

1.0 Scope

- 1.1 To define the requirements for the L5LB model manually lever operated chain hoist.

2.0 Codes and Standards

- 2.1 ASME B30.21 "Manually Lever Operated Hoists"
2.2 ASME HST-3M "Performance Standard for Manually Lever Operated Chain Hoists"
2.3 JIS B 8819 "Manually Operated Chain Lever Hoists"

3.0 Design

- 3.1 The manually lever operated chain hoists shall be model L5LB as supplied by Harrington Hoists, Inc. The hoists shall be rated $\frac{3}{4}$ US Ton through 9 US Ton.
- 3.2 The manually lever operated chain hoists shall meet the design and construction criteria of paragraph 2.1 above.
- 3.3 The manually lever operated chain hoists shall employ a split load double reduction spur gear transmission.
- 3.4 The manually lever operated chain hoists shall be equipped with a dry Weston type mechanical load brake that incorporates two redundant pawls, four braking surfaces, and non-asbestos brake pads that resist humidity and moisture. The brake shall be totally enclosed for protection from impact, dirt, and moisture.
- 3.5 The manually lever operated chain hoists shall have a patented free wheel design that uses a spring loaded free knob which allows for one handed operation of the free wheel features. The pinion shall remain engaged during all phases of operation.
- 3.6 The manually lever operated chain hoists shall be equipped with Grade 100 Nickel Plated (NP) load chain.
- 3.7 The manually lever operated chain hoists shall be equipped with hooks that are drop forged from carbon steel for capacities of $\frac{3}{4}$ to $1\frac{3}{4}$ US Ton and Chrome-Molybdenum alloy steel for capacities of 2 to 9 US Ton and are designed for ductile mode failure upon overload. The hooks shall have measurement nubs to facilitate inspection measurements. The hooks shall be equipped with spring loaded latch type throat closures. The latch shall be notched to positively engage with the hook tip. The hooks shall be designed for 360 degree swivel.
- 3.8 The manually lever operated chain hoists shall have a single fall of load chain for capacities 3 US Tons and below.
- 3.9 The manually lever operated chain hoists shall be equipped with two contoured chain guides that are tucked into the hoist body where they are out of the way and free from potential interference.
- 3.10 The manually lever operated chain hoists shall have a load sheave with four pockets for the load chain. It shall be equipped with a stripping device that keeps the load sheave free of debris.

- 3.11 The manually lever operated chain hoists shall have a hoist body featuring a rugged steel housing and double steel plate construction for load bearing.
- 3.12 The manually lever operated chain hoists shall have a "short" handle (10.4" long or less for 2¾ US Ton and below models; 16.3" long for 3 US Ton and above models). The handle shall rotate 360 degrees, and shall have a recovery stroke of 15 degrees. The handle shall be of steel construction and equipped with a rubber handgrip.
- 3.13 For applications that require a load sensing feature, the manually lever operated chain hoists shall be equipped with a Load Limit Warning Handle that actuates within 10% of its setting. The Load Limit Warning Handle shall deflect 15 degrees and register a visual red signal to indicate that its setting has been reached. The Load Limit Warning Handle shall be 14.4" long for 2¾ US Ton and below models and 16.9" long for 3 US Ton and above models. The Load Limit Warning Handle shall be equipped with a rubber handgrip.

4.0 Documentation

- 4.1 Each manually lever operated chain hoist shall be supplied with an Owner's Manual that includes the following information.
 - 4.1.1 Important Information and Warnings
 - 4.1.2 Installation and Operation
 - 4.1.3 Inspection
 - 4.1.4 Lubrication, Maintenance and Handling, and Troubleshooting.
- 4.2 Each manually lever operated chain hoist shall be supplied with a Parts List.
- 4.3 Each manually lever operated chain hoist shall be supplied with a test certificate attesting that the hoist successfully passed a factory load test to 125% of rated capacity in accordance with ASME B30.21 requirements.