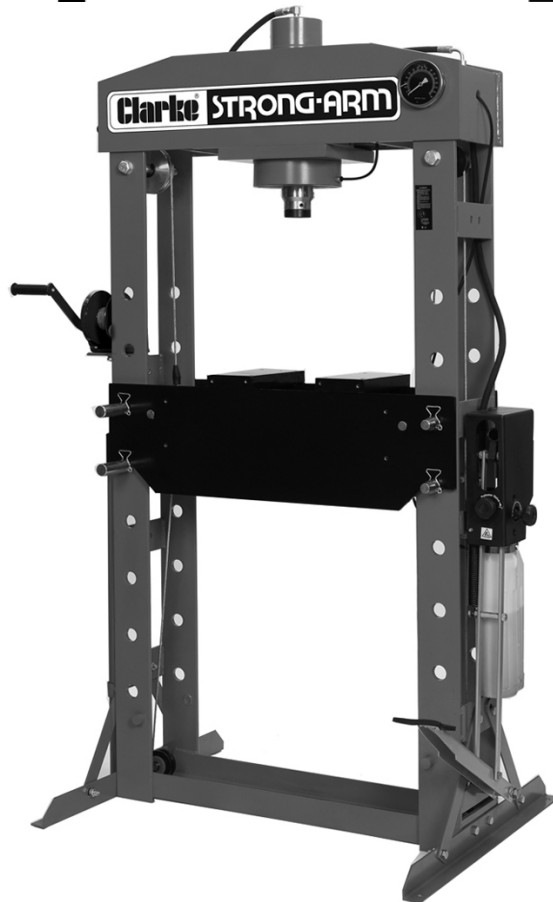


CLARKE® STRONG-ARM



WARNING: Read these instructions before using the press

50 TONNE HYDRAULIC PRESS

MODEL NO: CSA50FPB

PART NO: 7615203

OPERATION & MAINTENANCE INSTRUCTIONS

UK
CA | CE

ORIGINAL INSTRUCTIONS

DL0123 - Rev 2

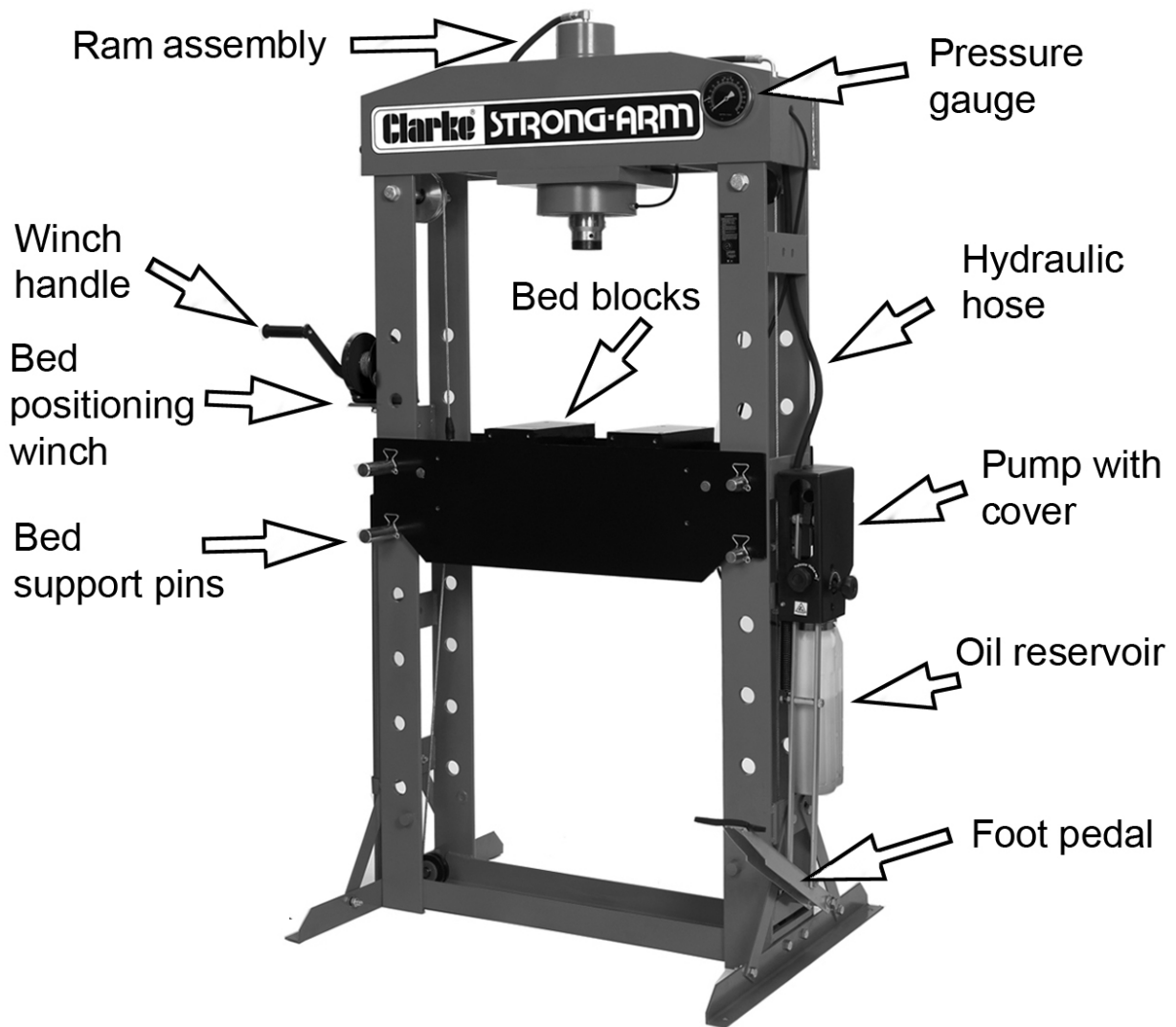
INTRODUCTION

Thank you for purchasing this CLARKE 50 Tonne Hydraulic Press.

Before attempting to operate the press, 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.

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.

OPERATING FEATURES









TECHNICAL SPECIFICATIONS

Rated Load	50 Tonne (50,000 kg)
Operating Pressure	64 Mpa (9200 psi)
Ram Travel	265 mm
Ram Shaft Diameter	63 mm
Net Weight	293 kg
Dimensions D x W x H	800 x 1300 x 1960 mm
Throat Width	710 mm
Throat Depth (Ram to pressing plate)	Platform at highest;- 0 mm Platform at lowest;- 950mm
No of bed positions	8 @ 140 mm centres
Ram travel per stroke	1.72 mm
No of strokes to full extension	78
Pressure Gauge type	Accuracy class 2.5
Length of Handle	900 mm
Oil capacity	1.7 L
Oil type	(VG13 grade hydraulic oil)

SAFETY SYMBOLS

The following safety symbols appear on the product.

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

SAFETY PRECAUTIONS

1. Due to the weight of the press, lifting equipment and the help of an assistant will be required during installation. Fix the press to the floor using suitable anchor bolts.
2. Before starting work, check for signs of cracked welds, loose or missing bolts, damaged screen, or any other damage. Do not use if any of these conditions exist. Have repairs made only by authorised service centre.
3. Before work, always ensure that hydraulic hoses and couplings are completely sound.
4. **NEVER** tamper with the press components or modify them. The safety valve is set and sealed at the factory; do not attempt to adjust the setting.
5. Use only the recommended hydraulic oil.
6. 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.
7. Before applying pressure, ensure the workpiece is firmly secure and stable.
8. **ALWAYS** clean up spills of hydraulic oil immediately as this can be dangerous in a workshop environment.
9. Do not let any person who is unfamiliar with hydraulic presses use the press unless they are under direct supervision.
10. Keep children and unauthorised personnel away from the work area.
11. **ALWAYS** position the (optional) safety screen directly front of the workpiece.
12. **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.
13. **ALWAYS** ensure the work piece is properly supported by the press bed.
14. When using accessories such as pressing plates, be certain they are centered below the ram and are in full contact with the bed.
15. 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.
16. Keep hands and fingers away from parts that may pinch or shift.
17. **NEVER** use extension tubes to increase the length of the pump handle or foot pedal. Excessive effort can cause damage and/or accidents.
18. Wear ANSI approved impact safety goggles heavy duty work gloves.
19. Failure to heed these warnings may result in damage to the equipment, or serious personal injury.

PREPARATION FOR USE



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

LOCATING THE PRESS

Using suitable lifting equipment if required, lift the frame assembly upright and manoeuvre it to its intended location in the workshop.

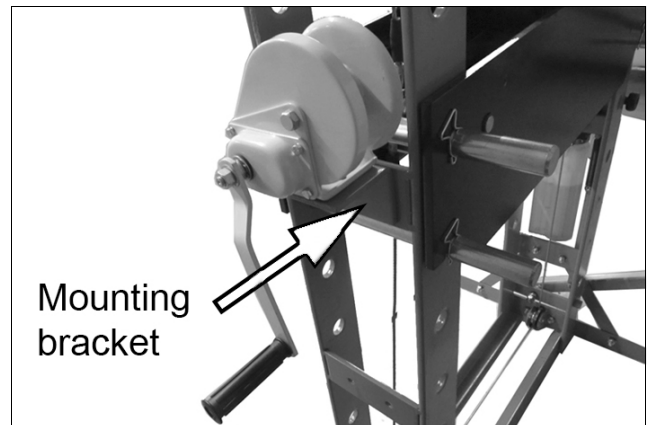
The press must be firmly secured to a firm and level floor using expansion bolts (not supplied). Holes are provided in the feet for this purpose.

Do not locate your press where it will be exposed to the elements as harsh weather conditions will damage the hydraulic parts.

FITTING THE WINCH

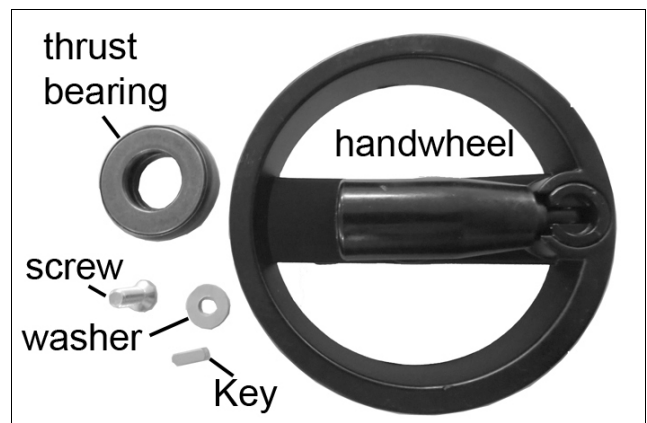
During transit, the winch is positioned at 180° to its working position inside the frame and must be correctly mounted.

1. Turn the winch and bracket around and re-fit to the frame with the bolts and washers supplied, noting that the handle will be outside the frame for operation.

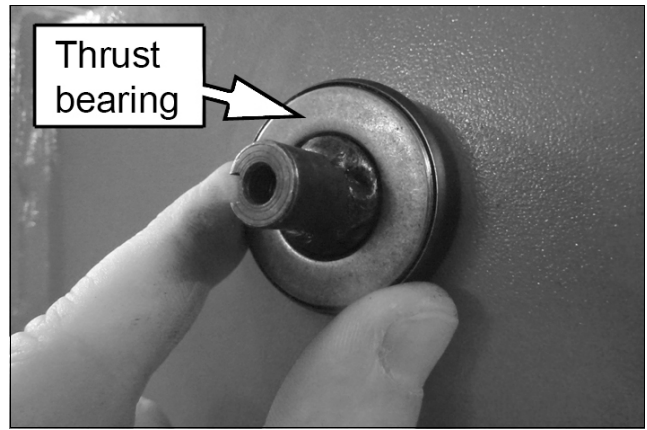


FITTING THE HANDWHEEL

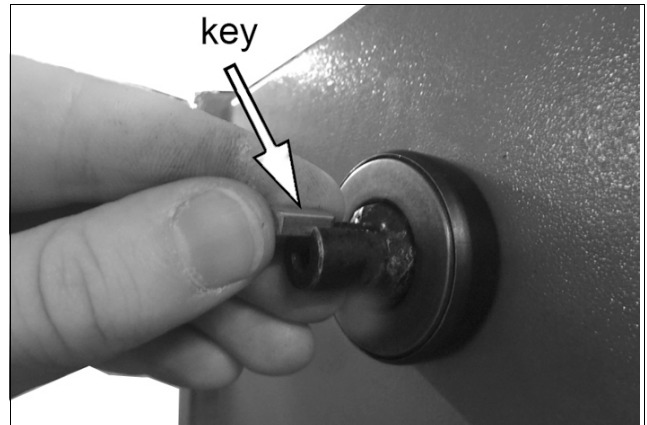
The handwheel which is used to position the ram within the frame is supplied loose and requires fitting.



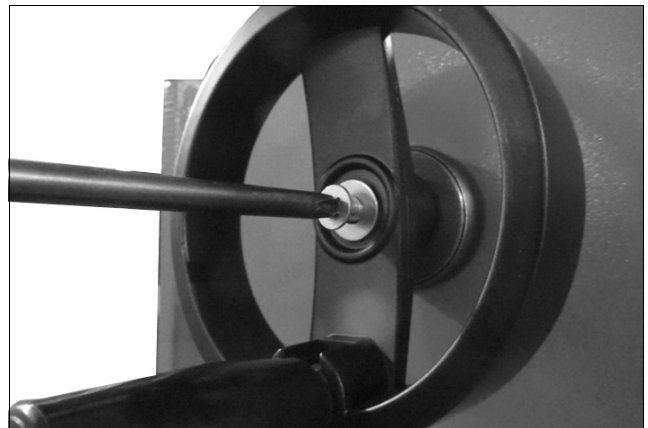
1. Fit the thrust bearing to the end of the axle.
2. Check that the direction of the thrust bearing is with the silver metal side facing outwards.



3. Fit the key into the slot in the shaft and tap it into place.

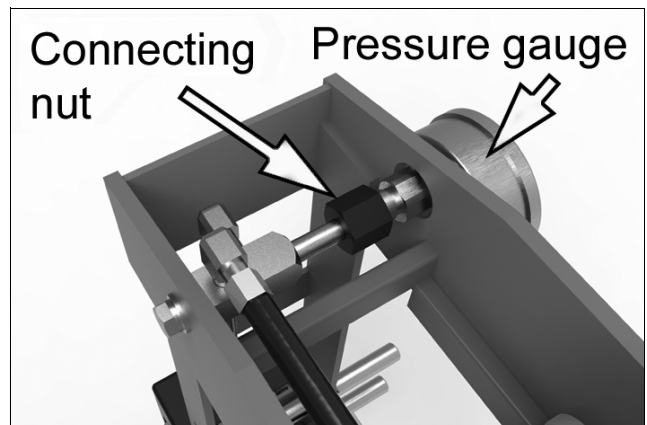


4. Install the handwheel onto the shaft, lining up the slot in the wheel with the retaining key.
5. Secure the handwheel with the spring washer, flat washer and cross-headed screw supplied.



6. Remove the travel plug and install the pressure gauge.
7. Fit the gauge through the frame and secure with the connecting nut supplied.

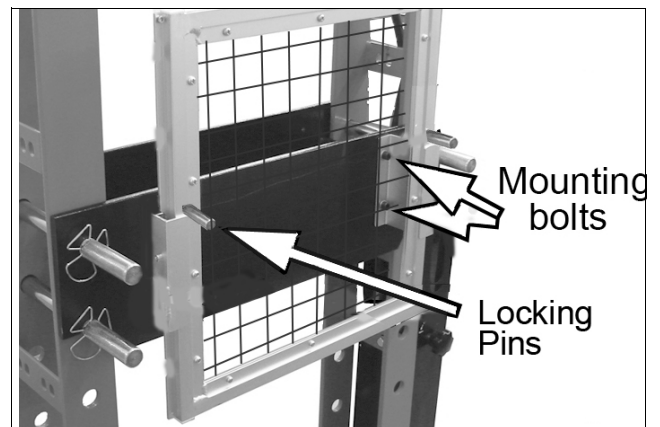
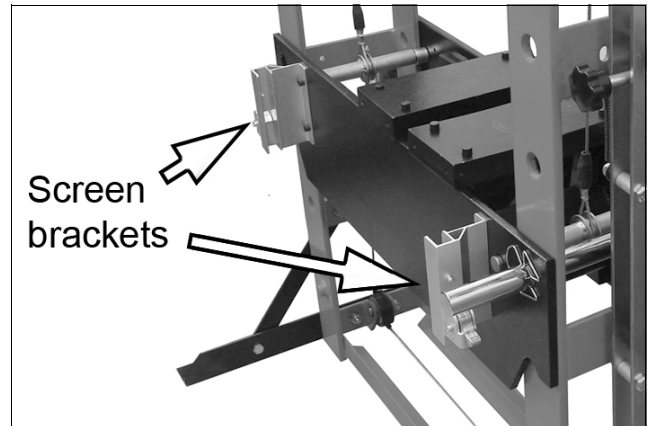
- We recommend sealing threads with PTFE tape where hydraulic oil is to be contained. Take care not to let any oil escape while connecting the hoses.



PROTECTIVE SCREEN (OPTIONAL)

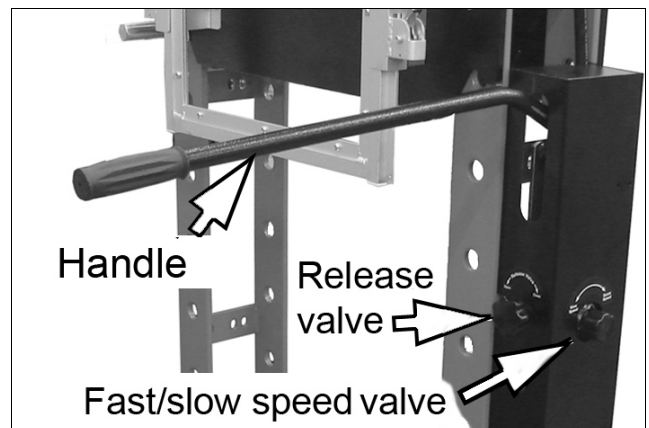
A protective screen CPS50T is available from your CLARKE dealer, part no: 7615262.

1. Bolt the protective screen brackets to the pressing bedplate.
2. Fit the protective screen assembly to the brackets and ensure it can be set in one of the available positions using the latches on each side.



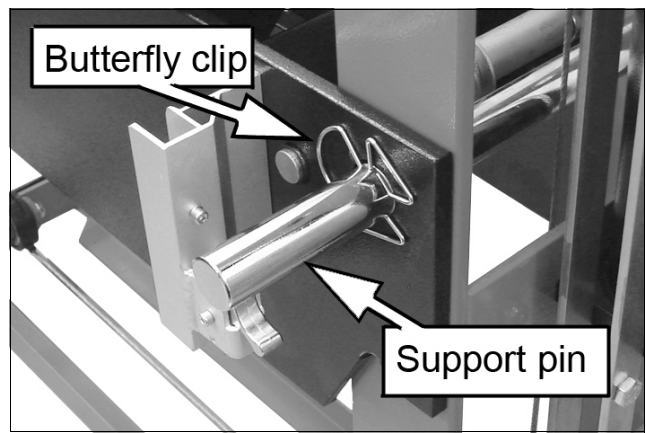
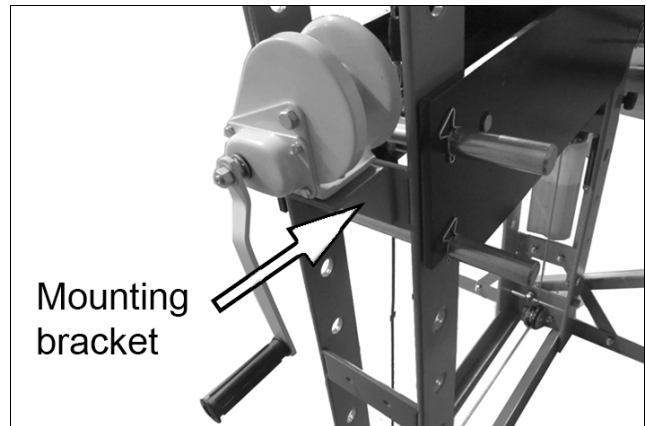
PURGING THE HYDRAULIC SYSTEM

1. Open the release valve by turning anti-clockwise.
2. Pump the handle or foot pedal several full strokes to eliminate any air bubbles from the system.
3. Close the release valve, turning clockwise.



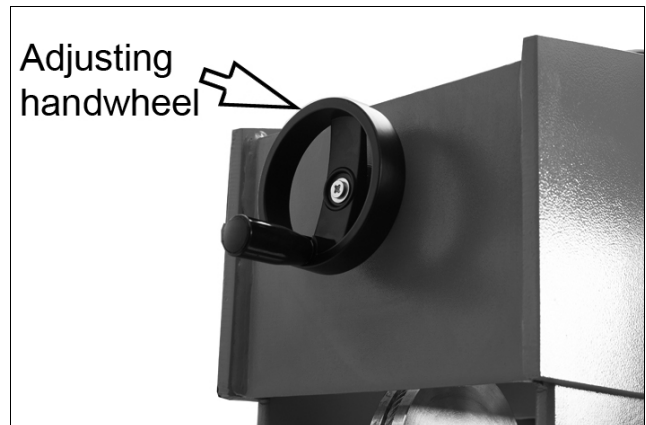
POSITIONING THE PRESSING BED

1. Use the winch to raise the pressing bed into a suitable position.
 - The arrows on the winch indicate the direction of movement.
 - The pressing bed should be as close as possible to the ram when the workpiece is mounted on it.
2. When satisfied that the bed is at the correct height insert the locking pins into their positions and secure with the butterfly clips.



POSITIONING THE RAM

1. Position the carriage horizontally along the cross-beam using the adjusting handwheel on the side of the press.
 - Always position the ram directly above the workpiece which should be as close to the centre of the press as possible.

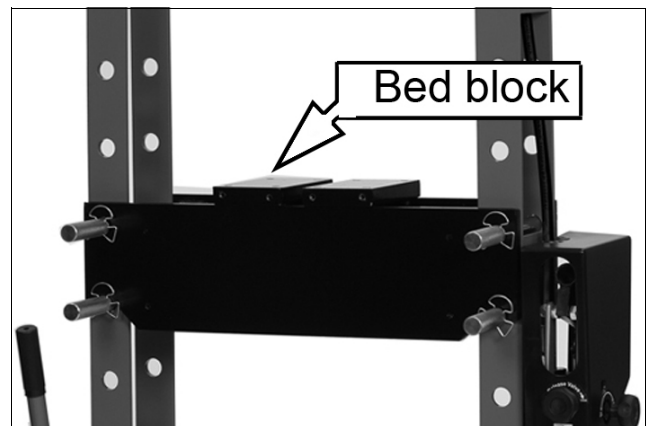
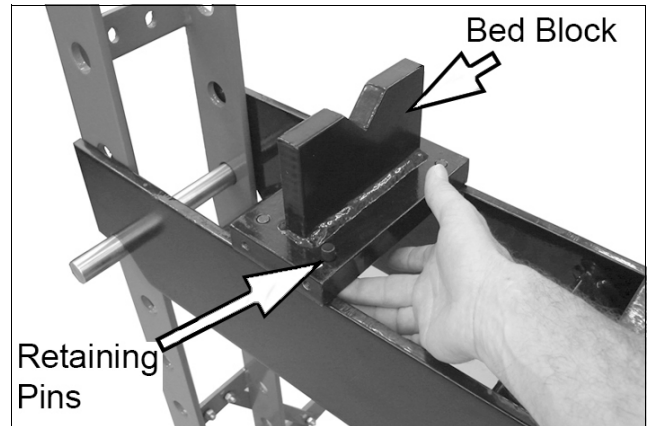


POSITIONING THE PRESSING BED BLOCKS

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.

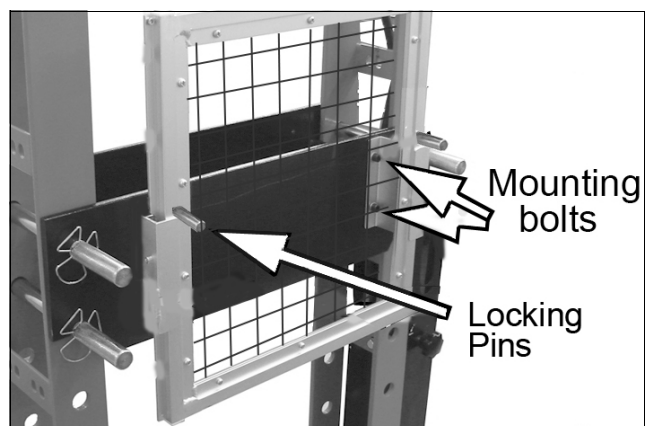
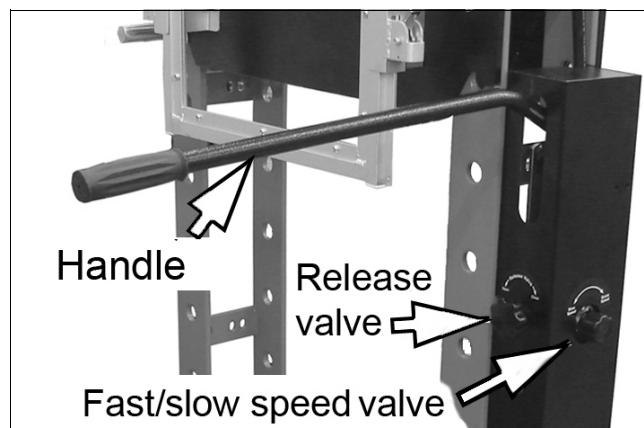
- Fast speed allows faster movement but greater effort will be required.

4. Pump the handle or foot pedal to bring the ram very lightly into contact with the workpiece.

5. Manoeuvre the workpiece or 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, slide the protective screen (if fitted) into position before starting any pressing.

- The latches will support the screen in a selection of positions.



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 pressing, ensuring the ram and work remain completely in line with 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.
 - The scale from 50 metric tonnes upward is highlighted in red, indicating pressure is being applied above the rated maximum working pressure.
10. When the pressing task is complete, turn the release valve control knob anticlockwise in small increments to release ram pressure and allow removal of the workpiece and lower the protective screen.

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. Keep the protective screen (if fitted) clean at all times.

Check the hydraulic connections for leaks. Replace or properly repair any damaged or leaking hydraulic components before using. Note any loss of oil and if oil is seen to become foul, replace using CLARKE hydraulic oil, Part No. 3050830.

If any rust is apparent on the structure 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.

When requesting spare parts, please quote the number on the diagrams/parts lists on pages 14-18.

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 dealer.
Pump will not produce pressure. Pump feels hesitant under load.	Air-lock.	See "Purging the Hydraulic System" on page 7. Open the release valve and pump the handle a couple of full strokes. Close the release valve.
Pump feels hesitant under load.	Pump cup seal could be worn out.	Have the cup seal replaced by your dealer.
Piston will not retract completely.	Air-lock.	Release air by removing the filler plug.

If this does not solve the problem, contact the CLARKE Service department on 020 8988 7400.

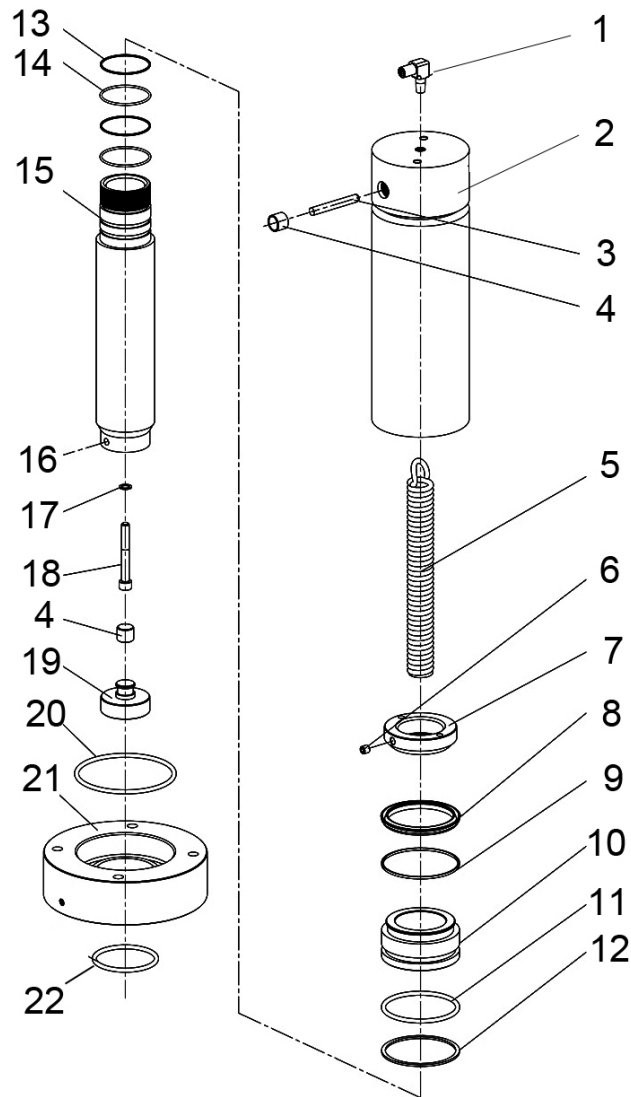
GUARANTEE

This product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt which will be required 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 its intended purpose. 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.

RAM PARTS DIAGRAM



NO	DESCRIPTION
1	Elbow connector
2	Ram cylinder
3	Pin
4	Nut
5	Spring
6	Grub screw
7	Nut
8	Y-ring
9	Back ring
10	Piston head
11	O-ring 90.5 x 5.3

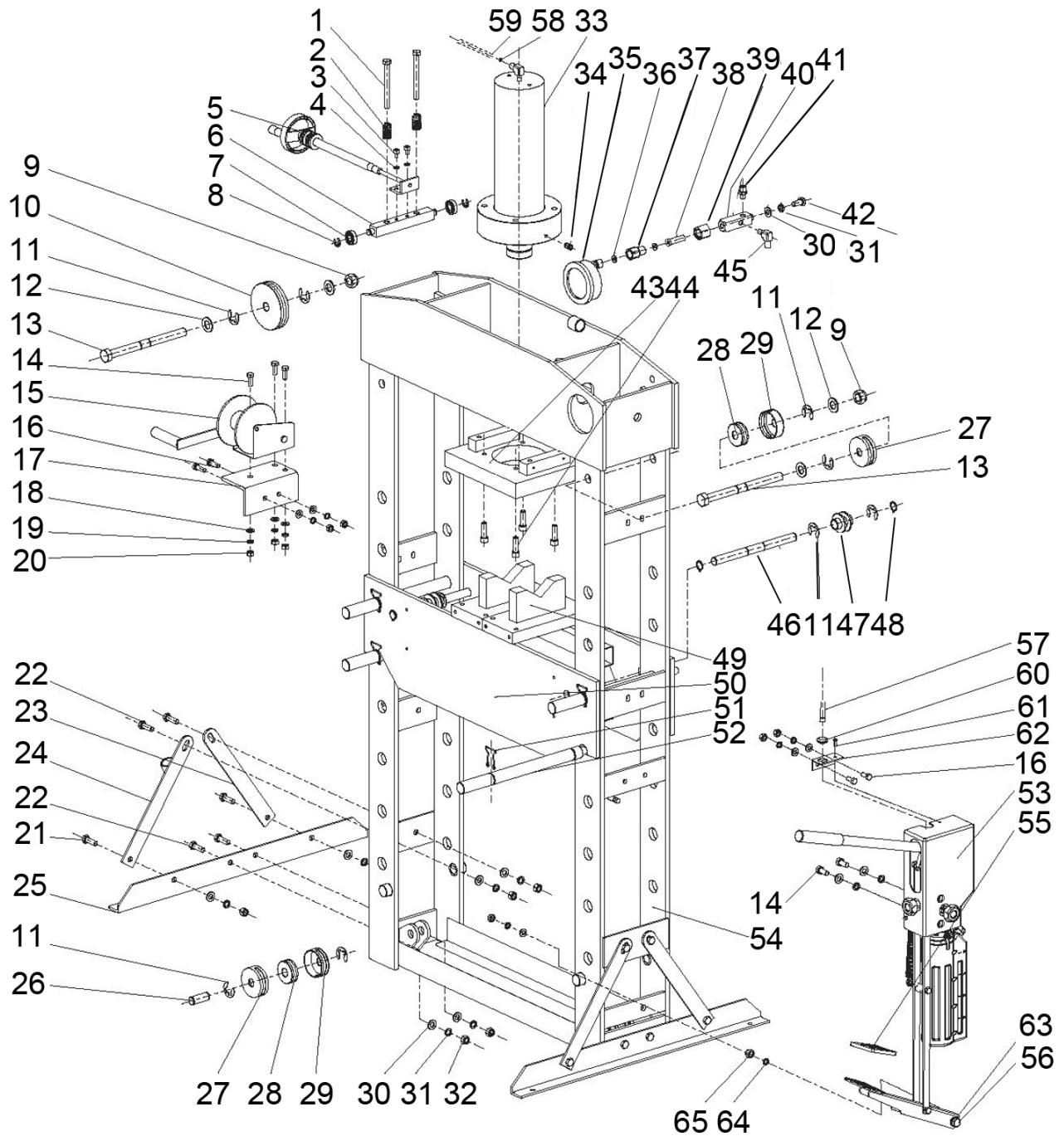
NO	DESCRIPTION
12	Ring
13	Ring
14	O-ring 60.5x2.5
15	Piston
16	Grub screw
17	Washer
18	Bolt M10 x80
19	Ram Toe
20	O-ring 120x5.3
21	Mounting Collar
22	O-ring 74.5x5.3

FRAME ASSEMBLY PARTS LIST

NO	DESCRIPTION
1	Bolt M12 x 120
2	Spring
3	Bolt M8 x 12
4	Spring washer
5	Screw adjuster assembly
6	Carriage beam
7	Bearing 6202-2Z
8	Clip 15
9	Nut M20
10	Upper roller
11	E-Clip
12	Washer
13	Pivot bolt
14	Bolt M10 x 25
15	Winch assembly
16	Bolt
17	Winch support bracket
18	Washer 10
19	Spring Washer 10
20	Nut M10
21	Bolt M12 x 30
22	Bolt M12 x 35
23	Support beam
24	Support beam
25	Base support section
26	Short roller shaft
27	Roller cover plate
28	Roller spool
29	Roller cover
30	Washer 12
31	Spring washer
32	Nut M12
33	Ram assembly complete

NO	DESCRIPTION
34	Grub screw
35	Pressure gauge
36	Sealing ring
37	Gauge connector
38	Connector
39	Gauge connecting nut
40	T-connector
41	Connector
42	Bolt M12x20
43	Ram bearing plate
44	Bolt M12 x 40
45	Straight connector
46	Long roller
47	Roller
48	Circlip 20
49	Pressing block set
50	Pressing beam
51	Butterfly clip
52	Pressing beam support pin
53	Hydraulic pump assembly
54	Frame upright
55	Pedal footpad
56	Screw
57	Sleeve
58	O-ring
59	Connecting hose
60	Hose connecting sleeve
61	Rivet
62	Hose fixing plate
63	Washer 14
64	Spring washer 14
65	Nut M14

FRAME ASSEMBLY PARTS DIAGRAM

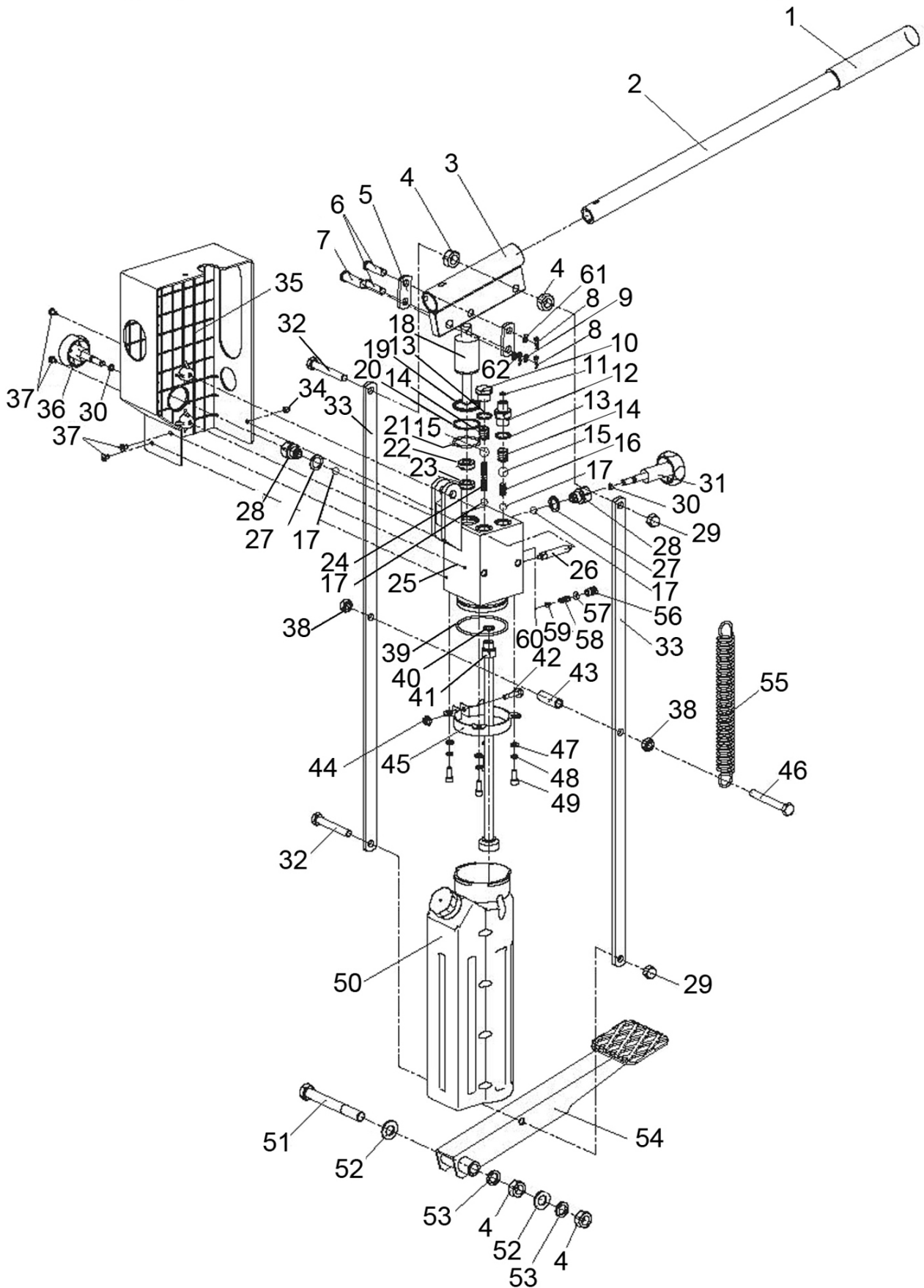


PUMP PARTS LIST

NO	DESCRIPTION
1	Handle Sleeve
2	Handle
3	Handle Socket
4	Nut M14
5	Connector
6	Connector pin
7	Handle socket pin
8	Torsion spring bolt A
9	Torsion spring bolt B
10	High pressure oil plug
11	O-ring 5 x 1.8
12	Hose connector
13	High pressure washer
14	High pressure oil spring
15	Steel ball 13.5mm
16	Low pressure oil sucking spring
17	Steel ball 9.5mm
18	Pump core
19	Star O-ring
20	Pump core back ring
21	Pump core O-ring
22	Pump core sleeve
23	Pump core Y-ring
24	High pressure oil sucking spring
25	Base unit
26	Support rod
27	Oil return sleeve copper pad
28	Return valve stem sleeve
29	Lock nut M10
30	O-ring 5.7 x 1.9
31	Oil release stem part

NO	DESCRIPTION
32	Bolt M10 x 70
33	Connecting rod
34	Cap nut M5
35	Plastic protective shell
36	Speed regulator valve part
37	X-headed screw M5x8
38	Nut M10
39	O-ring
40	End Ring
41	Oil pick-up pipe assembly
42	Shaft M6 x 25
43	Bush
44	Lock nut M6
45	Hoop
46	Shaft M10x80
47	Flat washer 6mm
48	Spring washer
49	Inner hex bolt M6 x 16
50	Oil reservoir
51	Reformed bolt
52	Flat washer 14
53	Spring washer 14
54	Foot pedal
55	Tension spring
56	Pressure regulating screw
57	O-ring
58	Pressure regulating spring
59	Spring base
60	Steel ball 3mm
61	Flat washer 10
62	Flat washer 12

PUMP PARTS DIAGRAM



DECLARATION OF CONFORMITY



Hennell 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 statutory requirement(s):

Supply of Machinery (Safety) Regulations 2008

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

EN ISO 12100:2010, EN 1494:2000+A1:2008

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

The UKCA mark was first applied in: 2023

Product Description: 50 Tonne Hydraulic Floor Press

Model number(s): CSAS0FPB

Serial / batch Number: N/A

Date of issue: 18/01/2023

Signed:

J.A. Clarke
Director



Fitzwilliam Hall, Fitzwilliam Place, Dublin 2

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):

EN ISO 12100:2010, EN 1494:2000+A1:2008

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: 2020

Product Description: 50 Tonne Hydraulic Floor Press

Model number(s): CSAS0FPB

Serial / batch Number: N/A

Date of issue: 18/01/2023

Signed:

J.A. Clarke
Director

A SELECTION FROM THE VAST RANGE OF

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QUALITY PRODUCTS



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PARTS & SERVICE: 0208 988 7400

Parts Enquiries
Parts@clarkeinternational.com

Servicing & Technical Enquiries
Service@clarkeinternational.com

SALES: UK 01992 565333 or Export 00 44 (0)1992 565335

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