

Www.hycranes.com
Whatsapp&phone:+8613569807163

# **Product Description**

Road launching girder description. The author applies to highway, railway bridges to the construction site of bridge construction, its main function is to mention prefabricated good beam slice and delivered on prefabricated good piers.it and general meaning cranes have very big different, high safety requirements.

The capacity:60-200ton

The span : 20-50m

Control Mode: Pendant, Remote Control

and Cabin Control.



# **Product Details**

Bridge launcher girder mainly consisted with main beam, cantilever, under guide beam, front and rear legs, auxiliary outrigger, hanging beam crane, cantilever crane and electrohydraulic system. Applies to three different span single-span simply supported beam erection, with high operating efficiency.

Bridge Launcher Gantry Crane is widely used in highway and railway construction This Machine is used for erecting concrete box girders for high speed (250km, 350km) passenger railway lines. This machine is suitable for equal span girders or different span girders which can be 20m, 24m and 32m, 50m. The rear part has two supports. One of the supports is "C" shape column with rotary and foldabletechnology. The "C" shape column technology saved the traverse space during traveling and which enables to travel through tunnels with the girder transfer vehicle.



# **Technical Parameters**

	MCJH50/200	MCJH40/160	MCJH40/160	MCJH35/100	MCJH30/100
Lifting capacity	200t	160t	120t	100t	100t
applicable span	≤55m	≤50m	≤40m	≤35m	≤30m
applicable skew bridge angle	0-450	0-450	0-450	0-450	0-450
trolley lifting speed	0.8m/min	0.8m/min	0.8m/min	1.27m/min	0.8m/min
rolley longitudinal moving speed	4.25m/min	4.25m/min	4.25m/min	4.25m/min	4.25m/min
cart longitudinal moving speed	4.25m/min	4.25m/min	4.25m/min	4.25m/min	4.25m/min
cart transverse moving speed	2.45m/min	2.45m/min	2.45m/min	2.45m/min	2.45m/min
transportation capacity of bridge transport vehicle	100t X2	80t X2	60t X2	50t X2	50t X2
heavy load speed of bridge transport vehicle	8.5m/min	8.5m/min	8.5m/min	8.5m/min	8.5m/min
bridge transport vehicle return speed	17m/min	17m/min	17m/min	17m/min	17m/min

# Necessary certificates



#### CERTIFICATE

IQNet and CQM hereby certify that the organization Xinxiang HYCrane Co., Ltd.

Domicile: North of The New Long Uptown, Hongqi District, Xinxiang City, Henan, P.R.China Certification Add.: North of The New Long Uptown, Hongqi District, Xinxiang City, Henan, P.R.China

Post code: 453002 is in conformity with

OHSAS 18001:2007 Standard

This certificate is valid to the following product(s)/service:

Design, development, manufacture, installation, alteration and maintenance of overhead crane, gantry crane, portal crane, light type crane equipment; design, development, manufacture of bracket crane, ultra-large type crane machinery and relevant management activities

> Issued on: 2019-08-18 Validity date: 2022-08-17 Registration Number: CN-00213S11447R1M



President of IQNet

THE INTERNATIONAL CERTIFICATION NETWORK

#### CERTIFICATE

IQNet and CQM hereby certify that the organization Xinxiang HYCrane Co., Ltd.

Domicile: North of The New Long Uptown, Hongqi District, Xinxiang City, Henan, P.R.China Certification Add.: North of The New Long Uptown, Hongqi District, Xinxiang City, Henan, P.R.China

Post code: 453002 is in conformity with ISO 9001:2008 Standard

This certificate is valid to the following product(s)/service:

Design, development, manufacture, installation, alteration and maintenance of overhead crane, gantry crane, portal crane, light type crane equipment; design, development, manufacture of bracket crane, ultra-large type crane machinery

> Issued on: 2019-08-18 Validity date: 2022-08-17 Registration Number: CN-00213Q15857R1M

President of IQNet

President of CQM

THE INTERNATIONAL CERTIFICATION NETWORK

#### **CERTIFICATE**

hereby certify that the organization Xinxiang HYCrane Co., Ltd.

Domicile: North of The New Long Uptown, Hongqi District, Xinxiang City, Henan, P.R.China Certification Add.: North of The New Long Uptown, Hongqi District, Xinxiang City, Henan, P.R.China

Post code: 453002 is in conformity with ISO 14001:2004 Standard

This certificate is valid to the following product(s)/service:

Design, development, manufacture, installation, alteration and maintenance of overhead crane, gantry crane, portal crane, light type crane equipment; design, development, manufacture of bracket crane, ultra-large type crane machinery and relevant management activities

> Issued on: 2019-08-18 Validity date: 2022-08-17 Registration Number: CN-00213E21979R1M

Michael Drechsel President of IQNet

Zhang Wei President of CQM

ISO 14001:2004:007

### **CE CERTIFICATES**

# شهادة Certificat 明書 ртификат ertificate

#### Certificate of Compliance



No. EC.1282.0A150203.XHC0C94

Certificate's Holder:

Xinxiana HY Crane Co., Ltd.

No. 63-69, Heping Road, Muye District, Xinxiang

Type Approved

City, Henan Province, China

Certification Safety Mark:



Product: Gantry Crane

MH, MHZ, MHC, MDG, MG, MZ, MC, ME, MQ, BMH, RMG, RTG, STS, MEC

Verification to:

Model(s):

Standard: EN ISO 12100:2010, EN 15011:2011+A1:2014, EN 60204-32:2008

related to Directive(s): 2006/42/EC (Machinery) 2014/35/EU (Low Voltage)

Remark: The product(s) has been verified on a voluntary basis. The product(s) satisfies the requirements of the Safety Compliance Mark of ECM, in reference to the above listed Standard(s). The above Certification Mark can be affixed an the product(s) accordingly to the ECM regulation about its release and its use. Regulation can be found at www.enfecemanit.

Other relevant Standards and/or Directives have to be observed in case they are applicable.

Whereas the Manufacturer is responsible of the CE certification of the product(s) and not exempted to

perform all the necessary activities before placing the product(s) on the market The Manufacturer is also responsible to maintain efficient the internal production control to ensure the product(s) are in compliance with the Safety Compliance Mark.

This certificate can be checked for validity at www.entecerma.it

Date of issue 03 February 2015

Expiry date 02 February 2020

**Ente Certificazione Macchine Srl** 

Via Ca' Bella. 243 - Loc. Castello di Serravalle - 40053 Valsamoggia (BO) - ITALY 



#### ISET s.r.l.

Sede Lagale e Uffici Via Donatori di sangue, 9 - 48024 Moglia (MN) Tel. o fax +39 (0)076 598963

Cap. soc. iv. Cod. Fisc. e RNA Reg. Impress

€ 10.200,00 02.332.750.369

#### CERTIFICATE OF COMPLIANCE

Certificado de Conformidade - Сертификат соответствия - Konformitätserklärung

#### I) APPLICANT:

Xinxiang HYCrane Co., LTD Rm.306, Xinghai Ruyi Building, Xinzhong Road, No.681, Xinxiang City, Henan Province, China, 453000

2) CERTIFICATE NO.: IT031405HY170427

> TCF(S) NO.: TCF(17)-113-MD

3) WITH REFERENCE TO EC DIRECTIVE APPLIED: Machinery Directive 2006/42/EC

HARMONIZED STANDARDS APPLIED: EN ISO 12100:2010

EN 60204-32:2008 EN 14985:2012

#### 4) CERTIFICATION ISET MARK:



5) PRODUCT CHARACTERISTICS: Jib Crane

MODEL(S): BZ, BZD, BX, BXD, BZQ, BZW

REMARK: The verification has been carried out on voluntary application of the manufacturer based only on the documents prepared and provided by the manufacturer itself. The product(s) satisfies the requirements of the Certification Mark of ISET according to the ISET regulations. The manufacturer is responsible to maintain the internal production control to ensure the compliance of the product. ISET declines any liability with reference to any other noncompliance of documents, product or test report that have been submitted to evaluation. However ( marking and EC declaration are duties of the manufacturer before porting into service of its product(s) on market as well as the verification doesn't imply assessment of the production of the product(s). The manufacturer is liable to take all the necessary actions required by the applicable discretives/kprocedures before pointing CE mark on the product(s). The manufactures should be responsible for the results caused by improperly use this retrification.

6) DATE OF ISSUE: 27/04/2017

DATE OF EXPIRE: 26/04/2022





#### DJ型公铁两用架桥机

#### DJ-TYPE DUAL FUNCTION BEAM ERECTOR

DJ型公铁两用架桥机是本公司在多年设计制造公路架桥机和铁路架桥机的基础上开发出来的新一代架桥 机,适用于架设铁路新建和旧线改造时速200公里及以下客货共线T型梁,最大跨度为32米,最大额定荷载为 180t:增加部分构件后可架设公路预应力钢筋混凝土梁片,最大跨度为40米,最大额定荷载为170t。该机属单 臂简支型,可架设直桥、斜桥及曲线桥。

DJ型公铁架桥机采用独特的单主梁设计,质量可靠,同时可以满足铁路和公路施工,并且增强了铺轨功 能,大大提升了设备的整机性能及施工效率。该系列机型于2010年荣获河北省"科技进步一等奖";同时获得 国家科技部、质量检验检疫总局等五部委颁发的"国家重点新产品"证书: 先后获得DJ型公铁架桥机整机、横 移装置、齿轮齿条传动、机臂调平装置、电气控制装置等多项专利。

DJ型公铁两用架桥机在架梁施工时可先架梁后铺轨,且在长、大线路架梁施工时可以分段、多点架梁施 工,打破了传统的铁路施工模式。具有架设大坡道(铁路:3.5%;公路:6.8%)、小曲线(铁路:300米; 公路: 180米)、单线隧道口架梁(进隧道口1.5米,出隧道口3米)及不解体通过单线隧道的优势;并且有结 构简单、重量轻、公路运输、组装方便、自动化程度高等特点,能够更加安全快捷地完成架梁施工任务,使铁 路施工工期大大缩短。该机在太中银铁路架桥施工中连续多天创造了日(24小时)架梁30片的全国纪录。这是

DJ型公铁架桥机在2008年正式推向市场后短短的几年中,迅速占领国内铁路架桥机市场,并且出口到尼 日利亚、埃塞俄比亚等国家,得到广大新老客户的普遍好评,在国内外铁路建设施工中发挥了巨大的作用,为 国家和企业创造了经济效益和社会效益。





DJ-type dual function Beam Erector is the company niche product, it has been developed for years. bridge erection machine. This machine not only suitable for the erection of new and rehabilitation of old railway line for 200 kilometers speed per hour railroad but also suitable for local high speed rail viaduct, with the maximum span of 32 meters, the maximum rated load of 180t. With some additional components added to this Beam Erector 170t. This machine belongs to single girder simply supported erection machinery, it can set up straight bridge,

DJ-type Beam Erector uses a unique single-girder design, reliable quality, at the same time meet the railway This series was awarded "Science and Technology Progress Award" year 2010 in Hebei Province; also won the State Science and Technology, Quality Inspection and Quarantine issued by five ministries, "National Key New Product" certificate: The DJ-type Beam Erector has patented several part of the machine such as Hardware traverse device, rack and pinion, mechanical arm leveling device, electrical control devices and other.

This DJ-type dual function Beam Erector not only laying beam girder during construction, but also long line segmental girder construction, multi-girder construction, which had breaking the traditional model railway construction of large slope erection at (Railway: 3.5%; Highway: 6.8%), a small curve (Railways: 300 meters; Highway: 180 m), in-line tunnel girder (1.5 meters into the tunnel, the tunnel 3 meters) and without disassembly of the tunnel through the advantages of a single line; and there are simple structure, light weight, easy to road transport, assembly, high degree of automation, can be more safe and efficient completion of girder construction tasks, making railway construction period shortened. Beam erector also achieved record of erecting 30 beams a day (24 hours) at Taizhongyin railway bridge construction. This is a remarkable machine which other type of bridge

DJ-type Beam Erector in 2008 officially enter the market, after just a few years it has been occupied the domestic railway bridge machine market in a fast pace and it had been exports to Nigeria. Ethiopia and other played a huge role in creating an economical and social benefits to the countries and companies.























# DJ型单导家被称死在政策说:"U"型验机识定 DJ-series Single Box Circler Beam Erector has erected U-shaped rail steel beams in Írdia

# 城市轻轨施工设备 LIGHT RAIL CONSTRUCTION EQUIPMENT

本公司生产的DJ型单导梁架桥机和JSHB型双导梁架桥机经过多年的优化设计和持续改进,适应架梁的工况越来越多,除了可以架设传统的"T"型梁、箱型梁、"工"字梁外,还可以架设城市轻轨"U"型梁、"L"型梁等,为国内、外城市轻轨的建设作出了贡献。

DJ series Single Girder Beam Erector and JSHB Double Truss Beam Erector since many years of continuous improvement of its working conditions this machine could perform even better. It could suit to more segment geometry, not only erect "T" shaped beam, box beams, "I" beam, it can also erect "U" shaped beam, "L" shaped beam, etc. This machine has contributed a lot to either domestic or foreign cities light rail construction



DJ型单导梁架桥机在埃塞俄比亚架设轻轨梁 DJ-series Single Box Girder Beam Erector has <u>erected</u> U shaped rail beams in Ethiopia



DJ型单导梁架桥机在印度架设"U"型轻轨钢梁 DJ-series Single Box Girder Beam Erector has erected U shaped rail steel beams in India



DJ型单导梁架桥机在印度架设重280吨的铁路轻轨 "U"型梁 DJ-series Single Box girder Beam Erector has erected 280 tons of heavy rail light rail U shaped beam, India project



JSHB型双导梁架桥机在兰新二线架设重240吨的"U"型铁路梁 JSHB Double Truss Beam Erector -Lanzhou-Xinjiang Second Link Rail Road, 240 tons of U shaped rail beam





LG系列节段拼装架桥机是本公司自行设计的广泛应用于架设公路、铁路整孔钢筋混凝土整孔节段梁片施工设备。该机属双臂简支型,可架设直桥、斜桥及曲线桥阶段梁片。该机最大跨度达82米,单片梁重110吨,最大单孔梁重达3060吨。

该架桥机架设钢筋混凝土节段梁片时,按照梁片次序逐块组拼,同时施加预应力,整垮节段梁块安装完毕后进行干接缝、湿接缝施工,使之成为整体结构,然后按预定的安装方向进行逐跨安装,逐跨推进,最后完成整座桥的施工。采用该施工方法进行架桥施工,既保证了工程质量,又很好的解决了施工对现况交通造成的影响,同时也节约了制梁场征地费用和运梁费用,特别适用于横跨江河、湖泊、铁路、公路及城市道路等大跨度桥梁的架梁施工。

该架桥机主臂三角桁架的腹杆与上、下弦之间采用钢销连接,各腹杆可互换通用,这一创新设计使得设备在解体时可以将大型构件解体为最小单元,便于汽车公路运输或集装箱运输。2010年,本公司获得了"节段梁架桥机旋转机构"和"节段梁架桥机调平机构"等专利。

本公司生产的LG系列节段拼装架桥机除满足国内架桥施工外,已经出口到马来西亚、以色列、美国等国家。

LG Series Launching Gantry is developed by our company and used to launch the entire reinforced concrete segments in road and railway construction. This machine is double truss and simple supported. The LG can erect the straight bridge, screw bridge and curved bridge. Maximum span of this machine is 82 meters. Single segment to be lifted weights 110 tons. Maximum one—span—beam weights 3060 tons.

When launching a reinforced concrete segments, lift up and connect the segments in sequence while pre-stressed, dry & wet construction after assembling the full span making the segments into one block beam, and then install one by one, span by span till finish the whole bridge. In this way, it can ensure the project quality and eliminate the impact of current traffic, save the fee for land expropriate and delivery. It is suitable for the construction of long-span bridge across rivers, lakes, railways, roads and cities.

Web members are connected to the up & down chord with pins. The web members are interchangeable, making sure a large structure can be dismantled into small parts that are convenient for road or container delivery. The company got patent certificate for rotary mechanism and leveling system.

LGs manufactured in our company are not only used in domestic constructions but also exported to Malaysia, Israel, and USA etc.



运 梁 Segment delivery



桥下提梁 gment lifting under the bridg



架 梁 Launch beam



整孔合拢 Span closur



LG型节段拼装架桥机在马来西亚架梁施工 LG construction in Malaysia



LG型节段拼装架桥机在以色列架梁施工 LG construction in Israel





DJP200型铁路架铺机在宁启铁路架梁施工 DJP200 model track layer in Ningqi girder railway construction

#### DJP200型铁路架铺机

DJP200 TRACK LAYER

DJP200型铁路架铺机是本公司根据我国未来铁路建设的发展要求,并结合多年研发铁路架桥机、铁路铺轨机及公铁两用架桥机的基础上又推向市场的新产品。该机具备了架设32米、200吨及以下各种预应力混凝土T型梁(架梁速度:1孔/1.5小时)和悬臂铺设25米线路轨排(设计铺轨速度:5分钟/排)的功能,铺线路轨时机内可存6层轨排。解决了传统铁路铺架作业中架桥与铺轨两套主机交替作业的问题。该机机臂总成分5节采用销接拼装结构而成,车体采用销接拼装结构由3节组成,柱体与车体螺栓连接,转向架为前六后四,单件最大重量控制在20吨以内,使之可解体公路运输,避免了传统铁路架桥机运输中办理过轨运输等烦琐手续。

本机结构合理,使用方便,结合了传统铁路架铺设备的主要优点,具有一机两用、作业效率高、性价比优越的特点。

预计DJP200型架铺机将来是架设铁路新梁型的主导设备,会在我国未来铁路建设史上写下重重的一笔,可以实现经济效益和社会效益的双丰收。

DJP200 model railway girder erection equipment is a modern type of machinery developed to serve China's modern railway construction. This machine main technical parameter: span 32 meters, lifting capacity 200 tons, suitable for a variety of pre stressed concrete T-beam, (girder erection speed: 1 span /1.5 hour) and cantilever out 25m laying track panel with design laying speed: 5 minutes / row, 6 panels per load. This combination operation had saved the conventional method which reduced the need of conveyance machine. The main girder is the main part of this machine to carry major load. It consists of 5 units of section which are to be pinned together. Every part weight control at less than 20 tons to ease road transportation.

This machine simple structure, easy to use, dual function, high efficiency, and comes with cost-effective features.

For seen D.IP200-track layer machine shall be leading technology in railway line construction equipment



DJP180架铺机是本公司在原DJ180公铁架桥机、轮轨式铁路架桥机、以及铺轨机的基础上,针对近几年铁路施工现场的变化和需求,最新研制的一种延伸机型。解决了架桥机、铺轨机双机作业、频繁倒线及开叉等施工难题,集铺轨机、架桥机功能于一身,节省了人力、物力,提高了作业效率。该机的架梁速度:1孔/1.5小时;悬臂铺设25米线路轨排:10分钟/排。

该机机臂采用销接拼装结构,一、二号柱分别安装在独立的四轴转向架车体上,单件最大重量控制在13吨以下,使之可解体公路运输、安装快捷方便。

本机结构合理,使用方便,结合了传统铁路架铺设备的主要优点,具有一机两用、作业效率高、性价比优越的 特点。

DJP180 Series Track Layer is latest extension type developed from the original DJ180 Track Layer, Wheel &Rail type Track Layer and the Track Layer, in allusion to the variability and demand of railway construction. Composed of the functions of both a beam launcher and a track layer, solving the problem of using two machines and cumbersome rehandling, this machine can raise the productivity. Launching speed: 1 span per 1.5 hour; cantilevered laying 25m railway: 10 minutes per track panel

Main Girder is connected with pin joints. 1st and 2nd Supports are installed on a separate four—axis—bogie. The maximum weight of the above component of one each is no more than 13 tons, making sure this machine can be quickly and conveniently dismantled and assembled.

Combining with the advantages of traditional equipment for both bridge erecting and track laying, the reasonable structure can do promote the productivity.



DJP180型鉄路架铺机过隧道 DJP180 Series Track Layer passing through a tunnel



DJP180型铁路架铺机线路铺轨 DJP180 Series Track Layer laying railway track



DJP180型铁路架铺机在重庆架梁施工 DJP180 Series Track Layer erecting a bridge in Chongqing



DJP180型铁路架铺机在内蒙架梁施工 DJP180 Series Track Layer erecting a bridge in Inner Mongolia



#### DJK166型铁路架桥机

#### DJK166 RAILWAY BEAM ERECTOR

DJK166型铁路架桥机适用于铁路新建和旧线改造时速200公里、跨度32米及以下客货共线T型梁(通桥2201型, 2101型)、专桥2051、9753梁的倒运和架设。能够方便地进行曲线铺轨架梁和变跨架梁,能够满足隧道口和隧道内架 梁.满足机上空中移梁的横移量要求.能够满足铁路货物运输限界要求。

该机型架桥机主要部件如主机臂、1#车车体、2#机动平车车体为分段设计,柱体与1#车体为法兰连接,使之可解体公路运输,避免了铁路架桥机运输时办理过轨运输等烦琐手续。

DJK166 Railway Beam Erector is suitable for newly—construction or existing 200km/h, 32m span and "T" shape Girder (Common Type 2201 & 2101) railway line upgrading, re—handling and erecting of Special Type 2051 &9753 girder. It can easily carry out track laying at curvature condition and varying spans, meet the requirement of beam erecting at tunnel entrance or in the tunnel, sliding distance when lifting a girder, and the limitation of railway cargo.

Composed of Main Girder, 1# & 2# car body which is designed separately, and Supports connecting with the 1# car body by flanges, this type of beam erector can be dismantled and delivered by road transportation avoiding the cumbersome formalities for railway delivery.



DJK166架桥机在南疆铁路架梁施工 DJK166 Railway Beam Erector is working at Nanjiang Railway construction

DJ型铺轨机具有铺设铁路窄轨轨排、标准轨排、重型轨排、特重型轨排、宽轨枕轨排、分块铺设混凝土道岔和架设铁路16米及以下混凝土梁的功能。车体可以适应1000、1067、1435、1670等轨距。

该机型铺轨机主要部件如主机臂、1#车车体、2#机动平车车体为分段设计,柱体与1#车体为法兰连接,使之可解体公路运输,避免了传统铺轨机运输时办理过轨运输等烦琐手续。

该铺轨机在新疆喀什工地施工创日(24小时)铺轨11.37公里的国内最高记录。

DJ series track layer are capable to erect narrow track, standard track, neavy track, extra heavy track, wide track, erection of concrete railway turnouts 16 meters and below. This series track layer could adapt track gauge 1000、1067、1435、1670.

These series consisted of 3 main components i.e. prime erector, conveyance wagon and lifting portal. Prime erector and conveyance wagon is by flange connection hence easing dismantling and also easy road transport.

This series had a record of laying 11.37 kilometers (in 24 hours) hence the highest laying rate in local market.



倒装龙门架倒装轨排 Conveyance Wagon



二号车运输车 Lifting Port



DJ型辅轨机在尼日利亚施工时总统到场剪彩 DJ-type laying machine construction in Nigeria president attended the ribbon-cutting



DJ系列单导梁架桥机是本公司自行开发,具有独立知识产权的架梁施工设备,该机用于架设公路60米、300吨及以下各种预应力钢筋混凝土简支梁片,属单臂简支型,既可架设直桥、斜桥,也可架设曲线桥。

单导梁架桥机在国内架桥机同行业中,以其结构新颖、适用范围广、重量轻、运输组装方便、性能优良、自动 化程度高、功能齐全等特点,受到广大用户的青睐。该机整机采用简支引导过孔,既安全又灵活,而且大大降低了 过孔时2号柱对梁面的支反力。

DJ型单导梁架桥机于2002年5月16日通过河北省新产品鉴定,并获得2002年河北省"十大优秀发明奖"。 2003年获得国家科技部、国家质量监督检验总局、商务部等五部委颁发的"国家重点新产品"证书,并获得多项技术 专利。该产品在公路架桥机发展史上属首创,填补了国内外公路大跨度单导梁架桥机的空白。

DJ series of Single Guided Beam Erector is the company's niche product, the maximum specification it could achieve is largest span 60 meters and rated load of 300 tons. This machine is suitable to a variety of pre-stressed concrete. Its main structure belongs to simply supported type and versatile in erecting straight bridge, skew bridge and curved bridge.

Single Guided Beam Erector in local industry are well known for new technology, wide application, light weight machinery, easy for transportation, excellent performance and with a high degree of automation. This bridge machine adopted simple supported method not only safe and flexible, but also greatly reduces the reaction force towards Bear Support which means more entireum design on supports could sustain

DJ series of Single Guided Beam Erector on May 16, 2002 had been certified new products in Hebei Province, thus received the "Ten Outstanding Invention Award." Year 2003 by the State Science and Technology, also the State Administration of Quality Supervision, Inspection and the Ministry of Commerce and other five ministries issued the "National Key New Product" certificate. A number of parts are being patented. This product had created a history of the development of the highway bridge machine whereby it is the first machine in both local and international bridge construction industry achieved big span highway bridge.



DJ型单导梁架桥机在希腊架梁施工 DJ-type Single Guided Beam Erector in Greece bridge construction



DJ型单导梁架桥机在云南架桥施 DJ-type Single Guided Beam Erector in Yunnan bridge construction



DJ型单导梁架桥机在天津滨海大道架桥施工 DJ-type Single Guided Beam Erector in Tianjir Binhai Avenue bridge construction



双导梁架桥机在山西架桥施工 Double Truss Beam Erector in Shanxi bridge construction



双导梁架桥机在慈利架桥施工 Double Truss Beam Erector machine construction in Cili District Hunan



双导梁架桥机在天津滨海大道架桥施工 Double Truss Beam Erector in Tianjin Binhai Avenue bridge construction

#### JSHB系列双导梁架桥机/双导梁公铁两用架桥机

#### JSHB SERIES OF DOUBLE GUIDE BEAM BRIDGE MACHINE DOUBLE GUIDE BEAM BRIDGE MACHINE FOR ROAD AND RAILWAY

JSHB系列双导梁架桥机是本公司自主研发,用于架设公路60米、240吨及以下预应力钢筋混凝土简支梁片的架梁施工设备;也可以架设铁路新建和旧线改造时速200公里及以下客货共线T型梁,最大跨度为32米,最大额定荷载为180t。该机属双臂简支型,既可架设直桥、斜桥,也可架设曲线桥。

双导梁架桥机在国内架桥机同行业中,以其结构简单、价格低廉、组装方便、功能齐全、性价比高等特点,受到大多数用户的认可。整机采用步履式或配重式简支引导过孔,既安全又灵活,而且大大降低了过孔时中支点对桥面的支反力。

JSHB series Double Truss Beam Erector is developed for the erection of the 60 meters span highway or bridge, lifting rated load 240 tons and below, this machine is suitable to a variety of pre-stressed concrete; This machine also suitable for the erection of new and rehabilitation of old railway line for 200 kilometers speed per hour railroad but also suitable for local high speed rail viaduct, with the maximum span of 32 meters. Its main structure belongs to simply supported type and versatile in erecting straight bridge, skew bridge and curved bridge.

Double Truss Beam Erector erecting machine are considered as simple structure, low cost, easy to assemble, fully functional, widely accepted by most contractors. The sequence launching and erection method made it simple to operate, flexible and versatile hence reduce the reaction force impact on the bridge pier.







HJ900A型架桥机用于铁路客运专线(时速250公里、350公里)20米、24米、32米双线整孔混凝土箱梁架设。主要由主梁、前、后吊梁行车、辅助行车、前、后支腿、辅助前支腿、辅助后支腿、下导梁、电气及控制系统、液压系统等组成。该机具有采用短尾喂梁、一跨式架梁、短导梁过孔的架梁作业法,使整机结构简单,自重轻;受力明显,安全可靠,不需要在墩顶设置锚固;使用了机、电、液一体化技术,工作机构动作快捷、准确、安全可靠、架梁精度高;整机过孔时纵向稳定性好;吊梁行车和辅助行车均具有横移功能;各走行系统均采用变频调速技术,起步平稳,冲击力小,制动可靠;整机过孔及吊梁行车运移箱梁时,运行平稳对位准确;起重卷扬机构采用变频调速技术,具有高、低速及变频电机能耗三套制动装置,起动平稳,调速范围大,制动性能可靠;采用 Profibus 工业现场总线技术,以高可靠性的PLC构成主控制系统,控制功能强,安全可靠性高,使用灵活方便; 监控系统实现关键工序的自动检测定位,自动化程度高等特点。

HJ900A Series Beam Launcher is a dedicated Full Span Precast Bridge Construction machine especially for local High Speed Railway Line (250 kilometers speed per hour till 350 km per hour) with span either 20 m, 24 m or 32 m twin concrete segment box girder. Main component consisted of Main Girder, Front Lifting Trolley, Rear Lifting Trolley, Rear Launching Horn, Launching Wagon, Electrical and Control Systems, Hydraulic Systems and other components. Simple structure, light self—weight; safe and reliable, stable self—launching; hydraulic integration technology, fast launching speed, accurate, safe, reliable, this machine able to side shift; hanging beam and auxiliary lane carriageway have sliding function; each Traveling system uses frequency conversion technology, smooth start, little impact, reliable braking; when the machine via road transport and lifting beam girder, smooth operation and accurate alignment; hoisting winch mechanism with frequency control technology, with high and low frequency electrical energy, and three sets of brakes, a smooth start, speed range, reliable braking performance; using Profibus industrial field bus technology to PLC high reliability constitute the main control system, control functions; monitoring system for automatic detection and location of key processes, high degree of automation.

# HJ900B型架桥机

HJ900B型架桥机适用于山区地带桥隧相连线路施工的可以过隧道不用解体,隧道口(5米)架梁客运专线32米及以下整孔箱梁的新型架桥机,该桥机具有:采用C形支腿,具有运梁车驮运穿越双线隧道的功能;采用一跨式定点提、架梁,整机结构简单,采用高位下导梁,与运梁车直接对位喂梁,架桥机简支状态过孔,受力明显,安全可靠,稳定性好;使用了机、电、液一体化技术,工作机构动作快捷、准确、安全可靠、架梁精度好;起重卷扬机构具有高、低速二套制动装置,制动性能安全可靠;采用图象识别、超声波测距技术,实现整机过孔及吊梁作业时的自动控制,对位准确;采用 Profibus 工业现场总线技术,以高可靠性的PLC构成主控制系统,控制功能强,安全可靠性高,使用灵活方便;监控系统实现关键工序的自动检测定位,自动化程度高等特点。

HJ900B type Beam Launcher is suitable for mountainous areas and tunnel construction whereby go through the tunnel (5 meters) without dismantle the machine. It is designed for span 32 meters and below. The support structure was designed as C-shaped to facilitate the cross of tunnel. During launching it adopted the once point lifting for whole span hence the load distribution is significant, simply supported and reliable. And drop in span method. With integration of mechanical, electrical, hydraulic technology, the operation is fast, accurate, safe, reliable and high accuracy in placing girder. Furthermore the hoisting winch mechanism comes with two sets of brakes, high and low speed. With a rather high braking performance hence safety and reliability are secured; For beam lifting safety feature by using image recognition, ultrasonic distance measurement technology, automatic control machine and accurate position are among the safety control measure included; For electronic appliances, utilizing the Profibus fieldbus technology constitute to high reliability of PLC control system, control functions, high security, reliable, flexible and easy to use; also with monitoring system to achieve automatic detection and location of



#### HMQ450型提梁机 HMQ450 TYPE GANTRY CRANE

HMQ450型提梁机用于时速200~350公里铁路客运专线20米,24米,32米双线整孔混凝土箱梁的提升、装卸、移动。在客运专线的架梁施工中,提梁机能与运梁车配合完成900吨及以下箱梁的装梁作业。

HMQ450 type Gantry Crane are designed for fast speeds railway line construction (200km/h to 350 km/h). Main function are to erect, assemble and lifting for 20 meters, 24 m, 32 m full span concrete box girder. To be interoperate with 900 metric ton Beam Trolley.





门式起重机主要由主梁、支腿、吊梁行车、电气控制系统等组成,主梁采用三角桁架、四桁架、贝雷桁架、箱梁等作主要承载受力构件单元,单元间采用销轴或螺栓副联接,配置自力走行装置和吊重行车,用以实现吊、放重物的三维运动,可双台抬吊重物,也可以进行单机吊重。

门式起重机具有易于拆装、运输,便于转移工地,经济性好的特点,广泛应用于经常转移场地的公路、铁路、客运专线工程梁场施工,尤其是适宜旱桥、低桥墩、宽桥面、桥下制梁工况时首选移梁、架梁设备,亦可用于货场、物流中心、仓储基地等装、卸货物使用。

Portal Crane is composed of main truss, support legs, lifting crane, electronic control system, etc. The main truss is consisted of triangular truss, quadrilateral truss, bailey truss, box girder as main force bearing components and connected with pins or bolts. Configuring self—travelling devices and hoisting crane archives the three dimensional movement. You can use one or two this machine lift up the weight.

Known as easy dismantle/assembly, delivery, easy to be transported and good economics, this machine is widely used in road, railway or passenger railway construction, especially in viaduct, low pier bridge, broad bridge deck, beam casted under a bridge, etc. This machine is also used in freight yard, logistic center and storage base.











Se型节段梁架桥机在印度施工 SE type Segmental Beam Erector construction segment in India.jpg



SE型节段梁架桥机在马来西亚施工 SE-type Segmental Beam Erector construction in Malaysia

# SE节段梁架桥机 SE SEGMENTAL BEAM ERECTOR

SE系列节段梁架桥机是本公司自行设计的用来架设分节段预制的公路、铁路梁块的设备。节段梁架桥机在施工时,以桥墩为中心,按梁块次序前、后逐块组拼,同时施加预应力,使之成为整体结构,最后合拢。采用该工法施工,既保证了工程质量,又很好的解决了施工对现况交通造成的影响,同时也节约了制梁场征地费用和运梁费用,特别适用于横跨江河、湖泊、铁路、公路及城市道路等大跨度桥梁架梁施工。

SE型节段梁架桥机目前在国外已广泛应用,本公司生产的节段梁架桥机已经出口到印度、马来西亚、以色列,澳门等国家和地区。

SE series Segmental Beam Erector, developed by our company, is used as pre-casting road and railway segmental block. The main important strength of HCR Segmental Erector can travel along the finished bridge back to any point on top of the bridge to pick up a new segment and then travel back to the erection tips for new erection. This important ability allows the erection of the Precast Segments without any problem when the bridges have to run across river, busy road, lakes, railway, highways and urban roads and other large-span bridge girder construction or other underneath obstacles.

#### 倒装龙门架

#### **RE-HANDLING PORTAL CRANE**

倒装龙门架是铁路架桥机组的配套设备,由两台液压倒装龙门架组成,利用自带的发电机组提供动力电源,驱动液压系统,实现吊梁扁担的升降和横移,为铁路架桥机组倒装"T"型梁片或轨排组。

Re-handling Portal Crane is a supporting facility of Beam Erector for Railway. Composed of two hydraulic re-handling portal frame, powered by generator set and driven by hydraulic systems, implementing the spreader's lifting up & down and side-shifting movement, re-handling 'T' shape beam or track panel for Beam Erector.







#### 铺轨龙门吊 TRACK LAYING PORTAL CRANE

铺轨龙门吊是专为铺设地铁(城市轻轨)25米标准轨排设计制造的,也可用于单台吊重施工或多台联动铺设 125米长轨排铺设作业。

Track Laying Portal Crane is developed for 25m standard track panels for metro (urban light rail). It is also used for lifting up construction with one machine or laying 125m long rail panel with multiple ones.

#### TBJL30型铁路钢便梁运架机

#### TBJL30 SERIES ERECTOR FOR STEEL TEMPORARY BEAM

TBJL30型铁路钢便梁运架机是本公司自行研发的专门用于既有线或站场桥涵钢便梁施工的专用设备。该机可进行D12、D16、D20、D24等D型钢便梁施工,也可以用于其它类型的钢便梁施工。使用该设备进行钢便梁施工的优点是可以在不中断运营线行车的情况下进行桥涵的开挖与施工。该机结构简洁,组装和解体方便,横移和纵移转化快捷,是钢便梁施工作业的首选设备。



The TBJL30 Series is developed for steel temporary beam of existing railway lines or station, bridge culverts. This machine is suitable for D type steel temporary beam construction, like D12, D16, D20, D24, etc., and other types. With this machine, there will be no interrupting of operation line while excavation and construction for bridge culverts. This machine is considered as simple structure, convenient assembly and dismantling, fast side—shifting and launching. It is a best choice for steel temporary beam construction.

#### 转向架式铁路运梁车 RAILWAY BOGIE BEAM TROLLEY

转向架式铁路运梁车是根据国内新建铁路运行速度的不断 提高,铁路梁型不断加重,铁路施工工期也不断提高,为配合 铁路架桥机架梁施工配套需要而研发出来的专用铁路运梁车。

该运梁车运梁时重载速度为0~7km/h,空载速度为0~14km/h,适应坡度为20‰,可与DJ型公铁两用架桥机及其它型式铁路架桥机配套使用,进行架梁施工。

由于该运梁车具有运梁速度快、运行稳定可靠、故障率低等特点,近年来,越来越受到铁路施工企业的青睐,成为铁路架梁施工中轨道运梁的首选设备。



Continuous speed improvement of the domestic high speed railway line has contributed to much heavier girder to sustain bigger capacity railroad. Also, the construction period was greatly reduced with the new improvement of the construction method.

The said machine's travelling speed with load is 0 ~ 7km / h, non-load speed is 0 ~ 14km / h. In order to cope with bridge slope of 20 %, combination of DJ series beam erector will fulfill the steep requirement.

Since this wagon has a fast operation speed, reliable, and low failure rate, in recent years, more and more railway construction enterprises has opt this machine as a first choice to ease the job.



#### 轮轨式铁路运梁车 BEAM TROLLEY WITH STEEL WHEELS

轮轨式铁路运梁车由前后两台运梁车组成,利用自带的发 电机作为动力,是为DJ型公铁两用架桥机及其它铁路架桥机施 工架梁配套使用的专用运梁设备,具有结构简单、使用方便、 运梁平稳、效力高的、施工成本低的特点。

该运梁车运梁时重载速度为0~2.5km/h, 空载速度为0~5km/h, 适应坡度为30‰。

Beam Trolley with Steel Wheels is composed of front and rear trolley. Powered by its own generator, this machine is a dedicated supporting facility for DJ Series Beam Erector for Road& Railway and other equipment used in bridge construction. It is known for the characteristics of simple structure, convenient to use, smooth delivery, high productivity and a low construction cost.

Moving speed with load is 0 ~ 2.5km/h while 0 ~ 2.5km/h with no-load. Applicable slope is 30%.

#### 轮胎式运染车 BEAM TROLLEY WITH TYRE

轮胎式运梁车是本公司自主研发的用于长距离运输铁路、公路梁片的专用运梁设备,运梁车最大轮距为3.4m;最大载重量为250吨;运梁时适应最大纵坡为5%,横坡为2%。该运梁车运梁时重载速度为0~5.94km/h,空载速度为0~23.35km/h。

由于该运梁车具有运梁速度快、运行稳定可靠、故障率低等特点,近年来,受到铁路、公路施工企业的青睐,成为铁路、公路施工中无轨运梁的首选设备。

Beam Trolley with Tyre is a kind of equipment dedicated for long distance transport railway, highway beams. Maximum wheel distance is 3.4m. Maximum loading capacity is 250 tons. Applicable longitudinal slope is 5% maximum and transverse slope 2% maximum. The said machine's travelling speed with load is  $0 \sim 5.94 \text{km/h}$ , non-load speed is  $0 \sim 23.35 \text{km/h}$ .

Because it's fast transporting speed, stability and low failure rate, this machine is preferred by road and railway enterprise.



轮胎式运梁车运输铁路梁 Beam Trolley with Tyre travelling railway beams



轮胎式运梁车运输公路梁 jeam Trolley with Tyre travelling highway beams



摄像头 Camera

#### 起重机械安全监控管理系统

#### CRANE MACHINERY SECURITY MONITORING & MANAGING SYSTEM

本公司自行研发的《起重机械安全监控管理系统》可以对架桥机、门式起重机等起重机械的运转状态进行实时 监控管理,实时记录各工况的运转数据和视频资料,并且预留了远程监控管理接口,能够实时进行远程监控管理。 起重机械配备了该系统后,能够对起重机械进行数据化管理,并且对起重机械的安全运行起到了保障作用。

系统配置:视频显示器、数据显示器、起重量限制器、激光测距仪、编码器、角度传感器、风速仪、数据监控处理单元、CAN通讯电缆等。

系统构成:信息采集系统接口、模拟量接口、CAN总线接口、RS485总线接口、RS232总线接口;数据处理系统;控制输出系统;信息显示系统;信息存储系统;信息导出系统;远程传输预留接口;远程监控预留接口。

This security monitoring and managing system developed by our company is used for security monitoring and managing in different kinds of beam launchers, portal cranes, etc., real-time monitoring and managing various operation state, real-time recording the working condition date and video information, and reserved interfaces for remote monitoring and managing.

System configuration: video displayer, data indicator, load lifting limiter, laser range finder, encoder, angular transducer, anemometer, data monitoring & processing unit, CAN communicate cable etc.

The system is composed of analog interfaces, CAN BI, RS485 BI, and RS232 BI; the date processing system; control output system; information display system; information storage system; export information system; remote transmission interfaces reserved; and remote monitoring interfaces reserved.



报警信息管理界面 Alarm information management interface



主界面 The main interface



主控窗口 Main control window



显示器 Display







#### 水泥乳化沥青砂浆搅拌车

#### **EMULSIFIED ASPHALT CEMENT MORTAR MIXER TRUCK**

I/II-s/d-L800型水泥乳化沥青砂浆搅拌车是按照铁道科学研究院2009年制订的《客运专线板式无砟轨道水泥乳化沥青砂浆车暂行技术条件》而设计的,由本公司与中铁八局联合研发。

本机具有以下特点:

- 一、优先采用线上无轨走行方式,减少了大量人力和物力的投入,施工效率大大提高。
- 二、满足桥梁和隧道、单线和双线等多种工况。
- 三、适应CRTS | 型和CRTS || 型无砟轨道板施工;适应单/双组份加料方式,减少施工投入成本,实用高效。
- 四、采用工业控制计算机为核心的自动控制技术,干混料及各种添加剂实现电脑制动计量,控制调整灵活,计量精度满足标准要求。
  - 五、车体设置液压自动调平装置,可实现车体水平自动调平;前后走行设置液压转向机构。
  - 六、配备空调和除尘系统,满足全天施工,控制粉尘污染,符合环保要求。
- 七、搅拌罐内配备高压清洗装置,使设备在每次施工完毕保持搅拌罐内的清洁,并且进一步提高了设备的计量 精度。

八、运输便捷、组装方便。

本公司生产的水泥乳化沥青砂浆搅拌车具有技术成熟,性能先进可靠,灌板施工效率高等特点,在客运专线施工中发挥了巨大作用。并且承接客运专线轨道板现场灌板施工工程,为施工企业提供便利。

I / II -s/d-L800 Series Emulsified Asphalt Cement Mortar Mixer Truck is jointly developed with the China Railway Eighth Group based on the Passenger Dedicated Slab Track Emulsified Asphalt Cement Mortar Interim Technical Conditions established by Academy of Railway Sciences in 2009.

This machine has the following features

- Given priory to trackless travelling method, save a lot of manpower and material resources, construction efficiency has been greatly improved.
  - II .Meeting a variety of working conditions of bridges, tunnels, single and double, etc.
- Applicable for Type CRTS I and Type CRTS II ballastless track slab construction. Applicable for single/double feeding component, reducing the input costs of construction. Practical and efficiency.
- IV .With Industrial Control Computer as a core of automatic control technology, dry mixtures and variety of additives computerized automatically. Flexible control and adjustment, and measuring accuracy meet the required standard.
- V. Hydraulic automatic leveling device inside the car body realize self-leveling. Hydraulic steering mechanism is used to travelling front and back.
- VI. Air conditioning and dust removal system is equipped to realize a full day construction and dust pollution control meeting the environmental requirement.
- VII.Stirred tank is equipped with high-pressure cleaning device, so the stirred tank can keep clean after every construction and further improve the measurement accuracy of the device.

VIII. Convenient transportation and easy assembly & dismantling.

Mature technology, reliable performance and high efficiency, this machine developed by our company has played a significant role in passenger dedicated line construction. We also undertake irrigation board construction in passenger dedicated line projection.





#### 现浇施工设备

#### **EQUIPMENT USED IN CAST-IN-SITU CONSTRUCTION**

本公司生产的现浇施工设备主要由造桥机和施工挂篮等,广泛适用于各种断面及跨度的公路及铁路现浇桥梁的施工。

Cast-in-situ Construction equipment such as beam launcher, form traveller, etc. are applicable for road and railway cast-in-situ bridge with all kinds of sections and spans.



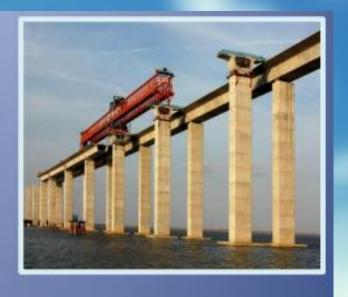


# **Working condition on site-Erection of Bridge Girder at Angle**







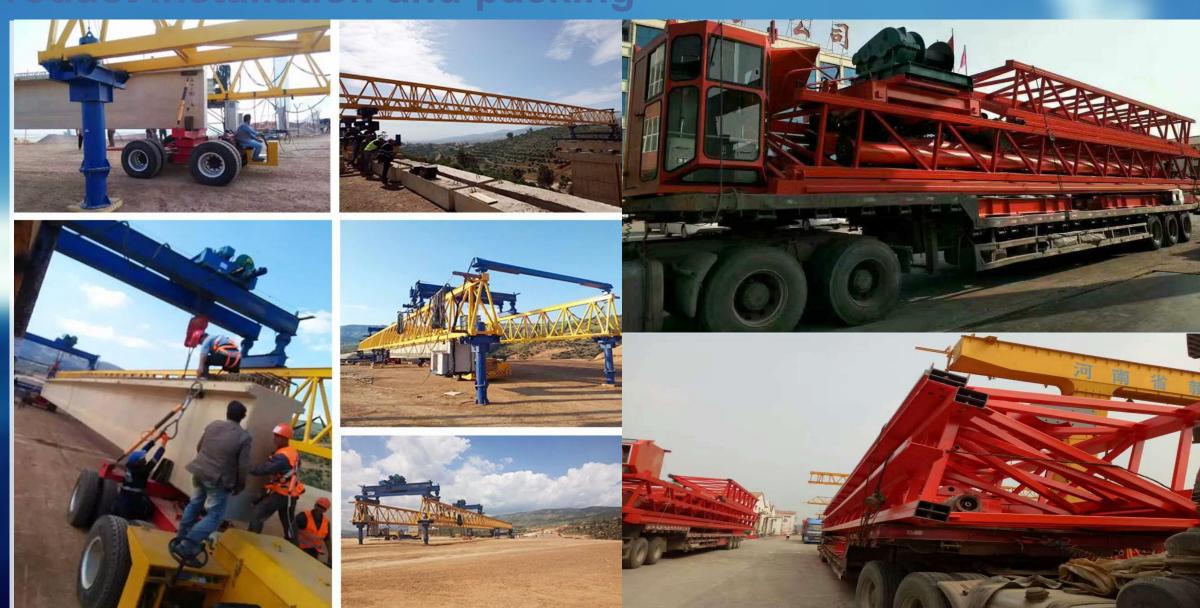




# **Working condition on site-Erection of Bridge Girder at Angle**



# **Product Installation and packing**



# **Production Equipment**



Φ260双立柱落地镗铣床 Φ260 NC Boring &Milling Machine



25x6.5x6.5m 热处理炉 25x6.5x6.5m Heat-treat Furnace



¢9m 滚齿机 ¢9m Gear Hobbing Machine



52.5米x8米x8米 数控龙门镗铣床 52.5mx8mx8m Digital Control Gantry Boring & Milling Machine



¢6m 立式车床 ¢6m Vertical Lathe



数控天桥铣机群 NC Overbridge Milling Machines

# **Testing Equipment**



全普直读光谱仪

The Full Spectrum of Direct Reading Spectrometer UTM5105XFloor-Standing Electromechanical



UTM5105X型微机控制电子万能试验机



Ni500型金属摆锤冲击试验机 NI500 Metal Pendulum Impact Testing Machine



全站仪 Leica TS11 Electronic Total Station Leica TS11



涂层测厚仪 456 CFSS Coating Thickness Gauge 456 CFSS



超声波探伤仪HS610E Ultrasonic Flaw Detector HS610E

## LG SERIES BEAM LAUNCHER PART SALES PERFORMANCE

SDLB200	Segmental assembly bridge launcher machine	2 sets	Saudi Arabia;
TLJ660t	Segmental assembly bridge launcher machine	1 set	Korea;
TP46	Segmental assembly bridge launcher machine	3sets	India BADARPURE;
TP50	Segmental assembly bridge launcher machine	6sets	Korea MOKPO工程;
TP600	Segmental assembly bridge launcher machine;	4 sets	Indonesia BUKAKA
TP700	Segmental assembly bridge launcher machine;	6sets	Thailand TBTC
LG650	Segmental assembly bridge launcher machine	8sets	Thailand TESCO,LTD
DP70/10	000 Segmental assembly bridge launcher machine	1set	Taiwan;
LG600 S	egmental assembly bridge launcher machine	1 set	Bangladesh; Ministry of communications

# **Segmental Launching Gantry for Highway Construction Domestic sales list**

NO	Item	Customer	Use Place	Capacity	Span	Curve
1	FU PING Railway 福平铁路	CRCC 中铁建大桥局	China	2700t	64m	2000m
2	ZHENG FU Railway 郑阜高铁	CRCC 中铁五院	China	2500t	80m	2000m
3	ZEHNG WAN Railway 郑万高铁	CRBI 中交路桥	China	2300t	54m	2000m
4	NAN JING fourth bridge 南京四桥	The Second Harbor Engineering Company 中交二航局	China	1500t	65m	2000m
5	Thailand NO6 motorway	CSCEC 中建土木海外公司	Thailand	1250t	42.5m	500m
6	SU TONG bridge 苏通大桥	CHINA COMMUNICATION CONSTRUCTION 中港二航局	China	1110t	75m	2000m
7	LE QING WAN bridge 乐清湾大桥	The Second Harbor Engineering Company 中交二航局	China	1000t	60m	2500m
8	WEI HE bridge 渭河特大桥	CHINA RAILWAY 21ST BUREAU GROUP 中铁21局	China	1000t	48m	2500m
9	TAI ZHONG YIN Railway太中银铁路	The Second Harbor Engineering Company 中交二航局	China	1000t	54m	3000m
10	SI FENG bridge 北京四丰桥	BMRBH 北京市政	China	900t	48m	150m

# **Contact Me**



Ms. Taurus Guo (Sales Engineer)

Web: www.hycranes.com

Xinxiang Hycrane Co.,LTd: TOP-TEN ENTERPRISE IN China

Mob: +86 13569807163 | Email: info@hycranes.com