



General Information

MANUAL HOISTS

General

Manual chain and lever hoists are commonly used for heavy duty lifting and materials handling operations. Chain hoists raise and lower loads by pulling on the hand chain or lever. Manual chain and lever hoists can be of single or double fall configurations depending on the capacity of the unit.

Inspection Before Use



WARNING

- Lifting equipment should be inspected before each use.

The pre-use inspection for a manual hoist should include the following:

- Ensure that the hoist ID plate and the WLL is clearly visible.

Load chain

1. Inspect chain for wear.
2. Inspect chain for gouges, nicks, arc burns, twisted & bent links and corrosion.
3. Inspect for correct reeving on multi-reeved units.

Lift wheels & Sheave wheels

1. Inspect lift wheel for foreign material, wear, freedom of movement and corrosion.
2. Inspect dead end pins for wear, tightness and corrosion.

Hooks

1. Inspect hooks for signs of opening, cracking, bending, arc burns and corrosion.
2. Hooks should swivel freely.
3. Inspect safety latches for condition & operation.
4. Measure the hook throats for allowable service openings.

Hand chain

1. Inspect chain for wear.
2. Inspect chain for twisted or gouged links and corrosion.
3. Inspect connecting link for signs of opening.

Miscellaneous

1. Inspect frame and covers for distortion, cracks, gouges, corrosion & other damage.
2. Inspect hangers for cracks, gouges, corrosion & other damage.
3. Inspect lever handle for any sign of distortion or overloading.
4. Check for freewheeling function.
5. Ensure raise and lower selections operate correctly.
6. Check there is an end stop fitted to the chain.

Care In Use

1. All persons involved in the operation of a lever hoist must read the manufacturers handbook and be completely familiar with all operating and maintenance procedures.
2. Never lift loads in excess of the WLL of the hoist.
3. The load chain must always mesh correctly with the load sheave. With multi fall hoists twists can occur by turning the bottom hook through the load chain.
4. Regularly lubricate the whole length of the load chain with machine or gear oil but be careful not to over lubricate as oil or grease on the brake discs can cause the brake to malfunction and slip.
5. Confirm that the brake is functioning properly by hoisting the load 100mm and check the brake when lowering the load.

6. Non-vertical (sideways pulling) of the hand chain is not recommended on Rig-Mate chain blocks.
7. Chain hoist hand chain is equipped with a safety link. When the safety link opens or deforms, stop at once and inspect for the cause.
8. Confirm that the monorail beam or structure supporting the hoist is of sufficient strength to support the load to be lifted.
9. Never walk or work under a hoisted load and never lift, support or transport people.
10. Do not permit more than one operator to pull on the hand chain or lever at the same time.
11. Lift loads correctly with proper slings and attachments. Never lift with the point of the hook and never use the load chain as a sling by back hooking.
12. Lifting a load with two chain hoists is not recommended. If the operation is unavoidable, hoist the load with utmost care, keeping the load balanced.
13. Never run the load chain out too far. When operated beyond the range of lift, an excessive load that can cause damage to the hoist.
14. Chain blocks are designed for lifting loads vertically and should not be used for horizontal or angle hoisting.
15. Extreme temperatures will reduce the durability of the hoist. Loads should be hoisted or lowered very slowly and carefully in extreme temperatures.
16. Never leave a load hanging unattended on a hoist.
17. Never use the chain or hook as a ground for welding.
18. Use only genuine parts and chains for repairing.
19. The hooks and load chains are made of special alloy steels and are precisely heat-treated. Never weld or heat-treat them.
20. When operating a lever hoist, always maintain a firm footing and when necessary be secured. Operate the lever hoist from a location that will be clear of the load at all times. People must stay clear of the suspended load. Never use the lever hoist to lift, support or transport people and never lift loads over or near people.
21. Inspect the lever hoist regularly. Never use a lever hoist when malfunctioning or when unusual performance or damage is evident.
22. Never remove or obscure the nameplate on the lever hoist.

Load chains are exceptionally long wearing, but wear is unavoidable and certain conditions will cause wear and corrosion that will lower the strength. Load chains worn beyond the permissible limits must be replaced.

Hooks

- The opening will elongate with overloads and incorrect hooking. When the hook opening is elongated beyond permissible limits it is dangerously deformed and must be replaced immediately.
- Never galvanise or subject the chain, or other load bearing parts to any other plating process without the express approval of Nobles.



WARNING

- The changeover lever must be set to the "UP" position when the lever hoist is under a load during hoisting or pulling operations.
- It is not recommended to use manual hoists for light loads (less than 2% of the WLL for William Hackett/Nitchi and less than 10% of the WLL for Rig-Mate) as slippage may occur. If the changeover lever or hub is set to the neutral position, the free-wheeling system will function, and the lever hoist will not be able to support the load.