

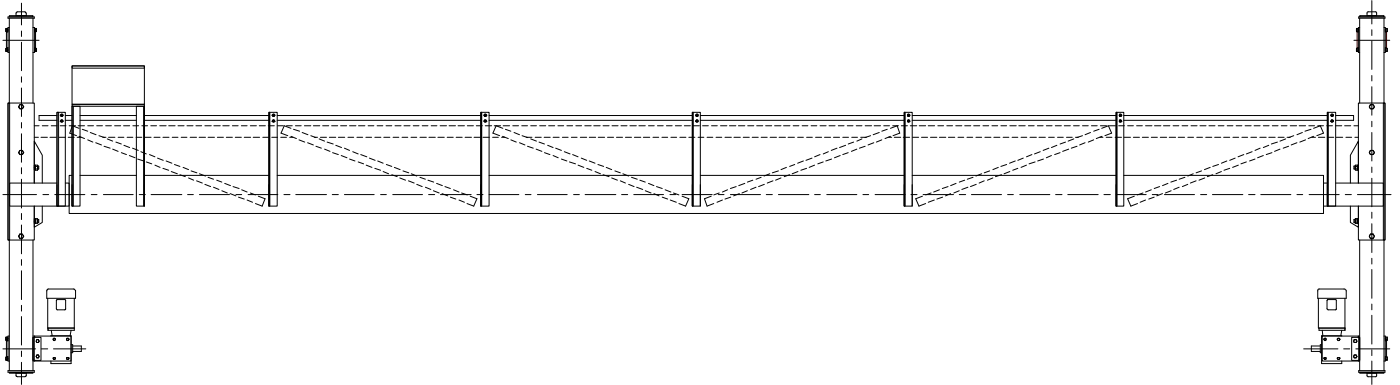


CRANE SPECIFICATIONS – TSR20 Series

Spans to 80' – Capacities 5 to 10-Ton

Top Riding – Single Girder

1/18/11



1. CraneVeyor TSR20 cranes are designed for Class A through D heavy service with and are designed in compliance with Crane Manufacturer's Association of America (CMAA) Specification No. 74. Maximum girder deflection of the cambered girders produced by the weight of the hoist, trolley and rated load shall not exceed CMAA 74 specifications.
2. Girders are wide flange beams with reinforcement as required. End truck to girder bracing is provided for rigidity. Longer spans may be provided with welded plate box sections with reinforcing plate diaphragms.
3. End truck frames are fabricated from rectangular steel tube sections and machine line bored for alignment of the bearing/axle assemblies. Rail sweeps, safety lugs and shock absorbing rubber bumpers are provided. The truck end assemblies can be easily removed for easy replacement of the wheels. Standard wheelbases are 6'-0", 7'-6", 9'-0" and 10'-0". Longer wheel base end trucks are available for longer spans and special runway conditions.
4. Wheels are 10" diameter, rolled C-1040 steel, double flanged, machined to CMAA 74 tolerances and hardened to 400 to 450 BHN. Drive wheels have rotating axles that are pressed and keyed to the wheels. Drive wheel axles are supported by MCB type housings with lifetime lubricated ball bearings that are mounted in the machined truck frame end. Idler wheels have fixed axles with lifetime lubricated and sealed ball bearings that are selected to withstand the radial and thrust loads. When appropriate for the application or specifications, rotating axle idler wheels or re-lubrication fittings for the bearings can be provided. Standard wheels operate on 30#, 40# or 60# ASCE rails, but can be machined to operate on other rail sections, as specified.
5. Drive gear boxes are hollow shaft worm gear reducers that are mounted and keyed to the drive wheel axles, and torque arm mounted to the truck frame for direct drive. All gearing is in an oil bath, with no exposed/open gearing. Single drive motor with cross drive shaft supported by intermediate bearing units, is provided on shorter span cranes. Dual drives are provided on longer span cranes. When appropriate for the application or specifications, an oil bath enclosed helical/spur gear reducer will be provided.
6. Bridge motors are squirrel cage induction type, TEFC, continuous duty, NEMA design B, low slip, suitable for inverter use. Motors are designed for operation in -5° to +40° ambient temperature with Class B insulation. Special motors or insulations are available for high temperatures and severe area use. Motors are NEMA C flange type direct mounted to the gearbox for easy replacement.
7. Standard bridge speed is 60 or 90 FPM, with 2 speed adjustable frequency control. Optional speeds are 50, 75, 115 or 150 FPM. Other speeds are available on application.
8. A manual disconnect is provided between the runway conductors and the controls. The disconnect is fused if there are multiple cranes on the runway. Standard motor control is adjustable frequency drive (AFD) with dynamic braking, motor overload/over current protection, magnetic mainline contactor, branch fusing, and 115V control transformer in a NEMA 3R enclosure. The AFD control is provided for single, 2-speed or 2-step infinitely variable control, and has programmable acceleration/deceleration, and other advanced features. Controls are for 208/230/460-3-60 power. Specify the power requirement. Other controls, enclosures and voltages are available on application.
9. Bridge conductors on motorized cranes are festooned flat cable with trolleys on C track. Conductors for hand geared cranes are tagline type. Push button control is furnished when the hoist/trolley is ordered with the crane.
10. The bridge steel structure is blast cleaned and provided a primer and a finish safety yellow top coat.
11. Available options include – traveling pendent on C Track; radio remote control; travel limit switches; air operation; spark resistance; hazardous or corrosive environments; special painting systems.