YUANTAI CRANE

Electric Overhead Crane with Hoist Specification

- Reasonable design, small size, Low headroom
- Maximize lifting height,so as to play workshop's efficacy
- Light dead weight, low wheel loading
- Advanced technology, functional, energy Saving and efficient
- Frequency control of motor speed, stable travelling

Part 1 Introduction

Overall Features

(1) Reasonable design, small size, Low headroom
(2) Maximize lifting height, so as to play workshop's efficacy
(3) Light dead weight, low wheel loading.
(4) Advanced technology, functional, energy Saving and efficient
(5) Frequency control of motor speed, stable travelling

Supply Scope

Yuantai mianly manufactures electric bridge cranes with lifting capacity of 5t-32t, span of 7.5m-31.5m, lifting height of 3m-30m, working class（A3、A4), also can design and manufacture according to requirements.

Applications

(1) Matched using with electric hoists of CD1 model, MD1 model, etc
(2) Widely used in processing workshop,metallurgical assisting warehouse, staorage, yard and power station.
(3) It is also used in textile and food industry instead of double-girder bridge crane.
(4) Banned to be used in inflammable, explosive corrosive medium environment

Applicable Scope & Working Conditions

It is applicable in the temperature of -25℃～+40℃, Humidity≤85%, Altitude below 1000m, Power is 3-phase 380v 50HZ(also can be customized according to customer's requirements)

Products Description

Mark: For example: lifting capacity: 5t, span:10.5m, electric double girder overhead crane can be marked as LH5t-10.5m.

Structure & Feature

Mainly have bridge frame, trolley, crane travelling mechanism and electrical equipments.

Bridge

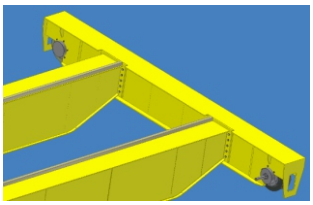
Consisted with main girder, end girder, walking board, column, testing cage, cabin and its plateform.

Main Girder

1.Double main girder, welded in box shape, The arch degrees comply with the national requirements.
2.Steel material model is Q235B or Q345B(similar as Fe37 or Fe52)
3.Main and end girders are connected by strong bolts
4.The rail can be fixed on middle of main girder or partial of main gidrer.
5.Metall structure is Steel with pretreatment process

6.Main welding submerged are welded automaticly, nondestructive flaw detection.

End Girder



1.End girder is welded by reclangle tube or quality steel plate
2.Main girder and end girder is connected by bolts.

Trolley

1.Compact structure, small size, light weight
2.Travelling rail is P-shape rail or square-steel rail
3.consisted with motor,reducer, trolley frame and hoist
4.Trinity traveilling structure
5.The lifting machanism is same as hoist's

Crane traveling mechanism

1.When ground control, it use soft start, small current, No axial sway
2.Motor has few and adapt to frequent starting, remarkable energy saving
3.Cabin control us ZDR series cone winding rotor,three-phase asynchronous motor or electromagnetic brake motor
4.High mechanical strength,compact structure,brake moment is adjustable
5.Motor starting is stable,safe brake
6.Crnae wheel,trolley wheel and brake wheel use mid frequeney induction hardening and Industrial frequency quenching processing, and Leeb hardness tester control heat treatment hardness
7.QS trinity-drive and special wheel for doble-girder crane

Electric Parts

1.Safe touch line conductive rate is high, low pressure, set electric taxi speed is high
2.The wire ropes in electrical box are in order, convenient to repair.
3.Trolley moving's power is supplied by flat cable
4.Sliding smooth, and beautiful outlooking.

Protection Devices

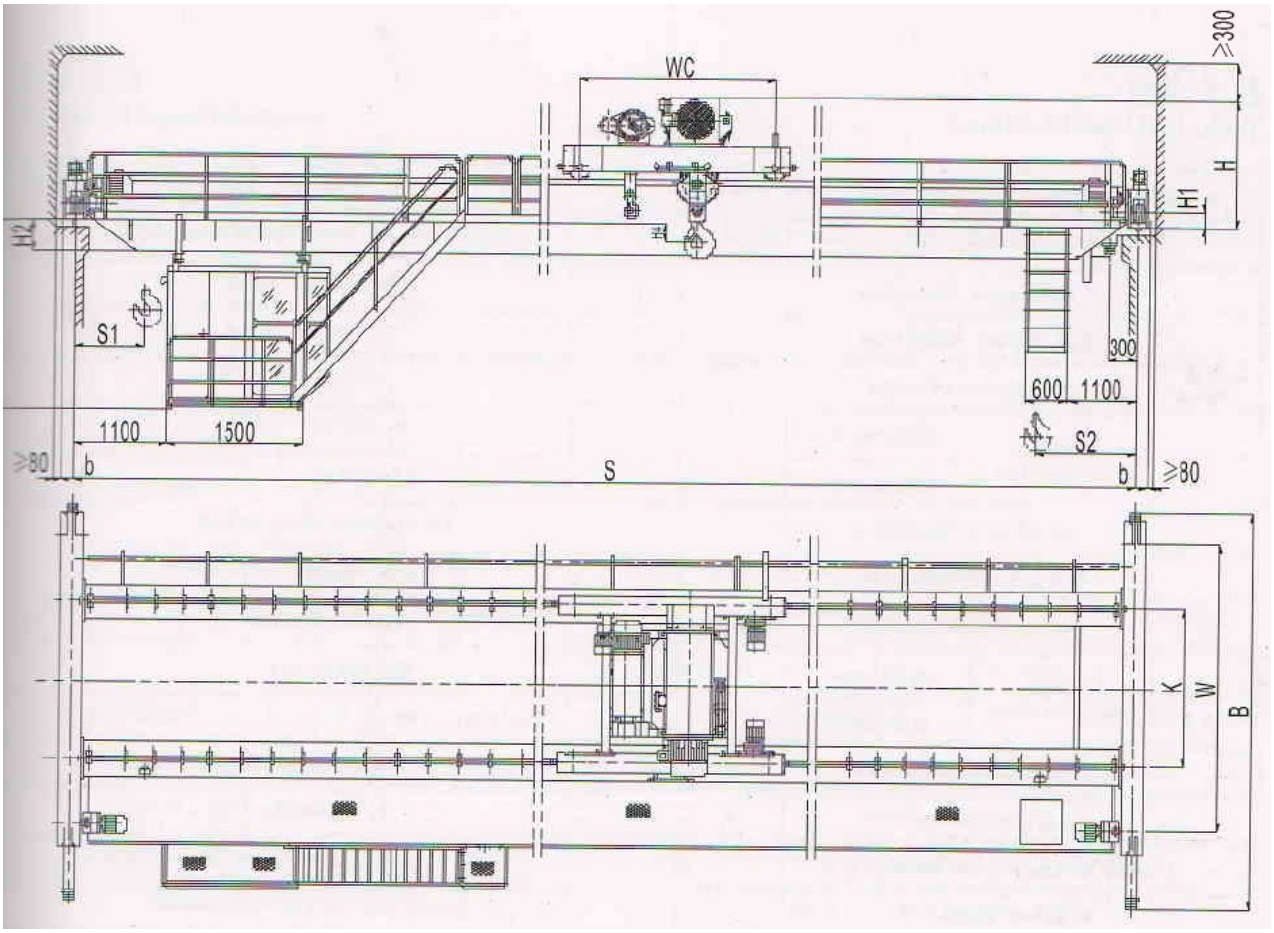
1.Outdoor cranes are equipped with lifting mechanism, electrical control box and rainproof devices
2.Set the trolley trip spacing device,
3.Anti-collision device
4.Audible and visual alarm device

Operation Device

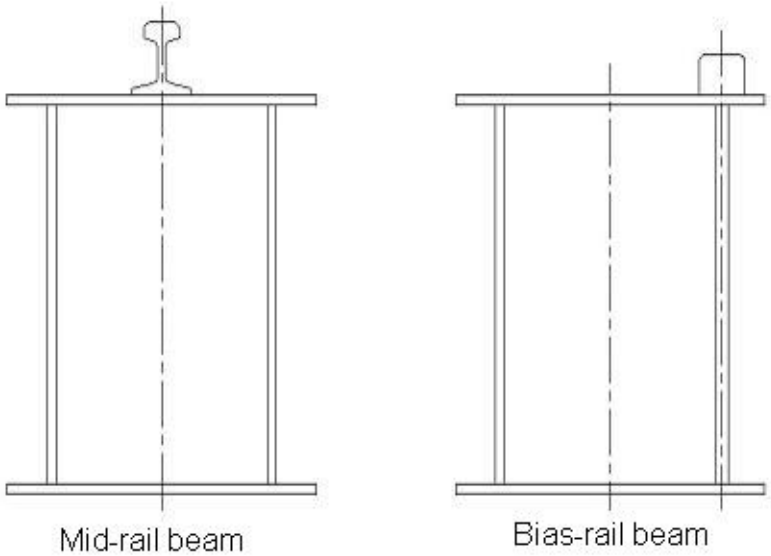
1.Ground control and cabin control
2.Special cabin for bridge crane or capsule driver room
3.Open vision, comfortable operation.
4.Cam controller ,linkage platform controller
5.The cable have open style, close style,can fixed on left or right

Part 2 Drawing

Overall structure sketch



Main girder section view



Part 3 Parameters

LH Type Overhead Crane with Electric Hoist 5t									
Span	S（	7.5	10.5	13.5	16.5	19.5	22.5	25.5	m）
Lifting height	m	9	9	9	9	9	9	9	
Lifting speed	m/min	8	8	8	8	8	8	8	
Trolley speed	m/min	20	20	20	20	20	20	20	
Crane speed	m/min	20	20	20	20	20	20	20	
Lifting motor	kw	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	
Total weight	kg	5230	6400	7450	8600	10560	12350	14850	
Max Wheel Load	KN	39	43	48	53	59	62	71	
Track		P38	P38	P38	P38	P38	P38	P38	
Main dimension	mm	7.5	10.5	13.5	16.5	19.5	22.5	25.5	
Rail top to main top	H1	1350	1350	1350	1350	1350	1350	1550	
Rail top to hook centre	H2	385	385	385	385	385	385	540	
Wheel base	W	2700	2700	2900	2900	3300	3300	3800	
Crane width	B	3200	3200	3400	3400	3800	3800	5300	
Hook left limitation	S1	1200	1200	1200	1200	1200	1200	1200	
Hook right limitation	S2	1200	1200	1200	1200	1200	1200	1200	
Trolley gauge	K	1400	1400	1400	1400	1400	1400	1400	

LH Type Overhead Crane with Electric Hoist 10/3t									
Span	S（	7.5	10.5	13.5	16.5	19.5	22.5	25.5	m）
Lifting height	m	9	9	9	9	9	9	9	
Lifting speed	m/min	7	7	7	7	7	7	7	
Trolley speed	m/min	20	20	20	20	20	20	20	
Crane speed	m/min	20	20	20	20	20	20	20	
Lifting motor	kw	13	13	13	13	13	13	13	
Trolley motor	kw	0.8	0.8	0.8	0.8	0.8	0.8	0.8	
Total weight	kg	6240	8050	9480	10450	13260	16530	18620	
Max Wheel Load	KN	65	72	77	80	88	97	102	
Track		P38	P38	P38	P38	P38	P38	P38	
Main dimension	mm	7.5	10.5	13.5	16.5	19.5	22.5	25.5	
Rail top to main top	H1	1450	1450	1450	1450	1650	1650	1650	
Rail top to hook centre	H2	365	365	365	365	565	565	565	
Wheel base	W	3000	3000	3400	3400	3800	3800	4200	
Crane width	B	3500	3500	4000	4000	4500	4500	5000	
Hook left limitation	S1	1250	1250	1250	1250	900	900	900	
Hook right limitation	S2	1400	1400	1400	1400	1200	1200	1200	
Trolley gauge	K	1600	1600	1600	1600	1600	1600	1600	

Note: Control mode for for ground operation

Part 4 Easily Damaged Parts

No	Name	Material
1	Active drive wheel	45
2	Passive drive wheel	45
3	Taper brake ring Plane brake ring	
4	Gear axle	45

Part 5 Manufacture

1.The main bearing carrier (main girder) accord with JB/T3695-2008, We also puchase the steel plate according to client's requirment or crane's application.
2.The wheel material is 45# steel, gear is 20CrMnTi, axle is 45# steel.
3.Wheel heat-treating rigidity: 300 HB～380 HB, smallest hardening layer 20mm, rigidity is 260HB, there is no imperfection on wheel tread and rim inside.

Part 6 Standards for Design,Manufacture and Installation

1.GB3811-2008	Crane Design Rules
2.GB5905-86	Crane Testing Criterion & Procedure
3.GB6067-85	Crane Safety Rules
4.GB8918-1996	Steel Wire Rope
5.JB/T3695-2008	Electric Overhead Crane with Hoist
6.GB8197-87	Mechanical Equipment Shields Safety Requirements

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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.