

# PUYUAN

## 京华论剑 王者归来

浦沅新一代全液压汽车起重机  
New Type Full Hydraulic Truck Crane

QY70V



浦沅牌QY70V汽车起重机在第八届北京国际工程机械展览与技术交流会上惊艳登场，以其极具现代感的艺术外观吸引无数观众的眼球，获得极高评价。经行业权威一致评选通过，荣获“**工程机械造型与外观质量评比特等奖**”  
PuYuan QY70V truck crane has given its first display in the 8th Beijing International Construction Machinery Exhibition & Seminar, and has won very high appraisal, and has attracted eyes of countless people because of its modern and artistic appearance. It also has been appraised as Top Grade Award in Construction Model & Appearance Quality competition in the exhibition.

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New Type Full Hydraulic Truck Crane

ZOOMLION 浦沅

系出名门 丽质天成



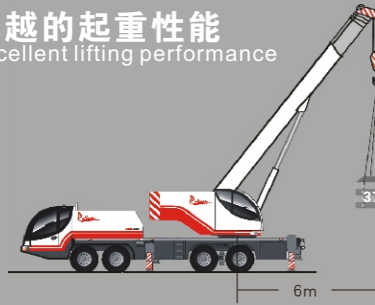


## 应用价值 — 满足用户作业的高要求

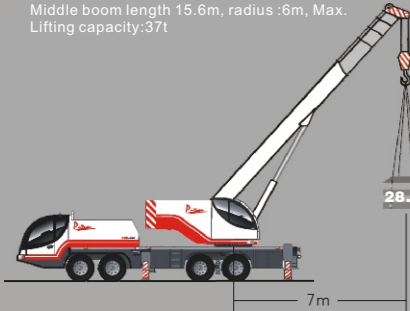
Applied value—Satisfy high requirements of the customers

### 卓越的起重性能

Excellent lifting performance



中长臂15.6m, 6m幅度, 最大起重量37t  
Middle boom length 15.6m, radius :6m, Max. Lifting capacity:37t

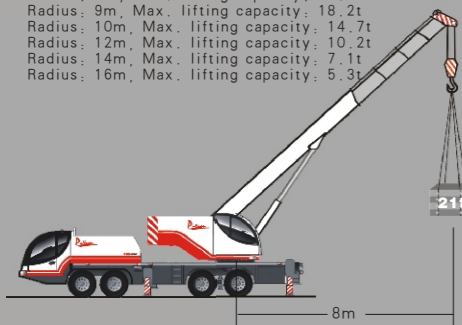


中长臂19.6m, 7m幅度, 最大起重量28.7t  
Middle boom length 19.6m, radius :7m, Max. Lifting capacity:28.7t

#### 19.6m臂长 Boom length: 19.6m

7m幅度, 最大起重量28.7t    8m幅度, 最大起重量22.5t  
9m幅度, 最大起重量18.2t    10m幅度, 最大起重量14.7t  
12m幅度, 最大起重量10.2t    14m幅度, 最大起重量7.1t  
16m幅度, 最大起重量5.3t

Radius: 7m, Max. lifting capacity: 28.7t  
Radius: 8m, Max. lifting capacity: 22.5t  
Radius: 9m, Max. lifting capacity: 18.2t  
Radius: 10m, Max. lifting capacity: 14.7t  
Radius: 12m, Max. lifting capacity: 10.2t  
Radius: 14m, Max. lifting capacity: 7.1t  
Radius: 16m, Max. lifting capacity: 5.3t



中长臂25.7m, 8m幅度, 最大起重量21t  
Middle boom length 25.7m, radius :8m, Max. Lifting capacity:21t

#### 25.7m臂长 Boom length: 25.7m

8m幅度, 最大起重量21t  
9m幅度, 最大起重量18.5t  
12m幅度, 最大起重量11t  
14m幅度, 最大起重量8.2t

Radius: 8m, Max. lifting capacity: 21t  
Radius: 9m, Max. lifting capacity: 18.5t  
Radius: 12m, Max. lifting capacity: 11t  
Radius: 14m, Max. lifting capacity: 8.2t



全伸臂44m, 9m幅度, 最大起重量10t  
Full extended, boom length :44m, radius :9m, Max. Lifting capacity:10t

- 中长臂起升性能高于国内同类产品一个档次  
One level above the domestic same trade in middle boom length

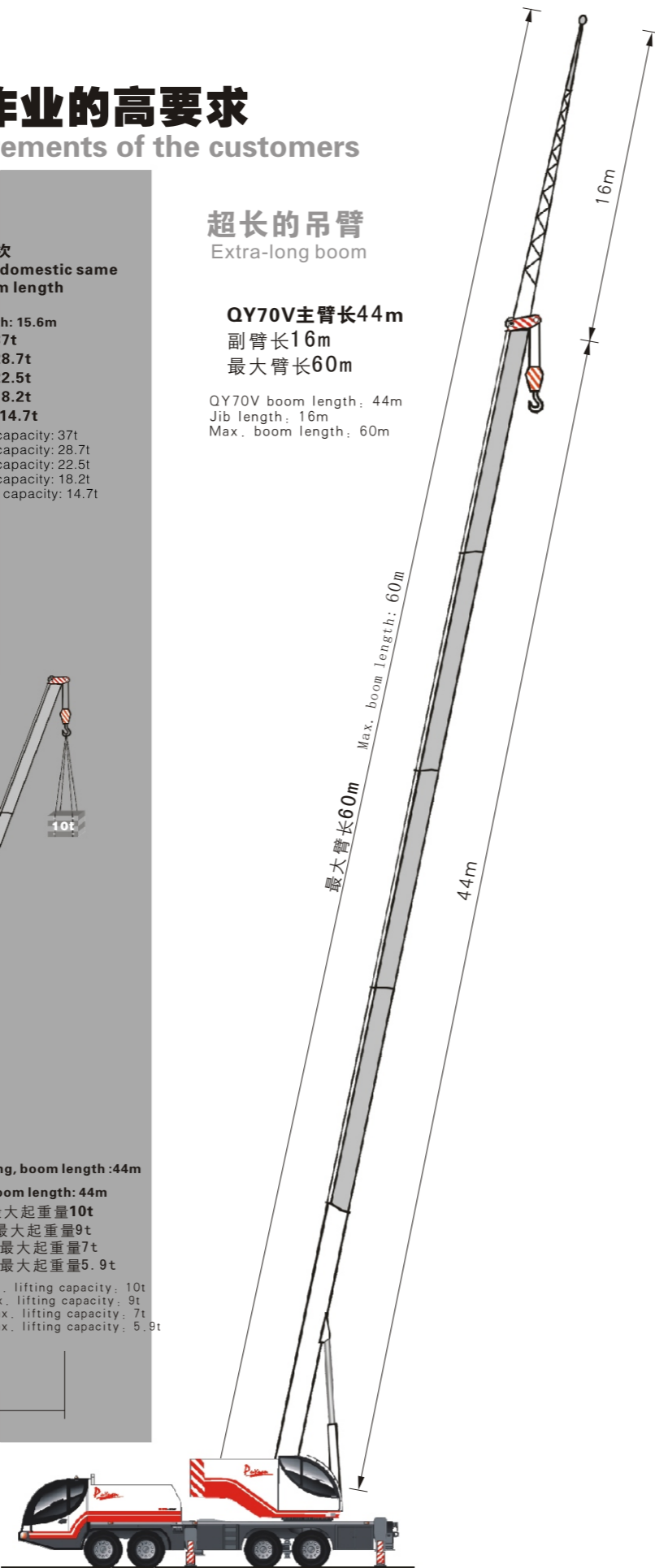
15.6m臂长 Boom length: 15.6m  
6m幅度, 最大起重量37t  
7m幅度, 最大起重量28.7t  
8m幅度, 最大起重量22.5t  
9m幅度, 最大起重量18.2t  
10m幅度, 最大起重量14.7t  
Radius: 6m, Max. lifting capacity: 37t  
Radius: 7m, Max. lifting capacity: 28.7t  
Radius: 8m, Max. lifting capacity: 22.5t  
Radius: 9m, Max. lifting capacity: 18.2t  
Radius: 10m, Max. lifting capacity: 14.7t

### 超长的吊臂

Extra-long boom

QY70V主臂长44m  
副臂长16m  
最大臂长60m

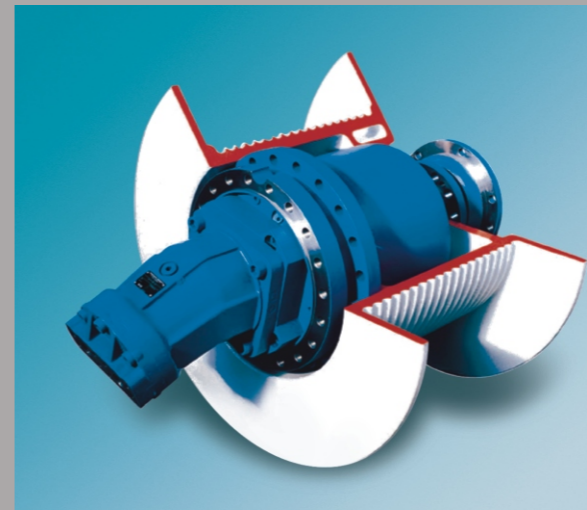
QY70V boom length: 44m  
Jib length: 16m  
Max. boom length: 60m



### 悉心挑选的配置

Carefully select allocation

- 主副卷扬减速机均为力士乐产品  
Rexroth main & auxiliary reducer



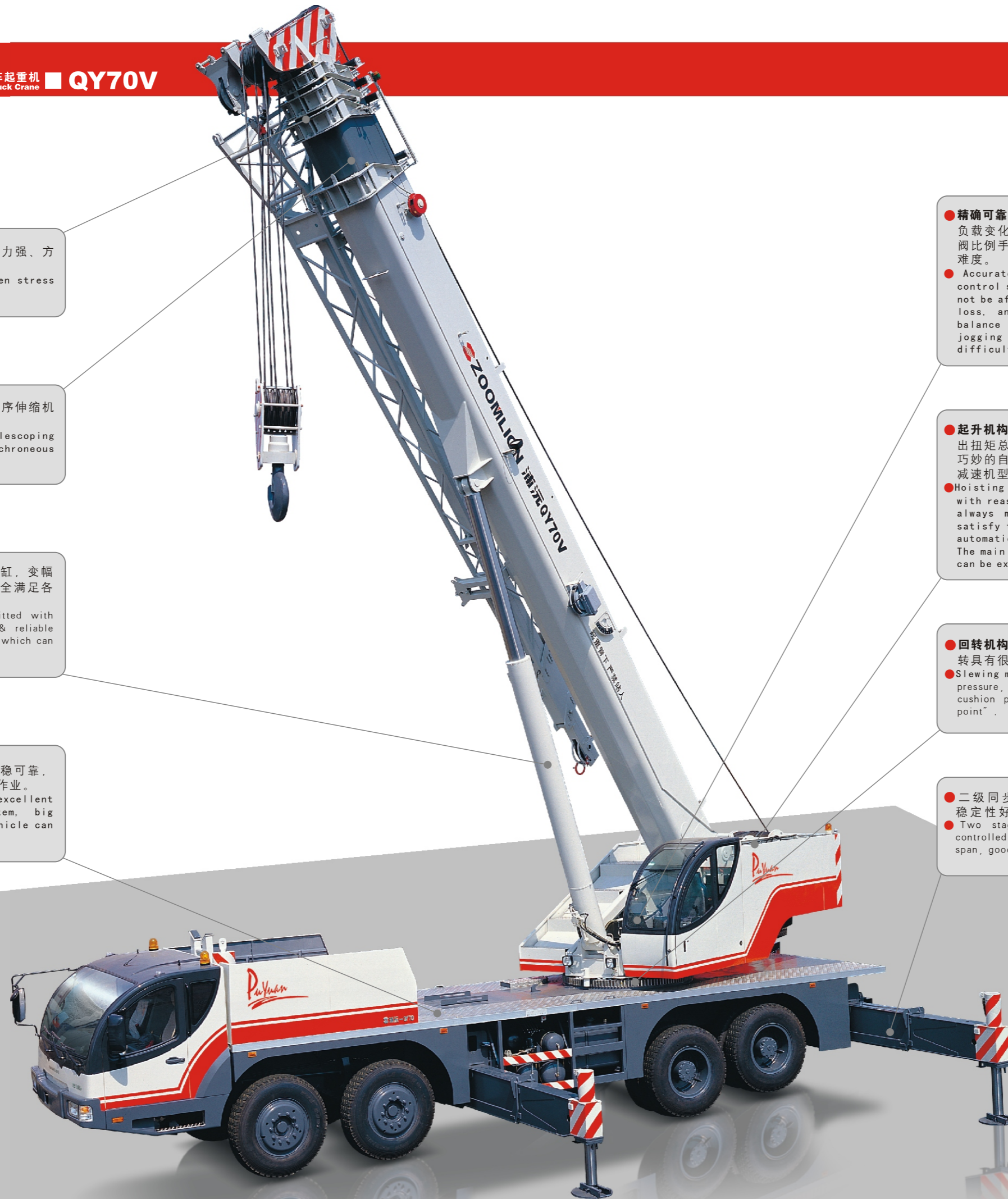
- 各种控制主阀、阀组均为进口件  
All control main valves and valve blocks are imported.
- 液压管路采用进口卡套式接头  
Hydraulic pipes adopt imported clamping type fittings.

- 强劲有力的心脏: WD615.46发动机  
Powerful heart: WD415.46 engine.



- 外齿式回转支承  
Slewing support with outer gear





- **大圆弧吊臂滑块支承形式:**应力分布更均匀、承载能力强、方便调节。
- Big arc boom sliding pad support type: more even stress distribution, strong bearing capacity.

- **成熟的吊臂伸缩机构:**两节伸缩缸加绳排的同步顺序伸缩机构,工作效率高。
- Mature boom telescoping mechanism: two telescoping cylinders with clamping rope constitute synchronous telescoping mechanism, which has high efficiency.

- **变幅机构:**装有性能优越的德国布赫平衡阀变幅油缸,变幅平稳可靠。吊臂具有 $-2^{\circ} \sim 80^{\circ}$ 的变幅范围,能完全满足各种工作场地的作业要求。
- Derricking mechanism: The derricking cylinder is fitted with Bucher German balance valve, which makes stable & reliable derricking. The derricking scope of boom is  $-2^{\circ} \sim 80^{\circ}$  which can satisfy the working requirements of various work site.

- **强劲的底盘驱动:**性能优良的变速箱,传动系统平稳可靠,离地间隙大,整车通过性好,适合恶劣工况的起重作业。
- Powerful chassis drive: transmission with excellent performance, stable & reliable drive system, big clearance, good through performance of whole vehicle can suitable for various bad working condition.

- **精确可靠的电液比例控制系统:**压力补偿、负载反馈速度不受负载变化影响,稳定性好,系统功率损失小。配上进口平衡阀比例手柄,使动作具有良好的微动性,极大的降低了操作难度。
- Accurate & reliable electro-hydraulic proportional control system: Pressure compensation, load feedback can not be affected by the variation of load, with small power loss, and good stability. It is fitted with imported balance valve proportional lever, which makes good jogging performance and decreases the operation difficulty.

- **起升机构:**性能优越,变量方式合理的起升马达,使马达输出扭矩总是大于、等于所需工作扭矩,满足起吊工况要求,巧妙的自动冲压报警装置避免二次下滑的可能性。主副卷扬减速机型号相同,互换性好。
- Hoisting mechanism: excellent performance, hoisting motor with reasonable variable way make the motor output torque always more than/equal required working torque, thus satisfy the requirements of lifting condition. The smart automatic ram warning device can avoid the second sliding. The main & auxiliary winch reducer are the same model, and can be exchanged.

- **回转机构:**“双控制”回转回路。高压启动,低压制动,使回转具有很好的平稳性、缓冲性及“斜坡临界点”的锁止性。
- Slewing mechanism: double control slewing line, start with high pressure, brake with low pressure, which make stable slewing, cushion performance and lock performance of "Slope critical point".

- **二级同步伸缩活动支腿,双面操纵,支腿跨距大,起吊稳定性好。**
- Two stage synchronous telescoping outrigger beam can be controlled at both sides of the crane, and is with big outrigger span, good lifting stability.



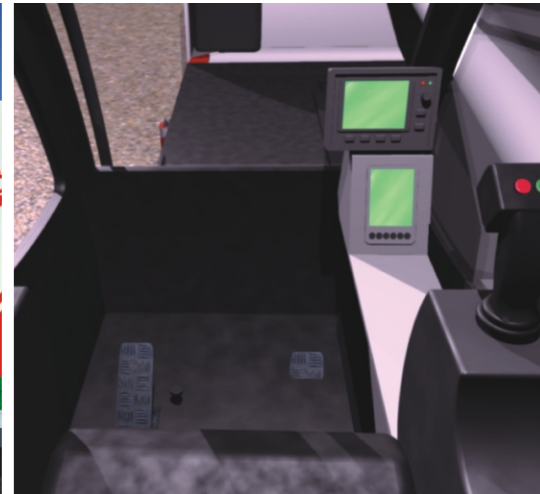
## 经济价值 — 高舒适性和低成本 Economic value - High comfortability and low cost

### 驾驶室 Driver's cab

- 全覆盖软化内饰
- 良好的隔音效果
- 可调式座椅
- 豪华仪表工作台
- 配空调、暖风
- Full covered soft decoration
- Excellent sound-proof effect
- Adjustable seat
- Luxury instrument panel
- Air conditioner, heater

### 操纵室 Operator's cab

- 流线型大圆弧前窗，视野开阔。
- 进口抗震压力表，随时显示监控系统的工作压力状况和异常信号。
- 大屏幕液晶显示力矩限制器，随时显示起重作业工况。
- 各种控制按钮、踏板、操纵装置均按人、机协调的要求布置，舒适性极佳。
- 配有空调、暖风装置。高靠背座椅可倾斜及前后调整，防紫外线遮阳窗帘，完全保证操作室舒适的作业环境。
- Streamline arc front window with wide view
- Imported shock absorbing pressure gauge, which can display the working pressure condition and abnormal signals of the monitoring system at any time.
- Large LCD moment limiter can display lifting condition at any time.
- All the control button, pedals, control devices are all according to ergonomic, which is very comfortable.
- It is fitted with air conditioner, heater. High back seat can be adjusted, tilt, forward and rearward together with anti-ultraviolet curtain, ensure comfortable working environment in the operator's cab.

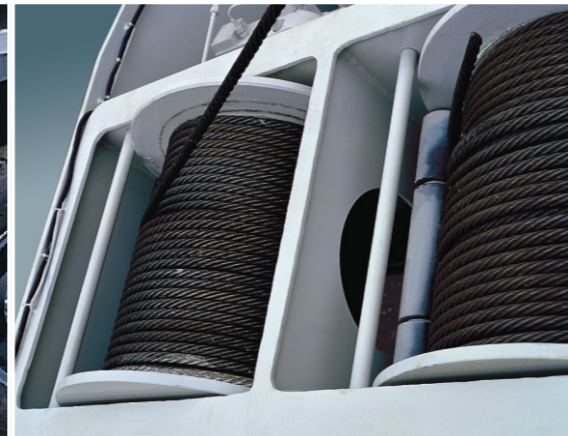


## 人性化体贴设计

### Human characteristic & consideration design



● 方便的上车楼梯  
Convenient stairs



● 简单而巧妙的双重防乱绳装置  
Simple & clever double anti-twist device



● 实用的软管挡板：保证胶管高寿命值  
Practical hose retaining plate ensure the long lifetime of the hose.



● 方便的转台楼梯  
Convenient slewing table stairs



● 收放自如的备胎升降机构  
Spare tire going up and down mechanism can be controlled freely.

- 操纵室内控制底盘的启动与熄火，方便操作，降低能耗。
- 发动机油耗低。
- 对常用的易损件，尽量采用通用件，方便备件采购，也降低维修成本。
- 一流的焊接工艺，确保结构的长久结实。

- You can control the starting and extinguishing of the chassis in operator's cab, which is convenient and can decrease energy cost.
- Low oil consumption of the engine
- Adopt universal parts as much as possible for often used quick wear to be convenient for purchasing and low maintenance cost.
- The first class welding technology ensures long time and solid.





## 安全价值 — 对吊装作业全程监护

### Safety value—Monitor the lifting operation all the time

- 主臂仰角角度指示器
- 吊钩防脱钩装置
- 全自动力矩限制器有自动检测和报警功能
- 支腿油缸内置式双向液压锁
- 在液压系统中，设有安全阀、平衡阀、制动阀等安全装置，以防油路过载，避免由于油管破裂而引起的意外事故发生
- 当整车液压系统出现故障时，监控器进入故障诊断界面，可根据相应故障，查找原因。
- Boom elevation angle indicator
- Hook anti-disengage device
- Full automatic moment limiter with automatic detection & warning function
- Outrigger cylinder inner located type double way hydraulic lock
- There are safety devices, such as safety valves, balance valves, brake valves in the hydraulic system to avoid overloading of oil pipe, and accident because of oil pipe broken
- When the hydraulic system of the whole vehicle is in trouble, the monitor enters into trouble diagnosis interface, you can find out the causes according to relative trouble.

## 环保价值 — 打造绿色工程机械

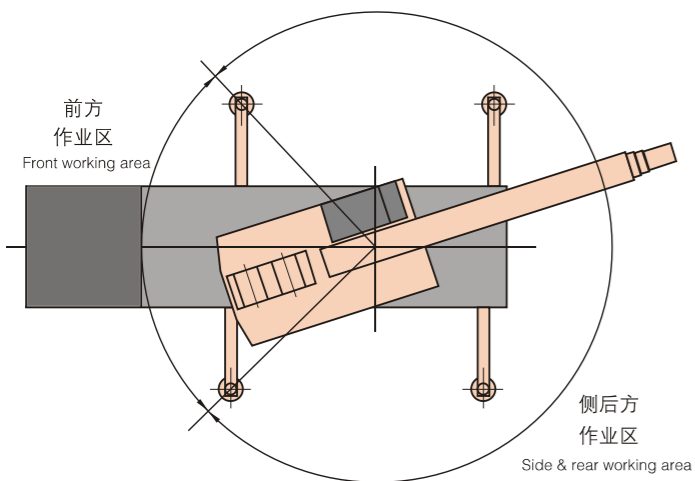
### Environmental protection value—Make green construction machinery

- 选用低公害发动机：低排放、低噪声。
- 设计上充分考虑降低整机振动与噪声。
- 软管使用的减少，采用进口卡套式接头：防止漏油，尽可能减少对环境的污染。
- Select low pollution engine: low emission, low noise
- Consider to sufficient decrease vibration and noise of the whole vehicle
- Decrease the usage of the hoses, and adopt imported clamping type fittings, which can avoid leakage, and decrease environment pollution as much as possible

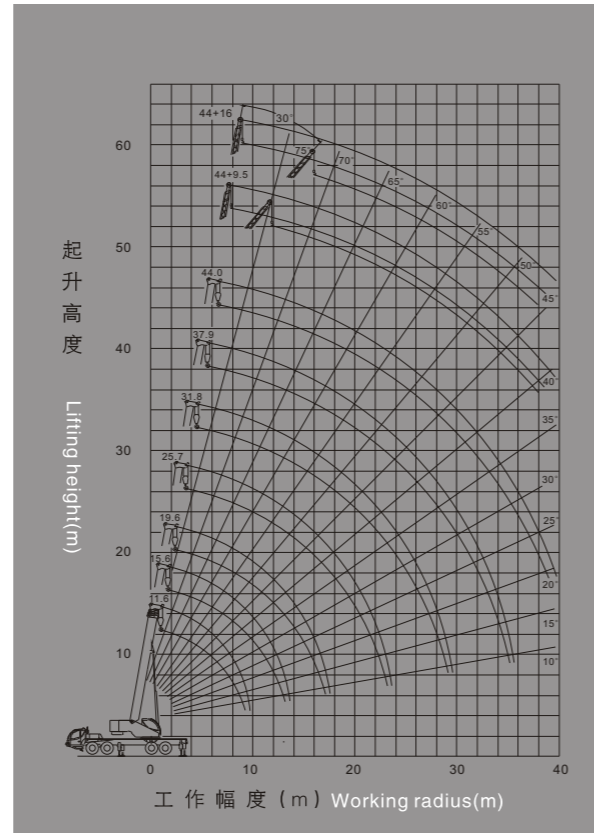
### 钢丝绳倍率 Wire rope fall

臂长 BOOM LENGTH(m)	11.6	15.6~19.6	25.7~31.8	37.9~44	副臂JIB
倍率 FALL	12	9	5	3	1

### 起重作业方位图 Working area diagram



### 起升高度曲线图 Lifting height curve diagram



### 主要技术参数 Main technical specifications

项目 (ITEM)	单位 (UNIT)	数值 (DATA)	
工作性能参数 WORKING PERFORMANCE SPECIFICATIONS	最大额定总起重量 MAX. RATED LIFTING CAPACITY	Kg	70000
	基本臂最大起重力矩 MAX. LIFTING MOMENT WITH MIN. BOOM LENGTH	KN.m	2352
	最长主臂最大起重力矩 MAX. LIFTING MOMENT WITH MAX. BOOM LENGTH	KN.m	1098
	主臂最大起升高度 BOOM MAX. LIFTING HEIGHT	m	44.2
	副臂最大起升高度 JIB MAX. LIFTING HEIGHT	m	60.2
工作速度 WORKING SPEED	单绳最大速度 (主卷扬) SINGLE LINE MAX. SPEED (MAIN HOIST)	m/min	120
	单绳最大速度 (副卷扬) SINGLE LINE MAX. SPEED (AUXILIARY HOIST)	m/min	68
	起重臂伸出时间 LIFTING BOOM EXTENDING TIME	s	107
	起重臂起臂时间 LIFTING BOOM ELEVATING TIME	s	57
	回转速度 SLEWING SPEED	r/min	0~1.6
行驶参数 TRAVELLING SPECIFICATIONS	最高行驶速度 MAX. TRAVELLING SPEED	Km/h	75
	最大爬坡度 MAX. GRADEABILITY	%	30
	最小转弯半径 MIN. TURNING RADIUS	m	12
	最小离地间隙 MIN. CLEARANCE	mm	260
	尾气排放限值 EMISSION DISPLACEMENT LIMIT		符合标准规定 GB3847-1999 GB17691-2001
质量参数 MASS SPECIFICATIONS	行驶状态自重 (总质量) SELF-WEIGHT IN TRAVELLING CONDITION	Kg	45000
	整车整备质量 COMPLETE VEHICLE KERB MASS	Kg	44850
	前轴轴荷 FRONT AXLE LOAD	Kg	19000
	后桥轴荷 REAR AXLE LOAD	Kg	26000
	外形尺寸 (长×宽×高) OVERALL DIMENSIONS (L×W×H)	mm	14000×2750×3750
尺寸参数 DIMENSION SPECIFICATIONS	支腿纵向跨距 OUTRIGGER LONGITUDINAL SPAN	m	6.00
	支腿横向跨距 OUTRIGGER TRANSVERSAL SPAN	m	7.60
	主臂长 BOOM LENGTH	m	11.6~44.0
	主臂仰角 BOOM ELEVATION	°	-2~80
	副臂长 JIB LENGTH	m	9.5~16
底盘 CHASSIS	副臂安装角 JIB OFFSET	°	0:30
	型号 TYPE		ZLJ5451
	发动机型号 DIESEL MODEL		潍柴WD615.46
	发动机功率 MAX. POWER OF ENGINE	kw/rpm	266/2200
	最大扭矩 MAX. TORQUE OF ENGINE	N.m/rpm	1460/1300~1600
类别 CLASSIFICATION		二类	
液压油牌号 HYDRAULIC OIL BRAND		L-HV32	
生产企业 MANUFACTURER		长沙中联重工科技发展股份有限公司	

### 起重特性表 Rated lifting capacity table

工作幅度 WORKING RADIUS(m)	主臂 BOOM						主臂仰角 BOOM ANGLE (°)	主臂+副臂 BOOM+JIB			
	支腿全伸、后方、侧方作业 REAR & SIDE WORKING AREA WITH OUTRIGGER FULLY EXTENDED							44.0m+9.5m		44.0m+16.10m	
	臂长 BOOM LENGTH			臂长 BOOM LENGTH				副臂安装角 JIB OFFSET		副臂安装角 JIB OFFSET	
	11.6m	15.6m	19.6m	25.7m	31.8m	37.9m	44.0	0°	30°	0°	30°
3.0	70000	50000	40000								
3.5	63000	50000	40000	28000				5000	3000	3000	1300
4.0	56000	47000	40000	28000				4700	2850	2700	1200
4.5	52000	44000	40000	28000	18000			4400	2600	2400	1150
5.0	48000	42000	38000	27000	18000			4100	2450	2100	1100
5.5	43000	39000	36000	26000	18000			3800	2300	1850	1050
6.0	39000	37000	34000	25000	18000	14000		3500	2200	1700	1000
6.5	35000	33000	31500	24000	18000	14000		3200	2100	1600	970
7.0	30000	28700	28700	23000	18000	14000	10000	2800	2000	1500	940
7.5	26500	25000	25000	22000	18000	14000	10000	2400	1900	1400	910
8.0	23500	22500	22500	21000	17500	14000	10000	2100	1800	1300	880
9.0	18200	18200	18200	18500	16000	14000	10000	1850	1650	1200	850
10.0		14700	14700	15300	14500	13000	9800	1600	1350	1100	800
11.0		12200	12200	12700	13000	12000	9500	1300	1150	1000	750
12.0		10200	10200	11000	11500	11000	9000	1000	900	800	
14.0			7100	8200	8800	9300	8000	800			
16.0			5300	6000	6700	7200	7000				
18.0				4700	5200	5500	5900				
20.0				3500	4000	4300	4600				
22.0					3100	3300	3800				
24.0					2300	2500	3000				
26.0					1700	1900	2300				
28.0						1400	1800				
30.0						900	1400				
32.0						1000					

#### 说明 Note

1. 以上作业工况均为支腿全伸，不允许在不打支腿的情况下吊重；
2. 表中粗线框内的额定总起重量由起重机的结构强度所决定，其它由起重机的整机稳定性所决定；
3. 打好第五支腿，表中数值适用于圆周360°作业；
4. 表中所列数值为最大允许值，并包括吊钩重量（主吊钩550kg，副吊钩140kg）；
5. 表中所指幅度是指吊钩中心至回转中心间的水平距离；
6. 当实际臂长和工作幅度在两数值之间时，应按较大臂长和幅度值确定起重量；
7. 在幅臂伸出的情况下使用主臂作业时，额定起重量不仅要扣除吊具重量，还要扣除副臂自重2000kg。
8. A working radius given in the table is a horizontal distance from the centerline of the hookblock to the axis of the slewing ring when the hookblock is loaded.
9. When actual boom length is between two values, determine lifting capacity according to bigger boom and radius.
10. Rated lifting capacity should exclude the weight of clings and self-weight of jib (2000kg), when boom is used with jib extended.