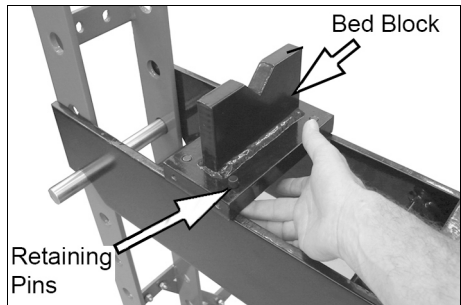


POSITIONING THE PRESSING BLOCKS

The bed blocks can be placed on the bed with either the flat face or the V-supports facing upwards.

They are prevented from slipping out of position by the retaining pins which drop down within the confines of the bed side members.

Check all parts are secure and correctly aligned before using the press.



OPERATION

1. Place the workpiece on the bed. It must be completely stable and supported by packing or shims where required. Pressing plates (bed blocks) are supplied, which locate on the bed. Place the workpiece on these to give it stability.



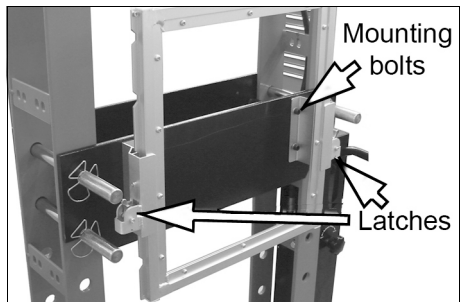
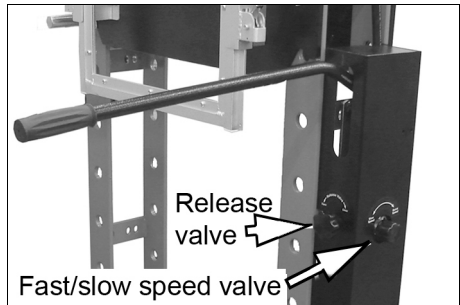
CAUTION: DO NOT POINT LOAD SUCH ACCESSORIES AS THEY ARE NOT DESIGNED TO TAKE THE FULL FORCE OF THE RAM IN ONE SPOT. ENSURE THEY ARE ADEQUATELY SUPPORTED.

NOTE: Any packing pieces or shims used *MUST* be capable of withstanding the pressure that will be brought to bear, and *MUST* be of sufficient size with sufficient surface area, so as to avoid the possibility of slipping or springing out. Mating surfaces *MUST* be horizontal so that the force being exerted will *NOT* be at an angle.

2. Close the release valve by turning clockwise until tightly closed.
3. Select either SLOW SPEED or FAST SPEED using the knob on the side of the pump cover.

NOTE: Fast speed allows faster movement but greater effort will be required.

4. Pump the handle or foot pedal to bring the ram very lightly into contact with the workpiece.
5. Manoeuvre the workpiece or loosen the bolts and slide the ram to one side so that the desired point of contact is directly beneath the centre of the ram.
6. When satisfied that the workpiece is correctly aligned and is completely stable in that position, raise the protective screen into position before starting any pressing.
7. Slowly pump the handle or foot pedal so that the ram begins to exert pressure on the workpiece.



8. Continue to pump the handle and constantly monitor the process, ensuring the ram and work remain completely in line and there is no risk of slipping.
9. Observe the reading on the pressure gauge and take care not to exceed the rated working pressure of the press.

NOTE: The scale from 30 metric tonnes upward is highlighted in red, indicating pressure being applied above the rated maximum working pressure.

10. When the pressing process is complete, turn the release valve anticlockwise in small increments to release ram pressure and allow removal of the workpiece and lower the protective screen.

TROUBLESHOOTING

Problem	Probable Cause	Remedy
Pump will not work.	Dirt on valve seat/worn seals.	Bleed pump unit or have unit overhauled with new seals by your Clarke dealer.
Pump will not produce pressure. Pump feels hesitant under load. Pump will not lower completely.	Air-lock.	Open the release valve and remove the oil filler plug. Pump the handle a couple of full strokes and close the release valve. Replace the filler plug.
Pump will not deliver pressure.	Reservoir could be over-filled or have low oil level.	Check oil level by removing the filler plug and topping up to the correct level.
Pump feels hesitant under load.	Pump cup seal could be worn out.	Have the cup seal replaced by your Clarke dealer.
Pump will not lower completely.	Air-lock.	Release air by removing the filler plug.

MAINTENANCE

ROUTINELY

A visual inspection must be made before each use of the press, checking for leaking hydraulic fluid and damaged, loose, or missing parts.

Owners and/or users should be aware that repair of this equipment requires specialised knowledge and facilities. It is recommended that a thorough annual inspection of the press be made and that any defective parts be replaced with genuine Clarke parts.

If the press appears to be damaged in any way, is found to be badly worn, or operates abnormally **SHOULD BE REMOVED FROM SERVICE** until the necessary repairs are made.

If the press is not to be used for any length of time, store it with the ram piston withdrawn to protect the surface of the moving parts.

PERIODICALLY

Check the press to make sure all bolts are tight and inspect for cracked welds, bent, loose or missing parts.

Clean any foreign material from the ram carrier sliding plastic blocks. Keep the protective screen clean at all times.

Check the hydraulic connections for leaks. Replace or properly repair any damaged or leaking hydraulic components before using. In the event of leaking seals, oil can be topped up via the filler plug (P34-page 17) on the end of the pump. Oil should be level with the bottom of the hole. If necessary top up with CLARKE hydraulic oil, Part No. 3050830. **This task is carried out with the ram fully retracted.**

If any rust is apparent it must be removed completely and the paint restored.

DISPOSAL OF UNWANTED MATERIALS

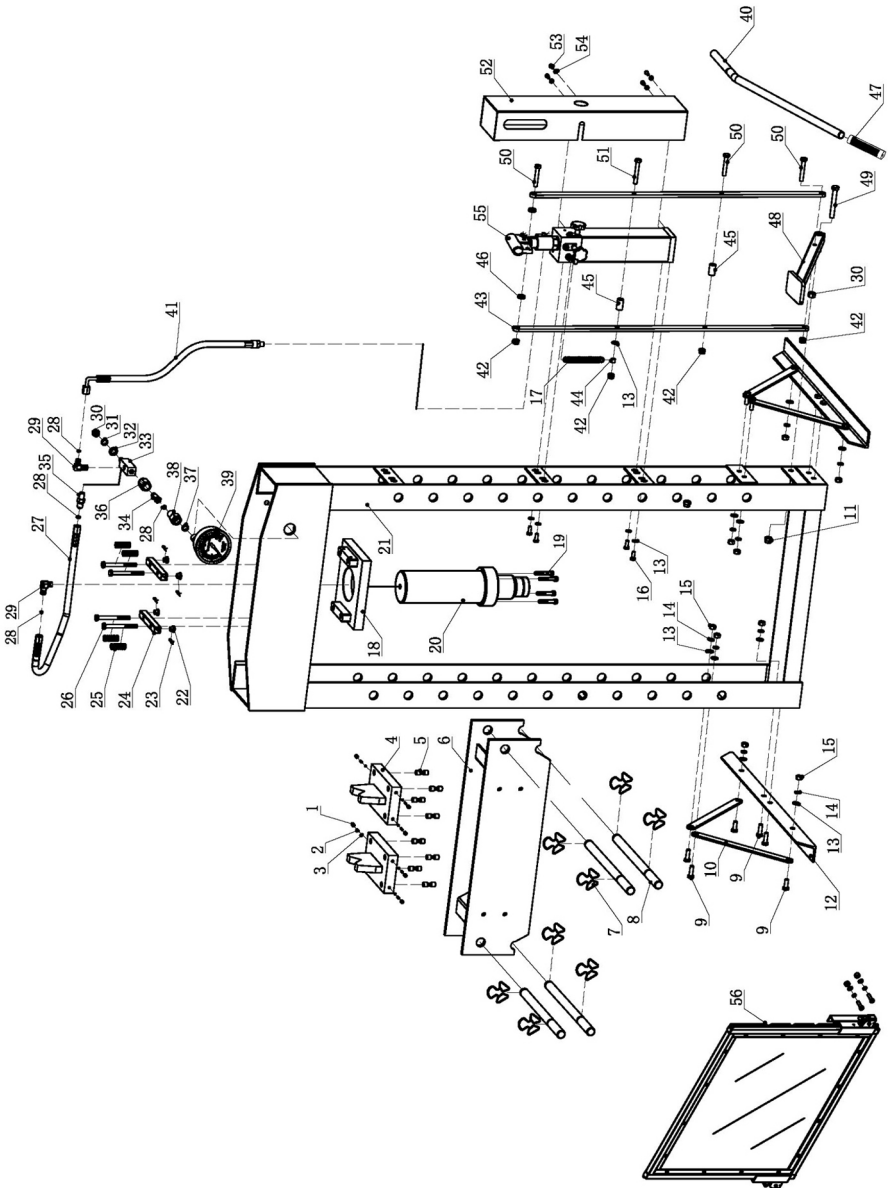
One of the most damaging sources of environmental pollution is oil products. Never throw away used oil with domestic refuse or flush it down a sink or drain. Collect any oil in a leak proof container and take it to your local waste disposal site.

Should hydraulic components become completely unserviceable and require disposal, draw off the oil into an approved container and dispose of the product and the oil according to local regulations.

TECHNICAL SPECIFICATIONS

Capacity	30 Tonne
Operating Pressure	20,000 Mpa
Ram Travel	152 mm
Ram Shaft Diameter	58 mm
Net Weight	167 kg
Dimensions D x W x H	700 x 800 (exc pump) x 1850 mm
Throat Width	530 mm
Bed Adjustment Distance	110 mm
No of bed positions	9
Throat Depth (Ram to pressing plate)	Platform at highest;- 120 mm Platform at lowest;- 557 mm
Ram travel per stroke	2.7 mm
No of strokes to full extension	64
Pressure Gauge type	Accuracy class 2.5
Length of Handle	600 mm

GENERAL ASSEMBLY PARTS DIAGRAM



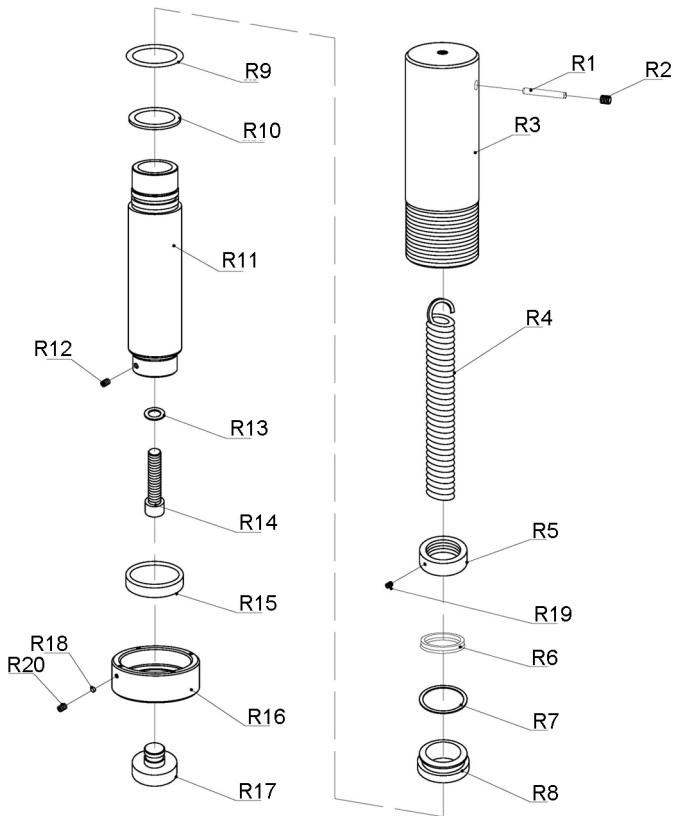
FRAME ASSEMBLY PARTS LIST

NO	DESCRIPTION
1	Screw
2	Spring
3	Steel Ball
4	Heel Block
5	Screw
6	Bed Frame
7	Circlip
8	Pin
9	Bolt
10	Support
11	Nut
12	Frame Leg
13	Washer
14	Lock Washer
15	Nut
16	Bolt
17	Spring
18	Ram Mounting Plate
19	Bolts
20	Ram Assembly
21	Frame
22	Nut
23	R-Clip
24	Slide Block
25	Spring
26	Adjusting Bolt
27	Hydraulic Hose
28	O-Ring

NO	DESCRIPTION
29	Elbow Connector
30	Nut
31	Lock Washer
32	Washer
33	Connector Block
34	Union Connector
35	Connector
36	Union Seat
37	Nylon Washer
38	Pressure Gauge Fitting
39	Pressure Gauge
40	Handle
41	Hydraulic Hose
42	Nut
43	Connecting Rod
44	Bush
45	Spacer
46	Nut
47	Handle Cover
48	Foot Pedal
49	Bolt
50	Bolt
51	Bolt
52	Pump Protective Cover
53	Screw
54	Washer
55	Pump Assembly
56	Grid Guard Assembly

NOTE: When requesting spare parts, please quote the prefix JHCSA30FP followed by the number on the diagrams/parts lists here.

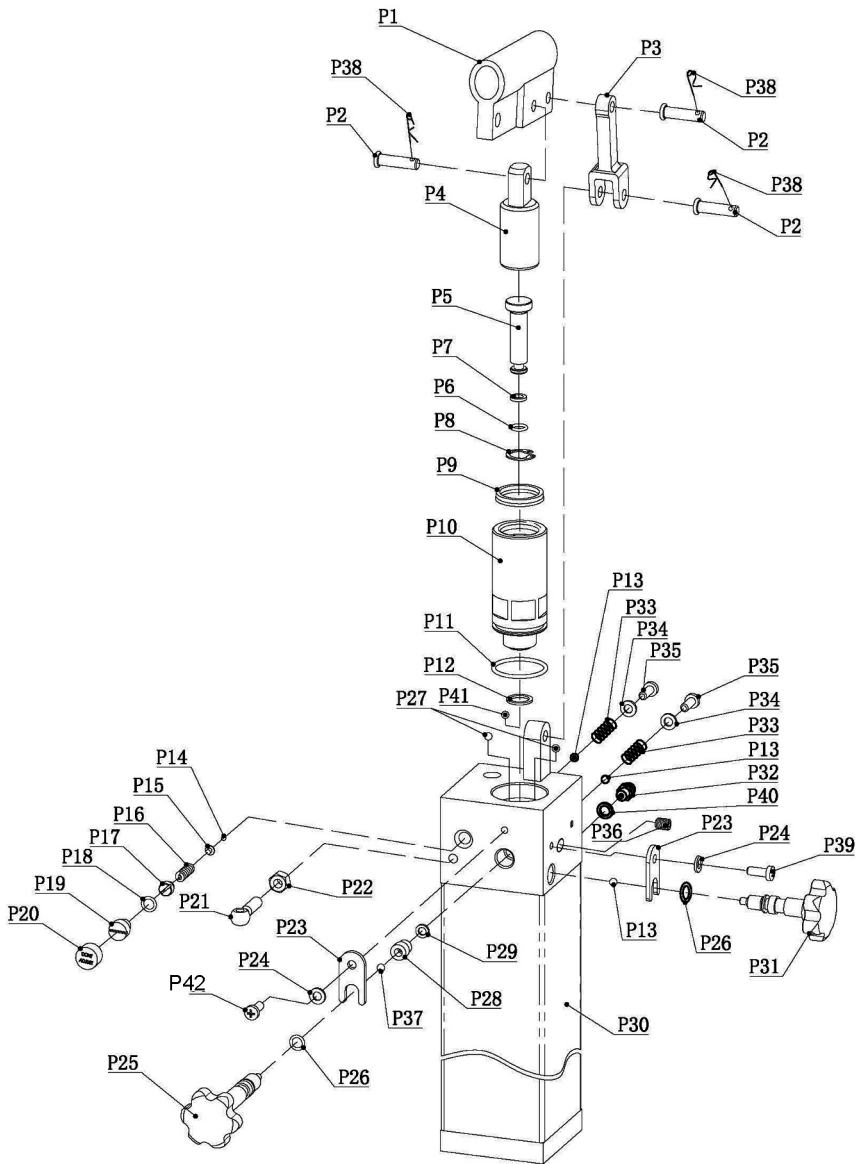
RAM PARTS DIAGRAM



NO	DESCRIPTION
R1	Ram?????Pin
R2	Spring?????Screw
R3	Screw?????Ram
R4	Nut?????Spring
R5	Screw?????Nut
R6	O-ring
R7	PTFE Washer
R8	Piston End
R9	O-Ring
R10	PTFE Washer

NO	DESCRIPTION
R11	Piston Rod
R12	Screw
R13	Copper Washer
R14	End Ring?????Screw???
R15	Screw?????Serrated Saddle
R16	Round Nut
R17	Saddle
R18	Nylon Block
R19	Screw
R20	Screw

PUMP PARTS DIAGRAM



PUMP PARTS LIST

NO	DESCRIPTION
P1	Handle Socket
P2	Clevis Pin
P3	Connecting Rod
P4	Pump Core
P5	Small Piston
P6	O-Ring
P7	Nylon Ring
P8	Circlip
P9	Retaining Ring
P10	Duel Speed Pump Core
P11	Piston Seat
P12	O-Ring
P13	Washer
P14	Ball
P15	Ball Socket
P16	Spring Ball Seat
P17	Screw
P18	O-Ring
P19	Screw Cap
P20	Plastic Cap
P21	Bolt

NO	DESCRIPTION
P22	Nut
P23	U-type limiter
P24	Lock Washer
P25	High Pressure Release Valve
P26	O-Ring
P27	Steel Ball
P28	Release Valve O-Ring
P29	Copper Washer
P30	Pump Body Assembly
P31	Low Pressure Release Valve
P32	Screwed Fitting
P33	Spring
P34	Copper Washer
P35	Screw
P36	Screw
P37	Steel Ball
P38	R-Clip
P39	Screw
P40	Sealing Washer
P41	Steel Ball
P42	Screw

DECLARATION OF CONFORMITY



Clarke[®]
INTERNATIONAL

Hemnall Street, Epping, Essex CM16 4LG

DECLARATION OF CONFORMITY

This is an important document and should be retained.

We hereby declare that this product(s) complies with the following directive(s):

2006/42/EC Machinery Directive.

The following standards have been applied to the product(s):

BS EN1494:2000+A12008, EN ISO12100:2010.

The technical documentation required to demonstrate that the product(s) meet(s) the requirement(s) of the aforementioned directive(s) has been compiled and is available for inspection by the relevant enforcement authorities.

The CE mark was first applied in: 2014

Product Description: 30 & 50 Tonne Floor Shop Press
Model number(s): CSA30FP/CSA50FP
Serial / batch Number: N/A
Date of Issue: 30/03/2016

Signed:

J.A. Clarke
Director

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