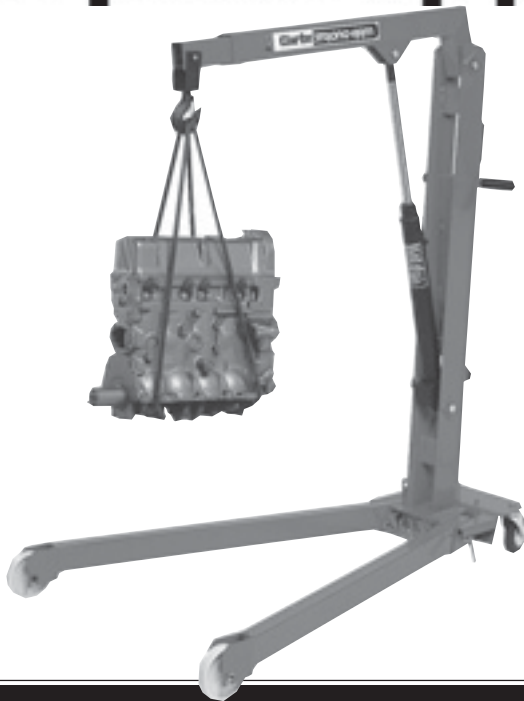


# Clarke® STRONG-ARM



**½ TONNE & 1 TONNE FOLDING CRANE**

**MODELS CHC500DF & CHC1000DF**

**PART No. 761050 AND 761102**

**OPERATION & MAINTENANCE  
INSTRUCTIONS**





***Please read these instructions carefully before operating the truck***

Thank you for purchasing this **CLARKE** Strong-Arm Hydraulic Crane. Before using the device, please read this manual thoroughly and carefully follow all instructions given. This is for your own safety and that of others around you, and is also to help you achieve a long and trouble free service from your new truck.

## **CLARKE 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 affect your statutory rights.

**PARTS & SERVICE TEL: 020 8988 7400**

**or e-mail as follows:**

**PARTS: [Parts@clarkeinternational.com](mailto:Parts@clarkeinternational.com)**

**SERVICE: [Service@clarkeinternational.com](mailto:Service@clarkeinternational.com)**

## Safety Precautions

### WARNING

*Failure to comply with these rules and precautions, may result in loss of load, damage to, or failure of the equipment, or even personal injury.*

1. **DO NOT** exceed the load capacity for each jib position (as marked on the jib). The capacities for each model are shown in tables on the inside front cover.



	1	2	3	4	Max Lift Ht
CHC500DF	500	400	350	250	2000mm
CHC1000DF	1000	800	650	450	2450mm

### IMPORTANT:

If the load capacity decal becomes worn or illegible, contact Clarke International Spares Division, on 020 8558 6696 for replacement.

2. Ensure that the equipment is correctly assembled, and that all the bolts and pins are in place and secure.
3. Only use chains, slings, hooks etc. with a rated capacity equal to, or greater than that of the load. Check that they are secure and will not slip under load.
4. Only use the crane on a solid, flat, level surface which is capable of taking the load. Avoid moving the crane over rough surfaces.
5. Lower the load as much as possible before moving the crane. Do not use the crane to transport loads.
6. Do not stand under the load, or above the jib. Be aware that if the load slips or falls, the jib may rise suddenly.

7. Use appropriate safety equipment, such as protective footwear, when using this crane.
8. Ensure the crane operator is skilled and trained in both operation and safety aspects.
9. Always inspect the crane before use to ensure it is in good condition, and replace any damaged or worn parts.
10. When replacing parts, use only those supplied by Clarke International. Refer to Parts List.
11. Ensure that the crane is properly maintained, and lubricated at all times, and that no rust or other forms of corrosion is allowed to weaken any part of the crane.
12. If the crane has been subjected to an abnormal load or shock, it should be removed from service immediately and fully inspected by qualified personnel.

### **Preparation For Use.** Figures in brackets refer to parts list on page 7.

The crane is packed, fully assembled, in the fully folded position. On unpacking check to ensure that no damage occurred during transit, and that all parts are present according to the packing list.

1. Withdraw the locking pins (Item 21), lower the legs, and lock in position with the same pin, securing with the 'R' clip (Item 20).
2. Release the stabilising foot (Item A), by removing the 'R' clip (Item 19), and rotating the foot so that it faces upwards. Secure in position with 'R' clip.
3. Before operating the crane, remove the transit plug from the back of the hydraulic ram unit, and replace with the vent plug supplied. retain the transit plug which should be re-fitted if the crane is stored or transported horizontally.
3. Test the operation of the crane without a load (refer to 'Operation' for raising and lowering the jib). If the ram operation appears 'spongy', it is possible that air may have entered the system. Raising the lowering the jib a few times will dispel any air and normalise the ram operation.  
If the jib does not reach its full height, the rams hydraulic oil may need topping up, (ref 'Maintenance').

## Operation

**IMPORTANT: Before attempting to lift, ensure the hook is directly above the point of lift, and the point of lift is directly above the centre of gravity on the load.**

Select the required jib arm length according to the load to be lifted and access available. Always use the shortest jib length possible to give the greatest safety margin and stability. Lock the jib extension into position with the link pin (Item 13), and 'R' clip (Item 20).

To raise the jib arm, screw the large valve knob (Item B), on the hydraulic ram, fully clockwise to close the control valve. Pump the hydraulic handle slowly to take the weight, check the stability of the load before pumping the jib up to the desired height.

To lower the jib, slowly unscrew the valve knob (item B), the more the valve is released, the faster the load will lower.

**Take care when lowering heavy loads**

## Maintenance

1. Always inspect the crane before use for visible signs of damage, leaking hydraulic fluid, loose, worn or missing parts.
2. Periodically check the crane for any damage, such as bent, loose or missing bolts and pins. Do not use a damaged crane. The bolts and pins used in the crane are specially designed for use, at the cranes' rated capacity. If replacements are required, contact CLARKE International Spares Department. Do not use substitute components.
3. Lubricate all the moving parts monthly with a general purpose oil or grease as appropriate. Keep a light film of oil on the ram to prevent rust.
4. If the jib does not reach its full height, check the ram hydraulic oil level as follows:
  - a. Raise the jib to the horizontal position and support the end.
  - b. Remove the ram to jib link pin (item 11).
  - c. Lower the ram fully by unscrewing the large valve knob (Item B). With the ram in the fully retracted position, the oil should reach the level of the vent plug. Top up if necessary with Clarke hydraulic oil (part number 3050830).

**NOTE: We recommend that the hydraulic oil is changed after every 100 hours of operation.**

5. Replace the vent plug and re-attach the ram to the jib.

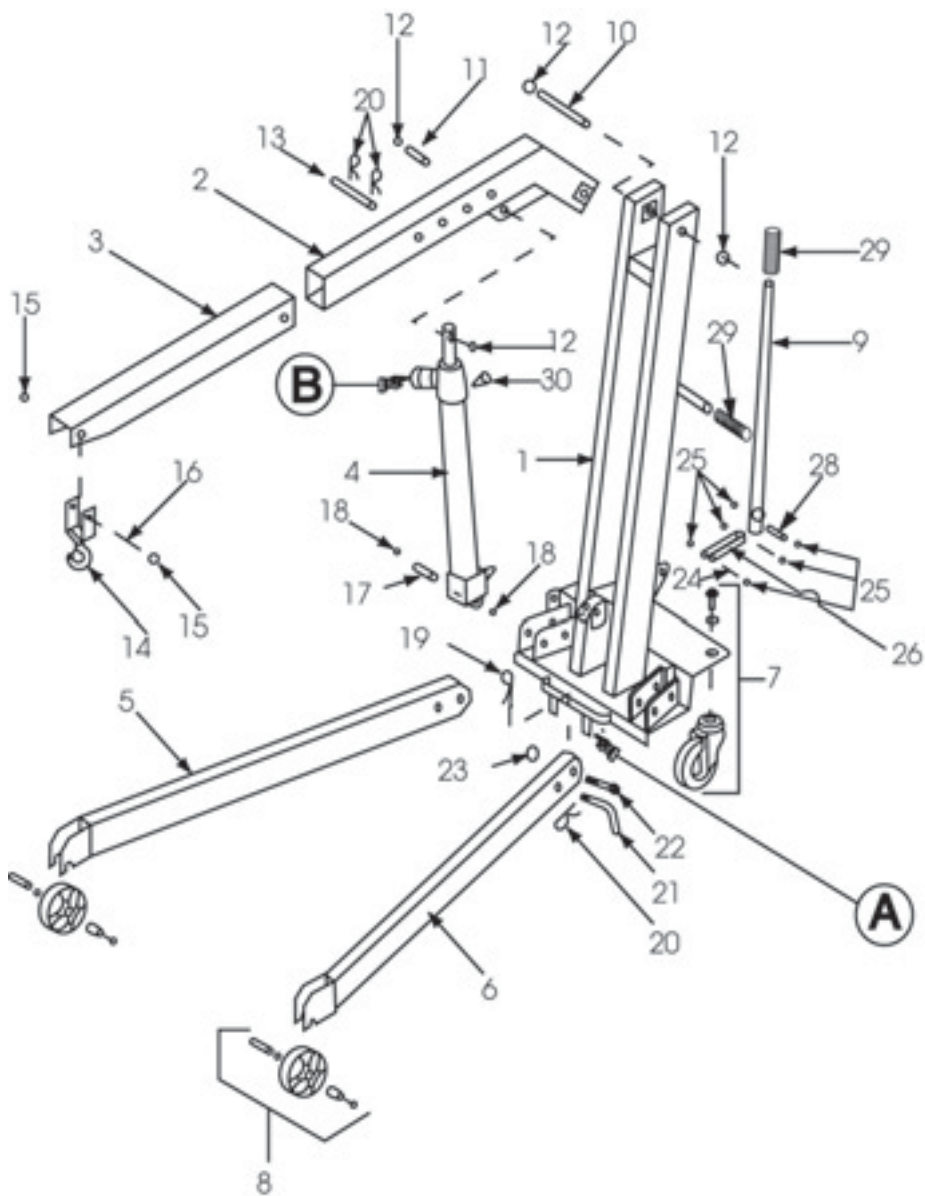
**NOTE: When not in use, the crane should be stored with the jib in its lowest position so there is no load on the ram, and the ram is not exposed to the elements.**

**If the crane is to be stored, or transported horizontally, the transit plug must be fitted to avoid leakage.**

## Parts List

Item	Description	CHC 500 DF	CHC 1000 DF
		Part No.	Part No.
1	Mast with Base	CHC5001	CHC10001
2	Main Jib	CHC5004	CHC10004
3	Jib Extension	CHC5005	CHC10005
4	Ram Assembly	CHC5007	CHC10007
5	Right Leg	CHC5003	CHC10003
6	Left Leg	CHC5002	CHC10002
7	Pivoting Wheel Kit	CHC5010	CHC10010
8	Fixed Roller Kit	CHC5011	CHC10011
9	Pump Lever	CHC5008	CHC10008
10	Jib/Mast Link Pin	CHC5025	CHC10025
11	Ram/Jib Link Pin	CHC5027	CHC10027
12	Retaining Ring	CHC5031	CHC10031
13	Extension Jib Link Pin	CHC5029	CHC10029
14	Hook Assembly	CHC5006	CHC10006
15	Retaining Ring	CHC5032	CHC10032
16	Hook Link Pin	CHC5028	CHC10028
17	Ram/Mast Link Pin	CHC5026	CHC10026
18	Retaining Ring	CHC5030	CHC10030
19	'R' Clip 4x80mm	CHC5018	CHC10018
20	'R' Clip 3x60mm	CHC5035	CHC10035
21	Locking Pin	CHC5019	CHC10019
22	Bolt 18X90mm	CHC5012	CHC10012
23	Nut 18mm	CHC5014	CHC10014
24	Con Rod/Ram Link Pin	CHC5023	CHC10023
25	Retaining Ring	CHC5024	CHC10024
26	Connecting Rod	CHC5020	CHC10020
27	Handle/Con Rod Link Pin	CHC5021	CHC10021
28	Handle/Mast Link Pin	CHC5022	CHC10022
29	Handle Grip	CHC5009	CHC10009
30	Vent Plug	CHR5030	CHR10030

# 1/2 Tonne & 1 Tonne Folding Crane

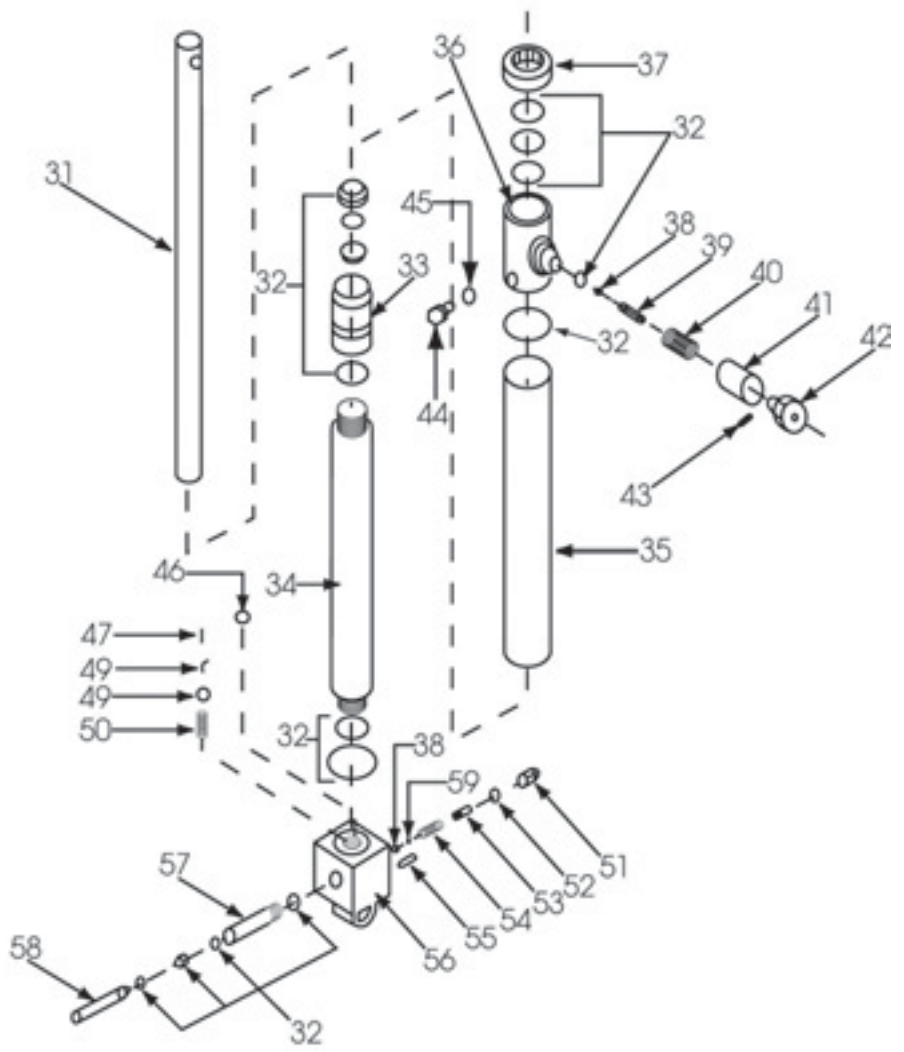


## Parts List Cont

Item	Description	CHC 500 DF	CHC 1000 DF
		Part No.	Part No.
31	Ram	CHR5031	CHR10031
32	Gasket Kit	CHR5032	CHR10032
33	Ram Guide Bush	CHR5033	CHR10033
34	Compression Cylinder	CHR5034	CHR10034
35	Oil Reservoir	CHR5035	CHR10035
36	Cylinder Head	CHR5036	CHR10036
37	Locking Ring Nut	CHR5037	CHR10037
38	Ball ¼"	CHR5038	CHR10038
39	Handwheel Pivot	CHR5039	CHR10039
40	Handwheel Return Spring	CHR5040	CHR10040
41	Spring Cover Bush	CHR5041	CHR10041
42	Handwheel	CHR5042	CHR10042
43	Dowel	CHR5043	CHR10043
44	Transit Plug	CHR5044	CHR10044
45	Aluminium Washer	CHR5045	CHR10045
46	Oil Filtering Spring	CHR5046	CHR10046
47	Delivery Valve Dowel	CHR5047	CHR10047
48	Compression Valve Spring	CHR5048	CHR10048
49	Ball 3/8"	CHR5049	CHR10049
50	Inlet Valve Spring	CHR5050	CHR10050
51	Relief Valve Plug	CHR5051	CHR10051
52	Copper Washer	CHR5032	CHR10052
53	Relief Valve Screw Plug	CHR5053	CHR10053
54	Relief Valve Spring	CHR5054	CHR10054
55	Blind Plug	CHR5055	CHR10055
56	Pump Body	CHR5056	CHR10056
57	Compression Cyl for Pump	CHR5057	CHR10067
58	SE Pumping Element	CHR5058	CHR10058
59	Pawl for Relief Valve Spring	CHR5059	CHR10059



# Hydraulic Ram



# Clarke<sup>®</sup>

## INTERNATIONAL

This is an important document and should be retained

### DECLARATION OF CONFORMITY



We declare that this product complies with the following standards/directives:

- 89/392/EEC
- ;
- EN 292-2

Description: **Folding Crane**

Model No: **CHC500DF & CHC1000DF**

Serial (Batch) No: **See Product Date Plate**

Signed: 

**Clarke<sup>®</sup>** INTERNATIONAL  
Hannall Street, Epping, Essex CM16 4LG