

GENMA 



**GENMA Offshore
Engineering Solutions**

**杰马海洋工程
解决方案**



OUR SPECIALTY YOUR STRENGTH
专业之道 成就力量之美

GENMA Offshore crane from Nantong Heavy Machinery Co., Ltd. is devoted to providing customers with professional, efficient and safe material handling solutions at sea. Currently, GENMA product and service network have covered many countries worldwide.

“杰马” 海洋起重机由南通润邦重机有限公司倾力打造，致力于为客户提供专业、高效、安全的海上物料搬运解决方案。目前，“杰马”产品和服务网络已覆盖全球多个国家和地区。

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Category 产品分类

G1 Shipyard/Container Yard/Factory Solutions
船厂堆场\工厂解决方案



G2 Offshore Engineering Solutions
海洋工程解决方案



G3 Bulk Cargo Terminal Solutions
散料系统解决方案





GENMA Offshore Crane Series

“杰马” 起重机 海洋系列

GENMA offshore cranes are providing practical solutions on material handling for all types of offshore oil platforms, drilling rigs, FPSO, accommodation barge / work boat, pipe-laying ship, offshore support vessels and offshore wind turbine installation vessel. They are widely used for offshore oil production operations (such as cargo handling, personnel transfer, etc.), offshore engineering equipment installation, salvage operations, offshore wind turbine equipment installation, maintenance work as well as loading /unloading operations on ports.

The design and manufacture of offshore cranes are in full compliance with international recognized offshore crane standard such as API Spec 2C, EN 13852-1, DNV norms, and can be certified with different classification society and third party, such as ABS, DNV, BV , LR, CCS and so on.

“杰马”海洋起重机，为各类海洋石油平台、钻井船、FPSO、住人驳船 / 工程船、铺管船、海洋工作支持船以及海洋风电安装船等提供实用的物料搬运解决方案。用于海洋石油生产作业(如货物设备搬运、人员转移等)、海洋工程设备安装、打捞作业、海洋风电设备安装及维护作业以及港口码头装卸作业等。

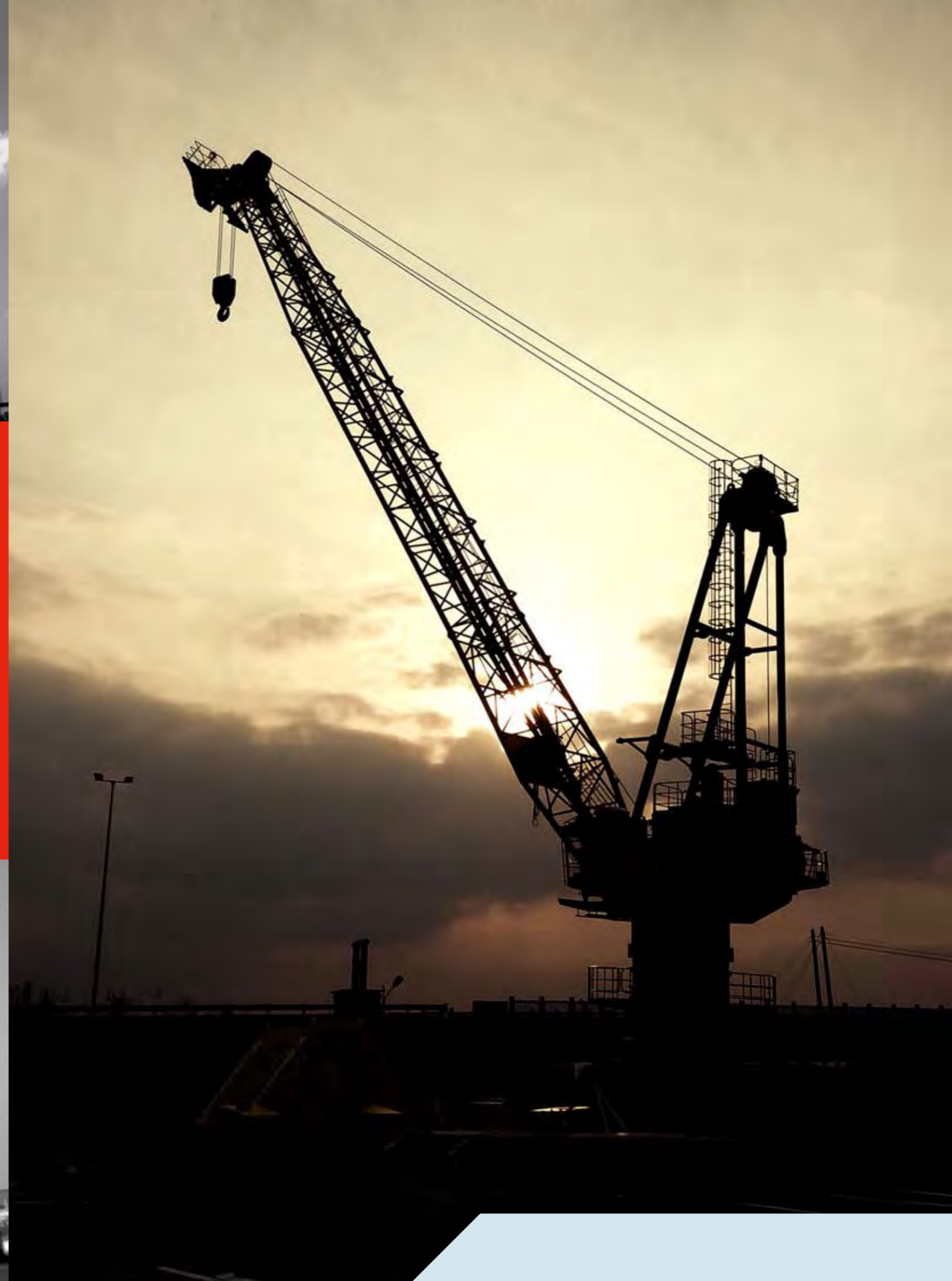
海洋起重机的设计和制造完全符合国际公认的海洋起重机规范，如 API Spec 2C、EN 13852-1、DNV 规范等，可获得多个船级社产品证书或第三方检验证书，如 ABS、DNV、BV、LR、CCS 等。



RHL Offshore Cranes RHL 型海洋起重机

Main Model Parameter 主要型号参数

Model 型号	Max lifting capacity (t) 最大起重能力	Max working radius (m) 最大工作半径
RHL4000	40	40
RHL6000	60	48
RHL8000	80	54
RHL12000	100	60
RHL16000	120	60
RHL22000	160	65
RHL28000	200	65
RHL36000	250	70
RHL50000	400	80
RHL90000	600	100
RHL150000	800	120



RHK Offshore Cranes RHK 型海洋起重机

Main Model Parameter 主要型号参数

Model 型号	Max lifting capacity (t) 最大起重能力	Max working radius (m) 最大工作半径
RHK4000	40	40
RHK 6000	60	48
RHK 8000	80	54
RHK 12000	100	60
RHK 16000	120	60
RHK 22000	160	65
RHK 28000	200	65
RHK 36000	250	70
RHK 50000	400	80
RHK 90000	600	100
RHK 150000	800	120





RHM Offshore Cranes RHM 型海洋起重机

Main Model Parameter 主要型号参数

Model 型号	Max lifting capacity (t) 最大起重能力	Max working radius(m) 最大工作半径	Max lifting height (m) 最大起升高度
RHM 200000	1000	120	140
RHM 300000	1200	120	140
RHM 400000	1400	130	150
RHM 550000	1600	130	150
RHM 750000	2000	130	150



RHS Offshore Cranes RHS 型海洋起重机

Main Model Parameter 主要型号参数

Model 型号	Max lifting capacity (t) 最大起重能力	Max working radius (m) 最大工作半径	Max lifting height (m) 最大起升高度
RHS 200000	1000	120	140
RHS 300000	1200	120	140
RHS 400000	1400	130	150
RHS 550000	1600	130	150
RHS 750000	2000	130	150

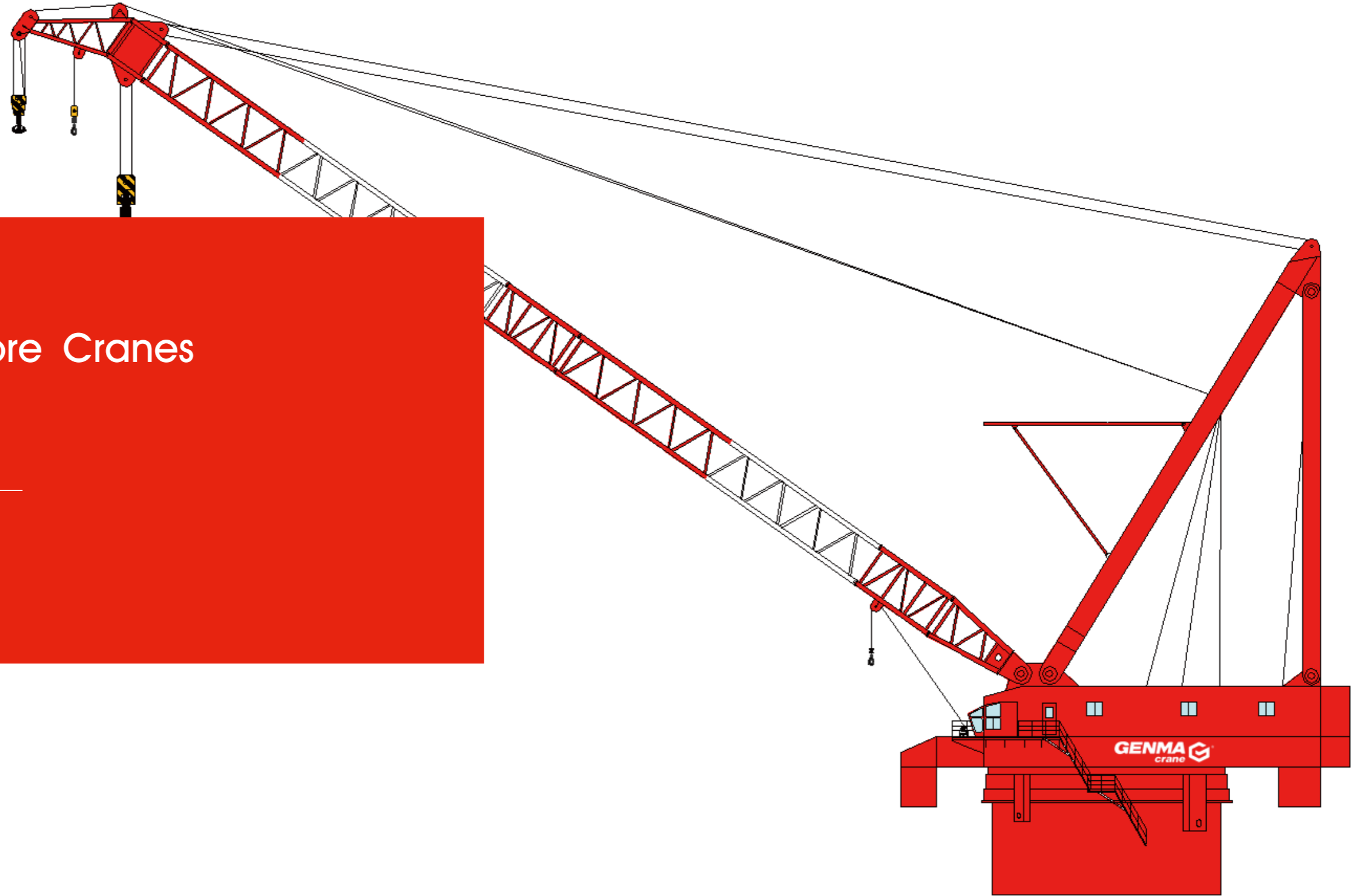
This type of crane, which is technically supported by GustoMSC BV, possesses outstanding characteristics of light weight, small tail work radius, fast hoisting speed and high working efficiency, etc.

GustoMSC BV Holland company was established in 1862, who specializes, inter alia, in the design and engineering of various types of offshore platforms and offshore cranes. As the world top-class crane brand, its offshore cranes have been spreaded all over the global sea areas. So far, more than 100 units of such cranes have been designed and delivered successfully.

该型号吊机的设计由荷兰 GustoMSC.BV 公司提供技术支持，具有整体结构重量轻，尾部工作半径小，起升速度快，工作效率高等特点。

荷兰 GustoMSC 公司诞生于 1862 年，是世界知名的海洋平台和海洋起重机设计商。作为国际顶尖海洋起重机品牌，GustoMSC 设计的海洋起重机遍布于全球海域。迄今为止，GustoMSC 已设计交付重型海洋起重机超过一百台。





RHF Heavy Lift Offshore Cranes RHF 型重型海洋起重机

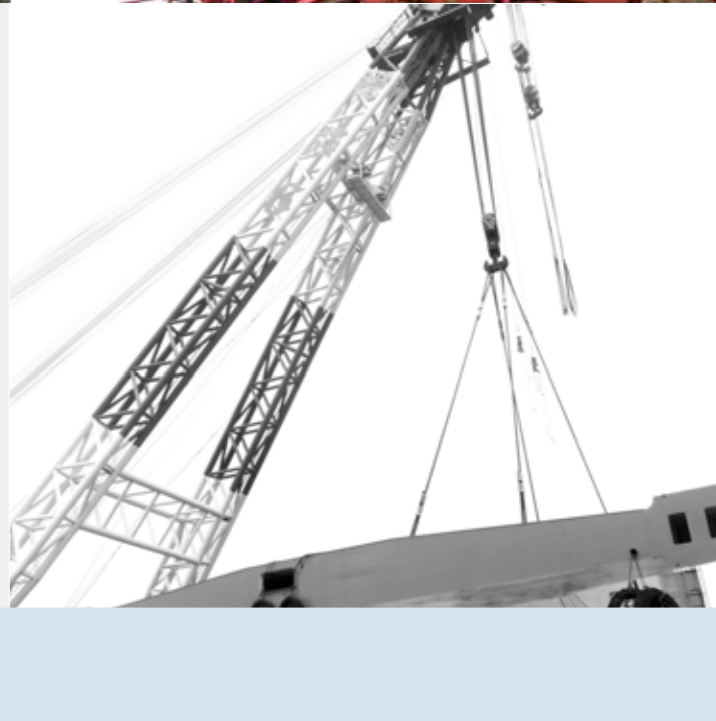
Max. SWL
最大额定起重量 2000t

Max. works radius
最大工作半径 150m

Product Features 产品性能特点

- Standardization, serialization, modular design, maintenance, lower maintenance costs with more convenient installation
标准化、系列化、模块化设计，维护保养成本更低，安装更方便
- Compact structure, centralized installation, ease of inspection and maintenance
结构紧凑，集中安装，易于检查与维护
- Adopting high-strength material is adopted to reduce weight and improve safety
选用高强度性能材质，降低自重，提高安全性
- Using high strength planetary gear box with more reliable quality
采用高强度的行星齿轮减速机，质量更可靠
- Lattice boom design, to reduce windward area
吊臂桁架式设计，有效降低受风面积
- Excellent load curve with higher efficiency
卓越的负载曲线，使用效率更高
- Optimum weight ratio of lifting capacity ,to improve user efficiency
最佳重量比的起重能力，提高用户效益
- Components decorated as internal layout, isolating the ocean climate corrosion effectively
部件尽可能内部布置，有效隔离海洋气候腐蚀
- Adopting mature, advanced variable speed control design, to ensure more energy efficient and environmental friendly
采用成熟、先进的无级调速控制设计，更节能、更环保
- Hydraulic integration system design, to makes sure more efficient and faster response
机电液一体化系统设计，效率更高、响应更快
- Advanced winch drum design, to extend the wire rope life effectively
先进的绞车卷筒设计，可有效延长钢丝绳寿命
- Equipped with standard ergonomically designed cabin, to ensure a comfortable operating environment.
标配符合人体工学设计的驾驶室，操作环境舒适。





■ Safety performance 安全性能

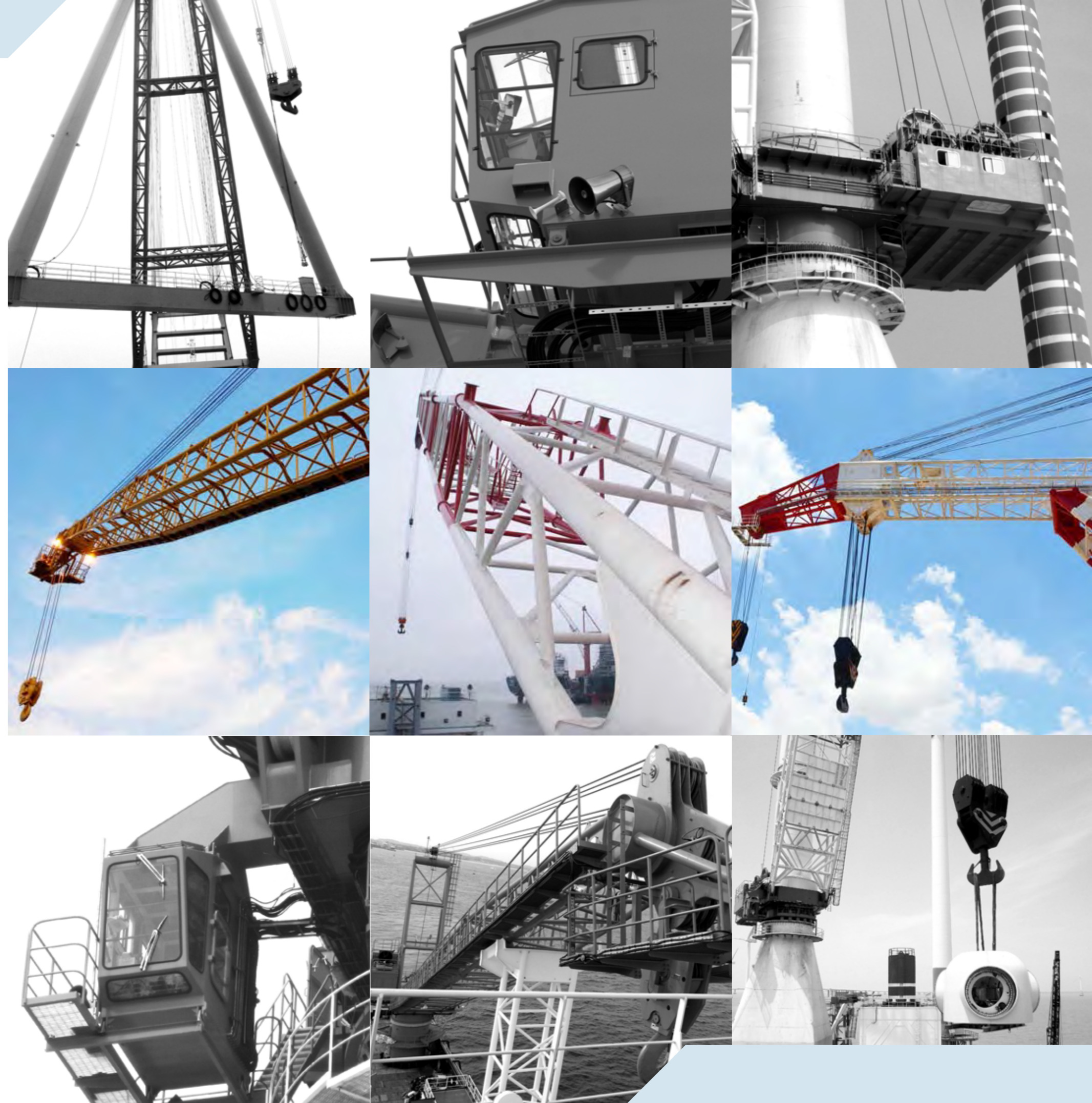
- Safety devices are collocated according to the classification society and flag requirement.
根据船级社规范及挂旗国要求配置的安全装置
- All perform gearboxes are fitted with system failure protection device.
所有执行减速箱均装设有系统失效保护装置
- Hydraulic system overload protection device
液压系统过载保护装置
- Limit switches for automatic stop of hook travel in top and bottom position
吊钩自动上下限位装置
- Limit switches for automatic stop of jib luffing in Max. and Min. angle
吊臂变幅上下限位
- Electric motor with short circuit protection and overheat protection
电动机设有短路保护与过热保护
- Emergency release system
重物应急释放系统
- Automatic antifault brakes
自动防故障刹车装置
- Crane boom anti-backward mechanism
吊臂防后倾机械装置
- PLC control system
PLC 控制系统
- Safe load indicator
力矩仪
- Failsafe brakes
自动防故障刹车装置

■ Standard configuration 标准配置

- Working radius and lifting capacity according to user requirements
工作半径及起升能力按用户要求
- Safety devices are collocated according to the classification society and flag requirement.
根据船级社规范及挂旗国要求配置的安全装置
- Personnel hoisting certification of aux hook 副钩人员起升认证
- Standard height base ,used to weld to the main structure of the ship
标准高度的底座，用于焊接到船 / 平台上主结构
- Carbin 驾驶室
- Air conditioning 冷暖空调
- PLC control system, touch screen PLC 控制系统、触摸屏
- Safe load indicator 力矩仪
- Anemometer 风速仪
- Microphone,speaker 麦克风、扬声器
- Smoke sensors 烟雾探测器
- Floodlights 吊臂投光灯 Floodlights
- Aircraft warning lights 航空障碍灯
- Work indicating lights 工作指示灯
- Hook limit device 吊钩限位装置
- luffing limit device 吊臂变幅上下限位
- Crane boom anti-backward mechanism 吊臂防后倾机械装置
- Emergency release hand pumps 应急释放手动泵
- The main steel plate adopts ship plate , with surface blasting Sa2.5.
主要钢结构采用船用钢板，表面喷丸 Sa2.5
- Offshore standard paint, paint color is specified by the user.
海洋标准涂装，面漆颜色由用户指定。
- one year spare part 一年备件

■ Optional Configuration 可选配置

- Explosion-proof equipment,capable of working in hazardous areas
可在危险区域工作的防爆设备
- Transition base 过渡底座
- Maintenance platform of Pedestal 基座工作平台
- Slewing limit device 回转限位装置
- CCTV system CCTV 系统

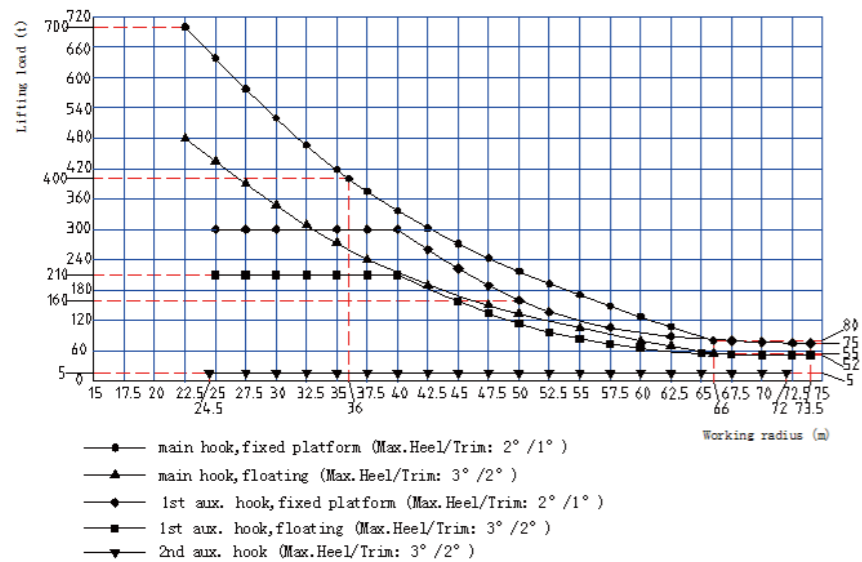


700t

Typical Model Parameter 典型机型参数

- Model 型号: RHM300000-700-22.5(300-40)(5-72)
- SWL 安全工作负荷: 700t
- Max working radius 最大工作半径: 73.5m
- Rated hoisting speed 额定起升速度: 3 m/min
- Hoisting Height 起升高度: Above deck 甲板以上 126m
- Installed Power 装机功率: 1000kW

Load-Radius Curves



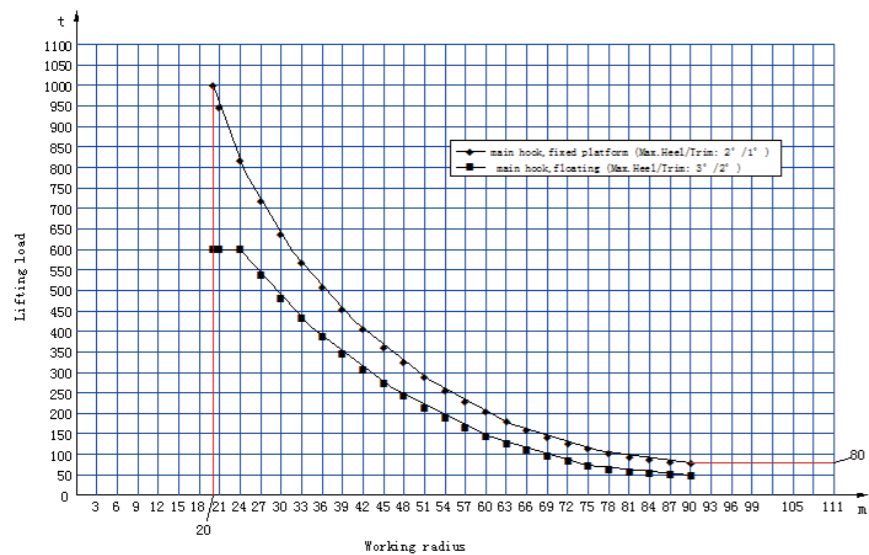


1000t

Typical Model Parameter 典型机型参数

- Model 型号: RHS450000-1000-20(500-30)(40-104)
- SWL 安全工作负荷: 1000t
- Max working radius 最大工作半径: 104m
- Rated hoisting height 额定起升速度: 3 m/min
- Hoisting Height 起升高度: Above deck 甲板以上 145m
- Installed Power 装机功率: 1300kW

Main hook Load-Radius Curves





Jack-up System

自提升系统

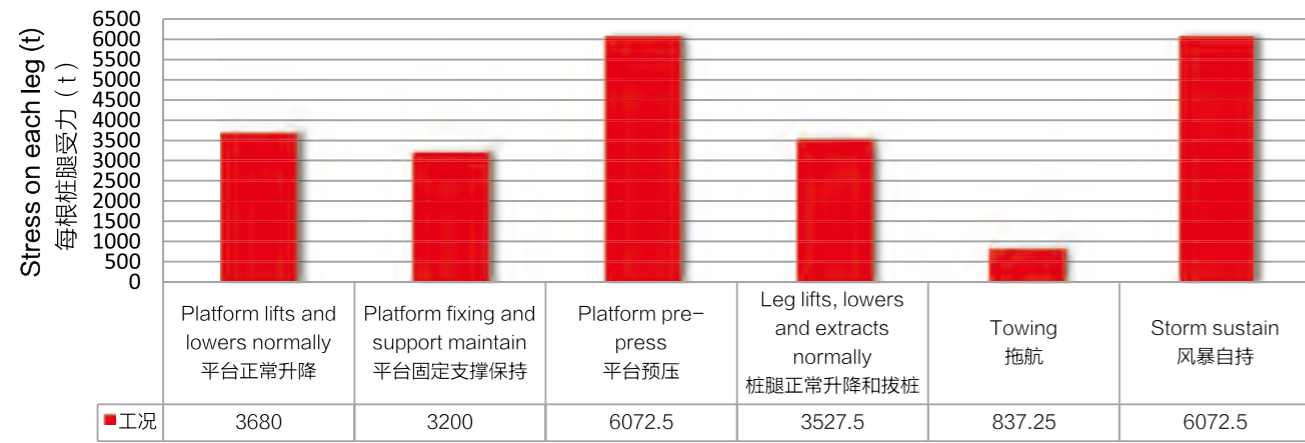
This device applies to the offshore wind power work platform of hydraulic bolt type lifting mechanism. Its main function is to hoist the main body of the offshore wind power operation platform above water surface, when the seabed has enough bearing capacity, in order to avoid water, wave's direct effect on platform. After completion of the installation work, platform will be lowered down to the surface by lifting mechanism, and the four legs rise to make the platform in a floating state, in order to sail to the next station for wind power installation operations.

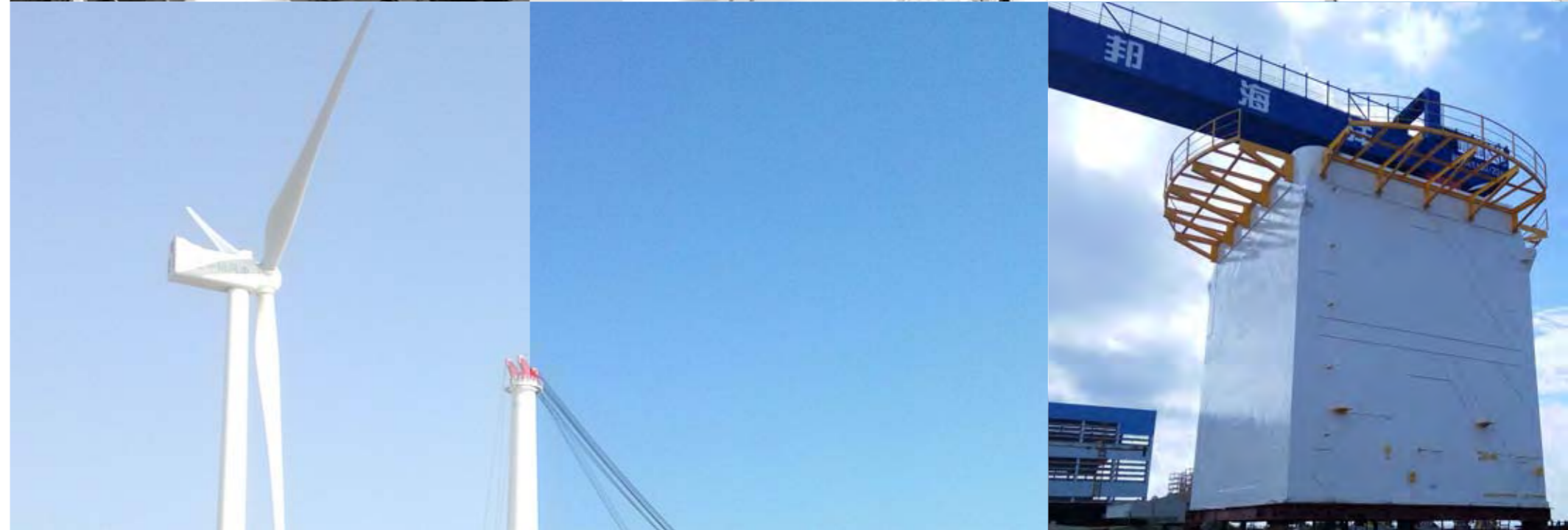
This device is hydraulic ring beam bolt type, comprised of lifting oil cylinder, upper and lower bolts, upper and lower fixed ring beams and support bolts. It matches with four roles of pin holes and moves removable ring beam and pulls in and out pins to move vessel and leg relatively to rise above or lower to the surface. Each lifting mechanism is equipped with eight lifting oil cylinders and four pin cylinders. There are eight balancing units between fixed ring beams and fixed rack, so this mechanism can keep working properly even when vessel trims ($< 5^\circ$). And pile pulling is achieved by eight suspended pull rods mounted on the upper part of fixed rack. The hydraulic lifting device is designed independently, with its construction, technical and performance all in the leading positions domestically.

本装置为应用于海上风电作业平台的液压插销式升降机构，主要功能为在海床基础具有足够的承载能力情况下，将海上风电作业平台主体升出水面以上，避免水流、波浪对平台直接作用，影响到平台的作业。在安装作业完成后，利用升降机构将平台降至海面，并将四条桩腿升起，使平台处于漂浮状态，以便迁航至下一工位进行风电安装作业。

本装置为液压环梁插销式，由升降油缸、上下环梁和上下插销装置等组成，上为固定环梁和支持插销，下为移动环梁和工作插销，它与设置在桩腿上四排插销孔相配合，利用油缸的顶升，使移动环梁上下运动和插销插入与拔出，使船体与桩腿作相对运动而升离或降至水面。每套升降机构设置升降油缸8只，插销油缸4只。固定环梁与固装架之间设置8组平衡器，即使在船体倾斜的状态下（ $< 1.5^\circ$ ），本机构也能正常工作。拔桩操作通过设置在固装架上部的8个悬挂拉杆来实现。此液压升降装置为自主设计、建造，技术水平及性能均处于国内领先地位。

Stress diagram of platform under various working conditions
平台各种工况受力图





■ The main technical and product performance indicators
主要技术与产品性能指标

- Single leg lifting load 单桩举升载荷 (已含与桩腿的摩擦力): 4000 t
- Single leg drawing force 单桩拔桩力 (已含与桩腿的摩擦力): ≤ 3600 t
- Preloading load 预压载荷 (已含与桩腿的摩擦力): ≤ 6000 t
- Preloading load 单桩支持载荷 (风暴支持): 6000 t
- Leg diameter 桩腿直径: 4 m
- Dimension between every leg hinge last 桩腿孔节距: 1.5 m
- Jack house dimension 固装架外形尺寸: 9.6*9.6 m
- Platform lifting average speed 举升平台平均速度: 12 m/h
- Platform go down average speed 下降平台平均速度: 18 m/h
- Leg rise and fall average speed 升降桩腿平均速度: 24 m/h
- Platform heel / trim alarm angle 平台横倾 / 纵倾报警角度: 0.5°
- Rating 电制: Power circuit 动力回路: AC690V, 50Hz, 3P
- control loop 控制回路: AC220V, 50Hz, 1P

Related Reference list

相关业绩



No 序号	Customer 客户	Crane Description 订单信息	Ship-owner 船东	Classification Society 入级船级社	Num 数量
1	Jiangsu HanTong Ship Heavy Industry Co.,Ltd	60t Fixed Slewing Crane	Nantong Ocean Water Conservancy Engineering Co.,Ltd	CCS	3
2	Jingjiang Sutong Harbour Affaris Co.,LTD	40t Slewing Crane	Jingjiang Sutong Harbour Affaris Co.,LTD	CCS	3
3	Nantong Shengdong Channel Engineering Co.,Ltd	700t Offshore Wind Power Engineering Crane	China Huadian Group	CCS	1
4	Nantong Shengdong Channel Engineering Co.,Ltd	120t Offshore Pedestal Lattice Boom Crane	China Huadian Group	CCS	1
5	Jiangsu HanTong Ship Heavy Industry Co.,Ltd	350t Offshore Wind Power Engineering Crane	Nantong Ocean Water Conservancy Engineering Co.,Ltd	CCS	2
6	Jiangsu Huaxia Heavy Industry Co.Ltd	20t Marine Gantry walking Hydraulic Crane	Jiangsu Huaxia Heavy Industry Co.Ltd	CCS	2
7	Zhejiang Fangyuan Ship Industry Co.,LTD	15t Hydraulic Slewing Crane suction dredger	Zhejiang Yushun Junshu Engineering Co.,Ltd	CCS	6
8.	Zhejiang Fangyuan Ship Industry Co.,LTD	0.95t Hydraulic Slewing Crane	Zhejiang Yushun Junshu Engineering Co.,Ltd	CCS	2
9	Guangzhou Shunhai Shipyards LTD	7t Electric hydraulic telescopic crane	N/A	CCS	4
10	PT. Maju Prima Jaya	10-19 Hydraulic Slewing Crane	N/A	BV	8
11	PHTrading(Shanghai) Co.,LTD	20-8 Offshore Knuckle crane	Keppel Shipyard(Brazil)	4 units DNV 2 units ABS	6
12	MENTRADE MARINE EQUIPMENTS SDN BHD	1-15(3-5) marine telescopic crane 1.2-15 telescopic crane	N/A	NK	3
13	Guangzhou Shunhai Shipyards LTD	RHL16000-65-16(7-44.2)	Icon Marine	ABS	2
14	Fujian Mawei Shipbuilding LTD	RHC5000-10-13M	Tasik Subsea	ABS	2
15	Xiamen Shipbuilding Industry Co., Ltd.	200t RHL Offshore crane	Fujian Shipbuilding Industry Group Co., Ltd.	CCS	2
		1000t Leg crane (GustoMSC)		CCS	2
		4000t Jack up System		CCS	2

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