

CLARKE® STRONG-ARM



WARNING: Read these instructions before using the press

30 TONNE HYDRAULIC PRESS MODEL NO: CSA30FPB

PART NO: 7615201

OPERATION & MAINTENANCE INSTRUCTIONS



ORIGINAL INSTRUCTIONS

GC1121 - Rev1

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		Wear protective gloves

The above safety symbols appear on the product.

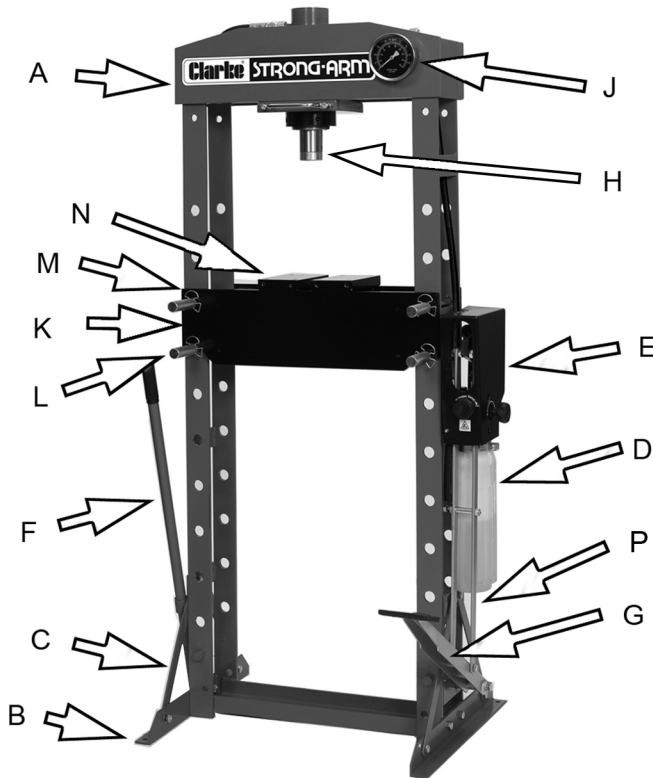
SAFETY PRECAUTIONS

- 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 cracked welds, loose or missing bolts, a damaged screen (if fitted), or any structural damage. Do not operate if any of these conditions exist. Have repairs made only by your 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** let any person who is unfamiliar with hydraulic presses use the press unless they are under direct supervision.
- Keep children and unauthorised personnel away from the work area.
- **ALWAYS** position the (optional) 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 packaging.



A	Frame with pump assembly
B	Base Supports
C	Stay Bars
D	Oil reservoir
E	Pump assembly
F	Pump Handle
G	Foot Pedal
H	Ram cylinder

J	Pressure Gauge
K	Pressing Bed
L	Bed Support Pins
M	Retaining Butterfly Clips
N	Bed Blocks
P	Foot Pedal Connecting Bars
	Fixing Kit (bolts, nuts, washers)
	1.5L bottle of hydraulic oil

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

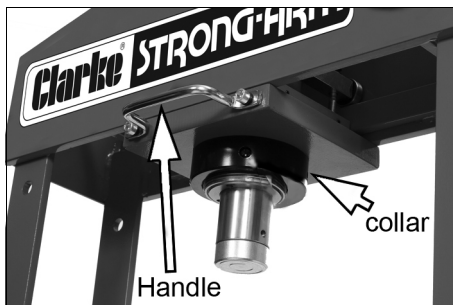
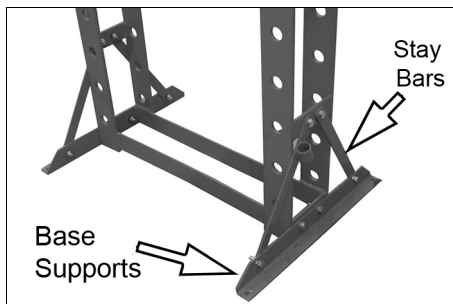
LOCATING THE PRESS

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.

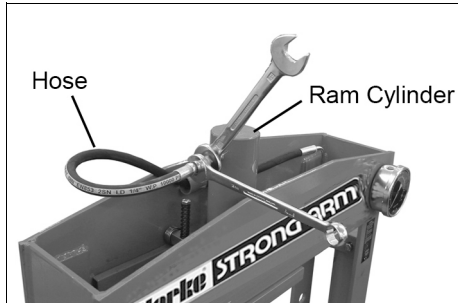
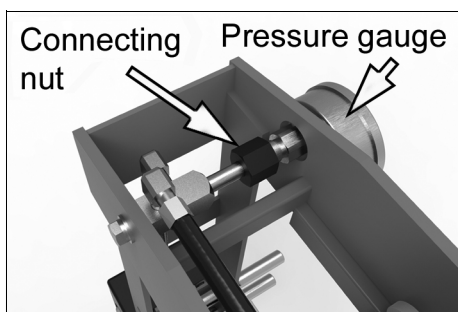
Do not locate your press where it will be open to the elements, as severe weather conditions will damage the hydraulic parts.

ASSEMBLY PROCEDURE

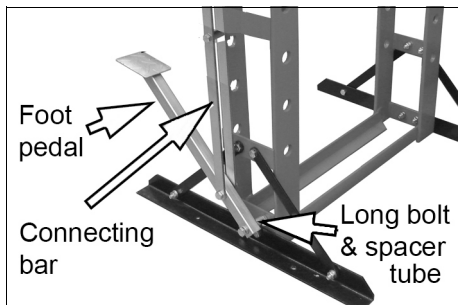
1. With the help of an assistant, attach the base supports to the frame using the nuts, bolts and washers.
2. Add the stay bars to each side and bolt into place.
3. With the help of an assistant if required, lift the frame assembly upright and manoeuvre it to its intended location in the workshop.
4. Install the ram by passing it through the top carriage and securing with the retaining collar.
5. Fit the carriage positioning handle to the front of the carriage using the hex bolts as shown.



6. Remove the travel plug and install the pressure gauge.
7. Fit the gauge through the frame and secure with the nut supplied.
- 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.
8. Connect the ram hose to the ram cylinder.



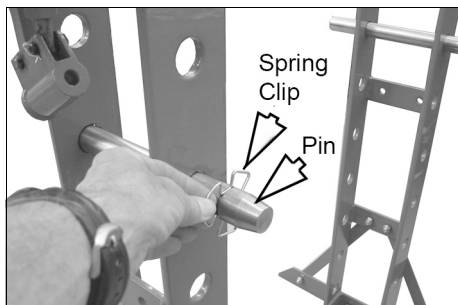
9. Bolt the foot pedal to the frame using the long bolt, spacer tube, nut and washers.



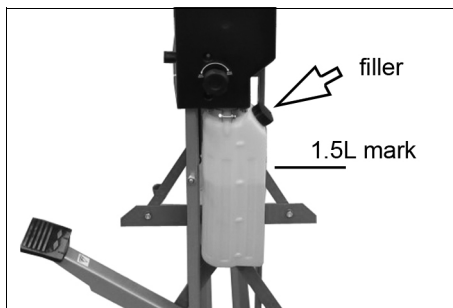
10. Insert the bed support pins into the holes in the frame side supports at a height of your choosing. Secure them in position using the butterfly spring clips.

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

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



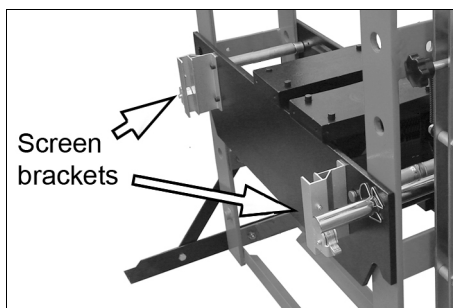
12. Fill the oil reservoir with oil from the container supplied, up to the 1.5L mark.



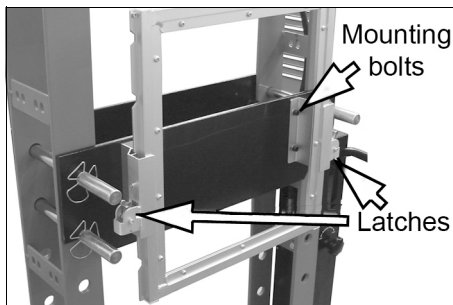
PROTECTIVE SCREENS (OPTIONAL)

- Protective screens (CPS30T part number 7615260) are available from your CLARKE dealer.

1. If the protective screens have been purchased, bolt the mounting brackets supplied to the pressing bed as shown.



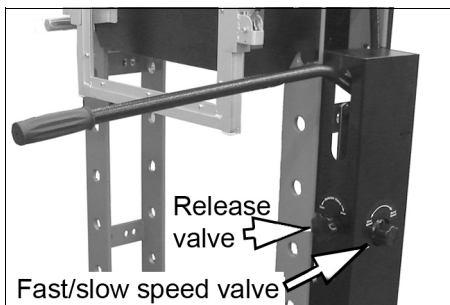
2. Fit the protective screen to the pressing bed and ensure it can be set in one of the available positions using the latches on each side.



PREPARATION FOR USE

PURGING THE HYDRAULIC SYSTEM

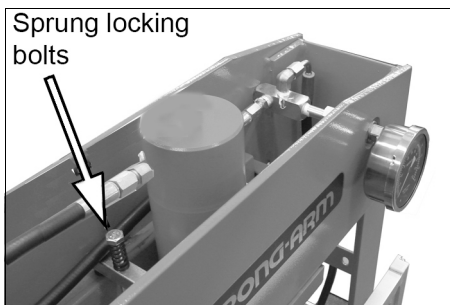
1. Insert the pump handle into the actuating lever.
2. Open the release valve by turning anti-clockwise.
3. Pump several full strokes to eliminate any air bubbles from the system. Use either the handle or the foot pedal.
4. Close the release valve by turning clockwise.



POSITIONING THE RAM

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

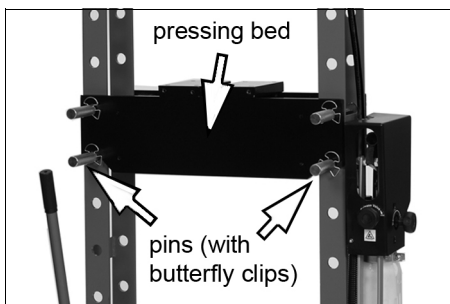
IMPORTANT: Always position the ram directly above the workpiece.



POSITIONING THE PRESSING 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 butterfly clips.



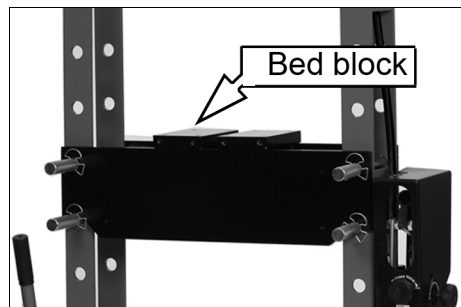
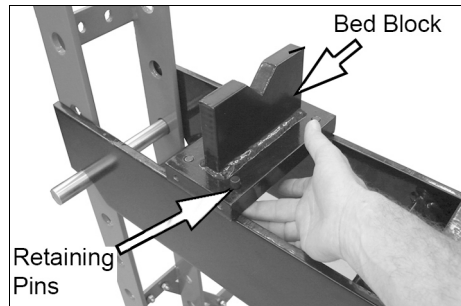
CAUTION: THE BED HEIGHT SHOULD ONLY BE RAISED OR LOWERED ONE HOLE AT A TIME, WORKING ALTERNATELY FROM ONE SIDE AND THEN THE OTHER. FAILURE TO WORK IN THIS WAY MAY CAUSE THE BED TO FALL AND CAUSE INJURY TO THE OPERATOR.

POSITIONING THE 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.



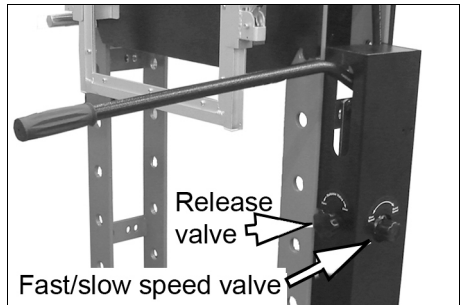
CAUTION: DO NOT POINT LOAD SUCH ACCESSORIES AS THEY ARE NOT DESIGNED TO TAKE THE FULL FORCE OF THE RAM IN ONE SPOT. ENSURE THEY ARE ADEQUATELY SUPPORTED.

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.

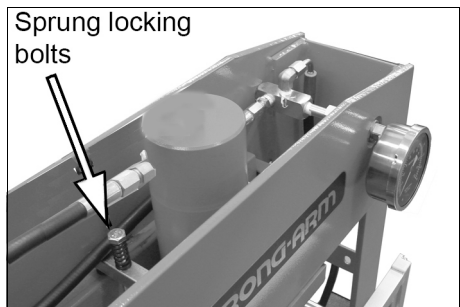
2. Close the release valve by turning clockwise until tightly closed.
3. Select either SLOW SPEED or FAST SPEED using the knob on the side of the pump cover.

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 locking bolts and slide the ram to one side so that the desired point of contact is directly beneath the centre of the ram.
6. Slowly pump the handle or foot pedal so that the ram begins to exert pressure on the workpiece.



7. 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.



• **KEEP HANDS AND FINGERS AWAY FROM PARTS THAT MAY PINCH OR SHIFT**

8. 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.

9. When the pressing task is complete, turn the release valve anticlockwise in small increments to release ram pressure and allow removal of the workpiece.

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.	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.
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. 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.

TECHNICAL SPECIFICATIONS

Capacity	30 Tonne (30,000 kg)
Hose Operating Pressure	68 Mpa
Ram Travel	215 mm
Ram Shaft Diameter	54 mm
Net Weight	135 kg
Dimensions D x W x H	760 x 560 (exc pump) x 1700 mm
Throat Width	510 mm
No of bed positions	10
Throat Depth (Ram to pressing plate)	Platform at highest;- 0 mm Platform at middle;- 250 mm Platform at lowest;- 940 mm
Ram travel per stroke	4.54 mm
No of strokes to full extension	31
Pressure Gauge type	Accuracy class 2.5
Pressure Gauge range	0-45 tonnes
Length of Handle	930 mm
Pump oil capacity	1.2 litres
Oil type	VG13

DECLARATION OF CONFORMITY



Clarke[®]
INTERNATIONAL

Hemnal 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):

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

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.

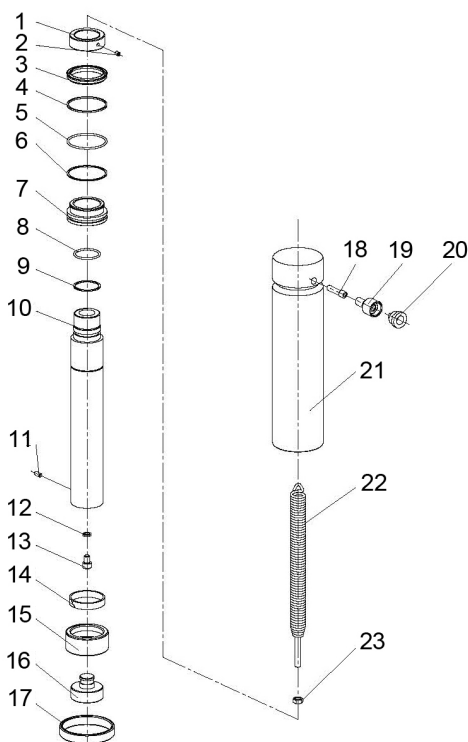
The CE mark was first applied in: 2020

Product Description:	30 Tonne Hydraulic Shop Press
Model number(s):	CSA30FPB
Serial / batch Number:	N/A
Date of Issue:	12/08/2020

Signed:


.....
J.A. Clarke
Director

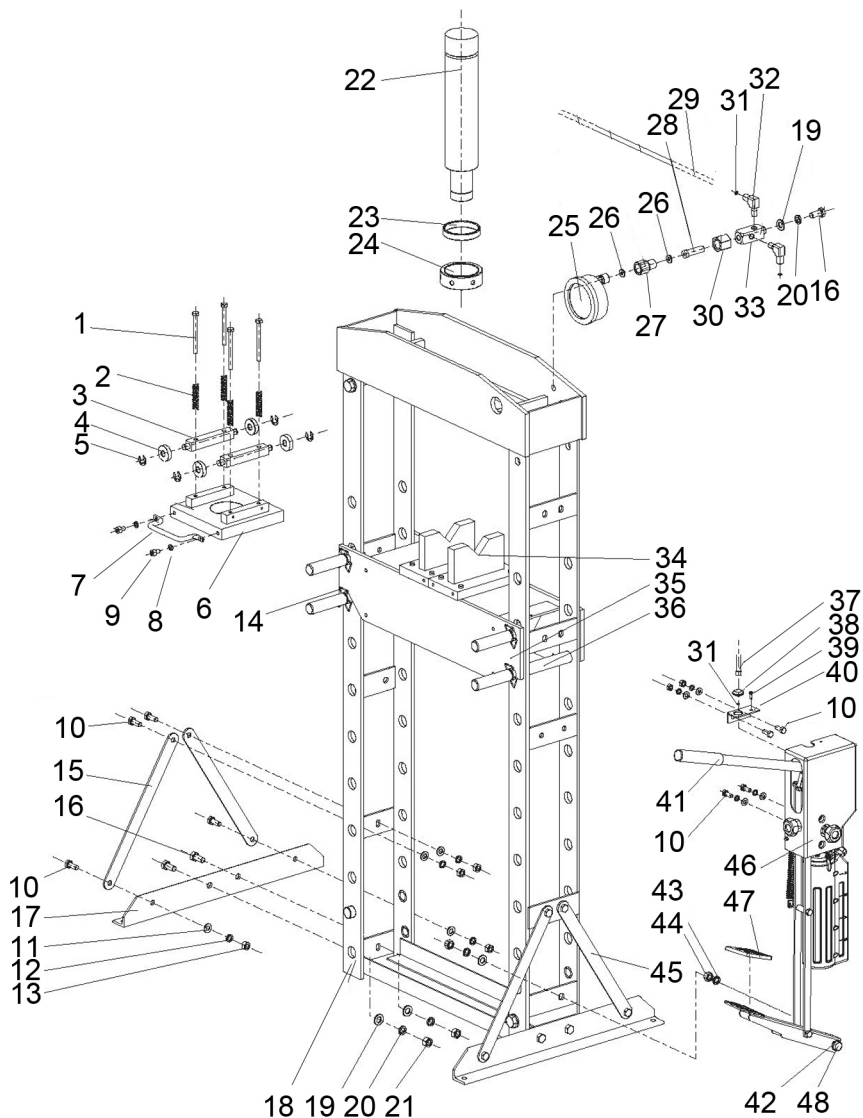
RAM PARTS DIAGRAM



NO	DESCRIPTION
1	Spacing ring
2	Screw M6x6
3	Y-ring
4	Back ring
5	O-ring
6	Nylon ring
7	Piston ring
8	O-ring
9	Ring
10	Piston
11	Screw
12	Sealing washer

NO	DESCRIPTION
13	Bolt M8x10
14	Guide ring
15	Upper collar
16	Toe
17	Lower securing collar
18	Bolt
19	Coupling
20	Dust cap
21	Cylinder
22	Spring
23	Nut M8

GENERAL ASSEMBLY PARTS DIAGRAM

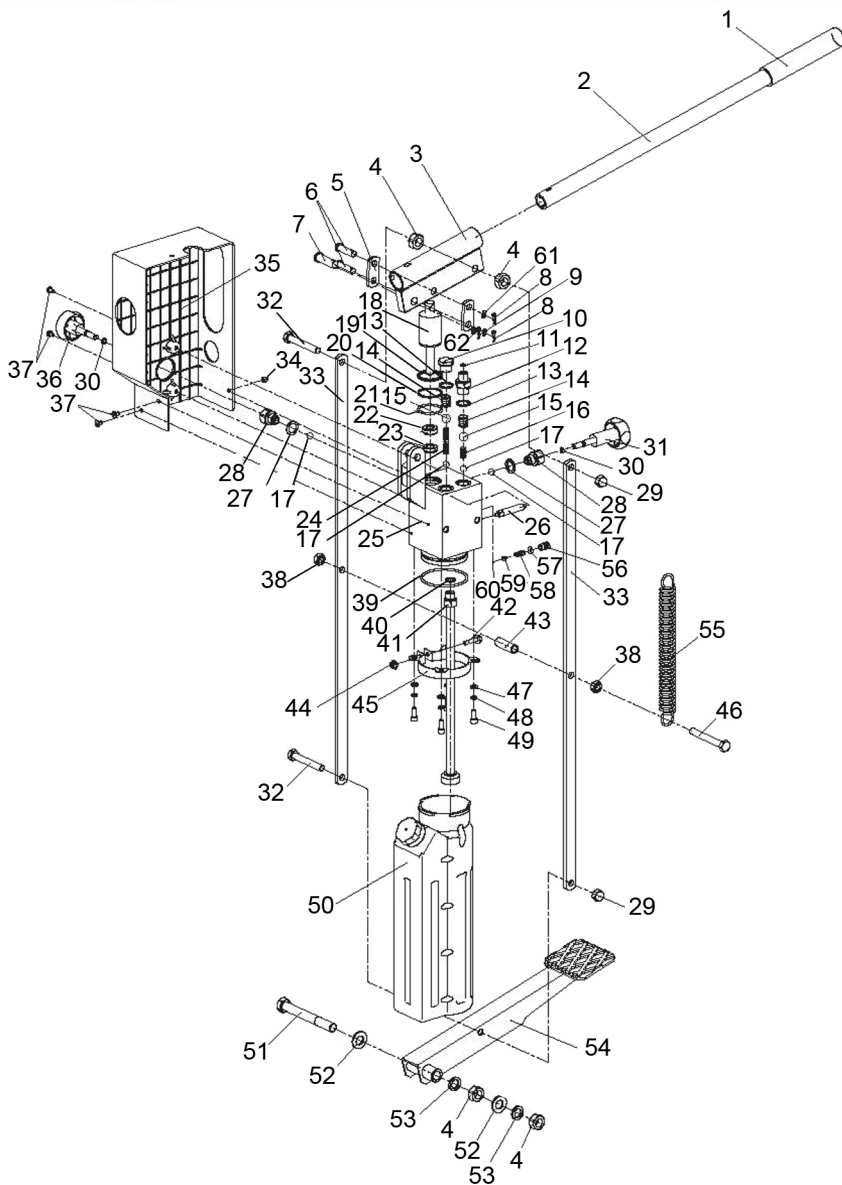


GENERAL ASSEMBLY PARTS LIST

NO	DESCRIPTION
1	Bolt M10 x 110mm
2	Spring
3	Roller shaft
4	Bearing
5	Circlip
6	Cylinder fixing plate
7	Cylinder moving handle
8	Spring washer 8mm
9	Bolt M8x10mm
10	Bolt M10 x 25mm
11	Washer 10mm
12	Spring washer 10mm
13	Nut M10
14	Butterfly spring clip
15	Stay bar
16	Bolt M12 x 25mm
17	Base section
18	Frame
19	Washer 12mm
20	Spring washer 12mm
21	Nut M12
22	Cylinder assembly
23	Protecting ring
24	Securing collar

NO	DESCRIPTION
25	Pressure gauge
26	Sealing ring
27	Gauge connector
28	Joining piece
29	Hydraulic hose
30	Gauge connecting nut
31	O-ring
32	T- connector
33	Straight connector
34	Pressing block
35	Bed frame
36	Bed frame pin
37	Hydraulic hose
38	Hose fixing sleeve
39	Rivet
40	Hose mounting plate
41	Handle
42	Washer 14
43	Spring washer 14
44	Nut M14
45	Tie bar
46	Pump peddle
47	Pedal pad
48	Screw

PUMP 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

A SELECTION FROM THE VAST RANGE OF

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