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YALE®

# Specifications

## Electric Chain Hoists

YALE Electric Chain Hoists described herein are available in ¼ to 3 ton capacity. Yale models are available in single speed, two speed or variable frequency control. Mounting configurations are hook suspension for portable operation and lug suspensions to accommodate push, geared or motorized trolleys. A wide variety of options are available on both hoist and trolley. Hoists meet the requirements of ANSI B30.16 "Overhead Hoists (UNDERHUNG)". The YALE Hoists are heavy duty hoists meeting H4 Service classification as defined in ANSI/ASME HST-1 M "Performance Standard for Electric Chain Hoists." Two speed models are rated H4 heavy duty for fast speed and H3 standard duty for slow speed.

### SPECIFICATIONS

**FRAME** - shall be of lightweight aluminum and precision machined for accurate gear and bearing alignment.

**BEARINGS** - shall be high quality anti-friction type of either needle or ball design throughout the hoist.

**BRAKES** - Hoist shall have two (2) types of brakes: One AC electrical motor brake spring set, electrically released, and one self-adjusting Weston type mechanical load brake located in the gear case. Either brake shall have the capability of holding rated load in event of failure of the other brake system.

**OVERLOAD DEVICE** - shall be provided to prevent lifting excessive overloads. This load limiting (clutch) device shall be preset at factory to disengage the hoist motor from the gearing in event of excessive overload condition.

**MOTORS** - shall be of high starting torque type designed specifically for hoist service with permanently lubricated ball bearings, rated for the service required. The motor enclosure is to be totally enclosed non-ventilated, TENV Motor is to have automatic reset temperature actuated switch (TAS) in motor windings to provide motor running overheat protection.

**GEARING** - shall be a combination of helical and spur, precision cut and heat treated to ensure quiet, efficient operation. Gears shall be totally enclosed and run in a bath of oil to provide maximum lubrication and avoid environmental contamination.

**LOAD CHAIN** - Link load chain shall be accurately formed closely calibrated pocket wheel chain of high strength alloy steel, case hardened for long wear heavy duty service. Zinc plated load chain is available for added corrosion resistance.

**LIMIT SWITCHES** - Automatic upper and lower limit switches that will prevent raising or lowering the load beyond a preset upper or lower limit will be furnished.

**SUSPENSION** - shall be of high strength forged steel and be capable of full 360 degree rotation. Each hook shall have spring loaded hook latches to prevent accidental slippage from mounting. Suspension may be a lug to receive a rigid mount push, hand geared, or motor driven trolley.

**LOAD HOOKS** - shall be of high strength forged steel and be capable of full 360 degree rotation. Load hook shall have bearing supported rotation. Each hook shall have spring loaded hook latches to prevent accidental slippage from lift points.

**CONTROLS** - shall be a centralized electrical system, easily accessible in one compartment. Control circuit voltage to the pushbutton station shall not exceed 120 volts.

**PUSHBUTTON STATION** - shall be of molded contour grip type and supported from hoist by strain relief cable to avoid damage from pull on control wires. Dependent on accessories, pushbutton station furnished will accommodate all motions. The enclosure is to be NEMA 4X watertight.

**ELECTRICAL POWER** - available in 120/240 volt single phase, 230/460 volt three-phase and other standard 3-phase voltages. Special voltages and control requirements are available. Two (2) speed hoists are available in single voltage and three phase only.

**TROLLEYS** - Push, hand geared and motor driven trolleys shall have heavy section rolled steel side frames. The wheels shall be steel with contour treads and shall operate on either flat or tapered beam flanges. Movement of hand geared trolleys shall be accomplished by pulling on an endless hand chain. Motor driven trolley shall have squirrel cage, totally enclosed non-ventilated (TENV) right angle gear motors. Trolley wheel gears and pinions shall have machine cut gear teeth. Spacer washers shall be provided for trolley adjustment to various beam sizes.

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