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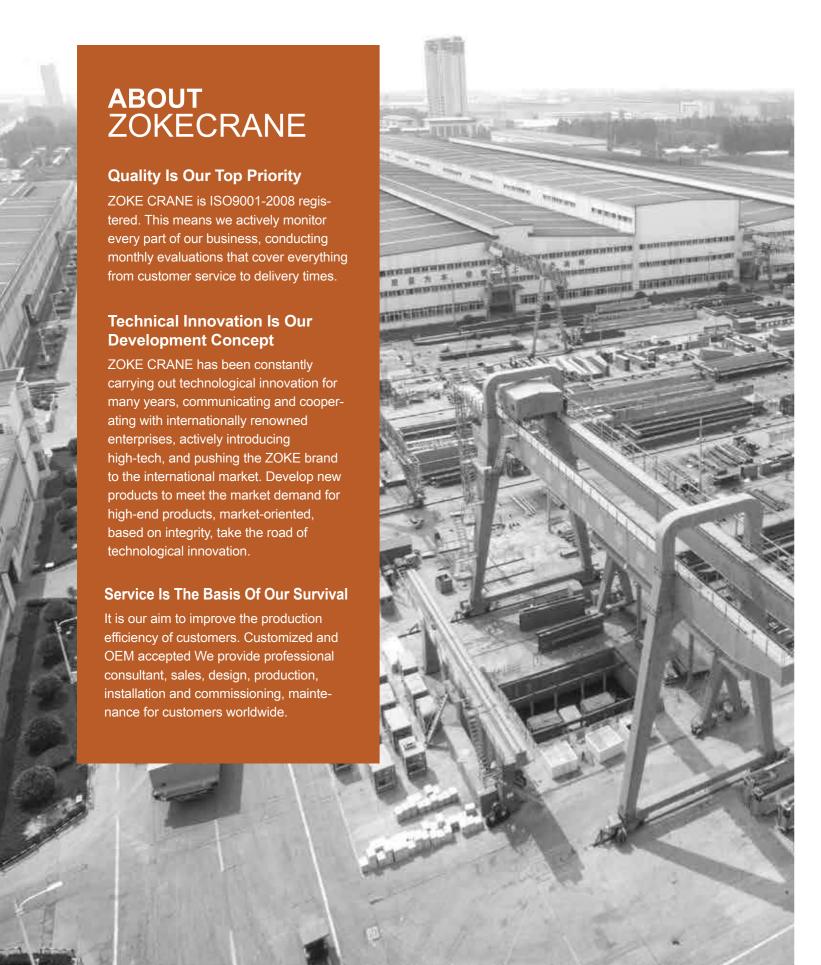
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欧式起重机概述

Introduction To European Type Products

该型号起重机是在引进和消化国外先进技术的基础上,以模块化设计理论为指导,以现代计算机技术为手段,引入优化设计及可靠性设计方法,采用进口配置、新材料、新工艺完成的,具有轻量化、通用化、节能 环保、免维护及高技术含量的新型起重机。

本起重机的设计制造及检验均执行最新颁布的国家有关标准,等效采用部分FEM、DIN、IEC等国外标准,与原有通用QD型桥吊产品相比,自重减轻约15~30%、最大轮压减小约10~35%、可以降低起重机对厂房结构的要求、节约厂房制造成本。传动机构的核心部件减速器全部采用硬齿面高精度齿轮,加上钢制卷筒,锻造车轮以及变频调速系统的应用,使得该型号起重机成为传统通用桥式起重机的更新换代产品,适用于机械制造、装配、石油化工、仓储物流、电力建设、造纸、铁路等行业。

European model crane is in the introduction and digestion on the basis of foreign advanced technology, guided by the theory of modular design, by means of modern computer technology, the introduction of optimization design and reliability design method, using imported configuration, new materials, new technology of complete with lightweight, generalization, energy conservation, environmental protection, free maintenance and high technical content of the new type of crane.

The design, manufacture and inspection of the crane are all in accordance with the latest national standards, which are equivalent to the use of partial FEM, DIN, IEC and other foreign standards. Compared with the original type bridge crane products, the dead weight is reduced by about 15-30%, and the maximum wheel pressure is reduced by about 10-35%, which can reduce the requirements of the crane on the structure of the workshop and save the workshop manufacturing cost. Transmission mechanism of the core components are all made of the hard tooth face high precision gear speed reducer, and steel drum, forging wheel, and the application of variable frequency speed regulation system, makes the model crane traditional gm bridge crane upgrade products, suitable for mechanical manufacture, assembly, oil chemical industry, warehousing logistics, power construction, paper making, railway and other industries.



主梁



简介 A Brief Introduction

- 主梁采用偏轨箱型结构,与端梁采用高强度螺栓连接,便于运输。
- 自重比传统起重机轻30%-40%, 轮压小, 厂房地基和立柱都可以减小, 节约建筑成本;
- 钢板材质为Q235B或Q345B(相当于欧洲标准Fe37/Fe52);
- 所有钢板进厂前都经超声波测厚仪检测,确保厚度符合设计要求;
- 主梁最大载荷下垂直拱度为1/800(A4~A6)、1/1000(A7~A8)。
- 主梁焊接后进行整梁抛丸,抛丸后有效释放焊接应力,主梁稳定性好,另外,抛丸处理清理钢板氧化皮、 铁锈等,达到Sa2.5级,并立即喷环氧富锌底漆,增加底漆附着力;
- The main beam adopts deviated box structure, and the end beam is connected with high-strength bolts, which is convenient for transportation.
- The dead weight is 30%-40% lighter than the traditional crane, the wheel pressure is low, the foundation and column of the workshop can be reduced, and the construction cost can be saved.
- The steel plate material is Q235B or Q345B (equivalent to European standard Fe37/Fe52);
- All steel plates are inspected by ultrasonic thickness gauge before entering the factory to ensure that the thickness meets the design requirements:
- Under maximum load, the vertical camber of main beam is 1/800(A4 ~ A6) and 1/1000(A7 ~ A8).
- · After welding, the whole beam is shot blasting. After shot blasting, the welding stress is effectively released, and the stability of the main beam is good. In addition, shot blasting is used to clean up the steel plate oxide scale and rust, etc., reaching Sa2.5 level.

端梁

End Carriage



- 端梁采用欧式模块化设计, 自重轻、体积小;
- 端梁由箱型梁体、轴承座、调心轴承、车轮、缓冲块、连接板、扫轨板组成;
- 梁体采用轧制方管或专用胎架拼接成型,埋弧自动焊确保焊接成型质量,尺寸精度好;
- 端梁两头都设有缓冲块,缓减碰撞冲击力,降低冲击惯性;
- The end beam adopts European modular design, light weight and small volume;
- The end beam is composed of box beam body, bearing seat, self-aligning bearing, wheel, buffer block, connecting plate and rail sweeping plate.
- The beam body is formed by rolling square pipe or special tire assembly, and the submerged arc welding is carried out automatically to ensure the welding forming quality and good dimensional precision.
- · Buffer blocks are arranged at both ends of the end beam to reduce impact force and impact inertia.



起升小车

Lift Mechanism



简介 A Brief Introduction

- 欧式优化模块化设计, 起重量从1.0t 80t, 工作级别FEM M4-M6;
- 整台起升小车结构紧凑、低净空设计,降低高度和减轻自重,自重轻30%以上,降低厂房高度,节约建筑成本;
- 免维护设计,降低维护成本;
- 载荷限制传感器设置在钢丝绳固定端,触发灵敏,轻载称量精度为±5%,重载称量精度为±2%,安全可靠, 便于维修;
- 过载保护功能通常设定为: 100%超载报警, 110%超载可下降但不能上升, 125%超载自动停车;
- 小车端梁4侧都配置橡胶缓冲器;
- European optimized modular design, lifting weight from 1.0T-80T, working level FEM M4-M6;
- The whole lifting car has compact structure and low headroom design, which can reduce the height and dead weight. The dead weight is more than 30% lighter, which can reduce the height of workshop and save the construction cost.
- · Maintenance free design to reduce maintenance cost;
- · The load limiting sensor is set at the fixed end of the wire rope with sensitive trigger. The accuracy of light load weighing and heavy load weighing is ±5% and ±2% respectively. It is safe, reliable and easy to maintain.
- Overload protection function is usually set as: 100% overload alarm, 110% overload can drop but not rise, 125% overload automatic stop;
- · 4 sides of trolley beam are equipped with rubber buffers;

起升机构

Lifting Drive Unit



- 鼠笼式双绕组变极双速电机,速比6:1;
- 无易损件, 全寿命设计, 免维护;
- 重级制,接电持续率不低于60%ED;
- 风冷式,风扇叶片优化设计;
- 同步转速高达3000rpm, 比同功率传统电机体 积小1/3, 自重轻40%以上;
- 防护等级IP55、F级绝缘;
- 内置热敏电阻过热保护;
- 电磁盘式制动器,制动平稳;
- 防尘环保无石棉摩擦片;
- 全硬齿面(HRC60)齿轮,比传统软齿面或中硬 齿面寿命长、体积小、自重轻;

- Squirrel cage type double-winding pole-changing double-speed motor, speed ratio 6:1;
- No wearing parts, full life design, maintenance free;
- Heavy gradation system, the power continuity rate is not less than 60%ED;
- · Air-cooled, fan blade optimized design;
- The synchronous speed is up to 3000rpm, 1/3 smaller than the conventional motor of the same power, and the dead weight is more than 40% lighter.
- Protection grade IP55, F insulation;
- Built-in thermistor overheat protection;
- · Electromagnetic disc brake with smooth braking;
- · Dustproof, environmental protection and asbestos-free friction sheet;
- The HRC60 gear has longer life, smaller volume and lighter dead weight;



卷筒、钢丝绳、导绳器、吊钩

Drum, Wire Rope, Rope Guider, Hook







- ・ 巻筒由无缝钢管或钢板卷制、焊接成型,钢板材质Q345B(相当于Fe52);
- · 所有卷筒均采用单层绕绳设计,避免乱绳;
- ・ 巻筒与钢丝绳直径比超过D/d>=40;
- ・钢丝绳采用专用压块固定,重级制压块密集布置,确保钢丝绳不会松脱,并至少有2圈钢丝绳被固定不动;
- · 导绳器,由轴承沿定距杆滑动导向,平稳导绳,调节方便,对钢丝绳磨损小,斜拉歪吊适应性强,寿命长, 韧性和弹性好;
- · 导绳器全周包围设计防松绳效果好,即使吊钩被降至地面也能保持钢丝绳的张紧,避免钢丝绳跳槽;
- ・标准配置DIN15400锻造吊钩,材质为T级34CrMo4和V级34CrNiMo6,吊钩强度达到985Mpa;
- · 吊钩可以360度旋转;
- ・吊钩组由绳轮、吊钩挂板、保护罩、吊钩横梁、钩头组成;
- ・吊钩横梁采用锻造,尺寸优化,配有润滑油嘴,维护方便;
- · 配备弹簧压紧的安全扣,可以防止吊带滑脱;

- The drum is made of seamless steel tube or steel plate, which is made of Q345B (equivalent to Fe52) and welded into shape;
- Single-layer rope winding design is adopted for all the drum to avoid disorderly rope;
- The diameter ratio of reel to wire rope exceeds D/d >=40;
- · The steel wire rope is fixed by special pressure blocks, and the dense arrangement of heavy pressure blocks ensures that the steel wire rope will not come loose, and at least 2 circles of the steel wire rope are fixed;
- The guide rope device is guided by the bearing sliding along the fixed distance rod, stable guide rope, easy to adjust, less wear to the wire rope, strong adaptability to the diagonal hanging, long life, good toughness and elasticity;
- The anti-loose rope effect of the guide wire rope is good, even if the hook is lowered to the ground, it can keep the wire rope tensioned, avoiding the wire rope job-hopping;
- DIN15400 forged hook is standard, the material is T class 34CrMo4 and V class 34CrNiMo6, the strength of the hook reaches 985Mpa;
- · The hook can rotate 360 degrees;
- The hook group is composed of rope wheel, hook hanging plate, protective cover, hook beam and hook head.
- The hook beam adopts forging, size optimization, equipped with lubricating oil nozzle, easy maintenance;
- · Equipped with spring-pressed safety buckle, can prevent the sling slip;



大小车运行机构

Travel Mechanism Of Trolley And Crane



简介 A Brief Introduction

- 大小车运行驱动采用由电机、减速机、紧凑式制动器组成的一体化三合一结构;
- 鼠笼式变频电机,无级变速运行平稳,启动、变速时减少重物晃动;
- 内置热敏电阻过热保护;
- 齿轮材料为铬钼镍合金,CNC自动齿轮加工中心生产,硬齿面(HRC60);
- 常闭电磁盘式制动器, 刹车片间隙可调, 制动可靠;
- 防尘、无石棉摩擦片;
- The trolley and crane is driven by an integrated three-in-one structure composed of motor, reducer and compact brake.
- Squirrel cage type variable frequency motor, stepless variable speed operation is stable, reduce the weight shaking when starting and variable speed;
- · Built-in thermistor overheat protection;
- · Gear material is chromium-Molybdenum-Nickel alloy, produced by CNC automatic gear processing center, hard tooth surface (HRC60);
- Normally closed electromagnetic disc brake, brake disc clearance adjustable, reliable;
- · Dust proof, asbestos-free friction sheet;

大小车车轮

Wheel Of Trolley And Crane



- 铸造车轮,材料为球墨铸铁QT700(相当于DIN标GGG70)
- 承载相同轮压车轮直径小,降低起重机高度;
- 车轮设置DIN标花键孔与三合一驱动输出轴直驱传动,传动平稳无冲击;
- 双轮缘设计,有效防止脱轨;
- 车轮球化率90%以上,自润滑性好,减少磨损;
- 车轮硬度达到HB240-280, 延长寿命;
- 所有车轮都采用数控加工,精度高,互换性好;
- Cast wheels of ductile iron QT700 (equivalent to DIN GGG70)
- Bearing the same wheel pressure wheel diameter small, reduce the height of the crane;
- The wheel is set with DIN spline holes and three-in-one drive direct drive of output shaft to drive smoothly and without impact.
- Double flange design, effectively prevent derailment;
- Wheel spheroidization rate above 90%, good self-lubrication, reduce wear;
- The wheel hardness reaches HB240-280 to extend its life;
- · All wheels are CNC machining, high precision, good interchangeability;





小车供电系统

Trolley Power Supply System

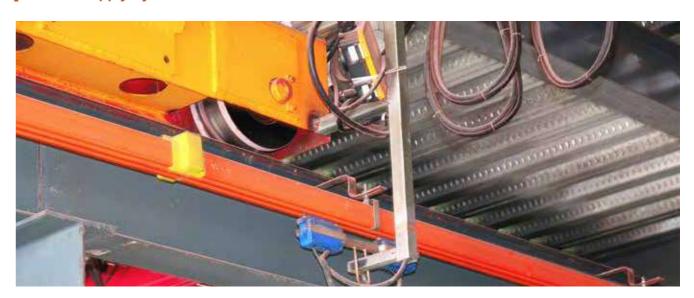


简介 A Brief Introduction

- 小车拖缆系统包括: 柔性扁电缆、拖缆小车(带托架)、滑槽或滑轨;
- 扁电缆采用具有良好弹性的橡胶绝缘;
- 电缆固定并悬挂在拖缆小车的小车托架上;
- 拖缆小车在C型滑轨中移动,C型滑轨通过支撑杆与主梁连接。
- Trolley towing cable system includes: flexible flat cable, trolley (with bracket), chute or track;
- The flat cable is insulated with rubber with good elasticity;
- The cable is fixed and suspended on the trolley bracket of the towing trolley;
- The towing trolley moves in the C-type slide rail, which is connected with the main beam through the support rod.

大车供电系统

Power Supply System For Crane Travel



- 起重机主电源为TN-S三相五线制(通常滑触线为三相四线、轨道为PE线,共五线),AC380V(+/-10%), 50Hz(+/-1Hz);
- 所有滑触线都配置分级式三相电源指示灯,便于观察电源通断或缺相,每相有两组LED显示模块;
- 所有起重机都配置双集电器,避免过接头瞬间断电,确保起重机持续稳定运行;
- 安全滑触线为防腐蚀、绝缘外壳封闭的紧凑型复合滑触线。自重轻、安装便利、无须维护
- 使用温度范围: -30℃到+60℃;
- 导电率高、电压降低,负载持续率高达80%
- 优化设计集电器适应高速滑行不掉电,最快达到250m/min,确保持续供电。
- The main power supply of the crane is TN-S three-phase five-wire system (usually the sliding contact line is three-phase four-wire, the track is PE line, a total of five lines), AC380V (+/-10%), 50Hz(+/-1Hz);
- · All the sliding contact lines are equipped with hierarchical three-phase power indicator lights for easy observation of power on and off or phase absence. Each phase has two sets of LED display modules.
- All cranes are equipped with double collector to avoid instantaneous power off over the joint and ensure the continuous and stable operation of the crane;
- The safety sliding contact line is a compact composite sliding contact line with anticorrosion and insulation enclosure. Light weight, convenient installation, no maintenance required
- Temperature range of use: -30°C to + 60°C;
- High conductivity, reduced voltage, load sustained rate up to 80%
- The optimal design of the collector is suitable for high-speed sliding without power loss, with the fastest reaching 250m/min to ensure continuous power supply.



电控系统

Control Panel



简介 A Brief Introduction

- 变频调速功能: 启动停止平稳;
- 所有外接线缆都带线号标记;
- 电控箱对外电缆连接主要为接插式连接,采用国际标准的航空插座,——对应,连接方便,保证电控箱的 防护等级不低于IP54;
- 电控箱内固定电缆布置在专用镀锌线槽内,或镀锌钢管;
- 所有线槽或套管端部都有护口, 防止线缆划伤;
- 所有外露端子都有绝缘套保护,确保安全。
- · Variable frequency speed regulation function: start and stop smoothly;
- All external cables are marked with line number:
- The external cable connection of the electric control box is mainly plug connection, using the international standard aviation socket, one-to-one correspondence, convenient connection, ensure that the protection level of the electric control box is not lower than IP54;
- The fixed cables in the electric control box are arranged in a special galvanized wire trough or galvanized steel pipe;
- · All line grooves or sleeves are provided with mouth guards to prevent the cable from being scratched.
- · All exposed terminals are protected by insulated sleeves to ensure safety.

安全装置

Safety Features

- 超载限位
- 起升限位
- 低压保护
- 急停装置
- 过流保护
- 零位保护
- 错相保护
- 缓冲器
- 大小车行走限位

- · Weight overload protection device
- Lifting limit switch
- Voltage lower protection function
- · Emergency stop system
- · Current overload protection system
- Zero voltage protection
- · Phases protection device and so on
- · PU buffer of long travel for anti-collision
- · Limit switch of trolley and crane travel

表面处理

Surface Treatment

- 主梁、端梁等钢结构(非机加工)表面;
- 抛丸预处理, 等级SA2.5;
- 清理油污;
- 底漆: 两遍底漆, 厚度60 µ m;
- 面漆:两遍面漆,厚度60μm;
- 漆膜总厚度不小于120um,采用超声波涂层测厚 仪检测,确保涂层厚度;
- 机加工表面: 采用涂防锈油脂、机加工专用防锈 漆、或镀锌,确保不锈蚀。

- · Surface of main beam, end beam and other steel structures (not machined);
- Shot blasting pretreatment, grade SA2.5;
- · Clean up oil pollution;
- Primer: twice primer, 60 m thick;
- Finish: double finish, 60 m thick;
- The total thickness of the paint film shall be no less than 120um. Ultrasonic coating thickness meter shall be used to test to ensure the coating thickness.
- · Machined surface: Anti-rust grease, special anti-rust paint for machining, or galvanizing can be used to ensure no corrosion.



单轨钢丝绳葫芦常用规格

Technical Parameters Of Single Rail Wire Rope Hoist

Lifting Capacity S.W.L (Kg)	Work Duty FEM	Work Duty ISO	Lifting Height M	Lifting Speed m/min	Travel Speed m/min
1000	4M	M7	6/9/12/18	0.8/5.0	5~20
1250	3M	M6	6/9/12/18	0.8/5.0	5~20
1600	3M	M6	6/9/12/18	0.8/5.0	5~20
1600	2M	M5	6/9/12/18	1.6/10	5~20
2000	2M	M5	6/9/12/18	0.8/5.0	5~20
2000	3M	M6	6/9/12/18	1.3/8.0	5~20
2500	3M	M6	6/9/12/18	0.8/5.0	5~20
2500	3M	M6	6/9/12/18	1.0/6.3	5~20
2500	2M	M5	6/9/12/18	1.3/8.0	5~20
3200	2M	M5	6/9/12/18	0.8/5.0	5~20
3200	2M	M5	6/9/12/18	1.0/6.3	5~20
3200	1AM	M4	6/9/12/18	1.6/10	5~20
5000	2M	M5	6/9/12/18	0.8/5.0	5~20
5000	3M	M6	6/9/12/18	1.0/6.3	5~20
5000	2M	M5	6/9/12/18	1.6/10	5~20
6300	1AM	M4	6/9/12/18	0.8/5.0	5~20
6300	4M	M7	6/9/12/18	0.8/5.0	5~20
6300	2M	M5	6/9/12/18	1.3/8.0	5~20
8000	3M	M6	6/9/12/18	0.8/5.0	5~20
10000	1AM	M4	6/9/12/18	1.0/6.3	5~20
10000	2M	M5	6/9/12/18	0.8/5.0	5~20
10000	3M	M6	6/9/12/18	0.66/4.0	5~20
12500	1AM	M4	6/9/12/18	0.8/5.0	5~20
12500	2M	M5	6/9/12/18	0.6/4.0	5~20
12500	1AM	M4	6/9/12/18	1.0/6.3	5~20
12500	3M	M3	6/9/12/18	0.6/4.0	5~20
16000	2M	M5	6/9/12/18	0.6/4.0	5~20
20000	1AM	M4	6/9/12/18	0.6/4.0	5~20



双梁钢丝绳葫芦常用规格

Technical Parameters Of Double Rail Wire Rope Hoist Trolley

Lifting Capacity S.W.L (Kg)	Work Duty FEM	Work Duty ISO	Lifting Height M	Lifting Speed m/min	Travel Speed m/min
2000	3M	M6	6/9/12/18	0.8/5.0	5~20
3200	2M	M5	6/9/12/18	0.8/5.0	5~20
5000	2M	M5	6/9/12/18	0.8/5.0	5~20
6300	1AM	M4	6/9/12/18	0.8/5.0	5~20
8000	3M	M6	6/9/12/18	0.8/5.0	5~20
10000	1AM	M4	6/9/12/18	1.0/6.3	5~20
10000	2M	M5	6/9/12/18	0.8/5.0	5~20
10000	3M	M6	6/9/12/18	0.66/4.0	5~20
12500	1AM	M4	6/9/12/18	0.8/5.0	5~20
12500	1AM	M4	6/9/12/18	1.0/6.3	5~20
12500	2M	M5	6/9/12/18	0.6/4.0	5~20
16000	2M	M5	6/9/12/18	0.66/4.0	5~20
20000	1AM	M4	6/9/12/18	0.66/4.0	5~20
20000	2M	M5	6/9/12/18	0.53/3.4	5~20
20000	3M	M6	6/9/12/18	1.0/4.2	5~20
25000	1AM	M4	6/9/12/18	0.53/3.4	5~20
25000	3M	M6	6/9/12/18	0.8/3.3	5~20
25000	2M	M5	6/9/12/18	1.0/4.2	5~20
32000	2M	M5	6/9/12/18	0.8/3.3	5~20
32000	2M	M5	6/9/12/18	0~4.9	5~20
40000	1AM	M4	6/9/12/18	0~4.9	5~20
50000	2M	M5	6/9/12/18	0~3.2	5~20
50000	1AM	M4	6/9/12/18	0~4.1	5~20
63000	1AM	M4	6/9/12/18	0~3.2	5~20
63000	2M	M5	6/9/12/18	0~2.4	5~20
80000	1AM	M4	6/9/12/18	0~2.4	5~20

其他欧式产品系列

Other European Type Products











