

# MODEL TCS "COMPETITOR SERIES" TOP RUNNING SINGLE GIRDER MOTOR DRIVEN CRANES

# HOIST AND CRANE FEATURES WITH STANDARD EQUIPMENT FURNISHED

#### DESIGN:

All "Reliable" Model TCS Cranes are designed and manufactured to meet or exceed the requirements of C.M.A.A. Specification No. 74 and HMI Specification No. 100-74.

# HOIST AND TROLLEY:

All hoists are furnished with 20'-0" lift unless otherwise specified. Motor driven trolley, 6-button pushbutton station, single speed controls and all standard features as shown on page 2.

# BRIDGE GIRDERS:

Construction from "S" series rolled steel sections precision shop straightened to insure smooth hoist-trolley tracking. Girder sizes with letter "C" indicate beams which are channel capped for additional stability.

## **BRIDGE DRIVES:**

All drives have precision oil bath lubricated gearing and mechanical braking for smooth deceleration and final stop. Standard "Righway" 230/460V-3P-60Hz drive motors are connected to precision oil bath lubricated gear reducers thru a flexible coupling. Flexible couplings are provided on gear reducer output shafts for connection to end truck driving shafts. Choice of 85 or 100 FPM speed. Cranes thru 30'-0" span have single motor drive with line shafting. Cranes over 30'-0" span have two (2) motor drives.

#### **END TRUCK FRAMES:**

Fabricated from heavy steel channel shapes interconnected with diaphragms and end plates to form a sturdy jig welded box. Heavy steel axle reinforcement bosses are welded to main frame then line bored to insure accurate wheel alignment for True-Rolling truck operation.

# TRU-TRED WHEELS:

Precision machined from 4140 alloy steel double flanged to meet the most demanding crane service requirements.

## WHEEL BEARINGS:

Heavy duty long life rated roller bearings rotating on high carbon alloy steel hardened and ground axles with pressure grease lubrication.

#### WHEEL GEARING:

Alloy carbon steel precision machine cut, sized and proportioned with large pitch diameter pinion gears having generous face width for long life and quiet operation. Pinion gears are supported between self-aligning lubricated and sealed ball bearing pillow blocks — no overhung gearing.

## CRANE CONTROLS:

Single speed heavy duty magnetic reversing furnished complete with: a 115 volt control voltage transformer, fused control circuit, M.O.P. (Motor Overcurrent Protection) and M.R.O.P. (Motor Running Overcurrent Protection) all internally wired to legended terminal strips and mounted in a NEMA-1 enclosure. Adjustable ballast resistor is included in a cane metal enclosure to provide smooth crane acceleration and reverse plugging gradual deceleration for smooth stop.

# CROSSBRIDGE ELECTRIFICATION:

"Reliable" messenger festoon power and control tagline rod system is included on cranes. All systems include a 3-conductor power cord, 4-conductor control cord.

### OPTIONAL EQUIPMENT:

- Manual fusible safety switch.
- Magnetic Mainline Contactor (includes 8-button pushbutton and 6-conductor control crossbridge electrification).
- Current collectors, 3-phase Saf-T-Bar, Duct-O-Wire or Insul-8 including engineered staff mounted on bridge and located to suit normal electrification location.
- Neoprene rubber or spring type crane bumpers (four [4]).
- Independent traveling pushbutton station.
- Two (2) speed crane bridge drive.