# STRONG-ARM



WARNING: Read these instructions before using the press

# 10 TONNE HYDRAULIC PRESS

MODEL NO: CSA10EP

PART NO: 7614025

OPERATION & MAINTENANCE INSTRUCTIONS

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GC1016

### INTRODUCTION

Thank you for purchasing this CLARKE 10 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.

#### PRODUCT SPECIFICATIONS

Rated Load	10 Tonnes
Throat Width	400mm
Throat Depth (Ram to pressing plate)	
Platform at position 1 (highest) Platform at position 2 Platform at position 3 Platform at position 4 Platform at position 5 Platform at position 6	75 mm 200 mm 325 mm 450 mm 575 mm 700 mm
Ram Travel	134 mm
No of strokes to full extension	78
Length of handle	500 mm
Oil Capacity	0.82 L
Dimensions (D x W x H)	500 x 570 x 1305 mm
Weight	47.5 kg

#### **SAFETY SYMBOLS**

Read instruction manual before use	Wear safety glasses
Wear Safety Shoes	

The above safety symbols appear on the product.

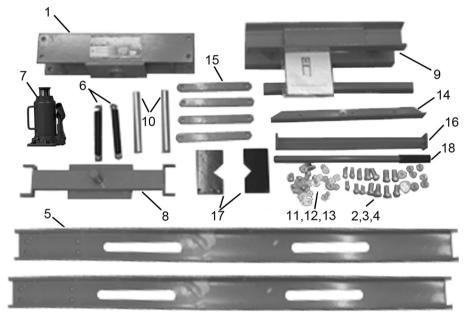
#### SAFETY PRECAUTIONS

- Always read the operating instructions thoroughly before using this press.
- The components of this press are specially designed to withstand the rated capacity. Do not substitute bolts, pins, or any other components. Do not exceed the rated capacity of the press.
- During assembly or if the press is moved, always call for the help of an assistant, do not manhandle single-handedly.
- Ensure the press is bolted down onto a solid, flat surface.
- Ensure the press is located on level ground with adequate light.
- Before applying a load, ensure all press bed support pins are fully engaged.
- Before use, always ensure the workpiece is secure and stable.
- Always clean any spills of hydraulic oil immediately as this can be dangerous in a workshop environment.
- Do not allow any person who is inexperienced in the use of hydraulic presses, to use the press unless they are under direct supervision.
- Never tamper with the press. The safety valve is calibrated and sealed at the factory; do not attempt to change the setting.
- Use only the recommended hydraulic oil as shown on page 8.
- Always place the workpiece under the centre of the ram. Offset loads can damage the press and may cause the work piece to be ejected.
- Before use, check for signs of cracked welds, bent bed pins, loose or missing bolts, or any other structural damage. Do not operate if any of these are found. Have repairs made only by authorised service centre.
- Remove any load from press bed before attempting to adjust bed height.
- Press only on a work piece 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 splinter or be ejected from the press. Due to varied applications, it is your responsibility to always use adequate guards, wear eye protection and protective clothing when operating this press.
- Always use appropriate safety wear such as protective shoes and safety goggles.
- Keep hands and fingers away from parts that may shift and pinch.
- Do not use extension tubes on the operating handle. Excessive effort can cause damage and/or accidents.

## **ASSEMBLY**

Ensure the press 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.

Due to the weight of the components, we recommend that the press is assembled by two people.

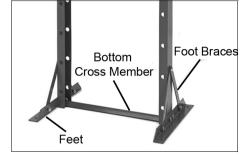


ID	DESCRIPTION	QTY
1	Cross Beam	1
2	Bolt M12	8
3	Washer 12 mm	8
4	Nut M12	8
5	Side Support	2
6	Spring	2
7	Bottle Jack Unit	1
8	Moving Beam	1
9	Pressing Bed	1

ID	DESCRIPTION	QTY
10	Bed Supporting Pin	2
11	Bolt M8	12
12	Washer 8 mm	12
13	Nut M8	12
14	Foot	2
15	Foot Brace	4
16	Bottom Cross Member	1
17	Pressing Plate	2
18	Handle	1

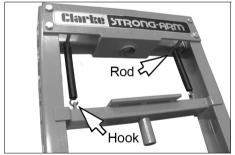
The press must be firmly secured to a firm and level floor using expansion bolts (not supplied). Holes are provided in the foot sections for this purpose. Do not locate your press where it will be open to the elements, as harsh weather conditions will damage the hydraulic parts.

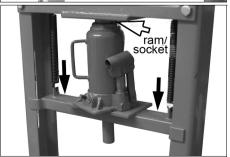
- Attach the feet and the bottom cross member to the side supports, using the M8 nuts, bolts and washers.
- Add the foot braces to each side using the remaining M8 nuts, bolts and washers.



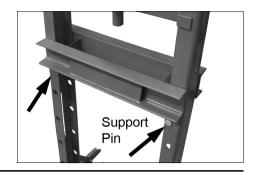
- Bolt the cross beam to the side supports, securing it with the M12 bolts, nuts and washers.
- Assemble loosely before tightening all fastenings.
- With the help of an assistant, manoeuvre the frame to its intended location in the workshop.
- Take the two springs and hook them to their positions on the moving beam. Support the moving beam and attach the other end of the springs to the rods within the cross beam.
- 6. Take the bottle jack unit, and by pressing down on the moving beam against the resistance of the springs, manoeuvre the jack so that the jack ram sits in the socket below the cross beam.
- The jack will remain self-centred during use.







 Insert the bed support pins into the holes in the side support at a height of your choosing. Then lower the pressing bed onto the pins.



#### **PREPARATION**

- Before using the press, purge any air from the jack by opening the release valve (turning it anticlockwise) and pumping the jack several full strokes to eliminate any air bubbles.
- Check all parts are secure and correctly aligned before using the press.



#### POSITIONING THE BED

Due to the weight of the bed, we recommend that you get assistance from another person when changing the bed height.

- 1. Position the bed at the desired height, so that it will be as close as possible to the ram when the workpiece is mounted on it.
- Raise one side of the bed and insert a 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 desired height, with the supporting pins fully 'home' and held in place by the retaining 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.

#### **OPERATION**



WARNING: FAILURE TO HEED THE WARNINGS ON PAGE 3 MAY RESULT IN DAMAGE TO THE EQUIPMENT OR COMPONENT FAILURE RESULTING IN PROPERTY DAMAGE, PERSONAL, OR EVEN FATAL INJURY.

NEVER USE EXTENSIONS TO THE RAM PUMPING HANDLE

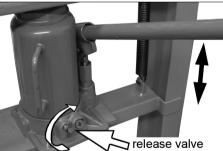
 The press is now ready for use. Place the workpiece on the bed. It must be completely stable and supported by packing or shims where required. A pair of pressing plates are supplied, which lay flat on the bed. Place the workpiece on these to give it stability.



CAUTION: DO NOT POINT LOAD THESE 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.

- Close the release valve by turning it clockwise until tightly closed.
- Pump the handle to bring the ram very lightly into contact with the workpiece.
- Position the workpiece so that the desired point of contact is directly beneath the centre of the ram.
- 5. When satisfied that the workpiece is correctly aligned and is completely stable in that position, slowly pump the handle so that the ram begins to exert pressure on the workpiece.
- 6. 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.
- 7. When the task is complete, turn the release valve anticlockwise in small increments to release ram pressure and allow removal of the workpiece.



#### **MAINTENANCE**

- A visual inspection must be made before 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.
- Any press which 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 and the operating handle in the lowered position to protect the moving parts.
- Periodically check the press frame to make sure all bolts are tight and inspect for cracked welds, bent, loose or missing parts.
- Check the hydraulic jack 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 plug on the jack. 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 corrosion is apparent it should be removed completely and the paint restored.

#### **DE-COMMISSIONING PRODUCT**

Should the product 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.

#### **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.

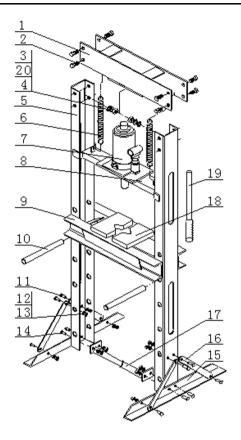
## **TROUBLESHOOTING**

Problem	Probable Cause	Remedy
Press will not work.	Dirt on valve seat/warn seals within jack.	Bleed jack unit or have unit overhauled with new seals.
Jack will not produce pressure Jack feels hesitant under load.	Air-lock in jack.	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.
Jack 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.
	Seal could be worn out.	Have the seal replaced.
Ram will not with- draw completely.	Air-lock in jack.	Release air by removing the filler plug.

# **DECLARATION OF CONFORMITY**



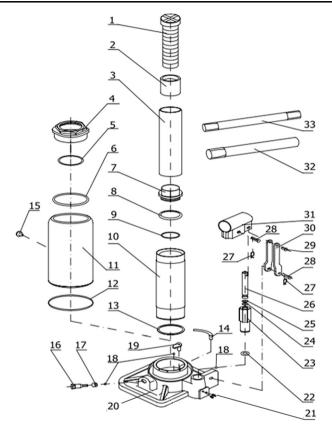
## FRAME PARTS DIAGRAM



NO	DESCRIPTION
1	Cross Beam
2	Bolt M12 x 30
3	Washer 12 mm
4	Nut M12
5	Column
6	Spring
7	Bottle Jack Unit
8	Moving Beam
9	Pressing Bed
10	Pin

NO	DESCRIPTION
11	Bolt M8 x 20
12	Washer 8 mm
13	Nut M8
14	Bolt M8 x 25
15	Leg
16	Foot Brace
17	Bottom Fixing Plate
18	Pressing Plate
19	Handle
20	Spring Washer

# **PUMP (JACK) PARTS DIAGRAM**



NO	DESCRIPTION
1	Adjustable Saddle
2	Saddle Socket
3	Piston Rod
4	Nut
5	O-ring
6	Seal
7	Piston
8	Bowl Washer
9	O-ring
10	Cylinder
11	Reservoir

NO	DESCRIPTION
12	Reservoir Seal
13	Base Plate Washer
14	Filter Screen
15	Oil Filler Plug
16	Release Valve
17	Release Valve Seal
18	Ball 6mm
19	Ball Stopper
20	Base
21	Bolt
22	Washer

NO	DESCRIPTION
23	Pump
24	O-ring
25	Back Ring
26	Plunger
27	R-Clip
28	Pin
29	Short Pin
30	Link Plate
31	Handle Socket
32	Handle Top
33	Handle Bottom



PARTS & SERVICE: 0208 988 7400

E-mail: Parts@clarkeinternational.com or Service@clarkeinternational.com

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

CIAPED INTERNATIONAL Hemnall Street, Epping, Essex CM16 4LG www.clarkeinternational.com