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All sizes for car & commercial use.



ClarkeTM INTERNATIONAL

For spare parts and servicing, please contact your nearest dealer, or Clarke International on

020 - 8988 - 7400

e-mail: Parts@clarkeinternational.com e-mail: Service@clarkeinternational.com

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ClarkeTM STRONG-ARM



½ TONNE & 1 TONNE FOLDING CRANE

MODELS HFDC1 AND HFDC2

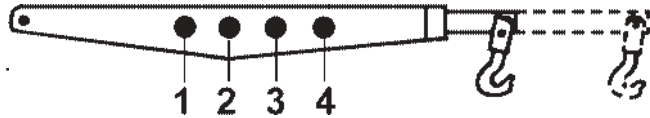
PART No. 76611300 AND 7611310

**OPERATION & MAINTENANCE
INSTRUCTIONS**



SAFE WORKING LOADS

MAXIMUM SAFE WORKING LOADS (kg)



	1	2	3	4	Max Lift Ht
HDFC1	500	400	350	250	2070mm
HDFC2	1000	800	650	450	2400mm

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

SERVICE E-MAIL - Service@clarkeint.co.uk

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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
- 91/368/EEC
- 93/44/EEC
- EN 292-2

Description: **WORKSHOP CRANE**

Model No: **HDFC1 & HDFC2**

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

Signed: 

Clarke INTERNATIONAL
Hemnal Street, Epping, Essex CM16 4LG

Specifications & Dimensions

	Stage 1	Stage 2	Stage 3	Stage 4
Lifting Capacity (kg)				
HDFC1	500	400	350	250
HDFC2	1000	800	650	500

Max. Lift Height (mm)	
HDFC1	2070
HDFC2	2400

Max Jib Length (mm)	
HDFC1	1230
HDFC2	1380

Leg Height (mm)	
HDFC1 & HDFC2	85

Overall Width (mm)	Outside	Inside
HDFC1	830	720
HDFC2	980	870

Weight (kg)	
HDFC1	80
HDFC2	110

Part No.	
HDFC1	7611300
HDFC2	7611310

Clarke
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Thank you for purchasing this CLARKE Strong Arm Hydraulic Crane.

Before attempting to use the crane please read this manual 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.

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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.

Parts List Cont

Item	Description	HDFC1	HDFC2
		Part No.	Part No.
37	Locking Ring Nut	HDFC137	HDFC237
38	Ball ¼"	HDFC138	HDFC238
39	Handwheel Pivot	HDFC139	HDFC239
40	Handwheel Return Spring	HDFC140	HDFC240
41	Spring Cover Bush	HDFC141	HDFC241
42	Handwheel	HDFC142	HDFC242
43	Dowel	HDFC143	HDFC243
44	Transit Plug	HDFC144	HDFC244
45	Aluminium Washer	HDFC145	HDFC245
46	Oil Filtering Spring	HDFC146	HDFC246
47	Delivery Valve Dowel	HDFC147	HDFC247
48	Compression Valve Spring	HDFC148	HDFC248
49	Ball 3/8"	HDFC149	HDFC249
50	Inlet Valve Spring	HDFC150	HDFC250
51	Relief Valve Plug	HDFC151	HDFC251
52	Copper Washer	HDFC152	HDFC252
53	Relief Valve Screw Plug	HDFC153	HDFC253
54	Relief Valve Spring	HDFC154	HDFC254
55	Blind Plug	HDFC155	HDFC255
56	Pump Body	HDFC156	HDFC256
57	Compression Cyl for Pump	HDFC157	HDFC257
58	SE Pumping Element	HDFC158	HDFC258
59	Pawl for Relief Valve Spring	HDFC159	HDFC259
60	Screw Washer	HDFC160	HDFC260
61	Pivoting Wheel Kit	HDFC161	HDFC261
62	Safety Spring	HDFC162	HDFC262
63	Knob	HDFC163	HDFC263
64	Handle Grip	HDFC164	HDFC264
65	Bolt 10X16mm	HDFC165	HDFC265
66	Spacer	HDFC166	HDFC266
67	Elastic Spin	HDFC167	HDFC267
68	Pin	HDFC168	HDFC268
69	Exhaust Valve Bush	HDFC169	HDFC269
70	Valve Spring	HDFC170	HDFC270
71	Ball 5/16"	HDFC171	HDFC271

PARTS LIST

Item	Description	HDFC1	HDFC2
		Part No.	Part No.
1	Mast with Base	HDFC101	HDFC201
2	Main Jib	HDFC104	HDFC204
3	Jib Extension	HDFC105	HDFC205
4	Ram Assembly	HDFC107	HDFC207
5	Right Leg	HDFC103	HDFC203
6	Left Leg	HDFC102	HDFC202
7	Pivoting Wheel Kit	HDFC110	HDFC210
8	Fixed Roller Kit	HDFC111	HDFC211
9	Pump Lever	HDFC108	HDFC208
10	Jib/Mast Link Pin	HDFC125	HDFC225
11	Ram/Jib Link Pin	HDFC127	HDFC227
12	Retaining Ring	HDFC131	HDFC231
13	Extension Jib Link Pin	HDFC129	HDFC229
14	Hook Assembly	HDFC106	HDFC206
15	Splitpin	HDFC132	HDFC232
16	Hook Link Pin	HDFC128	HDFC228
17	Ram/Mast Link Pin	HDFC126	HDFC226
18	Retaining Ring	HDFC130	HDFC230
19	Screw 8x20mm	HDFC118	HDFC218
20	Nut 18mm	HDFC135	HDFC235
21	Locking Pin	HDFC119	HDFC219
22	Bolt 18X140mm	HDFC112	HDFC212
23	Nut 18mm	HDFC114	HDFC214
24	Con Rod/Ram Link Pin	HDFC123	HDFC223
25	Retaining Ring	HDFC124	HDFC224
26	Connecting Rod	HDFC120	HDFC220
27	Handle/Con Rod Link Pin	HDFC121	HDFC221
28	Handle/Mast Link Pin	HDFC122	HDFC222
29	Handle Grip	HDFC109	HDFC209
30	Vent Plug	HDFC130	HDFC230
31	Ram	HDFC131	HDFC231
32	Gasket Kit	HDFC132	HDFC232
33	Ram Guide Bush	HDFC133	HDFC233
34	Compression Cylinder	HDFC134	HDFC234
35	Oil Reservoir	HDFC135	HDFC235
36	Cylinder Head	HDFC136	HDFC236

PREPARATION

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 Page 7), lower the legs, and lock in position with the same pin, securing with the "R" clips (Item 20 Page 7).
2. Before operating the crane, replace the oil plug on the cylinder with the holed one supplied.
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 page 7)

To raise the jib arm pump the hydraulic handle slowly to take the weight and check the stability of the load before pumping to the desired height.

To lower the jib, **slowly** unscrew the valve knob (item B Page 7) 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 Page 7).
 - c. Lower the ram fully by unscrewing the large valve knob (B Page 7). 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.

