

**1.0 Scope**

- 1.1 To define the requirements for hand chain manually operated chain hoists.

**2.0 Codes and Standards**

- 2.1 ASME B30.16 "Overhead Hoists (Underhung)"
- 2.2 ASME HST-2M "Performance Standard for Hand Chain Manually Operated Chain Hoists"
- 2.3 JIS B 8802 "Manually Operated Chain Hoists"

**3.0 Design**

- 3.1 The hand chain manually operated chain hoists shall be model M3CB as supplied by Harrington Hoists, Inc. The hoists shall be rated ½ US Ton through 5 US Ton.
- 3.2 The hand chain manually operated chain hoists shall meet the design and construction criteria of paragraph 2.1 above.
- 3.3 The hand chain manually operated chain hoists shall employ a split load double reduction spur gear transmission.
- 3.4 The hand chain manually 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 hand chain manually operated chain hoists shall be equipped with Grade 100 load chain.
- 3.6 The hand chain manually operated chain hoists shall be equipped with hooks that are drop forged from carbon steel, and which 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 bottom hook shall be designed for 360 degree swivel.
- 3.7 The hand chain manually operated chain hoists shall have a single fall of load chain for capacities 3 US Tons and below.
- 3.8 The hand chain manually 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.
- 3.9 The hand chain manually operated chain hoists shall be have a load sheave with at least four pockets for the load chain. It shall be equipped with a stripping device that keeps the load sheave free of debris.

**GENERAL USE**

EDOC0184

Rev. 0

March 14, 2001

- 3.10 The hand chain manually operated chain hoists shall have a hoist body featuring a rugged steel housing and double steel plate construction for load bearing.
- 3.11 The hand chain manually operated chain hoists shall be equipped with a slip-clutch device that prevents the hoist from being used to lift damaging loads beyond rated capacity.

**4.0 Documentation**

- 4.1 Each hand chain manually operated chain hoist shall be supplied with an Owner's Manual that includes the following information.
  - a) Important Information and Warnings
  - b) Installation and Operation
  - c) Inspection
  - d) Lubrication, Maintenance and Handling, and Troubleshooting.
- 4.2 Each hand chain manually operated chain hoist shall be supplied with a Parts List.
- 4.3 Each hand chain manually 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 B30.16 requirements.