



河南矿山集团
HENAN MINE GROUP

做中国起重行业先锋 向世界一流起重行业迈进

Play leading role in the crane industry in China
Stride forward to become a top-class crane enterprise in the world





目录 CONTENTS

企业简介 Enterprise Introduction	06
领导视察 Inspection Visits Of Leaders	10
企业文化 Corporate Culture	14
技术力量 Technical Strength	18
资质荣誉 Qualification & Honor	20
系列产品 Series Product	32
生产设备 Production Equipment	58
检验设备与标准 Testing Equipment & Standards	64
销售网络 Sales Network	80
行业客户 Industrial Customers	82

企业简介 Enterprise Introduction



河南省矿山起重机有限公司是一家股份制工业企业，主要从事“矿源”牌电动葫芦、单、双梁桥、门式、抓斗、铸造、防爆、新型单双梁起重机、电动葫芦（欧式）等系列起重机及配件的制造与销售。是中国质量检验协会会员单位，中国重型机械工业协会副理事长单位。

公司现有员工2700余人，占地68万余平方米，拥有资产6.6亿元，380余家销售服务机构辐射国内外，各类加工设备1200余台（套），能独立完成全部车、铣、刨、磨等20余道工序。拥有中、高级工程技术人员180余人，担负着全部产品的开发设计与生产指导。公司已通过GB/T19001-2008/ISO9001:2008质量管理体系认证、GB/T24001-2004/ISO14001:2004环境管理体系认证和GB/T28001-2011/OHSAS18001:2007职业健康安全管理体系认证。拥有完善的质量保证体系、全面严格的管理制度、强大的生产能力和先进的检测手段，在保证产品质量、高产出的同时也具备了较高的市场占有率和较强的市场竞争力。

公司不断增加投资，利税等各项经济指标每年均以30%的速度递增，产品畅销全国近30多个省、市、自治区，并出口到澳大利亚、越南、印度、泰国及东南亚各国。年产销双梁、门式起重机4000余台，单梁起重机35000余台，单双梁电动葫芦及配件近46000台（套），人均产值和经济效益在同行业中名列前茅。公司已获“河南省高新技术企业”、“中国驰名商标”、“2009年度中国起重运输机械行业50强单位”、“中国知名起重机十佳品牌”、“河南知名商品”、“河南省著名商标”、“河南省名牌产品”、“全面质量管理达标企业”、“重合同守信用企业”、“无假冒、无欺诈、无不正当竞争企业”、“质量信得过单位”、“央视上榜品牌”、“新乡市市长质量奖证书”、“全国门桥式起重机械产业知名品牌示范区示范企业”等120余项荣誉称号。

本公司是河南省高新技术企业，不断进行技术革新、开发新产品，提高产品的科技含量，以满足市场对更高层次起重设备的需求。公司在消化、吸收国内外起重机先进的设计理念和制造技术的基础上，全力对电动葫芦、单、双梁起重机进行改型设计，与国际同类产品接轨，已占市场制高点。

矿源踞中原而集地利人和，凭借科学的管理体系、自动化办公系统、较强的生产能力、先进的检测手段和强大的销售网络，制造出质量优良、价格公道的“矿源”牌系列产品，服务于国内外市场。矿源人决心把公司建成中国起重机制造业的一流企业，致力用智慧与才能谱写中华民族工业腾飞的最辉煌的乐章！

质量铸就品牌 诚信编织未来

希望“矿源”能为您经济产业的腾飞做出贡献。“一握矿源手，终生是朋友”，董事长崔培军竭诚与各界朋友携手并进、共创辉煌。

Quality makes brand, honesty weaves the future, we hope Kuangyuan make contribution to economy industry's taking off. Hold hands of Kuangyuan, being friends for ever. Cui Peijun, the chairman, will sincerely seek for common progress and resplendence cooperating with all friends. Friends and establish brilliance.



Enterprise Introduction

Henan Kuangshan Crane Co., Ltd is a joint-stock industrial enterprise, focused on the production and sale of crane and accessories including electric hoist with Kuangyuan brand, single and double beam bridge crane, gate-type crane, grab, casting, explosion-proof and new single and double girder crane, electric hoist (European). It's member unit of China Quality Inspection Association and also the vice-chairman unit of China Heavy Machinery Industry Association.

This company has more than 2,700 employees, covers an area of over 680,000m², and owns capital of 660 million yuan. With the radiation business of more than 380 sale and service organizations at home and abroad, the possessed various equipments for processing exceed 1,200 units, it can independently complete more than 20 processes including machining, milling, planning and grinding. There are over 180 intermediate and advanced engineers and technicians in company, who take charge of the development design and production guidance of all products. This company has passed GB/T19001-2008/ISO9001:2008 Quality Management System Certification, GB/T24001-2004/ISO14001:2004 Environmental Management System Certification and GB/T28001-2011/OHSAS18001:2007 Occupation Health Safety Management System Certification. It has perfect quality assurance system, full strict management system, large production capacity and advanced inspection method in order to ensure high quality and production, meanwhile, have higher market share and strength competition.

The company keeps on its investment, and its economic data like profit and tax are increasing with an annual rate of 30%. The products are well sold in over 30 provinces, municipalities and autonomous regions and are exported to countries like Australia, Vietnam, India and Thailand. With an annual sales volume of over 4,000 gantry cranes, over 35,000 single-girder cranes as well as about 46,000 single- and double-girder electric hoists and their accessories, the company ranks among the

top in the lifting machine industry in terms of per capita output value and economic benefit. The company has obtained over 120 honors and certificates, including "Hi-tech Enterprise of Henan", "Chinese Famous Brand", "2009 Top 50 in Lifting and Transportation Industry of China", "Top 10 Brands of Chinese Crane", "Famous Commodity of Henan", "Famous Brand of Henan", "Famous Product of Henan", "Enterprise Satisfying Standards for Overall Quality Management", "Contract-honoring and Promise-keeping Enterprise", "Enterprise Free from Faked Product, Fraud or Unfair Competition", "Quality Trust-worthy Unit", "Brand Promoted by CCTV", "Certificate of Xinxiang Mayor Quality Award" and "National Gantry and Bridge Lifting Machinery Industry Brand Demonstration Area Model Enterprise".

Our company is the high & new technical enterprise, continually develop the new technologies and new products, and improve the scientific technology of the product to meet the need of market, on the base of digesting and absorbing the advanced designation thoughts and manufacturing technology, transformed and design of the electric hoist, single, double beam crane.

On the foundation of scientific management system, automation office system, stronger production ability, advanced testing methods and strong sales net produce "Kuangyuan" brand series products with high quality and reasonable price, Kuangyuan people will make the company a new star of China crane manufacturing industry.

Quality makes brand, honesty weaves the future, we hope Kuangyuan make contribution to economy industry's taking off. Hold hands of Kuangyuan, being friends for ever. Cui Peijun, the chairman, will sincerely seek for common progress and resplendence cooperating with all friends, friends and establish brilliance.



领导视察

Inspection Visits of Leaders



全国人大常委会副委员长周铁农（左二）政协第九届全国委员会副主席王文元（左三）第九届全国人大常委会副委员长布赫（右一）接见董事长崔培军

Zhou Tienong (2nd from left), vice chairman of standing committee of NPC, Wang Wenyuan (3rd from left), vice chairman of national committee of the 9th CPPCC, and Bu He (1st from right), vice chairman of national committee of the 9th CPPCC, granted an interview to Cui Peijun, board chairman of the company.



北京市发改委副主任赵磊一行莅临我公司考察指导

Zhao Lei, vice director of Beijing Reform and development Commission, and his team conducted an inspection tour in our company.



政法委书记弋振立来我公司考察

Yi Zhenli, secretary of Political and Legal Committee, conducted an inspection tour in our company.



省委常委、政法委书记吴天君到公司指导工作

Wu Tianjun, member of standing committee of Henan CPC Committee and Political Legal Committee conducted an inspection tour in our company.



领导视察

Inspection Visits of Leaders



河南省督导组领导一行莅临我公司考察调研
Leaders from Henan Provincial Supervision Group conducted an investigation tour in our company.



河南省政研室领导莅临我公司考察调研
Leaders from Henan Provincial Policy Research Office conducted an investigation tour in our company.



公司党委书记崔培军被授予2015年“十大经济年度人物”，颁奖现场与河南省原省委书记徐光春合影留念
Cui Peijun, the secretary of the party committee of the company, was given the title of one of the Ten Persons of the Year 2015 in the Economy. He took a photo with the original Secretary of Henan Provincial Party Committee Xu Guangchun at the prize-giving site.



国家质检总局特种设备安全监察局电梯起重机械安全监察处张宏伟处长、尚洪，省质监局特种设备处周庆恩处长到我公司调研起重机械安全技术规范工作。

Zhang Hongwei, director of Dept. of Safety Supervision of Elevator and Hoisting Equipment, Bureau of Safety Supervision of Special Equipment, State Quality Inspection Administration, Shang Hong, and Zhou Qingen, director of Dept. of Special Equipment, Provincial Quality Inspection Administration, investigated technical code for Safety of Hoisting Equipment in our company.



北起院院长刘小虎、重机协会秘书长孙吉泽、国家起重质检中心主任王顺亭一行莅临我集团考察参观

Liu Xiaohu, president of Beijing Design and Research Institute of Lifting and Transportation Machines, Sun Jize, secretary general of crane industry association and Wang Shunting, director of national crane test center conducted a visit tour in our group company.



中国重型机械工业协会理事会常务副理事长李镜、秘书长岳建忠、副秘书长张维新、张艳君等莅临我公司考察。

Standing vice-chairman of China Machinery Industry Association Council Li Jing, the secretary Yue Jianzhong and the deputy secretary Zhang Weixin and Zhang Yanjun visit our company for inspection.



企业文化

CORPORATE CULTURE

以德治企、诚信经营，
Running the enterprise with morality and doing business with honesty,
在始终如一的坚持中，
This is what the company adheres to,
厚德诚信的企业文化，形成强大的凝聚力与向心力，
With an enterprise culture that stresses morality and honesty, the company
引领着河南矿山不断前进。
Has established the cohesion that guides the continuous development of the company.

- | | | | |
|---|---|---|---|
| ① | ② | ④ | ⑤ |
| ③ | | ⑥ | ⑦ |
| | | ⑧ | ⑨ |

- ① 企业培训
Corporate Training
- ② 培训班
Training courses
- ③ 销售工作大厅
Sales hall
- ④⑤ 我集团公司为建设“平安长垣”捐款500万元
Our company donated 5 million yuan for the construction of "Peaceful Changyuan"
- ⑥⑦⑧ 河南矿山资助贫困生大会
Poor student conference of our company
- ⑨ 我公司参加“大爱无疆 慈善同行”大型募捐文艺晚会
Our company participated in the donation gala titled "Endless Love along with Charity"



用户为源 员工是本

回报股东 造福社会

企业文化 CORPORATE CULTURE

在探索和创造的过程中，
In the process of exploration and creation,
河南矿山人以进取的姿态、创新的精神、务实的作风，
All members of the company, with progressive, innovative and practical spirit,
以创造价值、追求卓越、服务社会为使命，
With the mission of value-creation, excellence-seeking and society-serving,
全力打造用户为源、员工是本、回报股东、造福社会的核心价值观。
Spare no efforts to cultivate innovative mechanism and easy environment to Stimulate potentials of the employees with the core value of serving customers.

- ① 公司表彰大会及文艺演出
Company commendation ceremony and theatrical performances
- ② 公司组织员工赴各地旅游
Company employees travel around



培育创新机制，营造宽松环境，激发员工潜能。

技术 力量

Technical
Strength

“河南省节能起重机工程技术研究中心”

Energy saving crane engineering technology research center of Henan Province

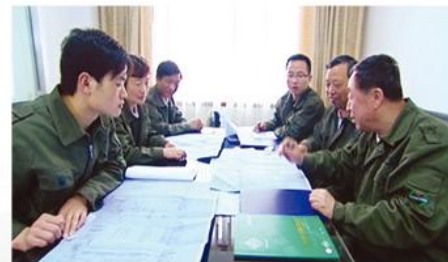
“新乡市起重运输机械工程技术研究中心”

Research Center of Engineering and Technology of Hoisting and Transport Machinery of Xinxiang City

矿山集团立足于起重机械领域，自主研发、科技创新，培育具有强大竞争力的核心技术。拥有中、高级工程技术人员180余人，担负着全部产品的开发设计与生产指导，为您的需求量身打造。

As a company engaged in the industry of hoisting equipment, Kuangshan Group stresses independent research, development and technological innovation to cultivate core technology that is highly competitive.

The company has over 180 technical staff who have intermediate or senior professional title. They are responsible for the research, development and production guidance of all products, providing customized service to customers.



资质 荣誉

QUALIFICATION
& HONOR

公司已获120余项荣誉称号
More than 120 companies have been
the honorary title



- ★ “河南省高新技术企业”
- ★ “中国驰名商标”
- ★ “2009年度中国起重运输机械行业50强单位”
- ★ “中国知名起重机十佳品牌”
- ★ “河南知名商品”
- ★ “河南省著名商标”
- ★ “河南省名牌产品”
- ★ “全面质量管理达标企业”
- ★ “重合同守信用企业”
- ★ “无假冒、无欺诈、无不正当竞争企业”
- ★ “质量信得过单位”
- ★ “央视上榜品牌”
- ★ “新乡市长质量奖证书”
- ★ “全国门桥式起重机械产业知名品牌示范区示范企业”



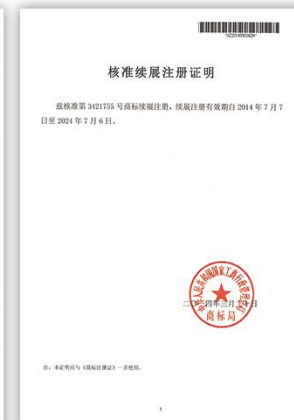
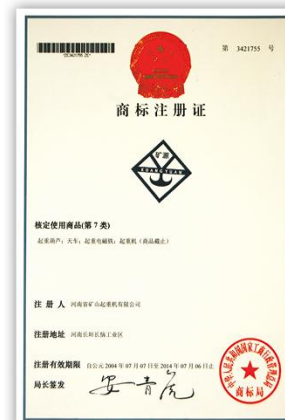
- ★ “Hi-tech Enterprise of Henan”
- ★ “Chinese Famous Brand”
- ★ “2009 Top 50 in Lifting and Transportation Industry of China”
- ★ “Top 10 Brands of Chinese Crane”
- ★ “Famous Commodity of Henan”
- ★ “Famous Brand of Henan”
- ★ “Famous Product of Henan”
- ★ “Enterprise Satisfying Standards for Overall Quality Management”
- ★ “Contract-honoring and Promise-keeping Enterprise”
- ★ “Enterprise Free from Faked Product, Fraud or Unfair Competition”
- ★ “Quality Trust-worthy Unit”
- ★ “Brand Promoted by CCTV”
- ★ “Certificate of Xinxiang Mayor Quality Award”
- ★ “National Gantry and Bridge Lifting Machinery Industry Brand Demonstration Area Model Enterprise”



质量铸就品牌
诚信编织未来

资质 荣誉

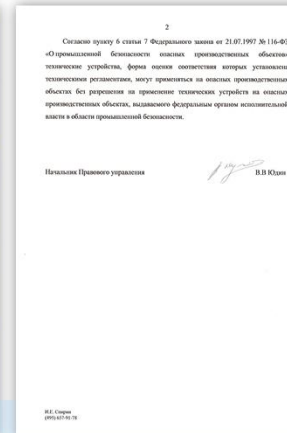
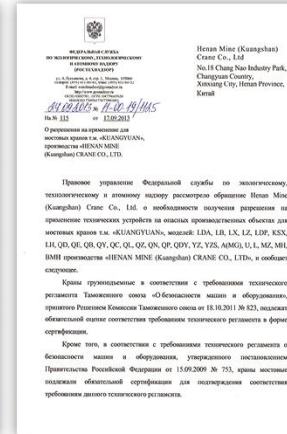
QUALIFICATION
& HONOR



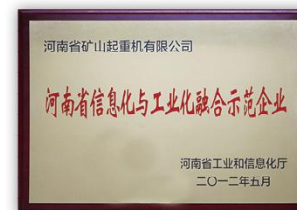
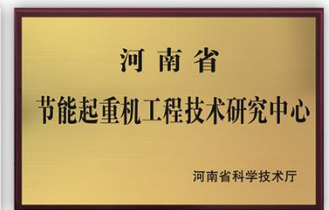
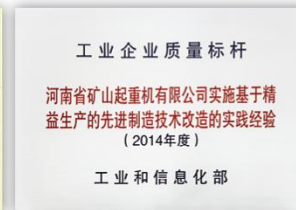
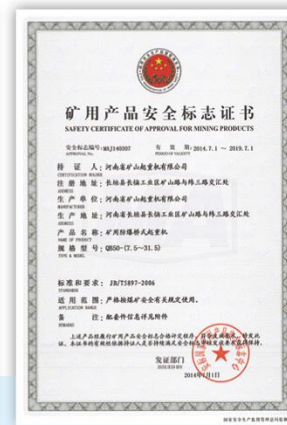
质量铸就品牌 诚信编织未来

资质 荣誉

QUALIFICATION & HONOR



资质
荣誉
QUALIFICATION
& HONOR



系列 产品 Series Product

公司年产销双梁、门式起重机4000余台，单梁起重机35000余台，单双梁电动葫芦及配件近46000台（套），人均产值和经济效益在同行业中名列前茅。

With an annual sales volume of over 4,000 gantry cranes, over 35,000 single-girder cranes as well as about 46,000 single- and double-girder electric hoists and their accessories, the company ranks among the top in the lifting machine industry in terms of per capita output value and economic benefit.

RAIL TYPE CONTAINER GANTRY CRANE

轨道式集装箱门式起重机



集装箱门式起重机吊具
Container gantry Spreader

适用于国际标准集装箱的搬运及装卸，该集装箱采用牵引小车形式，使整机结构轻便，性能先进，生产效率高，机动性好，对地面不平整度敏感性小。整机采用电缆卷筒供电。

applicable to remove, load and unload international standard containers. Form of drawing trolley is adopted to achieve light structure, advanced performance, high production efficiency, fine maneuverability and small sensibility to unflatness of the ground. The crane is powered by cable drum.



MG DOUBLE-BEAM GANTRY CRANE WITH HOOK

MG型双梁吊钩门式起重机

MG型双梁吊钩门式起重机主要由门架、起重小车、大车运行机构、司机室和电气控制系统组成。

门架为箱形结构，主梁采用双梁偏轨形式，支腿根据用户要求分A形和U形两种。

操作方式采用闭式司机室，内有可调式座椅，底板铺设绝缘垫，窗玻璃采用钢化玻璃，配有灭火器、电风扇，可根据用户要求配置冷暖空调、讯响器、对讲机等附属设备。

MG double-beam gantry crane with hook is composed of gantry, crane crab, trolley traveling mechanism, cab and electric control system.

The gantry is of a box-shape structure, the girder is bias track double girder and the leg is divided into Type A and Type U according to user's requirements.

The closed cab is employed for operation, where there are adjustable seat, insulating mat on the floor, toughened glass for the window, fire extinguisher, electric fan and auxiliary equipment such as air conditioner, acoustic alarm and interphone which can be furnished as required by users.



MG型双梁门式起重机
MG Double-beam Gantry Crane

MG GANTRY CRANE FOR SUBWAY CONSTRUCTION

MG型地铁施工门式起重机

MG型地铁施工用门式起重机是根据地下施工的使用要求及工况，在通用门式起重机的基础上研制出来的专用门吊，专用于地下施工时翻转倒土及吊运物品。

起重机由小车、门架、大车运行机构、液压翻转机构、司机室及电气设备组成。

小车上设有液压翻转机构，该机构由液压工作站和翻渣钩组成。

挂梁中间设有吊钩，用于吊运一般物件。

大车运行机构采用8轮4驱动形式。固定在台车上的电机通过立式减速器驱动车轮，并设有防风用夹轨器，起重机正常工作时，夹轨器的夹钳离开轨道，当起重机停止工作时，操作人员将夹钳放下，夹住轨道，防止起重机滑动。

倒土方向根据施工现场而定。

MG gantry crane for subway construction is a special gantry crane which is developed on the basis of general gantry crane according to the operating requirements and working conditions of underground construction.

The crane consists of crab, gantry, trolley travelling mechanism, hydraulic turnover mechanism, cab and electric equipment.

On the crab is furnished a hydraulic turnover mechanism, which is composed of a hydraulic work station and a slag-turning hook.

At the middle of the carrier-beam is a hook, which is used to lift common articles.

The trolley travelling mechanism is 4-wheel drive in 8 wheels. The motor fixed on the trolley drives wheels by vertical speed reducer. A windproof rail clamp is equipped. It is detached from the rail when the crane is in normal operation, and when the crane stops working, the operator will put down the clamp to catch the rail so as to avoid the crane sliding.

The earth dumping direction depends on the construction site.



MG DOUBLE-BEAM TRUSS GANTRY CRANE

MG型双梁桁架门式起重机

MG型双梁桁架门式起重机其主要由门架、起重小车、大车运行机构、司机室和电气控制系统组成。

门架为桁架结构，具有结构轻、抗风力强等优点。包括主梁、上端梁、支腿、下端梁、走行台车及走台栏杆等。主梁采用三角桁架结构，上面铺设轨道，供起重小车沿主梁方向作横向移动。支腿为桁架结构，由型钢组焊。走台用来放置电气设备并作检修用，外侧设有防护栏杆。

操作方式采用闭式司机室，内有可调式座椅，底板铺设绝缘垫，窗玻璃采用钢化玻璃，配有灭火器、电风扇，可根据用户要求配置冷暖空调、讯响器、对讲机等附属设备。

MG Double-beam truss gantry crane is comprised of gantry, crane crab, trolley travelling mechanism, cab and electric control system.

The gantry, of a truss structure and having advantages of light structure, strong wind resistance and so on, is composed of girder, upper end girder, leg, lower end girder, travelling trolley and platform railing. The girder is of a triangular truss structure, on which laid rails for crane crab to transversely move along the girder. The legs, of a truss structure, are welded by section steel. The platform, which is used to place electric equipment and used for repair, is furnished with protection railing outside.

The closed cab is employed for operation, where there are adjustable seat, insulating mat on the floor, toughened glass for the window, fire extinguisher, electric fan and auxiliary equipment such as air conditioner, acoustic alarm and interphone which can be furnished as required by users.



MG₆ ROAD-BRIDGE GANTRY CRANE

MG₆型路桥门式起重机

MG₆路桥门式起重机主要用于桥梁建设，工作速度慢，由门架、卷扬机小车、大车运行机构、司机室和电气控制系统组成。

门架为桁架结构，具有结构轻、抗风力强等优点。包括主梁、上端梁、支腿、下端梁、走行台车及走台栏杆等。主梁采用三角桁架结构，上面铺设轨道，供小车沿主梁方向作横向移动。支腿采用箱形或钢管两种形式。

小车上布置有卷扬机，体积紧凑，自重轻。

大车运行采用摆线针轮减速器，软启动电机，八轮四驱动，运行平稳。

操作方式采用闭式司机室，内有可调式座椅，底板铺设绝缘垫，窗玻璃采用钢化玻璃，配有灭火器、电风扇，可根据用户要求配置冷暖空调、讯响器、对讲机等附属设备。



MG₆型桁架门式起重机

MG₆ road-bridge gantry crane is mainly used for bridge construction which is worked at a low rate. It is composed of gantry, windlass crab, trolley travelling mechanism, cab and electric control system.

The gantry, of a truss structure and having advantages of light structure, strong wind resistance and so on, is composed of girder, upper end girder, leg, lower end girder, travelling trolley and platform railing. The girder is of a triangular truss structure, on which laid rails for crane crab to transversely move along the main girder. The legs are of a box structure or steel tube structure.

The crab is equipped with windlass, which is compact in structure and light in dead weight.

The trolley travelling adopts cycloid gear speed reducer, soft start motor, 4-wheel drive in 8 wheels, so that it can run steadily.

The closed cab is employed for operation, where there are adjustable seat, insulating mat on the floor, toughened glass for the window, fire extinguisher, electric fan and auxiliary equipment such as air conditioner, acoustic alarm and interphone which can be furnished as required by users.



ME SHIPBUILDING GANTRY CRANE

ME型造船门式起重机

ME型造船门式起重机是一种大起重量、大跨度、大起升高度的门式起重机，专用于船坞进行大型船体分段运输、对接及翻转作业。

主要技术特点：

• 具有单吊、抬吊、空中翻转、空中水平微转等多种功

能；• 门架有单主梁型和双主梁型两种，为合理使用材料，主梁采用变截面优化设计；• 上小车设有双主钩，分别置于主梁两侧；• 下小车设有主、副两钩，置于两主梁中心；• 上、下小车可以相互穿越作业；• 所有工作机构均采用变频调速；• 刚性支腿侧主梁顶面设有旋臂起重机，以完成上、下小车的维修作业；• 为防止暴风袭击，设有安全可靠的夹轨器、地锚等防风装置。



ME shipbuilding gantry crane, a type of gantry crane of heavy lifting load, large span and high lifting altitude, is special for fragmented transport, end-to-end joint and turning operation of large ship hulls.

Main technical characteristics:

It have multiple functions of single hanging, hoisting, turnover in the air, slight horizontal turnover in the air and so on;

The gantry falls into two categories: single girder and double girder. To rationally utilize materials, the girder adopts optimum design of variable section;

The upper crab has two main hooks, which are separately fixed at the outside of the girder.

The lower crab has a main hook and a secondary hook, which are fixed at the center of the two girders;

Both the upper crab and the lower crab can cross each other for operation.

All operating mechanisms employ frequency control;

On the top of the girder at the side of rigid leg is equipped a jib crane to accomplish maintenance of upper and lower crabs.

To prevent storm attack, such safe and reliable anti-wind devices as rail clamp and ground anchor are furnished.



L GANTRY CRANE

L型门式起重机

L型门式起重机主要由门架、起重小车、大车运行机构、司机室和电气控制系统组成。

门架为箱形结构，起重量20t以下时小车采用垂直反滚轮式，大于20t时小车采用水平反滚轮式，在主梁一侧运行。主梁采用单梁偏轨形式，支腿为L形，吊运空间大，过跨能力强，便于将物件从跨内转运到悬臂下。

操作方式采用闭式司机室，内有可调式座椅，底板铺设绝缘垫，窗玻璃采用钢化玻璃，配有灭火器、电风扇，可根据用户要求配置冷暖空调、讯响器、对讲机等附属设备。

L gantry crane is mainly composed of gantry, crane crab, trolley travelling mechanism, cab and electric control system.

The gantry is of a box-shape structure. The crab adopts vertical reaction wheel when the lifting load is below 20t, and horizontal reaction wheel when above 20t to run at the girder side. The girder is of single-girder bias track and the leg is L-shaped, so that the lifting space is large and the spanning ability is strong, making it easy to convey articles from the span to under the jib.

The closed cab is employed for operation, where there are adjustable seat, insulating mat on the floor, toughened glass for the window, fire extinguisher, electric fan and auxiliary equipment such as air conditioner, acoustic alarm and interphone which can be furnished as required by users.



MH GANTRY CRANE WITH ELECTRIC HOIST

MH型电动葫芦门式起重机

MH型电动葫芦门式起重机是有轨运行的中小型起重设备，主要由门架（主梁、支腿、下横梁等）、起升机构、运行机构及电控部分组成，以电动葫芦作为起升机构，工作时沿主梁工字钢下翼缘运行。门架结构分箱形和桁架两种，箱形工艺好，制作方便；桁架自重轻，抗风能力强。整机具有自重轻、结构简单、安装维修方便等特点，适用于中小起重量范围内的厂矿、货场及仓库等室外场所作一般装卸吊运工作，禁止在有易燃、易爆及充满腐蚀性气体的环境中工作。

操作方式设有地面手柄、无线遥控和司机室等三种操作形式。

MH gantry crane with electric hoist is middle- and small-size lifting equipment which runs on rails. It is mainly composed of gantry (girder, leg, lower cross beam, etc.), hoisting mechanism, travelling mechanism and electric control part. With the electric hoist as hoisting mechanism, it runs along the lower flange of the I-steel of the girder. The girder is of box-shape structure and truss structure. The former boasts good techniques and easy fabrication, and the latter is light in dead weight and strong in wind resistance. The complete machine features light dead weight, simple structure and easy installation and maintenance, so that it is applicable to outdoor operational sites of medium and small lifting load for general handling such as factories and mines, freight yards and warehouses. It is prohibited to operate in the environment with inflammable, explosive and corrosive gas.

It has three operation modes: ground handle, wireless remote control and cab.



MGB, MB SEMI-GANTRY CRANE

MGB、MB型半门式起重机



MGB型双主梁吊钩半门式起重机

双主梁吊钩半门式起重机主要由门架、起重小车、大车运行机构和电气控制系统组成。

门架为箱形结构，一侧设有支腿，沿地面轨道上运行，另一侧无支腿，沿厂房上部轨道运行。

操作方式采用闭式司机室，内有可调式座椅，底板铺设绝缘垫，窗玻璃采用钢化玻璃，配有灭火器、电风扇，可根据用户要求配置冷暖空调、讯响器、对讲机等物品。

其余结构和配置与MG型双主梁门式起重机一致。

MGB double-girder semi-gantry crane with hook

The double-girder semi-gantry crane with hook is mainly composed of gantry, crane crab, trolley travelling mechanism and electric control system.

The gantry, of a box-shape structure, has a leg at its one side and runs along the ground rails, and has no leg at the other side and runs along the rails on the factory workshop.

The closed cab is employed for operation, where there are adjustable seat, insulating mat on the floor, toughened glass for the window, fire extinguisher, electric fan and auxiliary equipment such as air conditioner, acoustic alarm and interphone which can be furnished as required by users.

The rest structure and configuration are the same as the MG double-girder gantry crane.



MB型电动葫芦半门式起重机

电动葫芦半门式起重机是有轨运行的中小型起重设备，主要由门架（主梁、支腿、下横梁等）、起升机构、运行机构及电控部分组成，以电动葫芦作为起升机构，工作时沿主梁工字钢下翼缘运行。门架一侧设有支腿，沿地面轨道上运行，另一侧无支腿，沿厂房上部轨道运行，其余结构和配置与MH型电动葫芦门式起重机一致。

MB semi-gantry crane with electric hoist

The semi-gantry crane with electric block, a type of middle- and small-size lifting equipment which runs along rails, is mainly composed of gantry (girder, leg, lower cross beam etc.), hoisting mechanism, travelling mechanism and electric control part. With the electric hoist as hoisting mechanism, it runs along the lower flange of the I-steel of the girder. The gantry has a leg at its one side and runs along the ground rails, and has no leg at the other side and runs along the rails on the factory workshop. The rest structure and configuration are the same as the MH gantry crane with electric block.

YZS CASTING BRIDGE CRANE

YZS型铸造桥式起重机

铸造桥式起重机是钢厂冶炼车间的主要起重运输设备，用于冶炼过程中液态金属的转运、浇注及兑铁水等作业，YZS型采用主副双小车、四梁四轨结构，由桥架、主小车、副小车、吊钩梁、大车运行及电气部分组成，主小车在桥架外侧的主梁轨道上运行，副小车在桥架内侧的副梁轨道上运行，主小车取物装置为固定间距的吊钩梁，用来吊运钢水包，副小车取物装置为吊钩，在主小车下穿越运行，与主钩配合以完成倾倒钢水、钢渣及其它辅助性吊运作业。

大车运行机构和主要电气设备均安装在主梁内，主梁电气室采用岩棉保温，内装有冷风机。为了减轻钢水对金属结构件的热辐射，在主梁底部沿跨度方向设有隔热板。

大车运行机构采用四角驱动形式。

起重机配有专用电子秤，在司机室内和桥架上均有明显的显示装置。主起升机构设有超速开关。

Casting bridge cranes are the main handling equipment for smelting workshop of steel works. They are used for conveying, pouring and hot metal charging of liquid metal in smelting process. YZS casting bridge crane, adopting main crab and auxiliary crab, and four-girder and four-rail structure, is composed of bridge, main crab, auxiliary crab, connecting traverse, trolley travelling mechanism and electric part. The main crab runs at the rails outside the bridge, and the auxiliary crab runs at the rails inside the bridge. The main crab employs the connecting transverse as the load handling device to hoist steel ladle, and the auxiliary crab, employing the hook as the load handling device, runs across under the main crab to accomplish pouring of molten steel and steel slag, and other auxiliary hoisting in coordination with the main hook.

The trolley travelling mechanism and main electric equipment are installed in the girder. The girder's electric panel room employs rock wool for heat insulation, and has an air cooler inside. To reduce heat radiation of molten steel to metal structural members, a thermal baffle is set along the span direction at the bottom of the girder.

The trolley travelling mechanism adopts four-corner drive.

The crane is equipped with a special electronic scale, and there are display devices in the cab and on the bridge. The main hoisting mechanism is furnished with an overspeed switch.



YZS型280/80/10T四梁铸造桥式起重机

YZ, QDY CASTING BRIDGE CRANE

YZ、QDY型铸造桥式起重机



YZ型125/32T铸造桥式起重机

YZ型280T铸造桥式起重机

YZ型铸造桥式起重机

YZ型铸造桥式起重机采用双梁单小车结构，主要由桥架、小车、吊钩梁、大车运行及电气部分组成，主钩取物装置为固定间距的吊钩梁，用来吊运钢水包，副钩用来与主钩配合以完成倾倒钢水、钢渣及其它辅助性吊运作业。

大车运行机构和主要电气设备均安装在主梁内，主梁电气室采用岩棉保温，内装有冷风机。为了减轻钢水对金属结构件的热辐射，在主梁底部沿跨度方向设有隔热板。

大车运行机构采用四角驱动形式。

起重机配有专用电子秤，在司机室内和桥架上均有明显的显示装置。主起升机构设有超速开关。

YZ casting bridge crane

YZ casting bridge crane, of a double-girder single-crab structure, is mainly composed of bridge, crab, connecting traverse, trolley travelling mechanism and electric part. The main hook employs the constant-spacing connecting traverse as the load handling device to hoist steel ladle and the auxiliary hook acts in concert with the main hook to accomplish pouring of molten steel and steel slag, and other auxiliary hoisting.

The trolley travelling mechanism and main electric equipment are installed in the girder. The girder's electric panel room employs rock wool for heat insulation, and has an air cooler inside. To reduce heat radiation of molten steel to metal structural members, a thermal baffle is set along the span direction at the bottom of the girder.

The trolley travelling mechanism adopts four-corner drive.

The crane is equipped with a special electronic scale, and there are display devices in the cab and on the bridge. The main hoisting mechanism is furnished with an overspeed switch.

QDY型吊运熔融金属用起重机

QDY型起重机是在QD型通用桥式起重机的基础上改进配置后，按照国家质量监督检验检疫总局下发的《关于冶金起重机械整治工作有关意见的通知》（质检办特〔2007〕375号）的规定和相关安全技术规范的要求设计制造。该设备工作级别为A7，起重重量小于74t，主要适用于冶炼车间吊运熔融金属，由箱形桥架、起重小车、大车运行机构和电气控制系统组成。



QDY冶金桥式起重机

QDY crane for hoisting molten metal

Based on improvements of QD general bridge crane, QDY crane is designed and manufactured according to the provisions of the Notice on Opinions of Renovation of Metallurgical Hoisting Machinery (ZJBT [2007] No. 375) issued by the State Administration for Quality Supervision and Inspection and Quarantine and relevant technical specifications. The classification group of the equipment is A7, and its lifting load is below 74t. It is mainly applicable to hoisting molten metal in smelting workshops. It is mainly composed of box-shape bridge, crane crab, trolley travelling mechanism and electric control system.

QD ELECTRIC DOUBLE-GIRDER BRIDGE CRANE WITH HOOK

QD型电动双梁吊钩桥式起重机

QD型电动双梁吊钩桥式起重机是目前应用较为广泛的起重机械，其主要由箱形桥架、起重小车、大车运行机构和电气控制系统组成。取物装置是吊钩。

主梁上面铺设轨道，供起重小车沿主梁方向作横向移动。主梁与箱型端梁焊接而成，端梁中间布置有接头，螺栓连接，供桥架分拆运输。走台用来放置大车运行机构、电气设备及作检修用。

操作方式设有地面手柄、无线遥控和司机室三种操作形式。驾驶室有开式、闭式两种，内有可调节座椅，底板铺设绝缘垫，窗玻璃采用钢化玻璃，配有灭火器、电风扇，可根据用户要求配置冷暖空调、讯响器、对讲机等物品。

起重机可配挂马达抓斗、电磁吸盘等取物装置，满足吊运多种类型物料的需求。

本起重机工作级别A3-A7，常用起重重量为3-250t。适宜在环境温度-10℃~40℃，相对湿度不大于85%的工厂、仓库及货场等处作装卸吊运工作，禁止在易燃、易爆以及充满腐蚀性气体的环境中工作。

QD electric double-girder bridge crane with hook is the widely used hoisting machinery currently. It is mainly comprised of box-shape bridge, crane crab, trolley travelling mechanism and electric control system. The load handling device is the hook.

On the girder laid rails for crane crab to transversely move. The girder is welded with the box-shaped end girder. At the middle of the end girder are joints which are fastened with bolts for fragmented transportation of bridges. The platform is used to place trolley travelling mechanism, electric equipment and used for repair.

It has three operation modes: ground handle, wireless remote control and cab. There are two kinds of cab: open cab and closed cab, where there are adjustable seat, insulating mat on the floor, toughened glass for the window, fire extinguisher, electric fan and auxiliary equipment such as air conditioner, acoustic alarm and interphone which can be furnished as required by users.

The crane can be furnished with load handling devices such as motor grab, electromagnetic chuck to meet the requirements of hoisting varied types of materials.

The crane, of a classification group of A3-A7, has a commonly used lifting load of 3-250t, so that it is suitable to work in factories, warehouses and freight yards where the ambient temperature is -10℃-40℃ and the relative humidity is not more than 85%. It is prohibited to work in the environment with inflammable, explosive and corrosive gas.



YC UPPER ROTARY BRIDGE CRANE

YC型上旋转桥式起重机

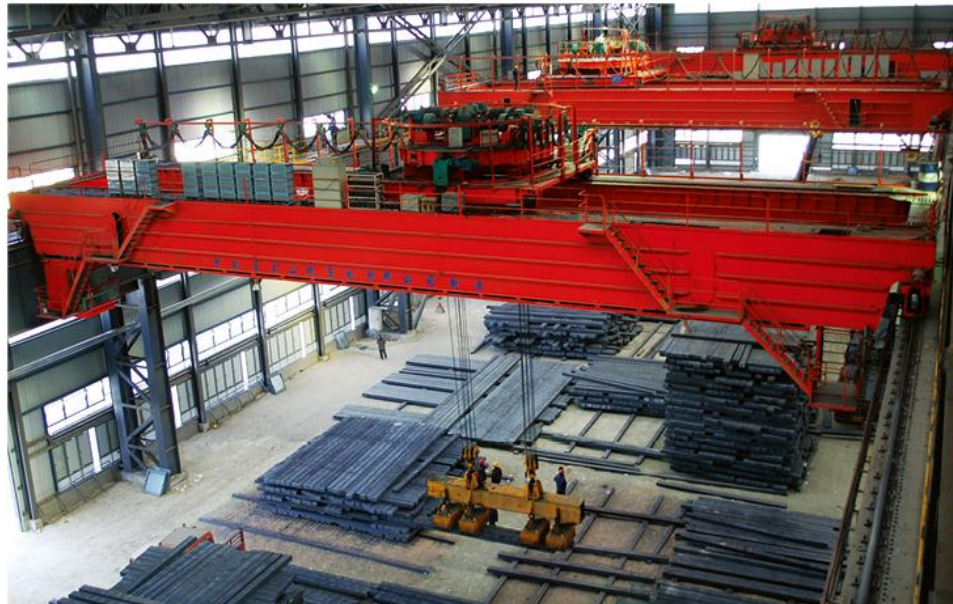
本起重机主要采用挂梁吊运钢坯等长件物品，配置电磁吸盘进行吊装，由箱形桥架、起重小车、大车运行机构、司机室和电气控制系统组成，配有停电保磁系统。

主梁采用正轨箱型结构，上面铺设轨道，供起重小车沿主梁方向作横向移动。主梁与箱型端梁焊接而成，端梁中间布置有接头，螺栓连接，供桥架分拆运输。走台用来放置大车运行机构及作检修用，外侧设有防护栏杆。

起重小车由上、下小车组成，下小车为运行小车。上小车为旋转小车，布置有起升机构和旋转机构。上小车上设有回转用的环形轨道，配合水平轮，达到旋转长件物品的目的。

The crane mainly employs hung girder to hoist long objects like billets, and is equipped with electromagnetic chuck to hoist. It is composed of box-shaped bridge, crane crab, trolley travelling mechanism, cab and electric control system. It is also equipped with blackout magnetic system. The girder is a middle-rail box girder, on which laid rails for crane crab to transversely move. The girder is welded with the box-shaped end girder. At the middle of the end girder are joints which are fastened with bolts for fragmented transportation of bridges. The platform is used to place trolley travelling mechanism, electric equipment and for repair. It is furnished with protection railing outside.

The crane crab consists of upper crab and lower crab. The latter is travelling crab and the former is rotating crab. They are equipped with hoisting mechanism and rotary mechanism, respectively. The upper crab is furnished with a circular orbit for rotating, which acts in concert with horizontal wheels to fulfill the purpose of rotating long articles.



QZ ELECTRIC GRAB BRIDGE CRANE

QZ型电动抓斗桥式起重机

QZ型电动抓斗桥式起重机主要由箱形桥架、抓斗小车、大车运行机构、司机室和电气控制系统组成。取物装置为能抓取散装物料的抓斗。

抓斗小车上设有开闭机构和起升机构，抓斗以四根钢丝绳分别悬挂在开闭机构和起升机构上。开闭机构驱动抓斗闭合，抓取物料，当斗口闭合后，立即启动起升机构，使四根钢丝绳平均受载进行起升工作。卸料时只打开开闭机构，斗口随即张开，倾斜物料。

本起重机除起升机构不同外，其余结构部分与吊钩桥式起重机基本相同。



QZ electric grab bridge crane is mainly comprised of box-shaped bridge, grab crab, trolley travelling mechanism, cab and electric control system. The load handling device is the grab which is able to capture bulk materials.

The grab crab has switching mechanism and lifting mechanism. The grabs are separately hung over the switching mechanism and lifting mechanism with four steel wire ropes. The switching mechanism drives the grab to close to grab materials. When the grab is closed, the lifting mechanism shall be started immediately to hoist the four evenly loaded steel wire ropes. Discharging only needs to start the switching mechanism, which opens the grab to pour materials.

Except the lifting mechanism, the crane is basically the same as the bridge crane with hook.

QL ELECTRIC BRIDGE CRANE WITH CARRIER-BEAM

QL型电动挂梁桥式起重机

QL型挂梁桥式起重机适用于吊运较长的型钢、棒料、板材、废钢、盘圆等，吊钩和挂梁可拆连接，下面配置电磁吸盘或夹钳或特殊群钩进行吊装，挂梁布置形式分垂直于主梁或平行于主梁两种。

QL bridge crane with carrier-beam is applicable to hoisting long section steel, bars, plates, scrap steel, mill coil and so on. The hook and carrier-beam are releasable connection. They are furnished with electromagnetic chuck or clincher or special group hook underneath to hoist things. There two layout forms of carrier-beam: perpendicular to the girder or parallel to the girder.



LH DOUBLE-GIRDER CRANE WITH ELECTRIC HOIST

LH型电动葫芦双梁起重机



LH型电动葫芦双梁起重机由箱形桥架、大车运行机构、小车、电气设备四部分组成，采用固定式电动葫芦安装在小车架上作起升机构，小车运行采用LD型传动，大车运行分LD型传动和QD型传动两种。结构简便轻巧，具有整体高度小，自重轻等特点，适用于中小起重重量范围内的厂矿、车间及仓库等工作场所。

操作方式设有地面手柄、无线遥控和司机室三种操作形式。驾驶室有开式、闭式两种。

LH double-girder crane with electric hoist consists of box-shaped bridge, trolley travelling mechanism, crab and electric equipment. It employs fixed electric hoist which is fitted on crab frame as hoisting mechanism. The crab uses LD drive to run, while the trolley adopts LD drive or QD drive. The structure, simple and convenient, features low entire height and light dead weight, so that it is applicable to operational sites of medium and small lifting load such as factories and mines, workshops and warehouses.

It has three operation modes: ground handle, wireless remote control and cab. The cab has two types: open cab and closed cab.



QY OVERHEAD ISOLATION CRANE

QY型绝缘桥式起重机

QY型绝缘桥式起重机的结构形式与吊钩桥式起重机基本相同，只是为了防止在工作过程中，带电设备有可能通过被吊运的物件传到起重机上，危及司机的生命安全，故在吊钩组、小车架、小车轮（或者在小车轨道下）三个部位，设置了三道绝缘装置。绝缘材料多采用环氧酚醛玻璃布板。适用在冶炼铝、镁的工厂。



QY overhead isolation crane is basically the same as bridge crane with hook in terms of structural style. To avoid the charged equipment which may conduct electricity to the crane by hoisted articles from endangering the driver's life, insulation equipment is set on the hook group, crab frame, crab wheel (or under the crab rails). The insulation material is usually epoxy phenol aldehyde glass cloth laminated board. The crane is applicable to aluminum and magnesium smelting factories.



NEW TYPES OF CRANES

新型桥式起重机

KSQ型桥式起重机

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、高精度齿轮副，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。



KSQ Bridge Crane

Design, production and inspection carry out the last issued relevant national standard, equivalently adopts some foreign criteria including FEM, DIN and IEC. Compared with the general QD bridge crane, its weight is reduced by about 15~30%, the maximum wheel pressure is reduced by about 10~35%, which can reduce the requirements of crane for factory building structure and reduce production cost. As the core component of driving mechanism, reducer gear pair with hard tooth surface and high accuracy, together with steel reel, forged wheel and variable-frequency speed regulating system, which makes this type of crane become renewal product of traditional general bridge crane and applied in industry of machinery production, assembling, petrochemicals, warehouse logistics, electric power construction, papermaking and railways.

KSSL型电动葫芦桥式起重机

KSSL型电动葫芦桥式起重机采用新型电动葫芦作为起升机构，大、小车运行采用三合一驱动形式，整体外形尺寸小，自重轻。

新型电动葫芦采用C型结构，减速器。起升电机，减速器、卷筒和起升限位开关的一体化紧凑型设计节约了用户的使用空间。标准的导线器采用耐磨性强和自润滑性能好的工程塑料加工而成。



起升电机采用双绕组鼠笼式变极电机，实现1:6的快慢速比。配备了双碟电磁盘式制动器。制动器集成在电机的末端，当电机断电时制动器会自动闭合，防止负载滑落。制动器的刹车间隙在首次设定好后无需人工调节（间隙可通过刹车弹簧自行调节），当刹车片厚度低于设定值时通过附加的监控开关可以自动报警，提示用户进行更换。双碟电磁盘式制动器安全可靠，制动次数可达100万，在安全使用周期内无需维护。

运行机构采用“电动机+减速箱+走轮”三合一结构，结构紧凑，配合变频调速系统，启动平稳无冲击，大大降低了吊重物在运行过程中的摇晃，增强了操作的安全性。重载慢速，轻载快速，提高了生产效率。

KSSL Electric Hoist Bridge Crane

KSSL Electric Hoist Bridge Crane uses new electric hoist as hoisting mechanism. Crane and trolley use three-in-one form and the overall boundary dimension is small and it also is light.

New electric hoist uses reducer with C-type structure. The integration compact design of lifting motor, reducer, coiling block and lifting limit switch saves space for user. Standard rope guide is made by using engineering plastics with strong abrasive resistance and good self-lubricating property.

Lifting motor uses duplex winding squirrel-cage pole-changing motor and can achieve speed ratio of 1:6. It is equipped with double disc electromagnetic disc brake which is integrated in the end of motor. When the motor power goes off, the brake will close automatically to avoid creeping down of load. Braking clearance of brake doesn't need to be adjusted manually after set for the first time (the clearance can be adjusted automatically through brake spring). When the thickness of brake pad is lower than the set point, it can give an automatic alarm through additional monitor switch and remind user to change the brake pad. Being safe and reliable, double disc electromagnetic disc brake can make 1 million times braking and it doesn't need maintenance during the safe service life.

Running mechanism is compact in structure by using "electromotor+ reduction box+ travelling wheel" three-in-one structure. By coordinating with variable-frequency speed control system, the starting is stable and has no shock, largely reducing shaking during hoisting heavy and enhancing safety of operation. Low speed with heavy load and high speed with light load improves production efficiency.

LDA, LDC, LX ELECTRIC SINGLE-GIRDER CRANE

LDA、LDC、LX型电动单梁起重机

LDA型电动单梁起重机由钢板与工字钢组焊成的主梁、端梁、电动葫芦及运行机构组成，电动葫芦沿主梁工字钢下翼缘运行，完成物品的吊运工作，具有结构轻巧、安装维护方便等特点，广泛应用于工厂、仓库、料场等不同场合吊运货物，禁止在易燃、易爆、腐蚀性介



质环境中使用。跨度为7.5~22.5m(可根据用户要求进行非标设计)，工作级别为A3，工作环境温度为-25℃~40℃。

操作方式设有地面手柄、无线遥控和司机室三种操作形式。驾驶室有开式、闭式两种。

运行电机可根据用户要求选用软启动电机和变频调速，起重机启动平稳，运行安全可靠。

LDA electric single-girder crane is composed of girder weld by steel plate and I-steel, end girder, electric hoist and travelling mechanism. The electric hoist runs along the lower flange of the I-steel of the girder to accomplish article hoisting. It features light structure and easy installation and maintenance, and is widely used for different places for hoisting such as factories, warehouses and material yards. It is prohibited to use in the environment with inflammable, explosive and corrosive media. The span of it is 7.5~22.5m (subject to non-standard design according to user's requirements). The classification group is A3, and the operating ambient temperature is -25℃~40℃.

It has three operation modes: ground handle, wireless remote control and cab. The cab has two types: open cab and closed cab.

The travelling motor can be soft start motor and variable-frequency adjustable-speed motor according to user requirements. The crane can start steadily and runs safely and reliably.



LDC型电动单梁起重机由钢板组焊成的箱型主梁、端梁、电动葫芦及运行机构组成，主梁下翼缘板（材质16Mn）作为电动葫芦运行轨道，完成物品的吊运工作。电动葫芦为低净空结构，可有效提升起升高度，适用于厂房低、起升高度要求高的场所。

LDC electric single-girder crane is composed of box-shaped girder weld by steel plates, end girder, electric hoist and travelling mechanism. The lower flange (material 16Mn) of the girder is the travelling orbit of electric hoist to accomplish article hoisting. The electric block, of low headroom structure, can effectively increase the lifting height, so that it is applicable to the places where the workshop is low and the requirement of lifting height is high.



LX型电动单梁悬挂起重机由钢板与工字钢组焊成的主梁、端梁、电动葫芦及电动跑车组成，悬挂在厂房上部的工字梁轨道上，悬臂长度0.5~1m，电动葫芦沿主梁工字钢下翼缘运行，完成物品的吊运工作，具有结构轻巧、安装维护方便等特点，广泛应用于生产车间、仓库及货场等场所。跨度为3~16m（可根据用户要求进行非标设计），工作级别为A3，工作环境温度为-25℃~40℃。

LX electric single-girder suspension crane is composed of girder weld by steel plate and I-steel, end girder, electric hoist and electric trolley. It can be hung on the I-beam orbit on the top of the workshop, with the cantilever of 0.5~1m long. The electric hoist runs along the lower flanges of the I-steel of the girder to accomplish article hoisting, featuring dexterous structure and easy installation and maintenance. It is widely used for such places as workshops, warehouses and stock yards. The span of it is 3~16m (subject to non-standard design according to user's requirements). The classification group is A3, and the operating ambient temperature is -25℃~40℃.

LDP ELECTRIC SINGLE-GIRDER CRANE

LDP型电动单梁起重机

LDP型电动单梁起重机属于超低净空小型起重机，电动葫芦位于主梁的一侧，增加了吊钩的工作空间，可以降低厂房高度和造价。适用于车间厂房净空高度较低的场所。

本产品由钢板组焊成的箱形主梁、端梁、小车及运行机构组成，小车由运行端梁、小车架及固定式电动葫芦组成，采用偏挂形式，在主梁一侧运行，葫芦位置由传统的主梁下提升到主梁上侧，有效提高了起升高度。



小车运行采用锥型电机制动，开式齿轮传动。

主梁为箱型结构，偏轨，上、下设水平轮，安全可靠，并可防止啃轨。

小车运行采用分别驱动形式，锥型电机制动，开式齿轮传动。运行电机可根据用户要求选用软启动电机和变频调速，起重机启动平稳，运行安全可靠。

操作方式设有地面手柄、无线遥控和司机室三种操作形式。驾驶室有开式、闭式两种。

跨度为7.5~22.5m（可根据用户要求进行非标设计），工作级别为A3，工作环境温度为-25℃~40℃。

LDP electric single-girder crane is a small-size low headroom crane. The electric hoist is at one side of the girder, which increases the work space of the hook and reduces the workshop height and cost. It is applicable to the places where the workshop's headroom is low.

The crane is composed of box-shaped girder welded by steel plates, end girder, crab and travelling mechanism. The crab consists of travelling end girder, crab frame and fixed electric hoist. The crab is partially hung and runs on one side of the girder. The electric hoist is raised to the upside of the girder from under the girder, which effectively increases the lifting altitude.

The crab is braked by conical motor and driven by exposed gear.

The girder, of box-shaped structure and bias rails, has horizontal wheels at the upper and the lower, so that it is safe and reliable and can avoid rail gnawing.

The trolley adopts separate drive, conical motor brake and exposed gear drive. The travelling motor can be soft start motor and variable-frequency adjustable-speed motor according to user requirements. The crane can start steadily and runs safely and reliably.

It has three operation modes: ground handle, wireless remote control and cab. The cab has two types: open cab and closed cab. The span of it is 7.5~22.5m (subject to non-standard design according to user's requirements). The classification group is A3, and the operating ambient temperature is -25℃~40℃.



ELECTRIC HOIST

电动葫芦

电动葫芦是一种轻小型起重设备，具有体积小，自重轻，操作简单，使用方便等特点，用于工矿企业，仓储码头等场所。

Electric hoist is small lifting equipment, featuring small volume, light dead weight, easy operation and convenient use. It is used for such places as industrial and mining establishments and warehouses and wharfs.



NEW TYPES OF ELECTRIC HOIST

新型电动葫芦

采用德国进口的起升电机，减速器。起升电机，减速器、卷筒和起升限位开关的一体化紧凑型设计节约了用户的使用空间。模块化设计在增强了机构的可靠性的同时有效降低了维护时间和成本。

具有更快更多的起吊速度和多种滑轮倍率可供选择。标准小车运行机构采用变频器控制，速度达到20米/分，使小车行走时吊运物品摆动小、定位精确，可安全可靠地吊运精密贵重物品。

It employs motor of hoisting mechanism and reducer imported from Germany. The integrated and compact design of hoisting motor, reducer, reel and limit switch saves space for the user. Modular design increases the reliability of mechanism meanwhile reduces the time and cost for maintaining.

It has more and faster hoist speed and various pulley ratio which can be selected. The standard traveling mechanism of trolley is controlled by converter, with speed of 20m/min, which makes a little swing and accurate position if hoisting items while trolley traveling as well as lifts precision and valuable items reliably.

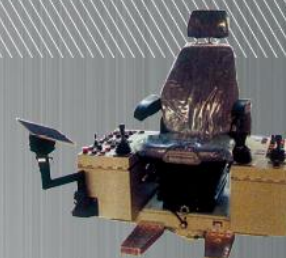


配套电器

Supporting Electric Equipment



KT系列交流凸轮控制器
KT-series AC cam controller



联动控制台
linkage console

抓斗系列

Grab series



马达抓斗
Motor grab



马达抓斗
Motor grab



U45抓斗
U45 Grab



四绳抓斗
Four rope grab



四绳抓斗
Four rope grab



耐磨装置抓斗
Wear-resistant device grab

司机室 Cab



系列起重机司机室，适用于桥式双梁起重机，葫芦双梁起重机，电动单梁起重机，门式起重机的配套产品。可广泛用于冶金、矿山、起重运输机械等行业中。

我公司生产的系列起重机司机室分为双梁，葫芦双、单梁三大类，共有54个品种。可根据用户要求，加装走台，联接架，司机室内单层装修，加装保温层、安装空调器、配置联动台、按钮箱、遥控器、脚踏开关装置等。司机室内的电器、控制系统和操作系统全部配套齐全。

The series of crane cab are applicable to double-girder bridge cranes, double-girder crane with block, electric single-girder crane and auxiliary products of gantry crane, and can be widely used in such industries as metallurgy, mines and hoisting transport machinery.

The series of crane cab of our company fall into three categories: double girder, double girder with block and single girder with block, including 54 varieties. They can, as required, be additionally equipped with platform, hitch, single-layer fitment, insulating layer, air conditioner, linked console, button box, controller, foot switch and so on. The electric equipment, control system and operating system in the cab are completely provided.



双梁起重机附件采用喷塑工艺
Double girder crane attachments using spray technology

型号	1	B2	B1
QSS/B-N	1600	1240	1380
QSS/B-O	1400	1220	1220
QSS/K-N	1600	1240	1380
QSS/K-O	1400	1400	1220

滑触线 Trolley line



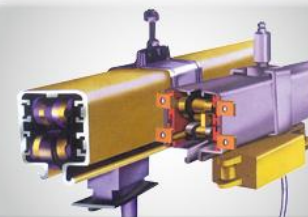
HFS系列增强PVC多极滑触线
HFS-series reinforced PVC multipolar trolley line



无接头滑触线
Connector-free trolley line



极数：单极组合（任意） 电压：660V
最大电流：80A
适用范围：室内自动电动葫芦、家电行业检测线、起重机小车
Number of poles: monopole combination (random) Voltage: 660V
Maximum current: 80A
Scope of application: indoor automatic electric blocks, detection lines of household electrical appliances, crane crabs



外壳：塑料、铝合金 极数：4极
电压：660V 电流：80~160A
适用范围：室内外各类中小型起重机及其它电气设备
Shell: plastic, aluminum alloy Number of poles: 4
Voltage: 660V Current: 80~160A
Scope of application: middle- and small-sized indoor and outdoor cranes and other electric equipment

葫芦配件 Electric hoist fittings



电动葫芦配件
Electric hoist fittings



电动葫芦减速度器
Electric hoist reducer

联轴器 Coupling



型号	许用转矩 [T] N.m	许用转速 R.min ⁻¹	轴孔直径 d1、d2、dz		型号轴孔长度L		A	B	D	D ₁	D ₂	C	C ₁	C ₂	E	转动惯量 kg.m ²	质量 kg
			Y型	J1,Z1型	Y型	J1,Z1型											
CL1	710	3780	18、19、20、 22、24、25、 28、30、32、 35、38、40	42	30	49	106	170	110	55	16	18.5	18.5	12	0.03	7.8	
				52	38												
				62	44												
				82	60												
CL2	1400	3000	30、32、35、38 40、42、45 48、50	82	60	75	134	185	125	70	2.5	13	22	2	0.05	12.5	
				12	84												
				28													
CL3	3150	2400	40、42、45 48、50、55、56 60	112	84	92	170	220	150	90	2.5	15	28	18	0.13	26.9	
				36													
CL4	5600	2000	45、48、50 55、56 60、63、65、70 71、75	112	84	125	200	250	175	110	2.5	21	28	18	0.21	34.9	
				36													
				17	36												
CL5	8000	1680	50、55、56 60、63、65、70 71、75 80、85、90	112	84	145	220	290	200	130	5	30	40	25	0.45	55.8	
				142	107												
				172	132												
				142	107												
CL6	11200	1500	60、63、65 70、71、75 80、85、90、95 100、110	142	107	160	246	320	230	140	5	25	25	0.70	79.9		
				132	167												
				107	167												
CL7	18000	1270	65、70、71、75 80、85、90、95 100、110、120	142	107	185	286	350	260	170	5	40	40	30	1.15	109.5	
				132	167												
				167	167												
CL8	22400	1270	80、85、90、95 100、110、120 130、140	172	132	210	325	380	315	190	5	35	45	30	2.33	133.8	
				167	202												
				202	202												
CL9	28000	1000	90、95 100、110、 120、1253 130、140、150 160	172	132	220	335	430	365	210	5	40	30	30	3.55	171	
				167													
				202	202												
				242													



序号	Y与J式轴孔		Z式轴孔		允许最大 扭矩(T) N.m	允许最大 转速 r.min ⁻¹	模数 m	齿数 z	尺寸								最大 质量 kg	飞轮 矩 kg.m ²			
	α _{min}	α _{max}	α _{min}	α _{max}					α _{min}	α _{max}	D	D ₁	D ₂	L ₁	L	C			l	L ₁	L ₂
1	18	40	18	60	30	38	710	3780	2.5	30	200	110	55	150.5	95	2.5	55	50~110	55~85	20.2	0.38
2	30	50	30	70	40	65	1400	3000	2.5	38	200	125	70	167.5	95	2.5	70	70~110	80~105	19.4	0.42
3	30	50	40	90	40	70	1400	3000	2.5	38	300	125	70	217.5	145	2.5	70	70~110	80~105	27.6	1.28
4	40	60	40	90	50	70	3150	2400	3	40	300	150	90	230.5	145	2.5	85	70~110	85~105	39	1.8
5	40	60	45	100	60	90	3150	2400	3	40	400	150	90	270.5	185	2.5	85	85~130	105~130	67	5.2
6	45	75	45	100	60	90	5600	2000	3	48	300	175	110	254.5	145	2.5	105	105~130	105~130	54	6.4
7	45	75	50	120	70	110	5600	2000	3	48	400	175	110	294.5	185	2.5	105	105~165	105~165	72	6.7
8	50	90	50	120	80	110	8000	1680	3	56	400	200	130	305.5	185	5	114	115~165	130~165	109	8.53
9	50	90	50	120	60	130	8000	1680	3	56	500	200	130	325.5	205	5	115	115~200	105~200	138	16.3
10	50	90	60	150	90	160	8000	1680	3	56	600	200	130	330.5	210	5	115	115~200	135~200	178	35
11	65	120	65	150	90	160	19000	1270	4	56	600	260	170	381.5	250	5	165	165~240	165~240	218	35

序号	许用转矩 [T] N.m	许用转速 R.min ⁻¹	轴孔直径 d1、d2		型号轴孔长度L		D ₀	D ₁	B	α ₃	l	转动惯量 kg.m ²	质量 kg	许用位移		
			Y型	J ₁ 型	Y型	轴向 Y								角向 α		
ZLL1	250	41000	16、18、19	42	160	98	68	10	18	0.022	7	0.15	+1			
			20、22、24	52 38												
			25、28	62 44												
			30、32、(35)、(38)	82 60												
ZLL2	630	3800	25、28	62	200	124	85	15	25	0.063	12.6	0.24	30.4			
			30、32、35、38	82 60												
ZLL3	1600	3000	40、42、(45)、(48)	112 84	250	166	105	20	35	0.65	52.4	0.2	+3			
			40、42、45、48、50	142 107												
			55、56	112 84												
ZLL4	4000	2400	60、(63)、(65)、(70)	142 107	315	214	132	30	45	1.03	81.3	0.2	+5			
			50、55、56	112 84												
ZLL5	6300	1900	60、63、65、70、71、75	142 107	400	240	168	30	45	4.4	139.8	0.2	+5			
			80、(85)、(90)	172 132												
ZLL6	10000	1500	80、85、90、95	172 132	500	280	210	30	45	12.8	257	0.2	+5			
			100、110、(120)	212 167												
			80、85、90、95	172 132												
ZLL7	16000	1200	100、110、120、25	212 167	360	330	265	35	50	12.8	257	0.2	+5			
			130	252 202												

生产设备 Production Equipment

拥有各类加工设备1300台(套),能独立完成制造、化验及热处理等全部工艺流程。公司新式葫芦项目,初期投入2亿元,现已建成标准化恒温车间12000平米,购进韩国斗山五轴三联动加工中心、斗山CMJ立式加工中心、北极XHAE788精密立式加工中心等先进设备,建成投产后可年产新式葫芦6000台,产品性能达到国际标准。

Having various processing equipment of 1,300 sets, the company can independently complete the whole technological process of manufacturing, assay, heat treatment, etc. The company is now launching a new hoist project, into which about RMB 200 million has been initially invested. The company now has built 12,000m² standard constant temperature workshops and has purchased advanced equipment like Korea Doosan five-axis simultaneous motion machining centers, Doosan CMJ vertical machining centers and Beiji XHAE788 precision vertical machining centers.

When completed and put into service, the project can produce 6,000 new-type hoists, whose performance meet international standards.



新型起重机数控机加工中心
Machining center of New Types of Cranes numerical control machine



生产
设备 Production
Equipment



机加工车间
Machine shop



大型插齿机
Large-sized gear shaper



关注市场动态 狠抓产品质量 争创世界一流

新型单梁无焊缝起重机 New single-girder weldless crane>>



大型钢板预处理抛丸机
Large-sized steel plate pretreatment shot-blasting machine



电动葫芦自动喷漆流水线
Automatic paint-spraying assembly line of electric hoist



中频淬火设备
Medium-frequency quenching equipment



淬火设备
Quenching equipment



U型槽一次成型生产线 One-time-forming production line of U-shape groove



侧板一次成型生产线 One-time-forming production line of lateral plates

U型槽高精度冷弯一次成型, 免除传统生产中的打磨、切割、焊接等诸多繁琐生产流程, 减少了单梁起重机主梁在搬运过程中的变形, 保证了单梁起重机主梁的精度, 减少了焊接应力, 在运行中减少了焊缝疲劳。同时极大增强整机强度, 提高工作效率, 提高起重机外观质量。

U-shape groove's forming at one time by high-accuracy cold bending exempts many complicated production flows in traditional mode of production, such as burnishing, cutting and welding, reduces distortion of the girder of single-girder cranes in conveying, guarantees the girder's accuracy of single-girder cranes, decreases the welding stress and weld fatigue in action, and at the same time greatly increases the complete machine's strength, improves the work efficiency and better the crane's apparent quality.



单梁焊接机械手 Single-girder welding manipulator



Keep an eye on the market trend; make great efforts to improve quality; strive to be the No. 1 across the world

关注市场动态 狠抓产品质量 争创世界一流



600吨桥式起重机试验台 600t bridge crane test bed



电动葫芦试验台 Electric hoist test bed

公司设备一览表

List of the company's equipment

通用设备 General-purpose equipment

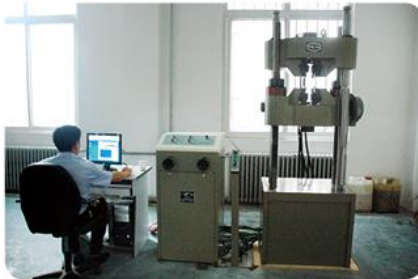
设备种类	设备名称	规格型号	数量	备注	设备种类	设备名称	规格型号	数量	备注
金切类	金石机器人	HUB10	8	韩国进口	金切类	铣钻镗	U1145	1	
金切类	斗山机器人	-	1	韩国进口	金切类	牛头刨床	BC6030	1	
金切类	卧式车床	C620	1		金切类	牛头刨床	B665	3	
金切类	卧式车床	CD6140A	7		金切类	牛头刨床	P3-650	1	
金切类	卧式车床	CA6140	5		金切类	牛头刨床	BY60100B	8	
金切类	卧式车床	C6240	1		金切类	液压牛头刨床	1000mm	1	
金切类	卧式车床	CS6140	1		金切类	插床	B5032	2	
金切类	卧式车床	CW6163B	13		金切类	木工多用机床	ML292E5	1	
金切类	卧式车床	CW6180B	4		金切类	金属带锯床	G4028	3	
金切类	卧式车床	CW6280B	1		金切类	金属带锯床	G4240/50	2	
金切类	卧式车床	CW61100B	10		金切类	金属带锯床	G4030	1	
金切类	卧式车床	CW61190	1		金切类	数控锯床	SA-77NC	1	
金切类	卧式车床	CW6100B	13		金切类	内圆磨床	M2120	1	
金切类	卧式车床	CFW6163B	4		金切类	曲轴磨床	M08260	1	
金切类	卧式车床	CFW61125B	2		金切类	砂轮机	M3025	14	
金切类	卧式车床	CW61125B	12		金切类	砂轮机	M3225-B	1	
金切类	卧式车床	CW61190L	1		金切类	砂轮机	MS-250Z	1	
金切类	卧式车床	CFW61125B	4		锻压类	压力机	50T	7	
金切类	数控车床	CKA6163	10		锻压类	压力机	100T	4	
金切类	数控车床	CKP6142	10		锻压类	压力机	50+50T	1	
金切类	数控车床	PUMA VT900	1	韩国进口	锻压类	压槽机	100T	2	
金切类	数控车床	PL-400	1		锻压类	压槽机	200T	1	
金切类	龙门数控车床	LYNX235	1	韩国进口	锻压类	冲床	J23-10T	2	
金切类	半自动拉床	L-30B	2		锻压类	冲床	J23-23/25T	1	
金切类	卧式液压拉床	LYW-25	1		锻压类	冲床	J23-15T	1	
金切类	台钻	Z4125B	4		锻压类	冲床	J21-125-SM	3	
金切类	立钻	Z5150	1		锻压类	冲床	JH21-200	5	
金切类	磁力钻	JSCJW-32	1		锻压类	冲床	J21-100	4	
金切类	磁力钻	JIZ-CLW-28	1		锻压类	冲床	JH21-80	3	
金切类	摇臂钻床	Z3132B	22		锻压类	升式倾压力机	J23-40	5	
金切类	摇臂钻床	Z25	1		锻压类	双边成型压力机	LWF-5	1	
金切类	摇臂钻床	Z3040 × 8/1	20		金切类	切割机	JSG-400	26	
金切类	摇臂钻床	Z3050 × 16/1	32		金切类	剪板机	Q11-16 × 2500H	10	
金切类	摇臂钻床	ZQ3040 × 10	1		金切类	剪板机	Q11-8 × 2500H	8	
金切类	万向摇臂钻	Z3132F	1		金切类	剪板机	Q11-3 × 2500H	1	
金切类	万向摇臂钻	Z3132H	1		金切类	液压剪板机	QC12Y-16 × 2500	2	
金切类	万向摇臂钻	Z3132A	2		金切类	联合冲剪机	Q34-16	1	
金切类	可调多轴钻床	KZ2-B3-6	2		金切类	折弯机	WC67Y-100T/3200	2	
金切类	卧式铣镗床	TP × 6111B/2	1		金切类	折弯机	WC67Y-160T/3200	3	
金切类	卧式铣镗床	TP × 6213 × 78	3		金切类	折弯压力机	WC67Y-2000k/320	1	
金切类	铣床	自制	5		金切类	液压折弯机	WC67Y-100/3200	1	
金切类	抛丸机	QXY3200	2		金切类	液压联合冲剪	Q35Y-25	3	
金切类	插齿机	Y54A	4		锻压类	3.2米钢材预处理线	QXY3200	1	
金切类	滚齿机	Y3180K	4		锻压类	开卷、矫平、剪切生产线	4-16 × 2150	1	
金切类	立式升降铣	XD5032A	2		锻压类	冷弯机组	KDLW450	1	单梁成型 生产线
金切类	立式升降铣	X5032	1		锻压类	冷弯机组	LW1800 × 6	2	
金切类	立式加工中心	VMC850E	1		锻压类	纵横剪切收卷线	(3-12) mm × 2200mm × 11辊	1	
金切类	立式加工中心	VMC850	1		锻压类	联合冲剪	Q25Y-20	1	
金切类	立式加工中心	XHAE788	1		锻压类	联合冲剪	Q25Y-25	1	
金切类	立式加工中心	TH5656L	1		锻压类	抛丸清理机	CW6180B	1	
金切类	立式加工中心	CMV920	2		锻压类	工字钢校正机	自制	1	
金切类	卧式加工中心	HM800	1	韩国进口	锻压类	折弯机	WB67Y	1	微机控制
金切类	钻铣床	ZX6350C	1		锻压类	滚齿机	GHO350A	1	韩国进口
金切类	数控钻铣床	ZXK50	2		锻压类	滚齿机	GHO200	1	韩国进口
金切类	铣床	自制	1						
金切类	端面铣床	XD3000	5						



超声波探伤仪
Ultrasonic flaw detector



X射线探伤仪
X-ray flaw detector



理化实验室
Physical & chemical lab

公司设备一览表

List of the company's equipment

专用设备 Special equipment

设备种类	设备名称	规格型号	数量	备注
专用设备	焊接机器人	-	20台	
专用设备	涂装流水线	NGP-22B	3条	
专用设备	葫芦试验台	自制	1台	
专用设备	可控硅整流焊	ZX5-630	45	
专用设备	可控硅整流焊	ZX5-1000	1	
专用设备	晶闸管整流焊	ZX5-630Y	1	
专用设备	交流焊机	Bx1-500F-3	520	
专用设备	交流焊机	Bx6-250	12	
专用设备	直流焊机	Bx7-500	10	
专用设备	直流焊机	Bx7-200	10	
专用设备	点焊机	DN1-25	10	
专用设备	半自动割	CG1-30	55	
专用设备	仿形切割机	CG2-150	30	
专用设备	数控切割机	GSZ-4000	4	
专用设备	等离子气割	LGK-100	10	
专用设备	磁力切割机	CG2-11	10	
专用设备	多头直条切割机	GZ-4000	10	
专用设备	数控切割机	CNC-4000	10	
专用设备	CO ₂ 气体保护焊	NB-500K	20	
专用设备	多功能弧焊机	ZD5-630	15	
专用设备	多功能弧焊机	ZD5-1000	6	
专用设备	多功能弧焊机	ZD7-630IGBT	13	
专用设备	CO ₂ 气体保护焊	NB-315ZGBT	40	
专用设备	炭弧气割	ZX5-630	10	
专用设备	空气压缩机	W-0.7/12.5	10	
专用设备	空气压缩机	W-0.9/8	10	
专用设备	焊条烘干机	ZYHC	10	
专用设备	加热器	自制	10	

起重设备 Hoisting equipment

设备种类	设备名称	规格型号	数量	备注
起重设备	电动单梁	LD5t-11.5m	20	自制
起重设备	电动单梁	LD3t-11.5m	10	自制
起重设备	电动单梁	LD5t-10.7m	15	自制
起重设备	电动单梁	LD10t-29m	2	自制
起重设备	电动单梁	LD8t-20m	10	自制
起重设备	电动单梁	LD16t-23.48m	10	自制
起重设备	电动单梁	LD5t-23.48m	15	自制
起重设备	电动单梁	LD3t-22.4m	12	自制
起重设备	电动单梁	LD5t-22.4m	12	自制
起重设备	电动单梁	LD10t-22.4m	20	自制
起重设备	电动单梁	LD10t-23.48m	15	自制

设备种类	设备名称	规格型号	数量	备注
专用设备	轴承加热器	自制	12	
专用设备	中频淬火炉	GCLH0660	8	
专用设备	中频淬火炉	800	2	
专用设备	井式电阻炉	RT2-125-1	2	
专用设备	数控横剪生产线	T44(4-16)×2150	4条	
专用设备	数控板料纵横剪切卷线	T44(3-12)×2200	5	
专用设备	台式攻丝机	SWJ-16	4台	
专用设备	箱型梁抛丸清理机	Q1219-12	4台	
专用设备	吊钩抛丸机	Q376	2台	
专用设备	数控插齿机	YK5180B	1台	
专用设备	滚剪倒角机	GD-20	6台	
专用设备	涂装流水线	NGP-22B	5条	
专用设备	可控硅整流焊	ZX5-630	35台	
专用设备	可控硅整流焊	ZX5-1000	5台	
专用设备	交流焊机	BX1-500-2	202台	
专用设备	点焊机	DN1-20Q	10台	
专用设备	激光切割机	BCL1325YB	2台	国内领先
专用设备	二保焊机	NB-500K	90台	
专用设备	二保焊机	NB-500IGBT	395台	
专用设备	二保焊机	MIG-500N	180台	
专用设备	二保焊机	NB-315IGBT	120台	
专用设备	多特性埋弧焊	MZ-1000N	29台	
专用设备	龙门自动焊	LMZ-20	2套	
专用设备	齿轮加热器	ZJB-30	6台	
专用设备	齿圈感应淬火机床	GCK13120	1台	
专用设备	热处理生产线	UBE-600	1条	国内领先
专用设备	V法铸造生产线		2条	
专用设备	起重钢板生产线	12067	1条	

设备种类	设备名称	规格型号	数量	备注
起重设备	吊钩桥式起重机	QD10/3.2t-34.5m	13	自制
起重设备	吊钩桥式起重机	QD20/10t-34.5m	14	自制
起重设备	电动葫芦双梁	LH16+16t-34.5m	13	自制
起重设备	电动葫芦双梁	LH32t-34.5m	12	自制
起重设备	电动葫芦双梁	LH32t-28.5m	10	自制
起重设备	花架龙门	MH10t-21.89m	20	自制
起重设备	L型葫芦门式起重机	LH16+5t-15.9m	10	自制
起重设备	花架龙门	MH16+5t-15.9m	12	自制
起重设备	L型葫芦门式起重机	LH10+10t-22m	10	自制
起重设备	花架龙门	MH16+16t-22m	10	自制
起重设备	花架龙门	MH16+10t-30m	20	自制

公司设备一览表

List of the company's equipment

设备种类	设备名称	规格型号	数量	备注
起重设备	花架龙门	MH16+16t-30m	10	自制
起重设备	L型葫芦门式起重机	LH16+10t-30m	8	自制
起重设备	包厢龙门	MH16t-11.2m	12	自制
起重设备	L型葫芦门式起重机	LH20+16t-38m	10	自制
起重设备	花架龙门	MH16+10t-38m	5	自制
起重设备	偏挂龙门	MDG20+20t-22m	5	自制
起重设备	偏挂龙门	MDG20/5t+20t-22m	6	自制
起重设备	双主梁龙门	MG20/5t-22m	8	自制
起重设备	包厢龙门	MH10t-24m	5	自制
起重设备	花架龙门	MH16+16t-38m	5	自制
起重设备	L型葫芦门式起重机	MH16+16t-30m	9	自制
起重设备	包厢龙门	MH16+16t-22m	5	自制
起重设备	偏挂龙门	MDG32/5t+32t-30m	2	自制

检测设备 Testing equipment

设备种类	检测器具名称	规格型号	备注
检测设备	超声波探伤仪	PXUT-350+	
检测设备	超声波测厚仪	MT160	
检测设备	多用磁粉探伤仪	CDX-II	
检测设备	X射线探伤仪	XXQ-2005	
检测设备	红外测温仪	AR862D+	
检测设备	手持测距仪	PD-23	
检测设备	绝缘电阻表	ZC25-3	
检测设备	接地电阻测试仪	ZC29B	
检测设备	万用表	ATW890D	
检测设备	声级计	HS5920A	
检测设备	声级计	HS5633	
检测设备	钳形表	DT266	
检测设备	经纬仪	FDT2GS	
检测设备	涂层测厚仪	CM-8820	
检测设备	水准仪	DZS3-2T	
检测设备	水准仪	DS3E	
检测设备	水准仪	AL10	
检测设备	里氏硬度计	TH140	

设备种类	设备名称	规格型号	数量	备注
起重设备	A型花架龙门	MG32/5+32+16t-30m	2	自制
起重设备	L型葫芦门式起重机	LH16+16t-22m	5	自制
起重设备	L型葫芦门式起重机	LH16+16t-30m	5	自制
起重设备	半龙门	MB16+16t-32.45m	5	自制
起重设备	偏挂龙门	MDG32/5t-30m	2	自制
起重设备	花架龙门	MH16+10t-26m	5	自制
起重设备	液压升降平台	SJY10m	10	伟业 矿山
起重设备	车载式液压平台	SJY12m	5	豫起 矿山
起重设备	车载式液压平台	SJY14m	5	河南 远东
起重设备	叉车	CPC30E	25	江苏 靖江
起重设备	叉车	CPCD100E	12	上海 恒通

设备种类	检测器具名称	规格型号	备注
检测设备	转速表	DT-2587	
检测设备	电子秒表	JS-306	
检测设备	扭力扳手	0-500N/m	
检测设备	管型测力计	LTZ-30	
检测设备	游标卡尺	0-150mm / 0-1500mm	
检测设备	深度游标卡尺	0-150 mm	
检测设备	深度游标卡尺	0-200mm	
检测设备	电子数显游标卡尺	0-300 mm	
检测设备	高度游标卡尺	0-300 mm	
检测设备	齿厚游标卡尺	m1-26	
检测设备	公法线千分尺	0-25 mm	
检测设备	公法线千分尺	25-50 mm	
检测设备	公法线千分尺	50-75 mm	
检测设备	公法线千分尺	75-100 mm	
检测设备	公法线千分尺	100-125mm	
检测设备	公法线千分尺	125-150mm	
检测设备	外径千分尺	0-25 mm / 200-225mm	

设计制造标准及检验验收标准

Standard of design and manufacture, and standard of inspection and acceptance

钢丝绳电动葫芦设计制造标准

Standard of design and manufacture of steel-wire-rope electric hoist

- 1、GB3811 起重机设计规范
- 2、GB6067 起重机械安全规程
- 3、JB/T9008.1~9008.2 钢丝绳电动葫芦

检验、验收标准

Standards of inspection and acceptance

- 1、JB/T9008.1~9008.2 钢丝绳电动葫芦

电动单梁悬挂起重机设计制造标准

Standard of design and manufacture of electric single-girder suspension crane

- 1、GB3811 起重机设计规范
- 2、GB6067 起重机械安全规程
- 3、JB/T2603 电动单梁悬挂起重机

电动单梁悬挂起重机检验、验收标准

Standard of inspection and acceptance of electric single-girder suspension crane

- 1、JB/T2603 电动单梁悬挂起重机
- 2、GB6067 起重机械安全规程
- 3、GB5905 起重机试验规范和程序
- 4、GB5972 起重机械用钢丝绳检验和报废实用规范
- 5、GB10051.1~5 起重吊钩

LD电动单梁起重机的设计制造标准

Standard of design and manufacture of LD electric single-girder crane

- 1、GB3811 起重机设计规范
- 2、GB6067 起重机械安全规程
- 3、JB/T1306 电动单梁起重机

LD电动单梁起重机检验、验收标准

Standard of inspection and acceptance of LD electric single-girder crane

- 1、JB/T1306 电动单梁起重机
- 2、GB5905 起重机试验规范和程序
- 3、GB6067 起重机械安全规程
- 4、GB5972 起重机械用钢丝绳检验和报废实用规范
- 5、GB10051.1~5 起重吊钩

通用门式起重机设计制造标准

Standard of design and manufacture of general-purpose gantry crane

- 1、GB3811 起重机设计规范
- 2、GB6067 起重机械安全规程
- 3、GB/T14406 通用门式起重机
- 4、GB10183 桥式和门式起重机制造和轨道安装公差
- 5、GB10051.1~5 起重吊钩
- 6、JB/T6128 水电站门式起重机

门式起重机检验、验收标准

Standard of inspection and acceptance of general-purpose gantry crane

- 1、GB/T14406 通用门式起重机
- 2、GB5905 起重机试验规范和程序
- 3、GB10183 桥式和门式起重机制造和轨道安装公差
- 4、GB10051.1~5 起重吊钩
- 5、JB/T6128 水电站门式起重机

LH型电动葫芦桥式起重机设计制造标准

Standard of design and manufacture of LH bridge crane with electric hoist

- 1、GB3811 起重机设计规范
- 2、JB/T3695 电动葫芦桥式起重机
- 3、GB6067 起重机械安全规程

LH型电动葫芦桥式起重机检验、验收标准

Standard of inspection and acceptance of LH bridge crane with electric hoist

- 1、GB6067 起重机械安全规程
- 2、GB5905 起重机试验规范和程序
- 3、GB10183 桥式和门式起重机制造和轨道安装公差
- 4、JB/T9008.1~9008.2 钢丝绳电动葫芦
- 5、JB/T3695 电动葫芦桥式起重机

桥式起重机设计制造标准

Standard of design and manufacture of bridge crane

- 1、GB3811 起重机设计规范
- 2、GB6067 起重机械安全规程
- 3、GB/T14405 通用桥式起重机
- 4、GB10183 桥式和门式起重机制造和轨道安装公差
- 5、JB/T5897 防爆桥式起重机
- 6、JB/T8907 绝缘桥式起重机

桥式起重机检验、验收标准和规范

Standard and specifications of inspection and acceptance of bridge crane

- 1、GB5905 起重机试验规范和程序
- 2、GB6067 起重机械安全规程
- 3、GB5972 起重机械用钢丝绳检验和报废实用规范
- 4、GB10051.1~5 起重吊钩
- 5、GB10183 桥式和门式起重机制造和轨道安装公差
- 6、GB/T14405 通用桥式起重机
- 7、JB/T5897 防爆桥式起重机
- 8、JB/T8907 绝缘桥式起重机
- 9、TSG/Q002 起重机械安全技术监察规范—桥式起重机

架桥机、铸造、冶金起重机设计制造标准

Standard of design and manufacture of bridge erector, casting and metallurgical cranes

- 1、GB3811 起重机设计规范
- 2、Q/HWAQ010 架桥机技术条件
- 3、GB6067 起重机械安全规程
- 4、JB/T7688.15 冶金起重机技术条件铸造起重机
- 5、JB/T7688.1 冶金起重机技术条件通用要求
- 6、JB/T7688.2~14 冶金起重机技术条件

架桥机检验、验收标准

Standard of inspection and acceptance of bridge erector

- 1、GB5905 起重机试验规范和程序
- 2、GB6067 起重机械安全规程
- 3、Q/HWAQ010 架桥机技术条件
- 4、JB/T7688.1~15 冶金起重机技术条件
- 5、GB10051.1~5 起重吊钩

主要外协、外购产品配套厂家一览表

Schedule of supporting manufacturers of purchased and outsourced products

名称 Name	厂家 Manufacturer
起重电机 Crane motor	1、河南矿山软启动 2、南京特种电机厂 3、佳木斯宏力电机有限公司 4、无锡市新大力起重电机厂 5、奔宇电机集团 6、无锡宏泰起重电机厂 1. Henan mine soft start 2. Nanjing Special Motor Factory Co., Ltd. 3. Jiamusi Hongli Motor Co., Ltd. 4. Wuxi New Great Power Electrical Machine Co., Ltd. 5. Benyu Motor Group 6. Wuxi Hongtai Hoisting Machine Co., Ltd.
减速机 Speed reducer	1、河南省矿山起重机械有限公司(矿源牌) 2、江苏泰星减速机(股份)有限公司 3、江苏泰隆减速机厂(股份)有限公司 1. Henan Kuangshan Crane Co., Ltd. (Kuangyuan) 2. Jiangsu Taixing Speed Reducer Co., Ltd. 3. Jiangsu Tailong Speed Reducer Co., Ltd.
制动器 Brake	1、江西华伍制动器股份有限公司 2、焦作制动器股份有限公司 3、焦作市虹发制动器有限公司 4、焦作市虹重工科技发展有限公司 1. Jiangxi Huawu Brake Co., Ltd. 2. Jiaozuo Brake Co., Ltd. 3. Jiaozuo Hongfa Brake Co., Ltd. 4. Jiaozuo Honggao Machinery Manufacture Co., Ltd.
电器 Electric appliance	1、西门子电气 2、深圳市汇川技术股份有限公司 3、施耐德电气(中国)投资有限公司 4、中国正泰电器有限公司 5、环宇集团有限公司 1. Siemens Electric 2. Shenzhen Huichuan technology Limited by Share Ltd 3. Schneider Electric (China) Investment Co., Ltd. 4. China Chint Electric Co., Ltd. 5. Huanyu Group Co., Ltd.
电缆 Cable	1、郑州电缆厂 2、天津电缆厂 3、河南省荣昌电缆有限公司 1. Zhengzhou Cable 2. Tianjin Cable 3. Henan Rongchang Cable Co., Ltd.
钢丝绳 Steel wire rope	1、贵州钢丝绳厂 2、南通钢丝绳厂 3、河南中威钢丝绳厂 1. Guizhou Wire Rope Incorporated Company 2. Nantong Steel Wire Rope Co., Ltd. 3. Henan Zhongwei Steel Wire Rope Co., Ltd.
轴承 Bearing	1、洛阳轴承厂 2、瓦房店轴承厂 3、哈尔滨轴承有限公司 1. Luoyang Bearing Co., Ltd. 2. Wafangdian Bearing Group Corporation 3. Harbin Bearing Co., Ltd.
钢材 Steel	1、邯钢钢铁有限公司 2、安阳钢铁有限公司 3、包头钢铁有限公司 4、莱钢集团 1. Handan Iron & Steel Group Co., Ltd. 2. Anyang Iron & Steel Group Co., Ltd. 3. Baotou Iron & Steel (Group) Co., Ltd. 4. Laiwu Iron & Steel Group

技术部门概况及产品技术保证手段

Introduction to Technical Department and Technical Guarantee Means of Products

河南省矿山起重机械有限公司设有技术部，专职负责本公司各种产品的技术开发工作。本部现有工程技术人员近180人，其中高级工程师9人，工程师71人，助理工程师18人，全部具有大专以上学历，其中部分工程技术人员已从事起重机械专业技术、设计工作长达三十年之久，是一支实力雄厚、经验丰富的技术队伍。

部内现设有定型产品、工艺及装备、非标设计三个大组，分别负责定型产品的图纸管理、工艺规程的编制、工装的设计，以及新产品、非标产品的开发和研制。各车间的专职技术人员归口技术部管理，负责生产现场的技术工作。

性能先进，功能齐全的CAD系统为技术设计工作提供了更加快捷，更加准确的设计办公环境。除此之外，本公司还与西安交通大学等高等院校签订了长期技术合作协议，聘

请多位博士、博士后指导和参与本公司新产品的的设计开发工作，并长期对本公司工程技术人员进行培训，以保证设计开发出的新产品，具有国内乃至国际领先水平。

在设计开发及生产过程中实行主任工程师负责制，各产品均指定主管技术人员管理，图纸的整理、新标准的贯标达标、图纸的更改、发放以及生产过程中出现的技术问题的现场处理、技术资料的建档等，以保证图纸完善、准确、产品的生产符合设计要求。

技术部门除围绕生产、服务生产的全过程外，还承担配合公司经营部门的经营管理，进行技术洽谈，以及售后服务等工作，帮助用户解决处理产品使用中出现的有关问题，保证用户满意。

environment for technical design. Moreover, our company has signed a long-term technical cooperation agreement with such universities as Xi'an Jiaotong University, invites many doctors and post doctorates to instruct and participate in design and development of new products, provides training for the engineering and technical personnel to ensure that the new products are sophisticated both at home and abroad.

Chief engineer responsibility system is carried out in design, development and production. All the products shall be in the charge of the designated responsible technical personnel, who shall be also in charge of drawing arrangement, implementation of new standards, drawing change, distribution and on-site disposal of problems in production, filing of technical data to ensure the drawings are complete and accurate and the production complies with design requirements.

Except focusing on production and serving production, the technical department also coordinates the business operations of the operating division to hold technical talks and provide after-sales service, so as to help users solve problems in use and satisfy them.

The CAD system which has advanced performance and complete functions provides a more convenient and accurate design and working

请多位博士、博士后指导和参与本公司新产品的的设计开发工作，并长期对本公司工程技术人员进行培训，以保证设计开发出的新产品，具有国内乃至国际领先水平。

在设计开发及生产过程中实行主任工程师负责制，各产品均指定主管技术人员管理，图纸的整理、新标准的贯标达标、图纸的更改、发放以及生产过程中出现的技术问题的现场处理、技术资料的建档等，以保证图纸完善、准确、产品的生产符合设计要求。

技术部门除围绕生产、服务生产的全过程外，还承担配合公司经营部门的经营管理，进行技术洽谈，以及售后服务等工作，帮助用户解决处理产品使用中出现的有关问题，保证用户满意。

environment for technical design. Moreover, our company has signed a long-term technical cooperation agreement with such universities as Xi'an Jiaotong University, invites many doctors and post doctorates to instruct and participate in design and development of new products, provides training for the engineering and technical personnel to ensure that the new products are sophisticated both at home and abroad.

Chief engineer responsibility system is carried out in design, development and production. All the products shall be in the charge of the designated responsible technical personnel, who shall be also in charge of drawing arrangement, implementation of new standards, drawing change, distribution and on-site disposal of problems in production, filing of technical data to ensure the drawings are complete and accurate and the production complies with design requirements.

Except focusing on production and serving production, the technical department also coordinates the business operations of the operating division to hold technical talks and provide after-sales service, so as to help users solve problems in use and satisfy them.

起重机主要部件加工工艺

Processing Technology of Major Parts of Cranes

一. 起重机主梁的制作

1. 主梁盖板及腹板在施焊前均由抛丸机进行表面除锈处理, 达到Sa2级, 并立即涂环氧富锌底漆。

2. 主梁腹板下料预制上拱度按二次抛物线原理, 利用计算机辅助设计, 计算各相应高点, 由等离子数控切割机切割下料。

3. 主梁拼焊在专用工作平台上进行, 为减小焊接筋板对盖板和腹板造成变形, 通过实行二人或四人对焊、正确选择焊接电流和速度等办法来保证。

4. 主梁上下盖板的对接焊缝采用埋弧自动焊, 筋板与腹板和盖板的焊接采用CO₂气体保护焊, 主梁四条纵焊缝采用埋弧自动焊焊接。

5. 受拉翼缘板对接焊缝按规定实施超声波或X射线探伤。

6. 桥架翻转采用特制工装, 定位、起吊翻转, 保证加工尺寸精度, 控制箱体变形。

7. 工序根据作业指导书进行, 自检、专检合格后方可转入下道工序。

二. 起重机大车运行机构的制作与安装

1. 大车运行机构的加工件有齿轮联轴器、补偿轴和车轮组。

2. 齿轮联轴器所采用的45#钢坯料及车轮(ZG50SiMn)坯料, 均由经我公司评价确定的合格分包方协作供应并提供材质证明, 并由我公司进行进厂检验。

3. 齿轮联轴器坯料经车削后, 由Y54A插齿机(内齿)或Y38-1滚齿机(外齿)进行齿加工, 加工后的联轴器, 齿形经Q-12、QZ-150齿形检查仪检查合格后, 转入SR的高频电炉对齿面进行高频处理。

4. 车轮经CW6186车床加工后, 经中频炉热处理, 使踏面硬度和淬深达到规定要求。车轮轴与车轮的装配采用油压机压入, 轴与轴承的装配采用轴承加热器加热后安装。

5. 大车运行机构安装后, 进行空运转试验, 分别开动各机构, 做正、反方向运转, 试验的累计时间不少于5min。

三. 起重机小车架的组焊及机构的安装

1. 小车架钢板经等离子数控切割机下料后, 于施工平台上拼接组焊, 小车架底板的平面度及其与支撑立板的垂直度, 靠平尺与框形角尺校验调整。

2. 小车轮轴轴承经车削后, 支撑面由专用工夹具磨削而成, 保证两支撑面绝对垂直, 中心高也在允许公差范围。

3. 传动机构零部件的加工工艺与大车运行机构相同。

4. 车轮组装配后, 将小车吊放在小车实验台上, 调整车轮的垂直偏斜、水平偏斜及轨距, 全部合格后紧固, 推动小车沿轨道往复运行, 观察运行情况, 避免小车出现“三条腿”现象。

5. 起升及运行机构安装后, 进行空运转试验, 分别开动各机构, 做正、反方向运转, 试验的累计时间不少于5min。

I. Fabrication of Crane's Girder

1. The cover plates and webs of the girder shall, before welded, undergo surface de-rusting by shot-blasting machine to Level Sa2, and shall be immediately painted with zinc rich epoxy primer.

2. The prefabricated camber of girder's web banking follows the principle of second-degree parabola and employs computer-aided design (CAD) to compute corresponding high points. The banking is cut by plasma numerical control cutting machine.

3. Girder welding is made on a dedicated platform. To reduce deformation of cover plate and web made by welding reinforcing plate, such methods as two-person or four-person butt welding, correct selection of welding current and speed are employed.

4. Butt weld of the girder's upper and lower cover plates employs automatic submerged arc welding, the welding of reinforcing plate with webs and cover plates uses CO₂ gas shielded welding and the four longitudinal seams of the girder adopts automatic submerged arc welding.

5. The butt weld of tension flange plates shall undergo ultrasonic or x-ray flaw detection as specified.

6. Bridge turnover adopts specially made equipment to locate, hoist and turn. The accuracy of working size shall be ensured and box deformation shall be controlled.

7. The working procedure shall be carried out according to operational instructions. The next procedure shall not begin before self-check is acceptable.

II. Fabrication and Installation of Crane's Trolley Travelling Mechanism

1. The workpiece of trolley travelling mechanism consists of gear coupling, compensating shaft and wheel block.

2. The 45# steel billet used for gear couplings and wheel (ZG50SiMn) blank are provided by the subcontractors who are evaluated by our company qualified. They are equipped with material certificate, and undergo incoming inspection by our company.

3. The gear coupling blank will, after turned, undergo tooth processing by Y54A gear shaper (internal tooth) or Y38-1 gear hobber (external tooth). The processed couplings, after inspected to be acceptable by Q-12, QZ-150 gear testers, will be sent to SR high frequency furnace to make high frequency treatment to the tooth surface.

4. Once machined by CW6186 lathe, the wheel shall undergo heat treatment in an intermediate frequency furnace to let surface hardness and quenching depth reach the specified requirements. The assembly of wheel axle and wheel adopts oil hydraulic press, and the shaft and the bearing are assembled with a bearing heater after they are heated.

5. The trolley travelling mechanism, after installed, shall undergo an idling test, in which all mechanisms are started to do movement in positive and negative directions. The accumulated testing time shall be not less than 5min.

III. Assembly Welding of Crane Crab Frame and Mechanism Installation

1. The crab frame, with its steel plate blanked by plasma numerical control cutting machine, will be welded on the operation platform. The planarity of

the crab's underplate and the perpendicularity of the riser it supports shall be checked and adjusted by leveling rule and frame-shaped square.

2. The crab angle bearing housing, after lathed, has its bearing surface planed by special equipment so as to ensure that the two bearing surfaces are absolutely vertical and the center height is within the allowable tolerance.

3. The processing technic of the parts of transmission mechanism is the same as the trolley travelling mechanism.

4. After the wheel block is assembled, the crab is hoisted onto the crab

experiment table to adjust the wheel's vertical deviation, horizontal deviation and gauge. If they are all up to the standard, the crab shall be pulled to make reciprocating motion, which shall be observed to avoid "three legs" phenomenon.

5. The hoisting and travelling mechanisms, after assembled, shall undergo an idling test, in which all mechanisms are started to do movement in positive and negative directions. The accumulated testing time shall be not less than 5min.

技术开发, 工艺体系, 质量保证概况

Technical Development, Technological System, Quality Warranty

一. 产品的开发和设计

我公司设有技术部专一负责起重机的技术管理和新产品开发和设计, 由具备相应资格的技术人员任职, 项目包括轻小型起重设备, 如: 电动葫芦、电动单梁、电动悬挂起重机; 大型起重设备如: 通用桥式起重机、龙门起重机、防爆、绝缘桥式起重机、冶金桥式起重机、装卸桥机等。我公司对设计质量实施严格的控制, 从设计和开发的策划、组织和技术接口、设计输入、设计输出、设计评审、设计验证到设计确认和设计更改, 都规定了具体的方法和步骤, 确保了产品设计资料完整、正确、统一, 充分满足了用户的需求。

二. 制造工艺及工艺保证体系

我公司建立健全了一套完整的工艺保证体系, 工艺的制定和管理由技术部归口负责, 除铸造外, 企业具备有满足起重机工艺要求的齐全设备, 如机加工, 热处理、装配、检验、包装、发运等, 并配备有专职的现场工艺管理人员, 从生产工艺的制定、验证、执行、监督检查到工装的生产和管理都处于受控状态, 特别是对于特殊工序, 如焊接、热处理等, 从其上岗人员的资格、设备工艺能力的验证到工艺参数的跟踪监控都提出了明确的要求, 保证了特殊工序质量的稳定性, 全公司制定有各种工艺守则17个, 通用技术条件6个及各工序的操作指导卡, 充分保证了产品的生产质量达到图纸设计要求。

焊接结构件的生产是我公司生产的重要组成部分, 投产前, 各种型材和板材都要通过抛丸机进行表面处理, 并喷涂防锈底漆。主梁、端梁的上、下盖板及腹板的对接均采用埋弧自动焊, 腹板的下料采用微机控制, 筋板用剪板机进行下料。为了保证主梁、端梁的几何尺寸, 在盖板、筋板、腹板定位焊完成后, 按照工艺确定的焊接电流、电压、焊接顺序、方向、焊接的分布进行二人、四人对称焊接, 确保结构件受热均匀, 变形在控制范围内, 然后在平台上进行桥架对装和起吊翻转焊接。小车架的焊接采用手工电弧焊, 对装在平台上进行, 用工装夹具固定在平台上焊接。在结构件的生产过程中, 根据生产过程的检测结果, 我们采取变换支承点, 变换焊接顺序, 使用定位工装, 配合使用火焰校正等方法来控制 and 修复结构的变形, 保证起重机的上拱度、旁弯、同一截面高低差、垂直度等几何参数达到国家标准要求。机械加工件工艺齐全设备先进, 操作人员在加工中都严格执行了“三控”和“三检”制度, 每件工件均带有工序流转卡,

经检验合格后方可转入下道工序, 每批工件根据其工艺流程安排在不同机床上加工, 如单梁横梁在T68B镗床上制孔, 端梁与主梁连接面在组合机床上铁面, 同时还可以制孔, 大车轮、滑轮及卷筒在CQ6810车床上加工, 联轴器内外齿及开式齿轮传动在高频炉加热淬火。车轮在专用设备进行表面加热淬火, 达到淬硬层≥20mm处, 硬度≥HB260, 踏面为HB330-380。我公司专门设置有装配车间, 分别负责电动葫芦、电动小车和大车运行机构的成装, 车间配有满足工艺要求的各种设备, 如压力机、校验机、电焊机、切割机、弯管机、钻夹和各种工卡量具, 整个装配严格按工艺工序操作, 装配结束后对电动葫芦逐台进行负荷试验, 小车及大车部分作空运转试验, 表面油漆按《油漆工艺守则》执行。

三. 外购物资质量控制

我公司生产的起重机所需的外购件均选用全国名优厂家产品, 如减速机、电机、电磁铁、制动器、钢丝绳、电气设备直接从生产厂家购进; 车轮、吊钩为购进毛坯件, 在本公司自行加工, 原材料及型材也是购于全国各大钢铁公司, 所有供货厂家均为经公司有关部门评审确定的合格分包方, 不属于我公司合格分包方的单位一律不准采购, 外购件引进生产后, 检验部门还要依据《外购件检验规程》进行逐项验收, 合格后方可办理入库手续。

四. 质量保证体系

我公司按照ISO9001《质量体系设计、开发、生产、安装和服务的质量保证模式》建立了质量保证体系, 编制了质量手册和二十六个程序文件及相应的第三层支持性文件, 规定了各部门之间的联系渠道和方法, 明确了各部门及有关人员的质量职责和权限, 形成了有效的质量保证体系, 公司每年都进行内部质量体系审核和定期进行管理评审, 针对存在问题采取纠正和预防措施, 保证质量体系适宜、有效、持续的运行。

根据质量保证体系的要求, 我公司建立有完善的质量检验系统, 配有足够的检验人员和仪器设备, 从原材料、外购件购买到整机发货出售都严把质量关, 机加工件实行工序检验, 入库前复检, 每件工件上检验状态标注明显, 不合格零件决不转入下道工序。焊接结构件按工序要求检验并做记录, 焊缝除达到表面质量要求外, 还要依据GB/T14405-93标准要求, 实行100%射线或超声波探伤检验。对合格分包方, 铸件进厂每批均进行化学成分分析和机械性能试验,

热处理每炉检验, 对于有淬硬深度要求的工件, 定期用机加工方法解剖检查, 表面涂漆逐台检验漆膜附着力和厚度, 只有当整机所规定的检验项目全部合格后产品才能出售, 确保产品出售合格率达100%。

I. Development and Design of Products

The company has the technical department to take charge of technical management of cranes, and development and design of new products. In the department, technical personnel with corresponding qualification hold a post. The project it deals with includes small-sized hoisting equipment, for example, electric block, electric single girder, electric suspension crane, and large-sized hoisting equipment, for example, general-purpose bridge crane, gantry crane, explosion-proof and isolation bridge cranes, metallurgical bridge crane, loading-unloading bridge crane. The company imposes strict control on design quality, formulating specific methods and procedures from planning of design and development, organization and technical interface, design input, design output, design review, design verification to design confirmation and design modification. This ensures that the product design data is complete, correct and unified, fully meeting user's demand.

II. Manufacturing Technology and Technological Warranty System

The company sets up and amplifies a complete set of technological warranty system. Technological formulation and management is under the charge of the technical department. Except the casting, the company has complete equipment meeting the requirements of crane process and procedure, such as machine tooling, heat treatment, assembly, inspection, packaging and shipping. Besides, the company designates professional process management personnel to exercise control from the formulation, verification, implementation, supervision and inspection of production technology to the production and management of tools. In addition, we put forward explicit requirements for special process like welding and heat treatment in particular from the qualification of on-duty personnel, verification of equipment's technological capacity and tracking and monitoring of technological parameter, ensuring the stability of special process' quality. The company formulates 17 process regulations, 6 general technical specifications and operation guidance cards, which fully ensures the production quality of products to meet the drawing design requirements.

The production of welded structures is an important part of our production. Before put into production, various sections and plates shall undergo surface treatment by shot-blasting machine and shall be painted with anti-corrosive primer. Butt weld of the upper and lower cover plates and webs of girders and end girders employs automatic submerged arc welding. The web blanking is under the microcomputer control, and the reinforcing plates shall be blanked by sheet shear. To ensure the physical dimension of girders and end girders, after tack welding of cover plates, reinforcing plates and webs is finished, two-person or four-person symmetry welding shall be made according to technologically specified welding current, voltage, welding sequence, direction and welding distribution to ensure that the structures are heated evenly and the deformation is within the control range. Then bridge docking and turnover welding shall be made on the platform. The crab frame adopts manual electric arc welding. Its docking is made on the platform. It will be fixed on the platform by clamp for welding. In manufacturing structures, in light of the testing result of in production, we change the supporting points and welding sequence and use positioning tools in combination with flame correction to control and repair structural deformation, ensuring that such geometric parameters as crane's camber, sidewise bending, height difference of the same section and verticality meet the state's standard. As for machining parts, the process is complete and the equipment advanced. All operators strictly follow the "three accordance" and "three inspections" systems in machining. Every batch of workpiece is accompanied by a

五、售后服务

我们公司建立有专门的售前售后服务队伍及售后信息网络, 售后服务人员有经验丰富的机械及电气工程技术人员组成, 在接到用户反馈的质量信息后能够立即派人前去处理。在三包期内免费为用户服务, 三包期外提供优惠的服务。

process flow card, which shall not enter the next procedure before checked acceptable. Every batch of workpiece is machined by different lathe according process flow. For example, single girder and cross girder are bored on T68B boring lathe; the joint face between end girders and girders is milled as well as bored by a combined machine tool; the trolley wheels, pulleys and reels are machined by CO6810 lathe, and the internal and external teeth of couplings and exposed gears are heated and quenched in high frequency furnace. The wheels undergo surface heating and quenching by special equipment so as to make the hardening layer not less than 20mm, the hardness not less than HB260, and the tread be HB330-380. The company has specially set up assembly shops to take charge of assembly of electric blocks, electric crabs and trolley travelling mechanism. The shops are furnished with various equipment meeting technological requirements, such as press, collator, electric welder, cutter, tube bender, drill chuck and varied measuring tools. The entire assembly shall be conducted in strictly accordance with process and procedure. After assembled, electric blocks shall undergo load test one by one. The crab and trolley shall carry out idling test. The finish coatings shall be carried out according to Painting Process Regulations.

III. Quality Control of Purchased Materials

The purchased parts our crane needs are from national well-known manufacturers. For example speed reducers, motors, electromagnets, brakes, steel wire ropes and electric equipment are directly bought from the manufacturers. Wheel and hooks are machined by our own by purchasing blanks. Raw materials and sections are also purchased from national steel & iron companies. All suppliers are subcontractors who are evaluated by relevant departments as qualified. We will never buy anything from the subcontractors who are not qualified. The purchased parts, once used for production, will be checked by the testing department in accordance with Purchased Parts Inspection Procedure, and shall be not warehoused before inspected as acceptable.

IV. Quality Warranty System

The company sets up a quality warranty system according to ISO9001 Quality System-Model for Quality Warranty in Design, Development, Production, Installation and Servicing, complies quality manuals and 26 procedure documents and related the third-layer supporting documents, stipulates the communication channel and means, defines the quality responsibility and power of departments and personnel concerned, and forms effective quality warranty system. The company carries out annual interview of internal quality system and regular management review, adopting corrective and preventive measures for existing problems to ensure the quality system to run in a suitable, effective and continuous way.

According to the requirements of the quality warranty system, the company sets up an improved quality inspection system and designates enough inspectors and instrument and equipment to check the quality from purchasing of raw materials and purchased parts to shipment for sales. The machining parts shall undergo process inspection, and recheck before warehoused. Every workpiece shall be marked with inspection status, and the non-conforming parts shall never enter the next procedure. Welding structures shall be checked and recorded according to procedural requirements. Except meeting the surface quality requirements, the welding line shall carries out 100% ray or ultrasonic flaw inspection according to GB/T14405-93 standard. For the qualified subcontractors, iron castings shall undergo chemical composition analysis and mechanical property test. The

heat treatment shall be inspected one furnace after another. The workpiece with requirements for hardening depth shall undergo anatomy examination regularly by machining method. Every machine shall be inspected for the film adhesion and thickness of finish coatings. Only when all the inspection items are up to standard, the products can be sold, ensuring the percent of pass of products is 100%.

V. After-sales Service

起重和主要项目质量保证和检验

Quality Warranty and Inspection of Major Crane Items

我公司在起重机生产过程中, 针对各零部件, 几何参数对起重机性能的影响程度, 制定了关键件明细表及关键件的加工工艺, 并实施严格的质量控制, 如:

1、主梁、端梁翼板、腹板对接焊缝及主角焊缝的质量控制, 为保证各焊缝焊接质量, 采用埋弧自动焊。焊缝破口形式严格按GB986-88及焊接工艺要求制作、检验。在工作平台上进行工件的组装及定位焊, 并在焊缝两端设引、熄电弧板(定位焊缝质量按正式焊缝质量要求检验, 定位焊缝厚度按对接焊缝)或焊角高度(角焊缝)不超过正式焊缝的1/3), 焊缝两侧各5倍板厚且不小于100mm范围内清理油污、锈及氧化铁等杂物。埋弧自动焊焊接工艺参数严格按照焊接工艺给定参数施焊, 焊后进行100%外观质量检验, 并根据工艺要求对对接焊缝进行X射线或超声波探伤, 角焊缝进行渗透检测, 合格后转入后道工序。

2、起重机上拱度, 一般来说从如下三方面控制: 主梁腹板下料、主梁组装焊接、主梁修整。

①主梁腹板下料预制上拱度, 预制拱度按二次抛物线放样, 利用计算机辅助设计、计算各相应高点。数控切割机切割下料。

②主梁组装定位焊后, 检测其上拱度值, 根据检测结果确定四条主角焊缝的焊接顺序, 从而控制拱度变化方向及大小。

We work out a schedule of critical part and their processing technic according to the influence of parts and geometric parameters on crane performance and carry out strict quality control as follows:

1. As for the quality control of butt weld and fillet weld of girders, end girder flanges and webs, to ensure welding quality, automatic submerged-arc welding is employed. The weld groove is fabricated and inspected in strict accordance with GB986-88 and welding procedure. Workpieces are assembled and takes position welding on the platform, with the welding line equipped at both ends with striking and extinguishing arc boards (the position welding line quality shall be inspected according to the requirements of formal welding line quality, and the position welding thickness shall comply with butt weld), or the welding corner height (fillet welding line) shall not be higher than 1/3 of formal welding line. Within the range of 5-fold board thickness and not less than 100mm at both sides of the welding line, miscellaneous articles like oil stains, rust and ferric oxide shall be eliminated. The welding parameter of automatic submerged-arc welding shall be subject to the specified parameter of welding procedure. 100% apparent quality inspection shall be made after welding. The welding line shall undergo X-ray or ultrasonic flaw detection according to procedure requirements. The fillet weld shall undergo penetrant testing, and then go to the next procedure after tested as acceptable.

2. The crane camber is usually controlled from three aspects: girder

The company has special pre-sales and after-sales service team and after-sales information network. The after-sales service personnel are composed of experienced technical personnel of mechanical and electrical engineering. We can send someone to dispose the problems when we receive the feedback of quality information from users. During the "three guarantees" period, we provide service free of charge, and preferential service beyond the "three guarantees" period.

③主梁修整是对焊后主梁上拱度及旁弯的修正, 利用机械及火焰等方法, 修整出符合要求的上拱度值及旁弯值。

3、主梁跨度的质量控制 主梁跨度的控制在桥架对装和装车成装时进行, 桥架对装时, 在端梁上盖板上画出纵向中心线和与主梁装配的十字中心线, 并将弯板垂直面引到上盖板与其纵向中心线之点上打上冲眼, 在主梁与端梁十字中心线对齐后, 调整端梁, 保证所要求的尺寸, 其中跨度的控制在公称尺寸基础上根据跨度大小增加一定数量(具体见工艺要求)以便消除因焊接收缩产生的影响, 整个对装焊接结束后, 用钢卷尺一端固定, 另一端施加一定拉力对上盖板; 中眼和弯板上孔进行测量, 合格后转入装车成装, 装车成装后, 同用样的检测方法测量车轮的跨度, 若有问题, 调整车轮直至达到技术标准要求。

4、吊钩质量控制 吊钩毛坯件供货厂家必须是经我公司有关部门评审协作单位, 吊钩件进公司需携带有该批吊钩的材质报告及机械性能试验结果, 还要对照材质报告及性能试验结果进行抽样核实。外购件检验人员还要在入库前对吊钩的几何参数按照公司制定的检验规程进行检验。机加工时, 操作人员严格按关键件机械加工工艺卡片执行, 检测人员按照工序进行检验全部合格后, 才能办理入库手续。

web blanking, girder assembly welding and girder trimming.

① The prefabricated camber of girder's web banking follows second-degree parabola to set out, and employs computer-aided design (CAD) to compute corresponding high points. The banking is cut by numerical control cutting machine.

② After position welding of girder assembly, its camber shall be tested to determine the welding sequence of the four angle seams so as to control the camber's direction and size.

③ Girder trimming is to amend the girder's camber and sidewise bending. It uses mechanical means and flames to achieve satisfactory camber and sidewise bending.

3. Quality control of girder span

The control of girder span is made when the bridge is docking and the trolley is assembling. When the bridge is docking, the longitudinal center line and cross center line for girder assembly shall be marked on the upper cover plate of the end girder, and the vertical plane of bent plate is led to the intersecting point of the upper cover plate and its longitudinal center line to punch holes. When the girder is aligned with the end girder's cross center line, the end girder shall be adjusted, ensuring the desired size. The span shall increase a certain amount (see process requirements) based on the nominal dimension to eliminate the effects of welding shrinkage. After the docking welding, a steel tap shall have its one end fixed, and its other end to exercise

a pull on the upper cover plate. The central hole and the bent plate's upper hole shall be measured to be acceptable. Then trolley assembly begins. When the trolley assembly is finished, the wheel span shall be measured with the same method. If there are problems, the wheel diameter shall be adjusted to meet the requirements of the technical standard.

4. Quality control of hook

Hook blank suppliers must be our approved cooperation units. The

hooks must be accompanied by material report and mechanical performance test results when they are delivered to the company. Both the material report and mechanical performance test results shall be checked by sampling. The purchased part inspectors shall make inspection to geometric parameters of the hooks according to the company's inspection procedure. In machining, operators shall strictly follow the machining card of critical parts. They shall be not warehoused before they are inspected as acceptable by the inspectors.

产品质量体系内容
Contents of Product Quality Guarantee System

一、目的

为了及时处理用户反映的质量问题，加强产品售后服务工作，全面体现我公司“质量严要求，产品上档次，企业讲信用，用户更满意”的质量方针。

二、主题内容及适用范围

本规定内容包括矿源牌系列起重机械产品的质保体系标准，质保期、质保原则、质保内容和“三包”服务程序。

本规定仅适用于河南省矿山起重机有限公司生产的矿源牌系列起重机械产品，对于与本公司整机配套厂家的产品可由本公司负责参照本规定和配套厂家的“三包”规定执行。

三、质保体系标准

1、本公司生产的矿源牌系列起重机械产品，其产品质量保证符合相应的国家级行业标准(专业标准)。

2、本公司所提供给用户的产品，保证无一假冒、伪劣产品，所出公司的产品均是经质检人员严格按照检验程序检验合格的产品。

四、质保内容

1、我公司对用户如何使用产品进行培训(对被培训人员免费提供住宿)，以及提供产品使用、维修、保养等方面的资料。

2、热情接受用户对使用过程中有关技术问题的咨询，给用户优惠提供产品配件，并代办托运。

3、产品实行“三包”凡属于质量问题，严格执行维修、更换、退货和赔偿责任的规定，并给予终身服务。

4、实行“优良服务”，无论产品质量或使用问题，均给予及时和周到的标准服务。

5、对重点顾客、重点产品进行质量跟踪、调查。

6、坚守信誉，在经营活动中向用户承诺：凡说到的一定要做到，做到的一定要做好，直至用户满意为止。

五、质保期限

质保期限是指在符合本公司《产品使用说明书》使用要求的情况下，保证正常的使用期限。

1、电动葫芦

I. Purpose

The system is purposed to timely handle quality complaints from customers, to intensify after-sales service and to give expression to our company's quality principle of "Strict Quality Demand, Top-class Product, Credit Enterprise and Satisfying Customers".

II. Theme Contents and Application Range

These regulations include warranty standard, term, principle and contents as well as service procedures of "Three Guarantees" of

a) 整机期限为1年，以最终开票之日起为准；

b) 零部件期限为6个月，以本公司出售之日起为准；

2、起重机按国家标准(行业标准)为12个月，自最终开票之日起为准。

六、质保原则

1、质保期限内用户在用户妥善运输、保管和合理安装、按照《说明书》正确使用的前提下，由于产品的制造、装配和材料质量原因造成的损坏，经河南省矿山起重机有限公司技术服务人员鉴定，确认属于本公司责任的，给予免费维修服务，原则上采取更换零部件的办法处理解决。如果需要更换整机者(仅指电动葫芦)，必须经销售和质检部门确认无法以更换零部件修复时，呈报总经理批准后方可予更换。进行维修服务后，不论整机配件及旧件必须上交公司仓库备查，因特殊原因确实不能交还者(不包括整机)，主管部门应写出证明交仓库存档。

2、如因产品质量缺陷造成客户损失时，经公司有关部门调查分析，核实确认后，和损失方共同协商，由销售部写出书面报告，呈报总经理批准后，给予经济赔偿。

3、在协商解决不成的情况下，可通过法律程序予以解决。

4、对于在矿山公司购买零部件组装的整机，如不经过矿山公司的质量检验，则不属于“三包”服务范围。

七、服务程序

1、一般质量问题(指在质保范围内)由销售部负责或就近服务网点尽快到现场解决，如网点不能解决可立即由公司派人协助网点人员共同解决，并在短时间内给客户以满意的答复。

2、重大质量问题，需及时上报总经理，由质检部门、销售部门派有关人员到现场处理解决。事后由质检部门写出处理报告，上报公司办备案。

3、本公司所派人员必须尊重用户，以礼待人，尊重事实，以理服人，尽最大努力让用户满意。本规定解释权归销售部。

Kuangyuan hoisting products.

These regulations are only applicable to products of Henan Kuangshan Crane Co., Ltd. As for supporting products from partner producers, our company will follow rules made together with those producers on the basis of these regulations.

III. Standards of Warranty System

1. Kuangyuan products follow national-level industrial (professional) standards on quality.

2. Our company promises that no fake or false and inferior products will be delivered to customers. All products of our company are qualified products after going through strict testing procedures.

IV. Warranty Contents

1. Our company offers training of customers on how to use the products (free accommodation for trainees) as well as materials on use, repair and maintenance of products.

2. Warmly answer customers' technical inquiries, provide customers with spare parts at favorite price and provide agent consignment service.

3. "Three Guarantees" system is implemented. For product with quality problem, regulations about repair, replacement, return and compensation will be strictly followed, and life-long service will be provided.

4. "Qualified Service" will be implemented to offer timely and considerate service regardless it is a problem of quality or use.

5. Quality tracking and investigation of key customers and products will be practiced.

6. Stress reputation. All promises will be materialized satisfactorily for the customers.

V. Warranty Term

Warranty term refers to the period in which product quality is guaranteed if the product is used according to regulations of our company's Operation Manual.

1. Electric hoist

a) The warranty is 1 year for the whole machine, counted from the date when the invoice is issued.

b) The warranty is 6 months for spare parts, counted from the date the spare part is sold.

2. The warranty is 12 month for cranes (as required by national standard or industrial standard), counted from the date the invoice is issued.

VI. Warranty Principles

1. In the warranty term, in case the product is damaged though the client follows the rules in transport, storage, assemble and operates

according to the Instruction Manual, it will be repaired free of charge after it is confirmed by our company that the problem is caused in production, assembly or material quality. Generally, the problem will be solved by replacing spare parts. In case the whole machine (electric hoist only) needs to be changed, it can be changed only after the sales and quality control departments confirm that replacement of spare part cannot solve the problem and the change gets the permission from the general manager. After the repair, the old machine or spare part shall be handed over to the warehouse of the company. In case this cannot be done for special reasons, related departments shall write a certificate to file in the warehouse.

2. In case any client suffers lost due to quality problem, related departments will make confirmation and negotiate with the client. Then they shall write a report to the general manager for the materialization of the compensation.

3. In case any dispute regarding compensation cannot be solved by negotiation, it shall be solved through legal procedures.

4. Any whole machine produced by a client who buy spare parts and assembly them is not included in the "Three Guarantees" system of our company.

VII. Service Procedures

1. General quality problems (within the scope of warranty) will be solved on-site by the sales department of service office nearby. In case the service office nearby cannot solve the problem, the company will send personnel to help and give client a satisfactory response within a short period of time.

2. Major problems shall be reported to the general manager timely, and personnel from departments in charge of quality control or sales shall be sent to the site. After the problem is solved, the quality control department shall write a report to file in the company.

3. Service members of the company shall respect clients and facts, be reasonable in persuading clients and try best to satisfy clients. The right of explanation of this article belongs to the sales department.

产品质量管理简介
Brief Introduction to Quality Control

为确保本公司的产品质量符合有关国家技术标准，建立了比较健全的质量保证体系。

一、健全了质量检验管理机构

设立了质量管理部和质量检验部，由工程师、专业技术人员和专职质检员共同组成，负责全公司产品的质量管理、检验及信息反馈等工作。

在生产过程中，对各类零、部件、各工序之间，实行工人自检、互检及专职检验人员逐件检验的质量检验制度，同时对操作者的产品成品率、返修率、废品率进行认真考核，并与经济利益挂钩，从而有效地保证了各类零、部件的质量。

二、建立了理化试验室、计量室、整机试验台，为质量管理和质量检验提供了可靠的物质保证。

1. 物理试验室

配备了金相分析、X射线无损探伤仪、金相显微镜，硬度测试仪等仪器和装备及相关的专业人员，为保证热处理、焊接、原材料、外协外购件的质量提供必要的有效检测手段。

2. 化学试验室

配备了WFJ-P型数显分光光度计、TG328A型电光分析天平(精确度达到万分之一克)、CS-TL4B型碳硫联合测定仪等分析仪器及专业人员，对原材料、外协外购件等有进行有效、

必要的化学分析，是保证材料质量的重要手段。

3. 计量室

配备了专业人员，并配置有各种量器具300余件(套)，为产品加工过程提供了必要的测量器具，尤其对于减速箱的齿轮等重要零件，配备了偏摆检查仪、齿轮公法线千分尺等仪器及量具，使这些重要零件的质量得到确实的保证。

另外，配备了电动葫芦、行车、门式起重机(桥式起重机的专用测量器具，如经纬仪、水准仪、便携式硬度测试仪等)。

4. 整机试验台

装备了行车整机性能试验台和电动葫芦整机微机测控试验台，对产品的整机性能进行全面的测试，为保证产品的整机性能提供必要的技术参数和质量状况，可进行以下试验：

- ①空载试验
- ②静载试验(含超载25%试验)
- ③动载试验
- ④额定载荷试验

综上所述，河南省矿山起重机有限公司的全面质量保证体系已经建立，质量检测手段基本健全，产品质量可以得到可靠保证。

A complete quality control system has been set up to guarantee that all products of the company comply with national technical standards.

I. Sound quality control mechanism

Quality management and quality test departments are staffed with engineers, technicians and inspectors, who are responsible for quality management, test and information feedback of products of the company.

A quality control test system has been set up to conduct self test, mutual test and inspector test for each spare part, unit and between producing procedures. Rates of qualified products, waste products and products needing repair are checked to relate the rates with workers' economic benefits so as to guarantee quality of spare parts and units.

II. Reliable guarantee by establishment of physical lab, chemical lab, measuring room, whole-machine test platform

1. Physical lab

The lab is equipped with metallographic phase analyzer, X-ray nondestructive tester, metallographic microscope, hardness tester and professional staff to guarantee effective quality inspection of heat processing, soldering, material and spare part bought from outside.

2. Chemical lab

This lab is equipped with WFJ-P digital spectrophotometer, TG328A electro-optical analysis scale (precision reaching 1/10000 gram), CS-TLAB

carbon flow tester and professional staff to conduct effective chemical analysis over raw materials and spare parts from outside.

3. Measuring room

Staffed with professionals, the room has over 300 measuring devices. For important spare parts like gears of decelerator box, there are devices like deflector tester and gear tooth gauge to guarantee quality of those spare parts.

In addition, testers for electric hoist, traveling crane, gantry (bridge) crane are available, such as theodolite, level and portable hardness gauge.

4. Whole-machine tester

The test platform for performance of whole traveling crane and the computer-aided test platform for performance of electric hoist have been set up to provide data critical for the performance of the machines. The following tests can be conducted:

- ① Empty-load test
- ② Still-load test (including 25% overload test)
- ③ Dynamic test
- ④ Rated load test

In summary, our company has set up a complete quality control system with basic complete devices to guarantee product quality.

质量承诺

Quality Promises

河南省矿山起重机有限公司具有CD₁、MD₁型0.25-50t电动葫芦、LDA1-20t电动单梁、LX0.5-5t电动悬挂、QD5t-320t通用桥式起重机全国工业产品生产许可证和160吨及其以下桥、门式起重机制造、安装、维修认证。公司已顺利通过ISO9001-2008国际体系认证，并完全按照该体系运行模式进行全面质量管理。

矿山公司向广大用户做出如下质量承诺：

- 一、全部产品均有生产许可证<或认证>决不提供假冒产品或以旧翻新的产品。
- 二、产品质量等级达到一级品<或优等品>。

The company is licensed to manufacture CD₁ and MD₁ 0.25-50t electric hoist, LDA1-20t electric Single-girder crane, LX0.5-5t electric suspension crane and QD5t-320t general-purpose bridge crane. It is also licensed to manufacture, install and repair bridge and gantry cranes of 160t or under. The company has passed ISO9001-2008 certification, and the standard has been totally followed in the quality control system of the company.

Promises of the company include the following:

- I. All products have production permit or recognition permit; no fake or renovated products;

- 三、产品各主要性能参数均在标准规定的范围内。
- 四、严格执行产品工艺纪律，保证按工艺操作规程加工制造。
- 五、保证产品检验器具齐全，检测手段完备，并严格按照规范对产品的质量部件进行检查验收，不合格产品不准出厂。
- 六、建立完整的产品档案，做到订货有合同，生产有记录，检验有台帐，入库有合格证，出厂有交待。
- 七、出厂产品无磕碰，配件齐全，漆膜完好，手续完整，使用户满意。

- II. Quality of all products reach class-A or distinguished class;
- III. Main data of the products satisfy related codes;
- IV. Strictly follow technological requirements in manufacturing;
- V. Strictly test products with standard testing devices to prevent unqualified products from leaving the plant;
- VI. Set up complete files to keep order contract, manufacturing record, test record, material receiving certificate and factory-leaving record.
- VII. All products to be delivered are no-damage in appearance and painting and are supplied with mating parts to satisfy clients.

售后服务承诺

After-sales Service Promises

一、凡由本公司生产销售的各种产品所出现的质量问题，本公司均按规定实行“三包”服务，并由售后服务三包队承担此项工作。

二、在接到用户关于产品质量的信息(来电、信函或口头通知)后，立即派出有关人员赶赴现场处理解决问题。

三、售后服务人员要认真、周到、彻底处理好有关质量问题，保证用户及时使用，无后顾之忧。

四、在及时解决好售出产品的质量问题的同时，售后服务人员有义务无偿地向用户提供技术咨询技术培训以及解答

I. Quality problems of products sold by our company will be solved as per the "Three Guarantees" system of our company by the "Three Guarantees" service team;

II. Related personnel will be sent to the site immediately after receiving quality complaints (by call, letter or oral notice) from clients;

III. Personnel involved in after-sales service shall be serious and considerate in handling the problem to make clients care-free;

IV. In addition to solve quality problems, personnel involved in after-sales service shall train clients, answer their technical inquiries and related

其它产品相关联的问题。

五、凡确属本公司产品质量问题的产品，一切费用均由本公司承担。对因用户方所造成的产品质量问题(或超出质保期的产品质量问题)本公司酌情收费，但不高于总支出的费用(或成本费)。

六、牢固树立用户就是上帝，一切为用户着想的思想，及时、认真、善始善终处理好有关质量问题，讲究信誉，处处维护矿源产品的形象，做到公司放心，用户满意。

questions free of charge.

V. Related cost for products with quality problem will be shouldered by our company. Our company charges for quality problems caused by clients (or problems after the warranty term), but the charge will not be higher than the expense (or cost).

VI. Establish the client-orient concept to offer timely, serious, considerate and complete service, and value the image of the all the time to serve the company and clients.

运输队服务承诺

Service Promises of Transport Team

- 1. 免费代作全程运输计划和运费核算。保证准确、全面。
- 2. 代办托运，协助装车，保证安全，迅速，准时到达目的地。
- 3. 代办交货，保证货物分毫无损，手续清楚完备。
- 4. 运费优惠，价格最低，服务周到。

- 1. Make accurate and complete transport plan and check transport expenses free of charge;
- 2. Provide agent consignment service, assist loading and guarantee arrival that is safe, rapid and on time;
- 3. Provide agent hand-over service that guarantees damage-free and clear paper work;
- 4. Considerate service with the lowest price possible.

运输条件

Transport Conditions

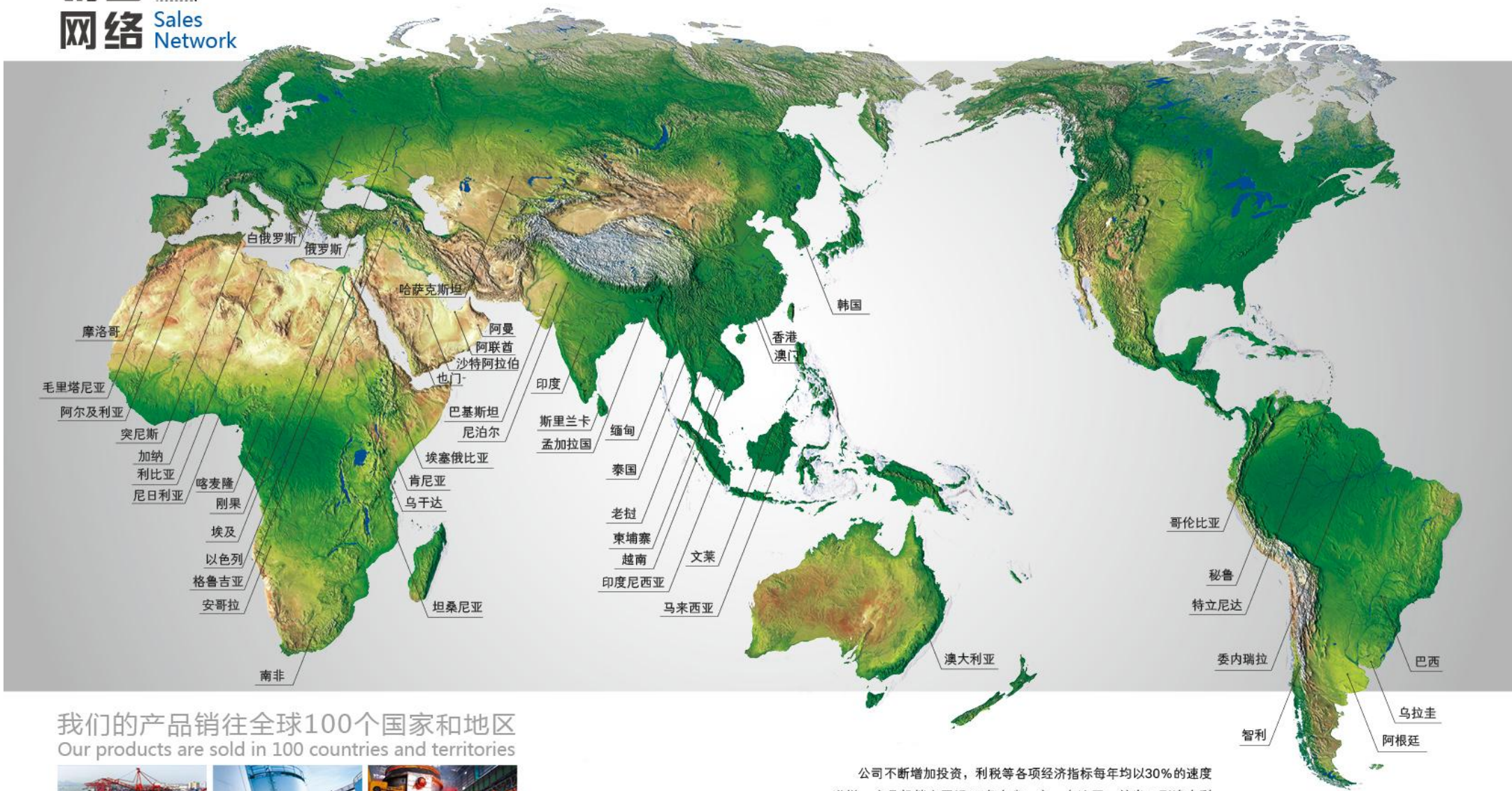
1. 我公司运输队有大型运输车辆66辆，其中大型设备专用车20台，能够胜任国内道路运输。车辆驾驶员均在8年驾龄以上。

2. 汽车运输以“服务用户”为宗旨，保证设备一次到位，免去2次搬运(需方场地所限除外)。

1. The transport team of our company has 66 large vehicles, 20 of which are for transport of large-scale equipment, enabling qualified domestic road transport. All the drivers have driving experience of 8 years at least.

2. Adhering to the concept of "Serving the Clients", the team promises to deliver equipment to the site once for all to avoid second move (excluding second move due to space limit of buyer).





我们的产品销往全球100个国家和地区
Our products are sold in 100 countries and territories



公司不断增加投资，利税等各项经济指标每年均以30%的速度递增，产品畅销全国近30多个省、市、自治区，并出口到澳大利亚、越南、印度、泰国及东南亚各国。

行业 冶金行业

客户 Metallurgical Industry



部分客户 >>



中冶集团	南京钢铁股份有限公司	贵阳闻达钢铁有限公司
首钢集团	云南省曲靖双友钢铁有限公司	安徽长江钢铁股份有限公司
武汉钢铁集团	济南钢铁集团闽源钢铁有限公司	安阳钢铁实业有限责任公司
中国十九冶集团	包头北方铸钢有限责任公司	宝钢湛江钢铁有限公司
新疆新能钢结构有限责任公司	中卫市银鑫冶金有限责任公司	赤峰远联钢铁有限责任公司
唐山国义特种钢铁有限公司	云南玉溪市玉昆钢铁集团有限公司	大冶特殊钢股份有限公司
中国铝业股份有限公司	贵阳市贵阳闻达钢铁有限公司	广东粤韶钢铁有限公司
唐山长城钢铁集团	山西翔天钢铁有限公司	河北钢铁股份有限公司
包钢集团	兰州皋兰鑫钢铁有限公司	江苏省镇鑫特钢材料有限公司
唐山经安钢铁有限公司	广东梅州昌盛钢铁有限公司	连云港亚新钢铁有限公司
山东富伦钢铁有限公司	徐州铁矿集团铸业有限公司	济源钢铁集团

行业 交通行业

客户 Transportation Industry



部分客户 >>



中国铁路工程总公司	湖南省建筑工程集团总公司	福建湄洲湾港口铁路支线有限责任公司
中国铁道建筑总公司	广州市建筑集团有限公司	上海城建(集团)公司
中国建筑工程总公司	中铁隧道集团	天津市建工集团(控股)有限公司
中国冶金建设集团公司	中铁科工集团	北京市市政工程总公司
中国港湾建设(集团)总公司	中交隧道工程局	成都市新筑路桥机械股份有限公司
上海建工(集团)总公司	中铁九桥工程有限公司	成都铁路局贵阳车辆段
中国水利水电建设集团公司	武汉铁路局	兰州铁路局
中国路桥(集团)总公司	中铁大桥局	西安铁路局西安第一工程指挥部
北京城建集团有限责任公司	北京中铁隧道建筑有限公司	中水十三局深圳地铁
北京建工集团有限责任公司	北京铁路局	中铁四局集团成都地铁
浙江省建设投资集团有限公司	北京路桥机械厂有限公司	河南建工集团

行业 水利水电行业

客户 Water Resources and Hydropower Industry



部分客户 >>



水电十三局	青海西部水电有限公司	江西省电力公司机械水电厂
中水四局	山东电力管道工程公司	水电十三局恒华(彰武)管业有限公司
中国长江电力股份有限公司	陕西宁强大关峡水电开发有限公司	广西水电集团
广东水电二局股份有限公司	河南瑞发水电设备有限公司	山东黄河工程集团有限公司
东水电工局股份有限公司	国水集团西安风电设备股份有限公司	黄河建工集团有限公司
中国葛州坝水利水电工程集团有限公司	河南第一火电建设公司	小浪底水利水电工程有限公司
中国水利水电第四工程局徐舍制板厂	霍州煤电集团吕梁公司	天津市水利工程有限公司
中国水利水电第五工程局	广东省电力第一工程局	河北省水利工程局
中核集团三门核电厂有限公司	皖北煤电集团有限责任公司	上海电气电站设备有限公司汽轮机厂
国电霍州发电厂	山东鲁能菏泽煤电开发有限公司	新疆天汇新能源电气有限公司

行业 航空行业

客户 Aviation Industry



部分客户 >>



鄂州吴航工贸有限公司	中国航天系统科学与工程研究院	哈尔滨东安发动机集团
哈尔滨哈飞工业有限责任公司	航天长征国际贸易有限公司中航工业成	黑龙江北方特种装备有限公司
航天晨光股份有限公司(南京)	成都飞机工业集团有限责任公司	黑龙江华安机械有限责任公司
上海航天精密机械研究所	贵州航空工业集团有限责任公司	贵阳华阳航空电器有限公司
中国航空港建设第十工程总队116工程	天津航空机电公司	长春航空机载设备公司
上海航天电子有限公司	沈阳飞机工业集团	江陵机器厂
西安航天科技工业公司	西安航空动力控制工程有限公司	成都陵川机械厂
中国卫通集团有限公司	陕西秦岭航空电气公司	苏州长风机械有限公司
中国长城工业集团有限公司	沈阳兴华电器制造公司	河北太行机械工业有限公司

行业 制造行业

客户 Manufacturing Industry



部分客户 >>



重汽集团专用汽车公司	中集陕汽重卡（西安）专用车有限公司	哈尔滨建成北方专用车有限公司
中车集团济南车辆有限公司	南车长江车辆有限公司铜陵分公司	中冶天工（天津）装备制造有限公司
中国机械工业集团公司	厦工机械股份有限公司	沈阳矿山机械有限公司
中东集团济南车辆有限公司	宜昌船舶柴油机有限公司	东风（十堰）特种商用车有限公司
河北三和重工装备制造有限责任公司	河南省中工机械有限公司	河南骏通车辆有限公司
安徽江淮专用汽车制造有限公司	山东威海化工机械有限公司	江联重工股份有限公司
上海电气（集团）总公司	河南新飞电器（集团）股份有限公司	兰州长征机械有限公司
中信重工机械股份有限公司	一汽铸造有限公司	临沂众泰汽车零部件制造有限公司
潍柴控股集团有限公司	江铃汽车股份有限公司	重庆美的制冷设备有限公司
徐州工程机械集团有限公司	郑州宇通重工有限公司	陕西法士特汽车传动集团有限责任公司
广西柳工集团有限公司	四川天元机械集团股份有限公司	天津华泰汽车车身制造有限公司

行业 能源行业

客户 Energy Industry



部分客户 >>



大同煤矿集团公司	山东能源集团有限公司	中海油
铁法煤业（集团）有限责任公司	山西煤炭运销集团	中油管道物资装备总公司
甘肃金海鑫矿业有限公司	山西焦煤	神木富油能源科技有限公司
神华宁夏煤业集团	阳泉煤业集团	宏华海洋油气装备（江苏）有限公司
山西晋煤集团	大同煤矿集团公司	中原油田建设集团公司
冀中能源集团有限责任公司	山西兰花煤炭实业集团有限公司	赤峰大井子矿业有限公司
峰峰矿区合信钢铁有限公司	冀中能源集团有限责任公司	赤峰山金银铅有限公司
陕西榆林凯越煤化有限责任公司	河南煤业化工集团有限责任公司	甘肃金海鑫矿业有限公司
神华宁夏煤业集团有限公司	兰州兰石集团	蒙古山金矿业有限公司
河南煤业化工集团有限责任公司	中国石化集团	庆阳能源化工集团机械维修有限公司
安徽富凯矿业有限公司	中国石油集团	中油管道机械制造有限责任公司

河南省百强企业
工业企业质量标杆企业
全国门桥式起重机械产业
知名品牌示范区示范单位



HENAN MINE GROUP
河南省矿山起重机有限公司
HENAN PROVINCE MINE CRANE CO.,LTD.



河南省矿山起重机有限公司
HENAN PROVINCE MINE CRANE CO.,LTD.

Add.: Intersection of Weisan Road and Kuangshan Road, Changnao Industry Park, Changyuan, Henan

Mob./Whatsapp: +8613262159325

<https://ru.hnminecranes.com>

Email: sales@hnminecranes.com

注：自2010年元月矿源商标受中国驰名商标保护，谨防假冒。