



# YUANTAI CRANE

## Single-girder Electric Suspension Crane Specification



- Simple structure, strong rigidity
- Small size, low working class
- Normal speed or frequency control, stable traveling
- Cantilever is optional, widely used

## ■ Part 1 Introduction

### ◆ Overall Features

- (1) Simple structure, strong rigidity.
- (2) Small size, low working class
- (3) Normal speed or frequency control, stable traveling.
- (4) Cantilever is optional, widely used



### ◆ Supply Scope

Our company mainly manufactures suspension cranes with lifting capacity of 0.5t-10t, span of 3m-25.5m, lifting height of 1m-30m, working class (A3、A4), also can design and manufacture according to requirements.

### ◆ Applications

- (1) Manufacture and design according to JB/T 2603 "single girder electric suspension crane".
- (2) Matched with CD1、MD1
- (3) A kind of light lifting equipment.
- (4) Widely used in machine-made, installation, warehouse, etc.
- (5) Banned used in flammable, explosive, corrosive environment.

### ◆ Working Conditions

It is applicable in the temperature of  $-25^{\circ}\text{C} \sim +40^{\circ}\text{C}$ , Humidity  $\leq 85\%$ , Altitude below 1000m, Power is 3-phase 380v 50HZ(also can be customized according to customer's requirements).

### ◆ Classification

Single speed suspension crane and double speed suspension crane.

Mark: for example, single girder electric suspension crane with lifting capacity of 5t, span of 10.5m, it is LX5t-10.5m.

### ◆ Structure & Feature

Mainly composed of bridge(metal), electric hoist, traveling mechanism and electrical equipments.

#### ■ Metal Structure

##### ▣ Main girder (two types)

- 1.Small lifting capacity, small span is composed of I -beam and U-steel, no beam structure.
- 2.Large lifting capacity, big span is composed of box beam with high quality molding and stamping U-beam and I-beam welded.

##### ▣ End truck

- 1.The end truck is welded by U-steel.
- 2.The main girder and end truck is connected by pin shaft , make the main girder swing within small range.
- 3.The wheels can better running on the truck without suspended in the air.

■ Electric hoist

Electric hoist can lift objects and traveling along the main girder, the structure, please read the specification of electric hoist.

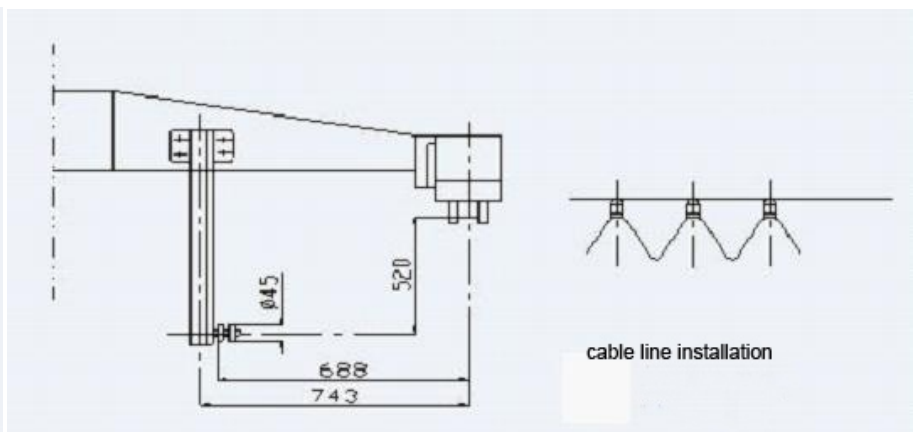
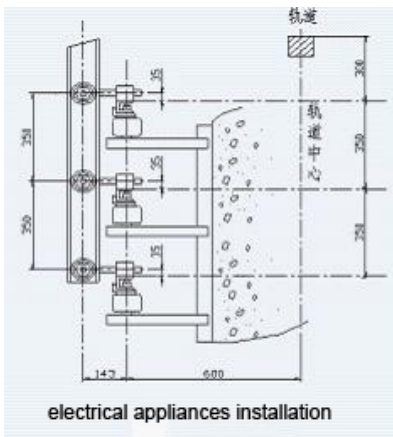


■ Traveling mechanism

- 1.Adapts separate-driving, driving and braking are finished by tapered brake motor.
- 2.The detailed structure is similar as common wire rope electric hoist.
- 3.Also adapts trinity-drive system, users can choose according requirements.

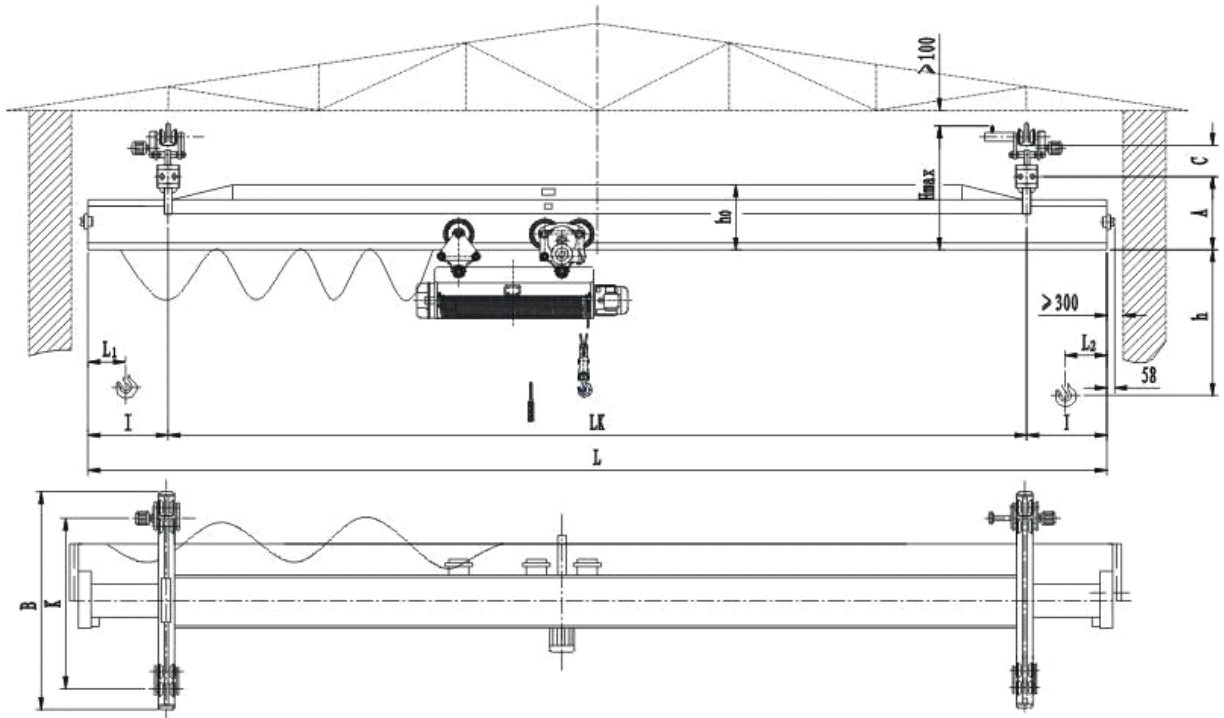
■ Electrical parts

- 1.Lifting and crane can be controlled separately, separate traveling or traveling at the same time.
- 2.The power supply of electric hoist is flat cable or special cable.
- 3.The electrical appliance adjusts speed without contact or spark module.
- 4.Equipped with position limiter, traveling position switch etc.
- 5.Ground wire control and ground remote control.
- 6.Power leading has both methods of current collector and flexible cable.

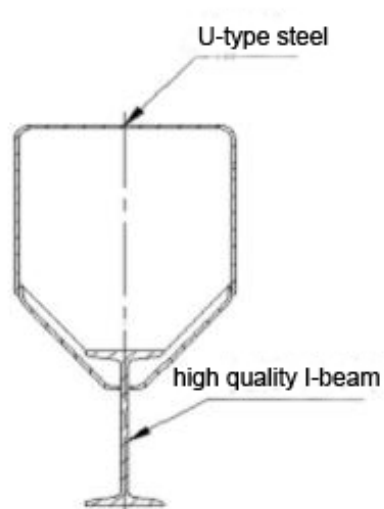


## Part 2 Drawing

### Overall structure sketch



### Cross section of main girder



### Part 3 Parameters

LX Type Electric Single-girder Underslung Crane		5t							
Span	S (m)	3	4	5	6	7	8	9	10

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	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Trolley motor	kw	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8

Total weight	t	1.28	1.36	1.44	1.52	1.60	1.92	2.02	2.12
Max wheel load	t	2.92	2.94	2.96	2.99	3.01	3.10	3.12	3.15
Track		I36a	I36a	I36a	I36a	I36a	I36a	I36a	I36a

Main dimension	mm	3	4	5	6	7	8	9	10
Girder edge to hook	h	1320	1320	1320	1320	1320	1320	1320	1320
Wheel base	W	1000	1000	1000	1000	1000	1500	1500	1500
Crane width	B	1500	1500	1500	1500	1500	2000	2000	2000
Hook left limitation	S1	302	302	302	302	302	302	302	302
Hook right limitation	S2	170	170	170	170	170	170	170	170
Left cantilever	L1	750	750	750	750	750	1000	1000	1000
Right cantilever	L2	750	750	750	750	750	1000	1000	1000

Note: Control mode for ground operation

### Part 4 Easily Damaged Parts

NO.	Drawing NO.	Name	Material	Note
1	710.04	Drive wheel	45	
3	710.03	Driven wheel	45	
3	ZDY1.70LD10.2 0.12	Brake ring		

## ■ Part 5 Usage

- (1) Crane test : without loading, connect power, inspect all the traveling mechanism and safe device, make them readywitted and accurate, safe and reliable.
- (2) Adjust traveling and lifting limiter
- (3) Overload is banned.
- (4) Don't lift inclined girder direction
- (5) Forbidden to use it in fire, bombing, corrosive atmosphere, and can't lift molten metal or toxic, inflammable and explosive objects.

## ■ Part 6 Maintenance

- (1) The users should check the cranes frequently, to make sure it is safe and reliable.
- (2) It should inject grease inside the reducer of trolley before using, requires the oil of large viscosity (30-50), the amount of oil should not too much, not exceed the lowest axis of reducer, at the beginning, using one month, change the oil, then half a year, change the oil.



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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.