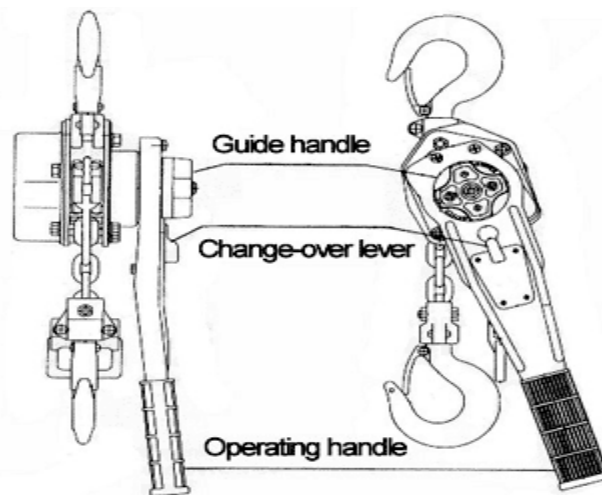


## General

Lever hoists are versatile manually operated hoists used for a variety of lifting, pulling, tensioning and materials handling type applications.

Lever hoists operate by levering the handle to and fro to lift or lower the load. Lever hoists can be used at any angle and one of the main differences between a chain block and a lever hoist is that lever hoists have a neutral mode which enables the chain to free wheel through the hoist for the purpose of taking up slack chain quickly.

Lever hoists are available in single or double fall configurations and can utilize either a standard link chain or a roller type transmission chain. Single fall is usually to 3 tonne and double fall is commonly utilized on 6 tonne and above.



## Inspection Before Use

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

The pre-use inspection of a lever hoist should include the following:

### Load chain

1. Inspect chain for wear, gouges, nicks, arc burns, twisted and bent links and corrosion.
2. Inspect for correct reeving on 6 tonne units.

### Lift wheels & Sheave Wheels

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

### Hooks

1. Inspect hooks for signs of opening, cracking, bending, arc burns, welds and corrosion.
2. Hooks should swivel freely.

### Miscellaneous

1. Inspect the frame and covers for deformation, warping, severe denting and other damage.
2. Inspect safety catches for condition and operation.
3. Measure hook throats for allowable service openings. Inspect hangers (6 tonne hoist) for cracks, gouges, corrosion and other damage.

4. Inspect lever handle for overloading or any signs of distortion.
5. Check for freewheeling function.
6. Ensure raise and lower selections operate correctly.
7. 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. 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.
3. Before lifting a load, confirm that the lever hoist is in good condition and functioning properly.
4. Always keep the load chain well lubricated and protect it from weld spatter and other damaging contaminants.
5. Never allow the load chain or hooks to be used as a ground for welding and never touch them with live welding electrodes.
6. Never use the lever hoist with twisted, kinked, damaged or worn load chains and never attempt to lengthen the load chain.
7. Always use proper slings and attachments in the correct manner and confirm that they are seated properly in the hooks. Also confirm that the safety catch assembly has closed completely and is not supporting any part of the load.
8. Never lift more than the rated WLL.
9. Slack load chain must be taken up carefully. While checking the balance of the load, lift and lower the load about 100mm to test the brake system before lifting further.
10. Never run the load chain out beyond the range of lift.
11. Never allow your attention to be diverted when operating the lever hoist and never leave a suspended load unattended.
12. Inspect the lever hoist regularly. Never use a lever hoist when malfunctioning or when unusual performance or damage is evident.
13. Never adjust or repair a lever hoist unless you are competent in performing hoist maintenance.
14. Never modify the lever hoist.
15. Use only genuine Rig-Mate parts when repairing the lever hoist.
16. Never remove or obscure the nameplate on the lever hoist.
17. Examine the load chain to ensure that there is no twist. Lever hoists can lift on 2 falls of load chain; twists can arise from the bottom hook being accidentally turned over through the load chains.
18. Confirm that the supporting structure is strong enough to support the intended load.
19. The changeover lever must be set to the "UP" position when the lever hoist is under a load during hoisting or pulling operations. In some cases with light loads (less than 2% of the WLL) 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.
20. Lifting a load with two lever hoists is not recommended. If the job is unavoidable, keep the load well within the total rated capacity of the two lever hoists and lift with exceptional care while maintaining proper balance, angle and lifting speed.
21. Do not throw or drop the lever hoist from high places. Doing so may cause damage to the lever hoist.

**⚠ WARNING**

- Lever Hoists should always be used in line with good lifting and rigging practice and as per the manufacturer's recommendations.
- Incorrect Lever Hoist use could result in a dangerous situation that could cause property damage, serious injury or death.
- Loads must be lifted as carefully as possible. Load swinging and shock loads will impose excessive loads on the lever hoist.
- Extreme temperatures will affect the durability of the lever hoist. In subzero temperatures loads must be lifted and lowered very slowly and carefully.
- The load must be applied correctly to the hook. Improper hooking methods may cause the hook to elongate or bend.
- Never connect the hook directly on a load. Always use correct slings and attachments.



The pictures show improper hooking methods, which may cause the hook to elongate or bend. These hooking methods may also obstruct the load chain flow to the load sheave and prevent the lever hoist from operating properly.

In applications similar to the above right be sure to use the correct slings and attachments to ensure a safe operation.

From A. Noble & Son LTD.

