

OPERATING & MAINTENANCE INSTRUCTIONS

“RAPTOR” Manual Chain Hoist



Note: The Owner/Operator must read carefully and understand
All the information presented here before operation.

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THANK YOU FOR PURCHASING THE **"RAPTOR CHAIN HOIST"**. FOR YOUR SAFETY, CORRECT OPERATION & MAINTENANCE - PLEASE CAREFULLY READ THIS INSTRUCTION MANUAL PRIOR TO OPERATION.

NOTE: All of the information reported herein is based on data available at the moment of printing. The manufacturer reserves the right to modify its own products at any moment without notice and incurring in any sanction.

INTRODUCTION

The "RAPTOR" hand Operated Manual Chain Hoist is a versatile lifting device that can be used for either lifting or lowering, using a suitable fixed anchor point or suspended from a suitable trolley.

The frame, cover and lever have been manufactured from high quality steel stampings, and the gears from heat treated steel. Both the upper and lower swivel hooks from forged steel and fitted with safety catches.

2 - CORRECT OPERATION / GENERAL WARNINGS

- 1) Retain this Manual for future reference.
- 2) Do not use this hoist in areas containing flammable vapors, liquids, gasses or combustible dust or fiber.
- 3) Do not use the hoist in highly corrosive, abrasive, wet environments.
- 4) The hoist can be used in ambient temperatures between -10C and +50C.
- 5) At ambient temperatures below 0C the hoist brake should be inspected and tested before operation.
- 6) Never exceed the capacity stated on the hoist.
- 7) Do not use the hoist for lifting or transporting of personnel.
- 8) Do not lift or transport loads while any personnel are under or within the danger zone.
- 9) It is the operator's responsibility to ensure the load is attached to the hoist in a safe and secure manner before movement of load.
- 10) Never leave a suspended load unattended.
- 11) Never use other devices to exert extra force to the lifting or lowering application.
- 12) Never use the load chain to sling around item to be lifted.
- 13) Respect hoist, always place hoist safely/carefully on the ground.

3 - IN SERVICE INSPECTION & MAINTENANCE

INITIAL INSPECTION

Check that the correct hoist and the capacity of hoist are suitable for the job in hand. Prior to operating hoist for the first time, the hoist must be checked by a competent person. Visually check hoist has been delivered and/or stored in a safe and undamaged condition.

IN-SERVICE INSPECTION – Before operation

Prior to operating hoist check all components are free from excessive wear and general condition of hoist is good. Inspect the housing, chain and hooks are all in good working condition. If hoist is fitted with brake it should be tested before operation. Check that anchor point is sufficient to take the intended load.

LOAD CHAIN INSPECTION

The Load Chain should be inspected for wear, defects, and deformations or superficial/corrosion marks before use, if operator is unsure of condition of chain it should be checked by a trained and competent person. Clean and lubricate at regular intervals.

TOP/BOTTOM HOOK INSPECTION

Both the top and bottom hooks should be inspected for wear, defects, and deformations or superficial/corrosion marks before use. Check that safety catches are fitted and are working correctly if operator is unsure of condition of hooks, they should be checked by a trained and competent person.

REEVED CHAIN INSPECTION

If the unit is fitted with two or more falls of chain, the hoist should be inspected to make sure the load chain is free from kinks and/or not twisted.

REMEMBER – The load chain welds should always face away from load sheave

4 - OPEARTION

ATTACHING/LIFTING LOADS

Secure top hook to an appropriate anchor point.

Attach lower hook to the load so that it is seated correctly in the bow of the hook and check that the safety catch has closed. Do not wrap the chain around the load and hook back onto the load chain and do not let the load come into contact with the load chain. Make sure the top and bottom hooks are in a straight line and the frame is free to swivel on the upper hook.

Lifting Load – Use the Hand Chain Only – With the Handwheel Casing facing towards the operator, Pull on the Right Hand side of the hand chain (Clockwise). The load will begin to rise. The hoist has been designed for hand use only; do not use an extension on the lever.

LOWERING/LOSENING LOAD

Use the Hand Chain Only – With the Handwheel Casing facing towards the operator, Pull on the Left Hand side of the hand chain (Counter Clockwise). The load will begin to lower. The hoist has been designed for hand use only; do not use an extension on the lever.

5 - MAINTENANCE/INSPECTION

To maintain continuous and satisfactory operation, a regular inspection procedure must be initiated so that worn or damaged parts can be replaced before they become unsafe.

The intervals of inspection must be determined by the individual application and are based upon the type of service to which the hoist is subjected. To test the brake a test load with capacity the same as the hoist should be used.

The hoist should be visually inspected by the operator / competent person daily or before each use.

To check for worn parts the hoist may need to be disassembled this should only be carried out by a qualified repairer and not by the operator.

Annual inspection and re-certifying of the hoist should be carried out in accordance to European Safety Regulations – therefore the hoist must be returned to a recognized and competent lifting equipment repair centre.

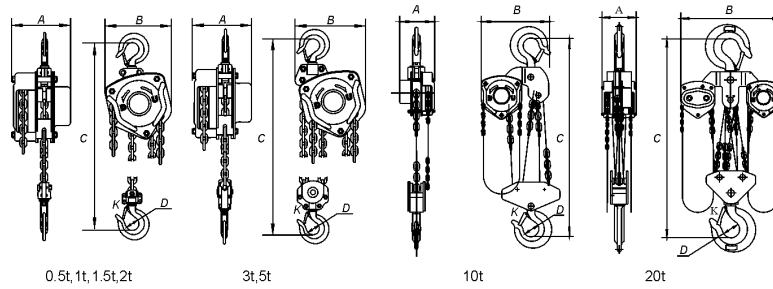
6 - EC DECLARATION of CONFORMITY 2006/42/EC

We hereby declare, that the design, construction and commercialized execution of the below mentioned machine complies with the essential health and safety requirements of the EC MACHINERY DIRECTIVE. The validity of this declaration will cease in the case of any modification or supplement not being agreed with the manufacturer beforehand.

Furthermore, validity of this declaration will cease in case that the machine will not be operated correctly and in accordance to the operating instruction manual and/or not being inspected regularly.

- | | | |
|---------------------------|---|---|
| PRODUCT DESCRIPTION | - | Hand Operated Manual chain Hoist |
| MODEL RANGE | - | MH Series |
| CAPACITY | - | 500Kgs to 10,000Kgs |
| IDENTIFICATION | - | Located on Serial Plate on Machine
And stated on individual EC
Declaration of Conformity supplied
separate to this booklet |
| RELEVANT EC
DIRECTIVES | - | The Machinery Directive 2006/42/EC
1 st Edition December 2009 |

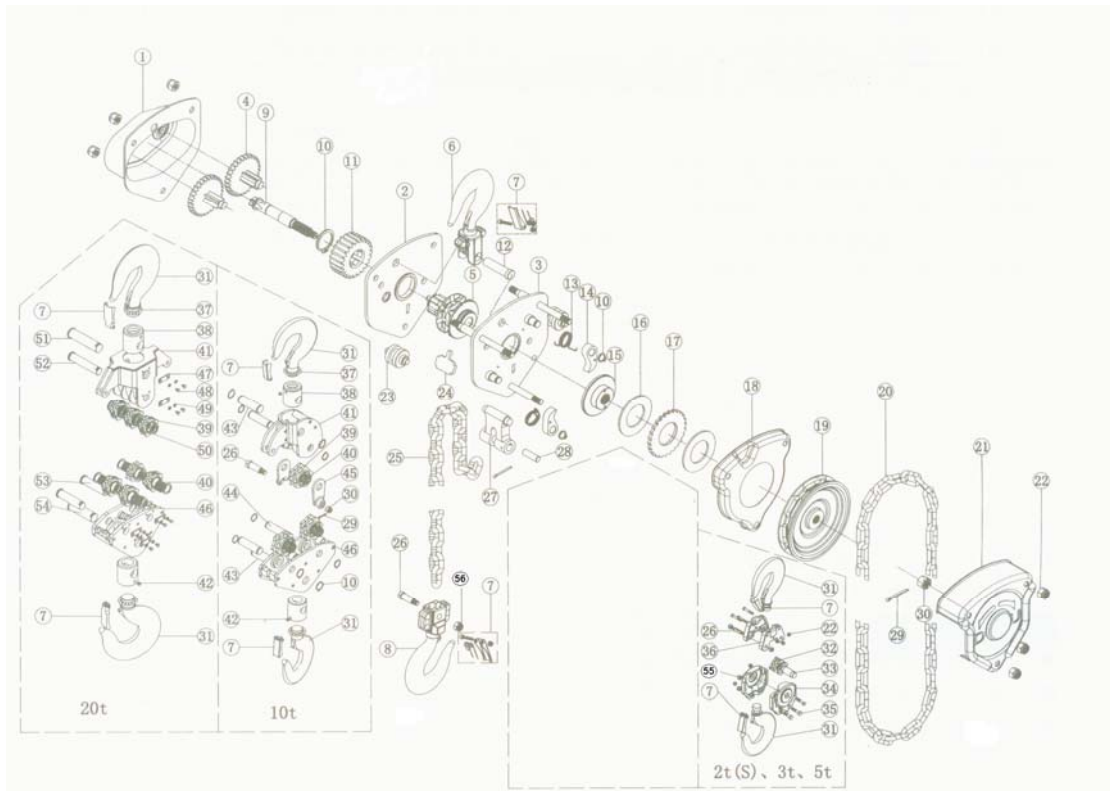
7. SPECIFICATIONS



Capacity	tons	0.5	1	1.5	2	3	5	10	20
Standard lift	m	2.5	2.5	2.5	3	3	3	3	3
Running test load	kn	7.5	15	22.5	30	45	75	150	300
Effort required to lift max. Load N		231	309	320	360	340	414	414	414×2
No. of columns of load chain		1	1	1	1	2	2	4	8
Load chain diameter	mm	6	6	8	8	8	10	10	10
Dimensions (mm)	A	131	140	161	161	161	186	207	215
	B	127	158	174	187	199	253	398	650
	C	270	317	399	414	465	636	798	890
	D	35	35.5	45	42.5	50	64	85	110
	K	30	28	36	33.5	40	50	64	85
Net weight	kg	10	12	19	20	27	45.5	83	193
Packing measurement	cm	22x15x19.5	23x18x19.5	28x18x19.5	28x21x24	32x21x26	40x21x31	50x41x21	64x38x64
Extra weight per meter extra lift	kg	1.7	1.7	2.3	2.3	3.7	5.6	9.7	19.4

8. Exploded View & Part List

Parts List – 0.5 to 20 Ton



No.	Description	Qty	No.	Description	Qty
1	Outside plate	1	29	Cotter pin	1
2	Right side plate	1	30	Castle nut	1
3	Left side plate	1	31	Hook	1
4	Disk gear	2	32	Move wheel	1
5	Load sheave	1	33	Move wheel pin	1
6	Top hook assembly	1	34	Bottom hook frame	2
7	Safe clip assembly	1	35	Hexagon head bolts	4
8	Bottom hook assembly	1	36	Top hook frame	2
9	Driving shaft	1	37	Row	1
10	Spring ring	1	38	Hook frame bar	1
11	Splinted gear	1	39	Move wheel	1
12	Top hook spindle	1	40	Needle roller	1
13	Double-spring	3	41	Button	1
14	Pawl	1	42	Lock screw	1
15	Brake seat	1	43	Top hook pin	1
16	Friction plate	1	44	Move wheel pin	1
17	Ratchet disk	1	45	Sling plate	1
18	Brake cover	1	46	Bottom hook frame	1
19	Hand wheel	1	47	Retaining plate	2
20	Hand chain	1	48	Hexagon head screw	4
21	Brake cover	1	49	Spring washer	4
22	Lock nut	6	50	Move wheel ring	3
23	Lead wheel	1	51	Top hook	1
24	Striper	1	52	Top move wheel spindle	1
25	Load chain	1	53	Bottom move wheel spindle	2
26	Chain pin	1	54	Bottom hook spindle	1
27	End anchor	1	55	Lock nut	4
28	End anchor pin	1	56	Lock nut	1

Record of Examination

Date	Description of inspection	Signed