

做世界级企业  
铸世界级品质



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XCMG 强制性产品认证证书  
 职业健康安全管理体系认证证书  
 环境管理体系认证证书  
 国家一级企业证书  
 ISO9001 质量管理体系认证  
 ISO10012 计量体系认证证书

**徐工集团 · 重型机械**

系统优化升级

# QY100K

SYSTEMIC OPTIMATION & UPGADE

最大起重能力  
Max. Total Rated Lifting Load **100t**

主臂最大起升高度  
Full-extend Boom Lifting Height **47.9m**

副臂最大起升高度  
Full-extend Boom+Jib Lifting Height **65.9m**



The Series of Construction Crane

全路面起重机 All-Terrain Crane Series  
 汽车起重机 Truck Crane Series  
 履带式起重机 Crawler Crane Series

**徐州重型机械有限公司**



# QY100K领先型—百吨级产品的新纪元

QY100K Leading Class-New Era for Hundred-Ton Truck Cranes

早在2003年初，徐州重型机械有限公司就推出了百吨级汽车起重机。

今天，采用PROE设计手段，经过多种可靠性模拟实验，在各种精密大型设备锻造下，QY100K立在国内百吨级产品的最高端。

- **零差错制造：**一直以来，制造系统无法精确执行技术人员的设计思想，需要经历反复的修改和调整。如今，徐重的100K在投产之前，运用电脑模拟预装配技术，精确到每一个制造工艺流程，确保了产品更高效能的表现。
- **高智能：**PLC计算机集成控制系统——所有起重机的重要电子元件的电子信号经过计算机集中处理，使起重机的所有操作更加简单方便，全面提高起重机的作业安全性、可靠性和作业效率。
- **高节能：**恒功率变量系统——与集成式控制器相结合，可根据负载变化自动调整系统输出流量和压力，速度控制精确灵敏。
- **持久：**强劲的工程机械专用发动机——上车配置进口沃尔沃发动机，确保产品在各种载荷状态均匀有力，可长时间、连续、平稳作业；下车配置进口康明斯发动机，动力持久。
- **高效：**六桥越野起重机底盘——三桥驱动，驱动力强；三桥转向，转向灵活，通过性好，能迅速到达吊装位置。
- **高性能：**椭圆形截面的五节主吊臂——截面优化，吊臂重量减轻，起重能力得以完全释放。
- **更便捷：**大弧面全视野整体式操纵室——可向上调节20°，自装卸平衡重——灵活组合平衡重，满足各种工况要求；可选装置——自动润滑装置、副起重臂、臂端单滑轮、防紫外线玻璃、操纵室收录机等。



Computer simulation of pre-assembly

电 脑 模 拟 预 装 配



Early in 2003, Xuzhou Heavy Machinery Co., Ltd. launched the truck crane of 100 ton.

Today, QY100K Truck Crane, with Pro/E design, produced by precise machines and equipment and through simulation tests for reliability, ranks the first in truck cranes of 100t class.

- **Non-faulty manufacture:** using pre-assembly technique of computer simulation for each process ensures the product quality.
- **Good intelligence:** PLC integrated control system—all electronic signals of key electronic components are processed by computer therefore, make crane operation easier and more convenient, working safety, reliability and efficiency are improved greatly.
- **Cost energy:** constant power and variable displacement system—combined with integrated controller, automatically adjust system output and pressure based on load variation, precise and smart control of speed.
- **Durability:** powerful construction machinery engines—imported Volvo engine for crane superstructure ensures long-time smooth operation, imported Cummins engine for crane carrier provides powerful and durable drive.
- **High efficiency:** 6-axle off-road crane chassis—3 axles for drive, 3-axles for steering, powerful drive, easy steering, good pass-ability and rapid access to working position.
- **Excellent performance:** 5-section ovoid profile boom—optimized cross-section minimizes boom weight and maximizes crane lifting capacity.
- **More convenience:** all-round and full vision operator's cab—can be tilted backwards 20° self-assembly of counter weight—various combined counter weight to meet various working requirements. Optional equipments—centralized lubrication unit, jib, single sheave on boom tip, anti-ultraviolet ray glass, radio-cassette recorder, etc.

QY100K TRUCK CRANE

XCMG



# 多平衡重组合-全面增强中长臂、大幅度起重能力

IMPROVES Mid-extended Boom Strength and Increases Lifting Capacity

## QY100K

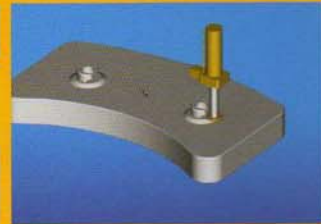


转台中位检测装置  
Turntable mid-position detector

平衡重悬挂油缸  
Suspended cylinder for counterweight

平衡重定位装置  
Positioning device for counterweight

### 平衡重可遥控装卸 Remote control of counterweight



平衡重尾部为弧形结构, 尽可能缩小了回转作业空间  
Curved counterweight tail reduces swing radius

平衡重自装卸  
Self-assembly of counterweight

平衡重遥控器  
counterweight remote controller

## COMBINED COUNTERWEIGHT

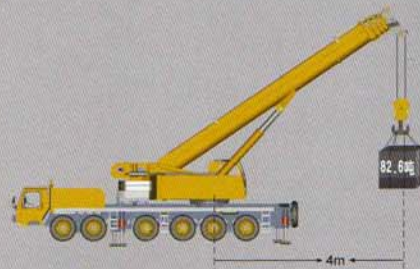
汽车起重机  
**QY100K**  
QY100K TRUCK CRANE



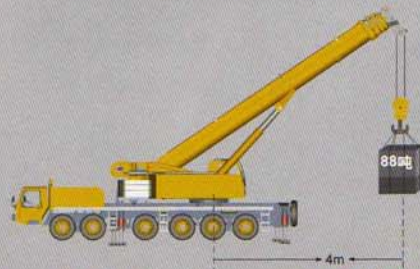
不挂平衡重最大力矩: **2734kN.m**  
Max. load moment without counterweight



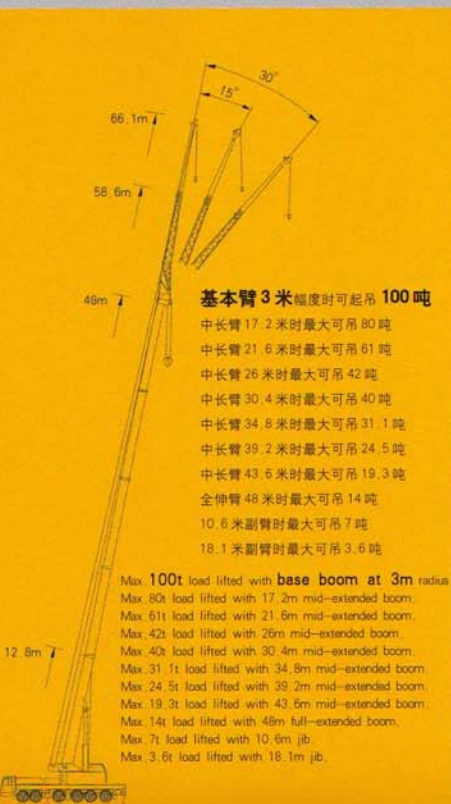
**8.3吨**平衡重最大力矩: **3058kN.m**  
Max. load moment with 8.3t counterweight



**14.3吨**平衡重最大力矩: **3238kN.m**  
Max. load moment with 14.3t counterweight



**19.2吨**平衡重最大力矩: **3450kN.m**  
Max. load moment with 19.2t counterweight



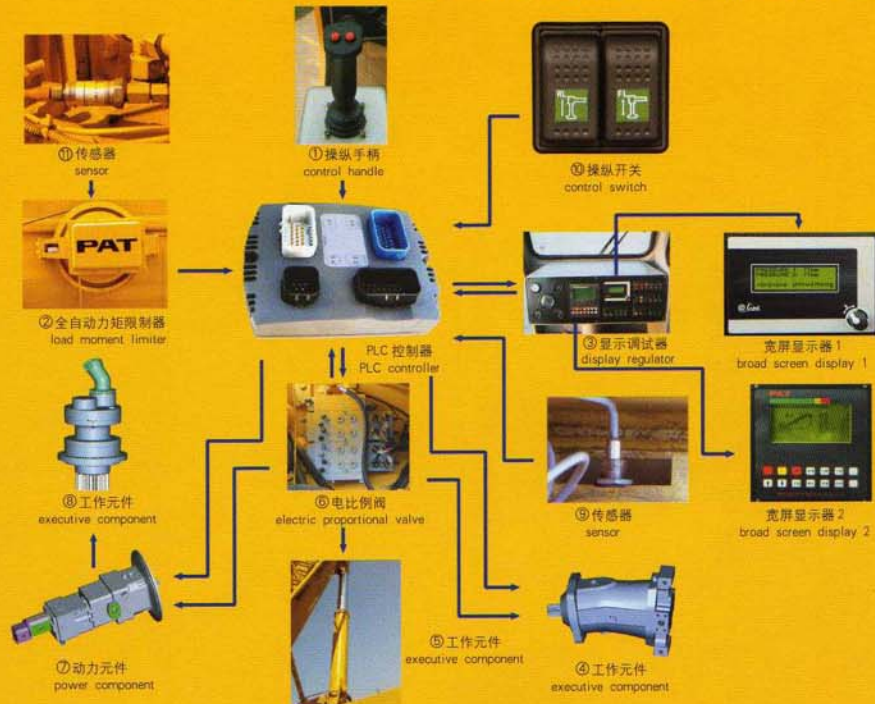
TRUCK CRANE



PLC Computer Integrated Control System:

Lifting operation part is controlled by PLC computer integrated controller for construction machinery. Control signals and operating performance chart can be set and adjusted with digital data. The control system, combined with variable-displacement hydraulic system can automatically and accurately adjust its output and pressure based on load variation, therefore makes crane control and operation smooth and precise.

- ◆ free of maintenance
- ◆ imported electronic components
- ◆ failure diagnostic function
- ◆ real-time monitoring function
- ◆ convenient and accurate operating performance



PLC计算机集成控制系统:

起重作业部分采用工程机械专用PLC可编程集成式控制器, 控制信号和操纵特性曲线可实现数字化设定和调整, 该控制器与变量液压系统相结合, 能够更精准地根据负载变化自动调整系统输出流量和压力, 操纵精确平稳。

- ◆ 免维护
- ◆ 进口电子元件
- ◆ 实时监测功能
- ◆ 故障诊断功能
- ◆ 方便准确的设定操纵特性

液压系统 Hydraulic System

- ◆ 进口卡套式接头, 零泄露, 无污染
- ◆ 强效的液压油冷却系统
- ◆ 节能高效的变量起升液压系统 (专利号: 01237657.4)
- ◆ 防冲击自动找正的回转液压系统 (专利号: 03219267.3)
- ◆ 性能卓越, 运动可靠的进口泵、马达、阀类、密封等执行元件
- ◆ 高度集成的模块化阀组, 管路简单, 液阻小 (专利号: 012044458.8)
- ◆ Imported ferrule-type pipe joints, free of leakage and antipollution
- ◆ Effective hydraulic oil cooling system
- ◆ Variable hydraulic system of cost energy and high efficiency for hoist (Patent No.: 01237657.4)
- ◆ Hydraulic system of shockproof self-alignment for swing (Patent No.: 03219267.3)
- ◆ Imported pump, motor, valves and sealing with excellent performance and reliability
- ◆ Integrated modular valve block with simple pipeline and less hydraulic resistance (Patent No.: 012044458.8)



转台对中装置  
turntable-aligning device



卡套接头  
ferrule-type pipe joint



# 卓越部件综合展示

PARTS WITH HIGH QUALITY AND EXCELLENT PERFORMANCE

## QY100K

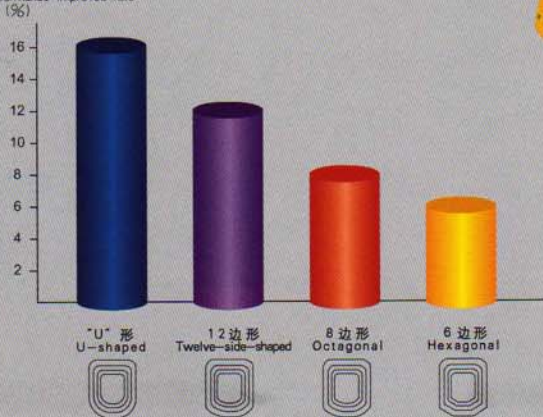
### 多边形高性能吊臂

Polygonal profile boom with excellent performance

#### ◆ 截面优化显著地提高起重性能

Optimized cross-section remarkably improves lifting capacity

性能提高率  
performance improved rate



不同截面形状的起重性能对比

Lifting performance comparison among various boom profiles



吊臂对中装置  
Boom aligning device



U型臂滑块  
Slide pads for U-shaped boom

#### 椭圆形截面的五节主吊臂

- ◆ QY100K 拥有国际最先进的椭圆形截面吊臂
- ◆ 吊臂选用进口超碳钢
- ◆ 特殊的滑块和对中装置, 使吊臂伸缩平稳, 对中可靠
- ◆ 截面优化显著地提高起重性能

#### 5 Boom Sections with Ovoid Boom Profile

- ◆ Most advanced ovoid boom profile
- ◆ Imported high strength steel
- ◆ Special slide pads and aligning devices make boom telescope smoothly and align accurately
- ◆ Optimized cross-section remarkably improves lifting capacity

#### 起重臂伸缩系统

- ◆ 双缸加绳排伸缩方式, 臂长从12.8米到48米, 仅需160秒
- ◆ 多芯管伸缩油缸, 双缸内部沟通, 免除了软管卷筒
- ◆ 每节伸缩臂可从侧面得到充分的润滑
- ◆ 进口绳排和轴承

#### Boom Telescoping System

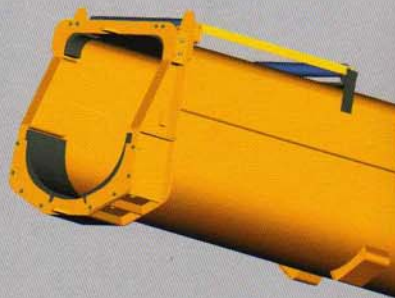
- ◆ Double-cylinder plus wire ropes for telescoping, boom extension from 12.8m to 48m only in 160 seconds
- ◆ Telescoping cylinder with multi-core pipes, double cylinder of internal connection free of hose reel
- ◆ Sufficient side lubrication for each boom section
- ◆ Imported wire ropes and bearings



多芯管伸缩油缸  
Telescoping cylinder with multi-core pipes



每节伸缩臂可从侧面得到充分的润滑  
Sufficient side lubrication for each boom section



起升机构  
Winches

#### 起升机构

- ◆ 选用臂端滑轮时, 重物起吊40米只需30秒
- ◆ 采用常闭式行星减速机构
- ◆ 进口防旋转起升钢丝绳
- ◆ 0-80° 变幅时间只需75秒
- ◆ 每分钟2圈的回转速度
- ◆ 双独立起升机构



PAT 收线器  
PAT cord reel

#### Hoist

- ◆ With single sheave on boom tip, lift load up to 40m only in 30 seconds
- ◆ Constant closed planetary gear reducer
- ◆ Imported anti-rotation winch ropes
- ◆ Elevating from 0° to 80° only in 75 seconds
- ◆ Swing speed 2 rpm
- ◆ Two independent winches



## QY100K TRUCK CRANE



上车沃尔沃发动机  
Volvo engine on crane superstructure



下车康明斯发动机  
Cummins engine on crane chassis

#### 动力系统

- ◆ 上车配备输出功率为174kW的沃尔沃工程机械专用全新涡轮增压柴油发动机, 耗油量小, 扭矩大
- ◆ 下车配备输出功率为324kW的康明斯欧 I 电喷最新型发动机或306kW的康明斯欧 III 发动机
- ◆ 通过程序控制的柴富变速箱
- ◆ 传动系统强劲可靠

#### Power

- ◆ Equipped with Volvo turbocharged diesel engine on crane superstructure, output 174kW, less fuel consumption and powerful torque
- ◆ Powerful Cummins engine on crane chassis, electronic injection, output 324kW, Euro I (or output 306kW Euro III)
- ◆ ZF transmission monitored by program
- ◆ Powerful drive train



#### 支腿操纵

- ◆ 电控操纵, 并设有油门增速按钮
- ◆ 全伸支腿时, 无需第5支腿, 可实现360° 全回转作业
- ◆ 双侧均配有夜视水平仪 (专利号: 03219322.X)
- ◆ 各支腿可独立操作, 亦可同时操作
- ◆ 双H型支腿, 水平支腿最大横向跨距7.6米, 纵向跨距7.56米

#### Operating Outriggers

- ◆ Electric control with acceleration button
- ◆ Without 5th outrigger, 360° swing on fully-extended outriggers
- ◆ Night visual level gauge on both sides (Patent No. 03219322.X)
- ◆ Each outrigger operated either independently or simultaneously
- ◆ Double H-shaped outrigger with max. span 7.6m (transverse) and 7.56m (longitudinal)



可实现360° 全回转作业  
Operation of 360° full swing



40%



最小转弯直径24米  
Min. turning diameter 24m

#### 底盘转向

- ◆ 三桥驱动, 三桥转向
- ◆ 最小转弯直径24米
- ◆ 最大爬坡度40%

#### Steering

- ◆ 3-axle drive and 3-axle steering
- ◆ Min. turning diameter 24m
- ◆ Max. grade-ability 40%



# 人性化的体贴设计

ERGONOMIC AND CONSIDERATE DESIGN

汽车起重机  
**QY100K**  
QY100K TRUCK CRANE

## QY100K

### 舒适的工程机械专用驾驶室

- ◆ 设计合理的内装饰，良好的隔音效果
- ◆ 可调式驾驶员减震座椅
- ◆ 可调式方向盘
- ◆ 电控自动升降玻璃
- ◆ 可自动除霜
- ◆ 内设 CD 机

### Comfortable driver's cab for construction machinery

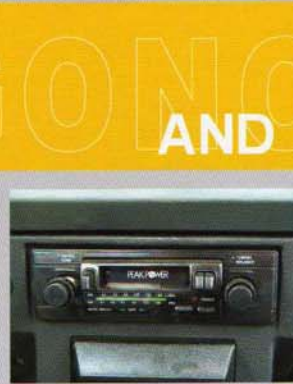
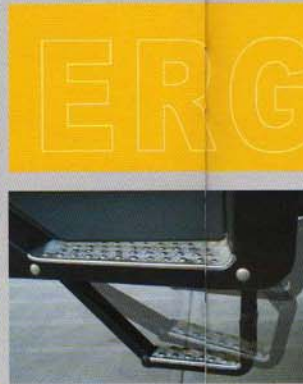
- ◆ Reasonable internal decoration, good isolation
- ◆ Adjustable damping seat for driver
- ◆ Adjustable steering wheel
- ◆ Electrical side window glass lifter
- ◆ Automatic defrosting
- ◆ CD player

### 新型的操纵室

- ◆ 流线型整体复合材料壳体
- ◆ 大圆弧整体式前视窗，清除视觉死角
- ◆ 可调式操作员座椅
- ◆ 先导手柄轻轻一推，各项作业轻松完成

### New Operator's Cabin

- ◆ Integrated streamline body made of composite
- ◆ Integrated front window and roof window, free of dead space of view
- ◆ Adjustable seat for operator
- ◆ Complete operation by gentle touch of the pilot handle



ERGONOMICAL AND CAREFULLY DESIGN