

# Clarke® STRONG-ARM



## 1 TON FOLDING CRANE CFC1000

### OPERATION & MAINTENANCE INSTRUCTIONS

# SPECIFICATIONS

## MAXIMUM SAFE WORKING LOADS (kg)



1	2	3	4
1000	750	500	250

**MAXIMUM LIFT HEIGHT - 1920mm**

**HYDRAULIC RAM OIL CAPACITY - 450CC**

# SPARE PARTS & SERVICE CONTACTS

For Spare Parts and Servicing, please contact your nearest dealer, or CLARKE International, on one of the following numbers.

**PARTS - 020 8558 6696 : SERVICE - 020 8556 4443**

**PARTS & SERVICE FAX - 020 8558 3622**

**PARTS E-MAIL - [Parts@clarkeint.co.uk](mailto:Parts@clarkeint.co.uk)**

**SERVICE E-MAIL - [Service@clarkeint.co.uk](mailto:Service@clarkeint.co.uk)**

# Clarke<sup>™</sup>

## INTERNATIONAL

Thank you for purchasing this CLARKE Strong Arm Hydraulic Crane.

Before attempting to use the crane please read this leaflet thoroughly and follow the instructions carefully, in doing so you will ensure the safety of yourself and that of others around you, and you can look forward to the crane 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 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 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.

## CONTENTS

<b>Specifications - Safe Working Loads</b> .....	<b>2</b>
<b>Spare Parts &amp; Servicing</b> .....	<b>2</b>
<b>Safety Precautions</b> .....	<b>4</b>
<b>Preparation for Use</b> .....	<b>5</b>
<b>Operation</b> .....	<b>6</b>
<b>Maintenance</b> .....	<b>6</b>
<b>Specifications - Dimensions</b> .....	<b>8</b>
<b>Parts Lists</b> .....	<b>9</b>
<b>Parts Diagrams</b> .....	<b>10 - 11</b>

# 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.

### 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

Unpack the crane on to a clean flat area of hard standing, and visually inspect components to ensure that no damage was suffered in transit. Should any damage be apparent, please contact your Clarke dealer immediately.

The crane is fully assembled at the factory and packed in its 'folded' position. To lower the legs, proceed as follows:

1. With an assistant taking the weight of the leg, pull out the 'R' clip, which secures the leg locking pin, (arrowed in Fig.1 a), then pull out the locking pin.
2. Lower the leg to the ground.
3. Replace the leg locking pin, through the hole provided in the frame, through the leg and out through the bracket, so that the leg is locked in the downward position, remembering to replace the 'R' clip.

The Hydraulic pump operating handle is housed in a bracket on the side of the main mast.



Fig.1



Fig.1a

# OPERATION (Numbers Refer to Fig. 1)

## A. Raising the jib

1. **IMPORTANT:** Ensure the hook is directly above the point of lift, and the point of lift is directly above the centre of gravity of the load.
2. Close the valve (24) by turning it fully clockwise using the end of the pump handle. Return the pump handle to the pump linkage and pump the handle (13) to reach the desired height.

## B. Lowering the jib

Turn the valve (24) VERY SLOWLY anticlockwise, using the end of the pump handle and the jib will lower.

### **NOTE:**

*The more the valve knob is turned, the faster the rate of descent. **Be extremely careful when lowering heavy loads.***

## C. Jib Extension

The jib is extended by first raising it to a horizontal position, then removing the 'R' clip (6), securing the locating pin (5), and withdrawing the pin.

Reposition the arm extension to the desired length, and replace the pin ensuring the 'R' clip is firmly in place.

### **NOTES:**

- a. *During transit or storage, it is possible that an air pocket may have developed within the hydraulic ram, and the ram action may therefore appear to be 'spongy'. As the ram is self bleeding, any air will be dispelled and the ram action normalised by fully raising and lowering the jib a few times.*
- b. *Should the jib not reach its full height, the oil level should be checked, as described in the Maintenance section.*

# MAINTENANCE

## A. Before Use

1. Always visually inspect the crane before use, to ensure that all parts are correctly located and secure. Check for hydraulic leaks, signs of damage or worn parts and check the wheels and castors for serviceability.

**Do not use the crane unless it is perfectly serviceable.**

2. A slight dampness on the ram is normal, but where leakage is apparent, the ram seals must be renewed.....Consult your Clarke dealer.

## B. Every Three Months

Pivot pins should be removed and inspected for wear, deformation, cracks. If any deformation or cracks are apparent, the pin should be renewed.

## C. Annually

The crane should be fully inspected annually by a competent person.

1. All pivot pins should be removed, inspected and greased before reinsertion or replacement.
2. Check for cracks and deformation of components.
3. Check wheels and castors to ensure they move freely without undue wear to their bores, and that the wheels are not cracked or damaged in any way.
4. Check the hydraulic ram operation and check oil level. (see below).
6. Remove completely, any rust or corrosion and repaint to prevent further corrosion.
7. Ensure that all decals and warning notices are in place and perfectly legible.

## D. Periodically

It may be necessary from time to time to top up the Hydraulic oil level, as follows.

1. Lower the jib to its lowest position, and remove the Ram to Jib locating pin (item 8, Fig1).
2. Rest the ram against the Mast whilst raising and propping the jib.
3. Remove the vent plug (Parts list item 69) from the ram, and using an oil can, filled with hydraulic oil (see below), slowly top up the oil until it begins vent plug.

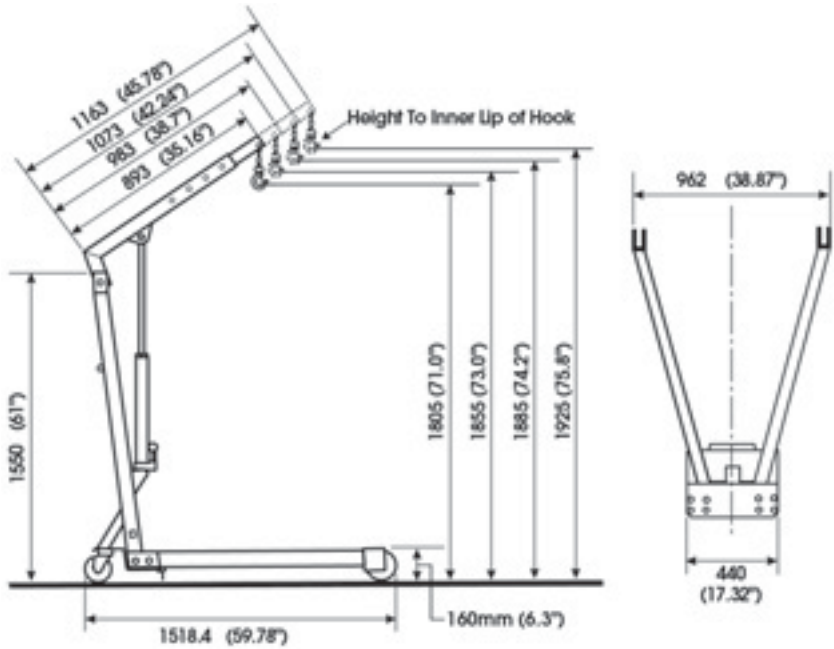
We recommend that the hydraulic oil is changed after every 100 hours of operation.

**NOTE:** *Top up using Clarke hydraulic oil (part number 3050830).*

## E. General

1. After use, wherever possible, store the crane with the jib in its lowest position, regardless of whether the legs are folded or not. This not only relieves the hydraulic ram, but also prevents any possibility of corrosion to the ram.
2. Do not leave the crane in the open, exposed to the elements. Keep under cover.
3. DO NOT remove the pump Pressure Relief Valve, or attempt to adjust the pump settings.

## DIMENSIONS (mm)



## MAXIMUM SAFE WORKING LOADS (kg)



1	2	3	4
1000	750	500	250

## HYDRAULIC RAM OIL CAPACITY - 450CC



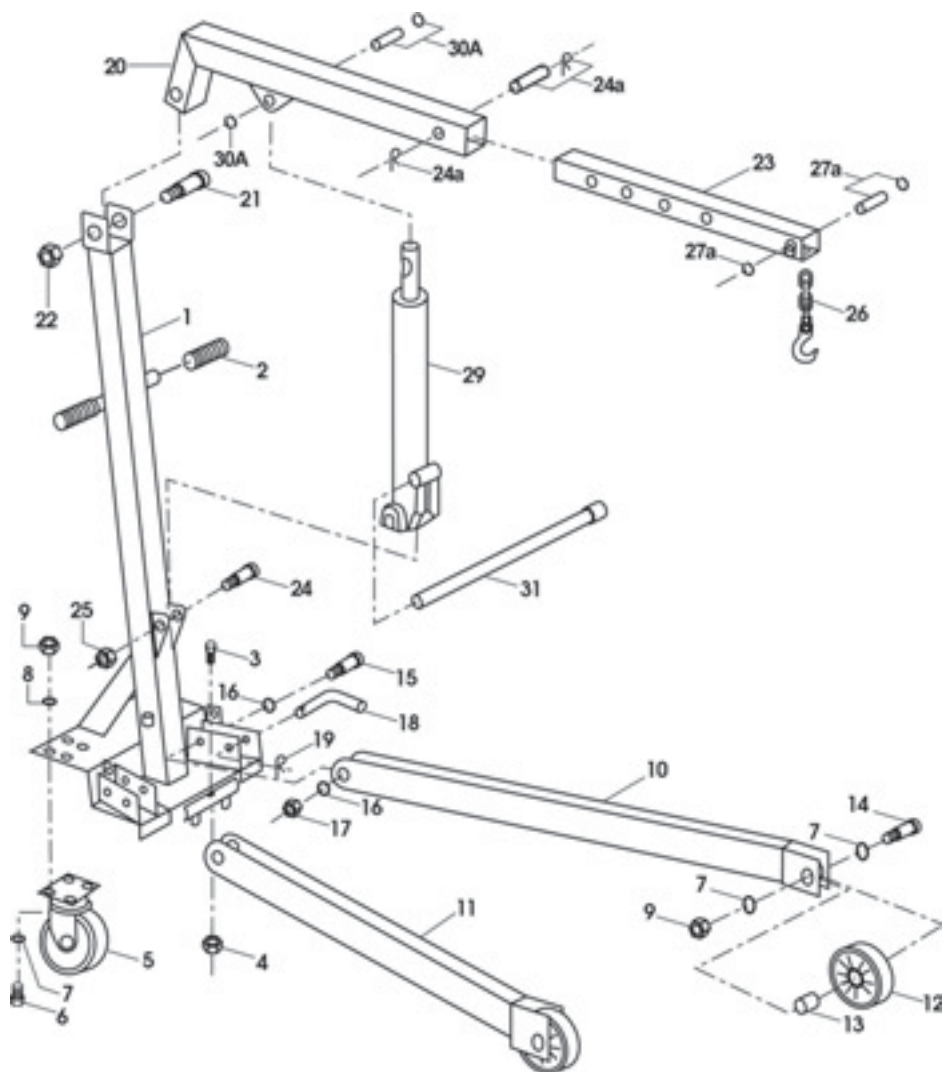
## PARTS LIST - MAIN FRAME

No.	Description	Part No.	No.	Description	Part No.
1	Mast	CFC10001	17	Nut M14	CFC10017
2	Grip	CFC10002	18	Lock Pin	CFC10018
3	Bolt M6x40	CFC10003	19	'R' Clip	CFC10019
4	Nut M6	CFC10004	20	Boom	CFC10020
5	Caster	CFC10005	21	Bolt 3/4"x4 5/8"	CFC10021
6	Bolt 3/8"x1"	CFC10006	22	Nut 3/4"	CFC10022
7	Spring Washer	CFC10007	23	Boom Extension	CFC10023
8	Washer	CFC10008	24a	Pin with 2x'R' Clips	CFC10024a
9	Nut 3/8"	CFC10009	25	Nut 5/8"	CFC10025
10	Left Leg	CFC10010	26	Hook with Chain	CFC10026
11	Right Leg	CFC10011	27a	Pin with 2xCirclips	CFC10027a
12	Front Wheel	CFC10012	29	3 Ton Hydraulic Pump	CFC10029
13	Bushing	CFC10013	30a	Pin with 2xCirclips	CFC10030a
14	Bolt 3/8"x 2 3/4"	CFC10014	31	Jack Handle	CFC10031
15	Bolt M14x90	CFC10015	-	Seal Kit (not shown)	CFC10032
16	Washer	CFC10016			

## PARTS LIST - HYDRAULIC PUMP

No.	Description	Part No.	No.	Description	Part No.
1	Base	CFC301	18	Pin	CFC318
2	Ball	CFC302	19	Clip	CFC319
3	Seal	CFC303	20	Screw	CFC320
4	Release Valve	CFC304	21	Packing	CFC321
6	Cylinder	CFC305	22	Reservoir	CFC322
7	Washer	CFC306	25	Ram	CFC323
8	Check Valve Kit	CFC307	26	Retainer	CFC325
9	Seal	CFC308	26-1	O-Ring	CFC326
10	Washer	CFC309	27	Cup Seal	CFC329
11	Pump Cylinder	CFC310	28	Cup Washer	CFC331
12	O-Ring	CFC311	29	Circlip	CFC332
14	Cup Seal	CFC312	31	Top Nut	CFC333
15	Back-up Ring	CFC313	32	O-Ring	CFC334
16	Pump Plunger	CFC314	33	Filler Plug	CFC335
17-1	Handle Sleeve Assy	CFC315	34	Handle	CFC336
17-2	Link	CFC316	35	Grip	CFC337
17-3	Rivet	CFC317			

# PARTS DIAGRAM - Main Frame



# PARTS DIAGRAM - Hydraulic Pump

