

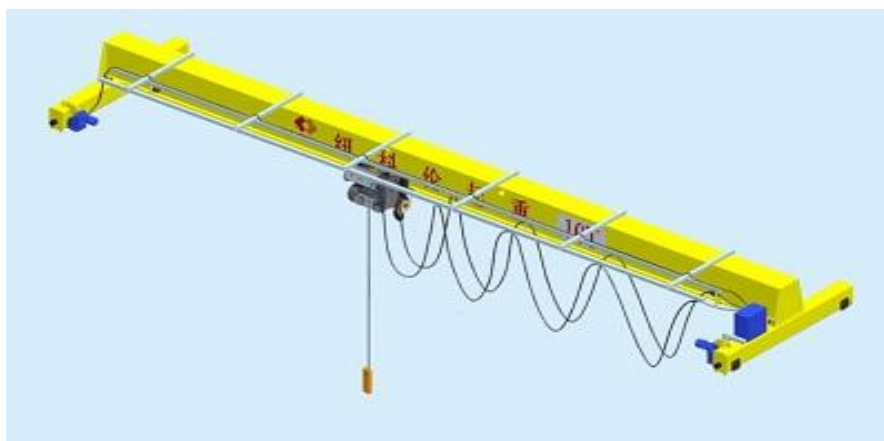
### Single Girder Overhead Crane Summary:

Single Girder Overhead Crane is workshop lifting equipment supporting the use of CD1, MD1 model or other type electric hoist, main role is timely and safely complete the object displacement by intermittent and cycle work, with hook or other means of lift devices, it is an important tool and equipment to achieve mechanization and automation, reduce the heavy physical labor, improve labor productivity during modern industrial production process. Weihua Crane has nearly 30 years history of electric single girder crane on design and production and has accumulated wealth of experience, can design non-standard electric single girder crane to adapt to various conditions.

Single Girder Overhead Crane with solid structure, good steel, safe and reliable operation, no pollution, durable and affordable, etc., widely used in machinery manufacturing, assembly repair, production workshops, warehouses, garages and other places.

Single Girder Overhead Crane applies to working level A3-A5, work under environmental conditions of non-flammable, non-explosive and non-corrosive media. Crane power supply is three-phase AC, rated frequency of 50Hz or 60Hz, rated voltage of 220V-660V.

Single Girder Overhead Crane main components including: bridge frame, electric hoist, and electric control system. Operation mode can be selected for ground operations, remote operation, and driver's cabin operate according to the specific circumstances. Single Girder Overhead Crane main traveling mechanism adopt soft start motor, smooth and quiet operation, its traveling speed can be designed dual-speed and frequency control or other types of speed.



### Product Features:

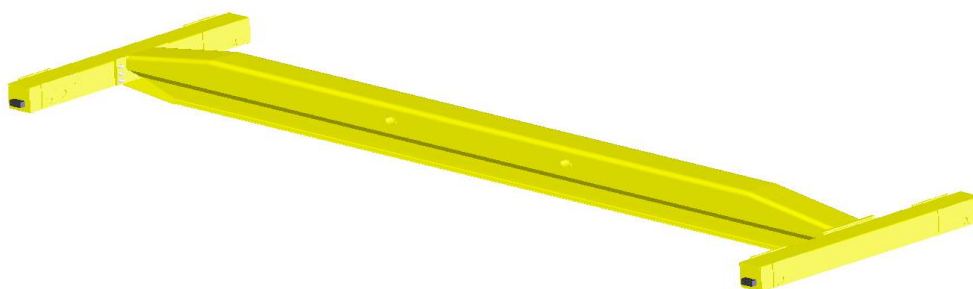
#### Bridge Steel Structure Part

Single girder overhead crane bridge frame consisted of main girder and end girder. End girder device including traveling motor, reducer, driving wheel set, rubber buffers and other components.

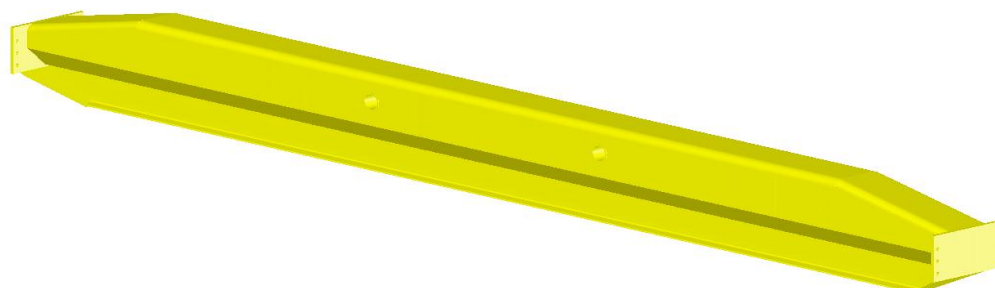
#### 1、 Main Girder

Main beam is the main carrier member of Single Girder Overhead Crane; the lower flange is hoist traveling track. Its structure made by steel rolling into U-shaped groove, oblique cover plate, ribs and I-beam welding into plain girder or with steel plate welding into box girder, two ends of the beams have board connections. Main girder made into upper arched as required, arch degree not less than horizontal under the rated weight, without permanent deformation during normal working.

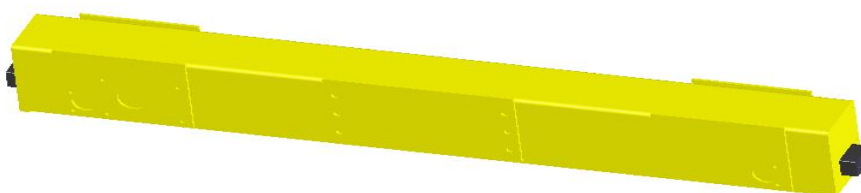
(1) Bridge Frame



(2) Main Girder



(3) End Beam

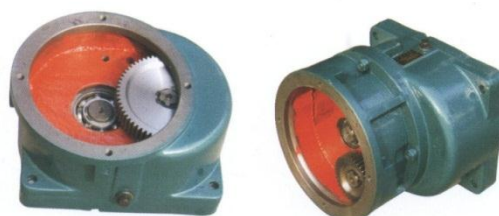


2、End beam device

End beam is located in Single Girder Overhead Crane main beam ends, bolted by clevis and main girder, Its structure made by steel rolling into U-shaped groove, oblique cover plate, ribs and I-beam welding into plain girder or with steel plate welding into box girder. A one-time processing the wheels axle hole and the gear output shaft hole via a special purpose machine, fully guarantee the machining accuracy. Both bottom sides of the beam middle clevis settled hand hole peg board for easy removal and installation of the main or side beams. Both ends of the side beams mounted rubber buffers, can avoid the structure due to collision damage. Between end and main beams using high-strength bolts with shear hanging connecting structure, it is simple, easy to install, easy transportation and installation. When loading weight or span is large, the main end beam adopt seat structure to connect, part of the main beam ends is mounted on the end beam, main beam end with vertical plate and horizontal connect plate fixed connected integrally by bolts and end girder.

(1) Driving Unit

Driving box and cover is cast from good anti-vibration performance



gray iron HT200; after aging treatment through special fixture processing and manufacturing on the lathe.

Gears and gear shaft material is 40Cr, after a series of precision machining by machine tool, heat treatment hardness is 235-269HB.

### (2) Motor

Motor adopt soft start motor (see Figure 1), can start with stability from slow speed to normal speed, solved impact operation compared to the normal motor, it is for frequent start, energy saving and environmental protection. Standard Motor insulation class is B, protection class IP44, also can made to F, H insulation class, IP54, IP55 protection class according to working conditions requires.



(1) Motor



(2) Wheel set

### (3) Wheel Set

Wheel set made of 45 # steel, made after precision machining by the machine tool and heat treatment, heat treatment hardness 300-380HB, hardened layer not less than 260HB at a depth of 15mm (see Figure 2).

## Wire and Cable

The crane all use copper, stranded, insulated wires and cables with sheath.

The crane cable laying at trunking or steel pipe with wall thickness of 1.5-2mm. Installed with protective devices in the part of mechanical damage, chemical corrosion or oil erosion.

Electrical generally use CHNT Electric, Mitsubishi, Yaskawa, Siemens, Schneider and other brands.



## Electrical Protection Systems

### 1. Short circuit protection

The total power circuit set up automatic air switch to protect crane short-circuit; Control circuit setting small capacity automatic air switch as short-circuit protection.

2. Emergency power-off switch

Crane set with red mushroom head type rotary reset emergency power off switch for emergency situations quickly cut off the main power and control circuit of the crane. Emergency off switch mounted in place convenient for personnel operation.

3. Overload Limiter

When overload limiter load reaches 90% of its rated load, issued a suggestive alarm signal, when the load reaches 110% of its rated load, immediately cut off the lifting power source and issued prohibitive alarm signal.

4. Travel limit

Lifting mechanism is provided with up and down fire stopper, as the limit switch in lifting range of lifting mechanism, also has a protective effect against the controller adhesions.

Crane limit limiter including ordinary limit switch, and higher performance, smaller size, more accurate limit space photoelectric switch or laser anti-collision device.



Limit Switch



Laser Anti-collision

5. Crane circuit system integrated protection with off phase, wrong phase, over voltage, low voltage protection, and will automatically cut off crane total power when the above four cases occurred to prevent personal injury and equipment damage.

6. Ground Connection

Crane's metal body and metal casing, ducts, low voltage side of the transformer of all electrical equipment are equipped with reliable ground connection protection.

7. Operation Control:



Ground pendent control

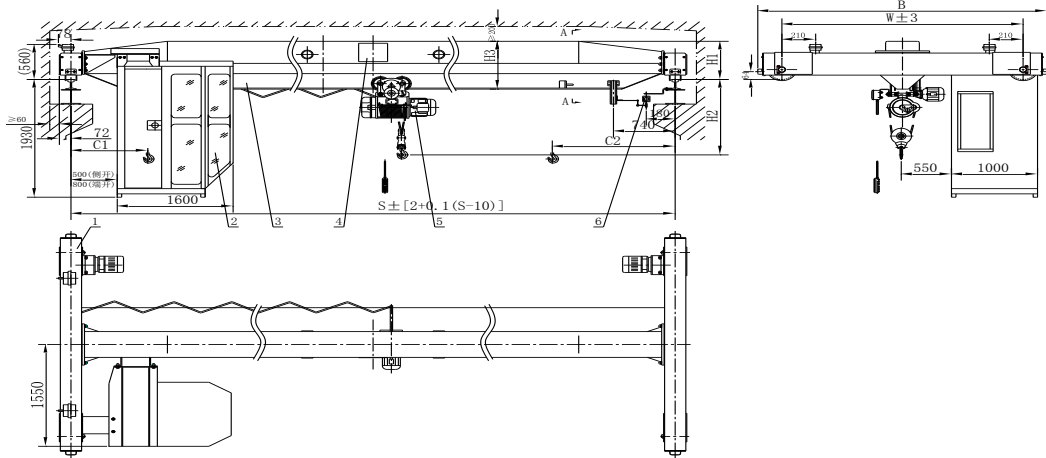


Remote Control



Driver's Cabin

**Technical Drawing- Sample:**



Configuration (eg.: Installed with Driver's Cabin)

- 1. End Beam    2. Driver's Cabin    3. Main Girder    4. Tonnage Plate
- 5. Electric Hoist    6. Electricity Transmission Device