



# YUANTAI CRANE

## Electric Single Girder Crane Specification



- Simple and reasonable structure, high rigidity.
- Good craftwork, convenient manufacturing, Strong versatility.
- Small size, work class is not very high.
- It has constant speed and variable frequency speed regulation, stable travelling.
- User can choose according to different requirements.

## Part 1 Introduction

### ◆ Overview

- (1) Simple and reasonable structure, high rigidity
- (2) Good craftwork, convenient manufacturing, Strong versatility
- (3) Small size, work class is not very high
- (4) It has constant speed and variable frequency speed regulation, stable travelling
- (5) User can choose according to different requirements.



### ◆ Supply scope

Yuantai supply the single girder crane with lifting capacity: 1~20t, span:7.5~28.5m, lifting height 1~30m, low work class A3,A4. We also design and manufacture the nonstandard crane according users' demanding.

### ◆ Main Application

- (1) Designed and made according to JB/T 1306 Electric Single-girder Crane
- (2) The matched electric hoists have CD1 model, MD1 model, etc.
- (3) It is a light & small lifting equipment with running on rail
- (4) Hoisting goods in the factory, warehouse, stockyard
- (5) Banned to use in such dangerous environment as easily combustible,explosive,etc

### ◆ Working atmosphere and condition

This crane is used in ambient temperature of  $-25^{\circ}\text{C} \sim +40^{\circ}\text{C}$ , humidity  $\leq 85\%$ , elevation under 1000m, power supply is 3-ph, 380V,50HZ(can change as user demand).

### ◆ Classification and product specifications

Single speed lifting single-girder crane and double speed lifting single-girder crane.

Tag: if a single speed lifting single-girder crane has lifting capacity 5t, span 10.5m, it can be written as LD5t-10.5m.

### ◆ Main Structure and Feature

It mainly has three parts: mechanism part, (metal structure and crane travelling parts), electric hoist(lifting mechanism), electrical equipments(safe protection, operation).

### ■ Main Structure and Features

- 1.Single girder, made by the high quality I steel and high quality U-shaped slot into composition
- 2.Material Q235B or Q345B(similar as Fe37 or Fe52)
- 3.End girder is welded with rectangular tubes or good steel
- 4.Main girders connected with bolts
- 5.Crane travelling use respective drive
- 6.QS trinity-drive system or traditional drive by motor and reducer
- 7.Assembly and adjustment is rapid, simple
- 8.Compact structure, small and light
- 9.use LD single girder special wheel, light and strong versatility
- 10.Stable travelling, effective brake, long service life



11.Choosing according to different needs

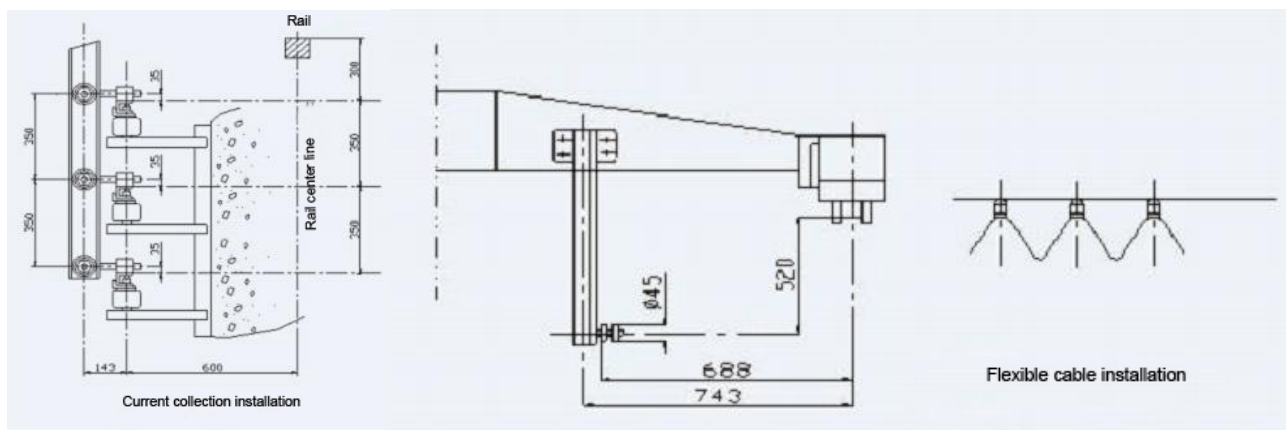
■ **Electric Hoist**

Same as electric hoist's



■ **Electrical Equipment**

- 1.Trolley conductor or angle steel conductor power supply
- 2..Hoist and crane Separately control, move separately or together
- 3.Flat cable or special cable power supply for electric hoist
- 4.Galvanize slide and cable trolley, smoothly moving, appearance is aesthetics
- 5.Electrical non-contact speed regulation control module
- 6.Operation, hoisting, the point start are very smoothly
- 7.Power leading has both methods of current collector and flexible cable



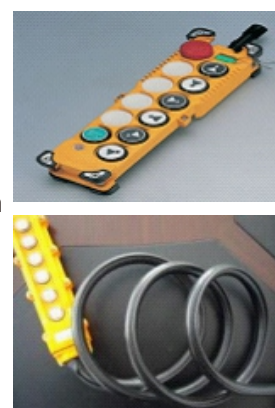
▣ **Safety Device**

- 1.Outdoor cranes are equipped with lifting mechanism,
2. electrical control box and rainproof devices
2. Overloading alarm, two grade of top dashing proof protection
3. Crane buffer
- 4.Anti-collision, sound and light alarm devices
- 5.Circuit self-check protector
- 6.Flow phase lack protection



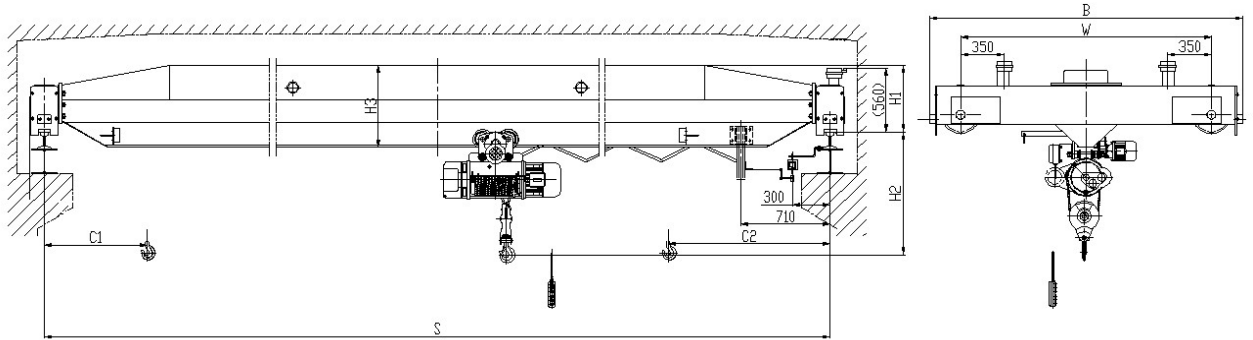
▣ **Operation**

- 1.Ground control and cabin control
- 2.The cabin has open style, close style,can fixed on left or right
- 3.The open direction include end open,side open or top open
- 4.The cabin includes special small room for single-girder and capsule cabin
- 5.Ground control has handle and remote control, do not need to set up special driver
- 6.Users can choose as you need

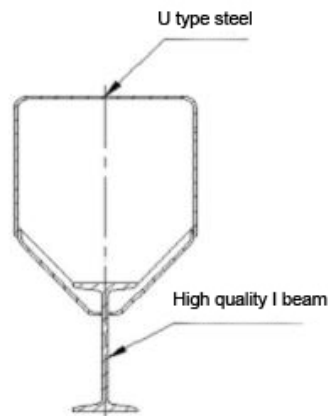


## Part 2 Drawing

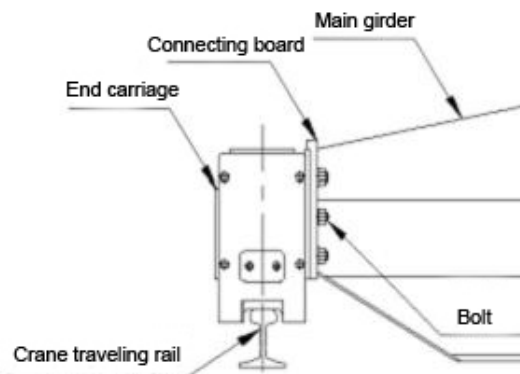
### Overall Organization Drawing



### Girder section drawing



### Connecting drawing between main and end girder



## Part 3 Tech. Parameter

LD Type Single Girder Electric Crane 1t									
Span	S(m)	7.5	10.5	13.5	16.5	19.5	22.5	25.5	28.5

Lifting height	m	9	9	9	9	9	9	9	9
Lifting speed	m/min	8	8	8	8	8	8	8	8
Trolley speed	m/min	20	20	20	20	20	20	20	20
Crane speed	m/min	20	20	20	20	20	20	20	20
Lifting motor	kw	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Trolley motor	kw	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Total weight	t	1.67	1.96	2.19	2.63	3.02	3.49	4.39	5.76
Max Wheel Load	KN	8.9	9.8	10.5	11.7	12.7	13.9	16.2	19.6
Track		P24	P24	P24	P24	P24	P24	P24	P24

Main dimension	mm	7.5	10.5	13.5	16.5	19.5	22.5	25.5	28.5
Rail top to main top	H1	490	490	490	490	530	580	660	745
Rail top to hook centre	H2	910	910	910	955	970	970	990	1010
Wheel base	W	2000	2000	2000	2500	2500	3000	3500	4000
Crane width	B	2500	2500	2500	3000	3000	3500	4000	4500
Hook left limitation	S1	796	796	796	796	796	796	796	796
Hook right limitation	S2	1274	1274	1274	1274	1274	1274	1274	1274
Main girder height	H3	550	550	550	595	650	700	800	900

Note: Control mode for ground operation

## Part 4 Easily Damaged Parts

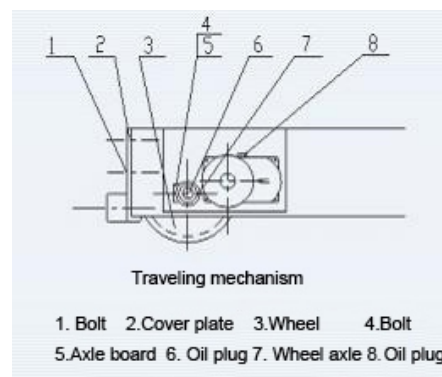
No.	Name	Material	Remark
1	gear wheel axle	20CrMnTi	
3	gear ring	40Cr	
3	Initiative wheel	45	
4	Passive wheel	45	
5	Taper brake ring Plane brake ring		

## Part 5 Usage

- ▶ Test crane: without loading, connect power, inspect all the travelling mechanism and safe device, make them readywitted and accurate, safe and reliable.
- ▶ Adjust travelling and lifting limiter
- ▶ Don't overload
- ▶ Don't lift loading in inclined girder direction
- ▶ Forbiden to use it in fire, bombing, corrosive atmosphere, and can't lift molten metal or toxic, inflammable and explosive objects.

## Part 6 Maintenance

- ▶ Users often need to inspect the crane, especially the connecting between beam end girder and all bolts
- ▶ Lubrication (showing as picture) :
  1. Get out of oil plug 6 and inject albany grease (GB491-1987) to lubricate wheel bearings. suggestion: change oil every three monthes, at 1/2~1/3 of the bearing volume.
  2. Get out of oil plug 8 and inject sodium soap grease (GB492/T-1989). Suggestion: change the oil every half year.
  3. Often daub lubricating grease on open gear (GB491-1987) to ensure it oiling.
- ▶ inspect wheel, must no fissure, indentation and excessive wear. If the flaw is 3mm or more, shoule be not used more and replaced by new wheel. Method: loosen bolt 1, take down cover plate2, get down bolt 4 and axle board 5, pull down wheel axle 7, then replace the wheel 3. When installing, reverse the order.





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Tips:

You can use the phone dimensional code recognition software to scan the right side of the two-dimensional code, to quickly and easily access our web site for more information.