OPERATING & MAINTENANCE INSTRUCTIONS

“RAPTOR” Lever 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 LEVER 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 Lever Hoist is a versatile lifting device that can be used for either lifting, pulling and/or tensioning, 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 and the load chain fitted to the lever hoist is ISO Grade 80.

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 operators 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.

CHAIN STOP INSPECTION

Check that the chain stop is fitted securely to one link of chain only.

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

FREE CHAINING – Remove load before switching to Free Chaining Position

To select free chaining move the selector lever to central position (neutral). Then rotate the free chaining wheel counterclockwise to disengage the brake, the chain can now be pulled through machine in either direction by hand for quick tensioning of load. To disengage the free chaining feature, position the selector switch to the load or unload position – pull the load chain in either direction to insure the unit is out of the free chaining mode. DO NOT take up the load chain to the point where the chain stop or bottom hook becomes jammed against the frame of the hoist.

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/Pulling & Tensioning Load – Position the selector switch to the LOAD position, take up the “slack” chain, and then operate the handle in an up and down motion. If work is stopped while hoist is under load DO NOT re-position the selector switch as the load will fall. The hoist has been designed for hand use only; do not use an extension on the lever.

LOWERING/LOOSENING LOAD

Move selector switch to the unload position. Again operate lever in an up and down motion until the load has safely reached the ground.

LOCKED BRAKE

If the hoist which is under load is suddenly relieved of the load i.e. by taking load off bottom hook or by pulling a load down walls etc. The brake will also lock if the bottom hook is pulled tightly against the hoist frame.

To unlock the brake, turn the Selector lever to the unload position and pull on the lever sharply.

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.

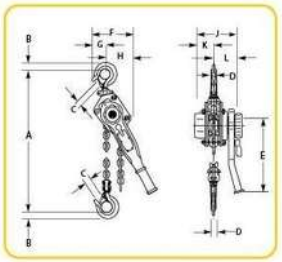
6 - EC DECLARATION of CONFORMITY 2006/42/EC

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.

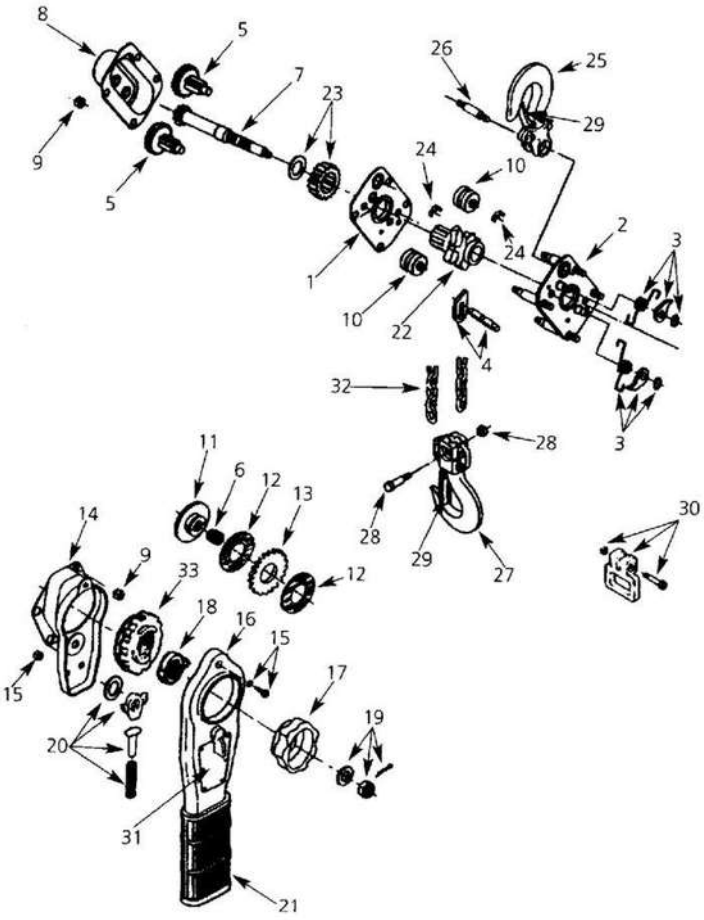
PRODUCT DESCRIPTION	-	Hand Operated Ratchet Lever Hoist
MODEL RANGE	-	LW Series
CAPACITY	-	250Kgs to 6000Kgs
IDENTIFICATION	-	Located on Serial Plate on Machine And stated on individual EC Declaration of Conformity supplied separate to this booklet
RELEVANT EC DIRECTIVES	-	The Machinery Directive 2006/42/EC 1st Edition December 2009

7. SPECIFICATIONS



Model		LW75	LW100	LW150	LW200	LW300	LW600
Lifting Capacity(tonne)		0.75	1.0	1.5	2.0	3.0	6.0
Load Chain (Dia. x Pitch) (mm)		6 x 18	6 x 18	8 x 24	8 x 24	10 x 30	10 x 30
No. of Falls of Load chain		1	1	1	1	1	2
Min. Distance Between Hooks	A	321	328	376	385	475	495
Dimensions (mm)	B	23.8	25.6	28.6	32.5	42.9	50.8
	C	28.5	29.5	31.8	33.5	39.7	43.0
	D	17.5	18.6	20.6	22.8	31.8	34.5
	E	279	279	413	413	413	413
	F	111	111	121	121	191	191
	G	56	58	60	65	86	94
	H	56	56	60	60	106	106
	J	151	151	175	175	200	200
	K	60	60	76	76	86	86

6.Parts List



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Ref.No.	Description	Qty.
1	Side plate assembly (gear side)-includes 2 bushings and bearing race.	1
2	Side plate assembly (brake side)-includes 2 pawl studs, bearing race and 4 studs.	1
3	Pawl, spring and retainer ring	2
4	Stripper	1
5	Gear set (2 gears)	1
6	Spring	1
7	Pinion	1
8	Gear cover with bushings	1
9	Gear and brake cover hardware kit-includes 8 nuts.	1
10	Chain guide roller	2
11	Friction hub	1
12	Friction disc	2
13	Ratchet	1
14	Brake cover assembly	1
15	Lever hardware kit-includes 1 screw, 1 lockwasher and 2 locknuts	1
16	Lever assembly-includes directional lever	1
17	Free chaining knob	1
18	Check washer	1
19	Brake nut kit-includes nut, cotter pin and spacer	1
20	Directional pawl kit-includes and spacer washer	1
21	Lever grip	1
22	Liftwheel	1
23	Liftwheel gear kit includes gear and snap ring	1
24	Liftwheel roller kit-includes 68rollers for 3/4 and 1ton unit, 74 rollers for1½and 2 ton unit, 68 rollers for 3 ton unit.	1
25	Upper hook assembly-includes hook, latch and hook block.	1
26	Upper hook-includes spacers on1½,2 and 3 ton units	1
27	Lower hook assembly -includes hook, latch and hook, latch and hook block	1
28	Chain bolt kit-includes bolt and nut	1
29	Latch kit-includes latch spring and rivet	2
30	Chain stop kit-includes chain stop, screw and nut	1
31	Nameplate kit-includes nameplate and 6 drive screws	1
32	Load chain	Required
33	Lever ratchet	1

Record of Examination

Date	Description of inspection	Signed