# XCT80 汽车起重机 / Truck Crane

### 技术规格书

**Technical specifications** 



80t



47.5m



64m





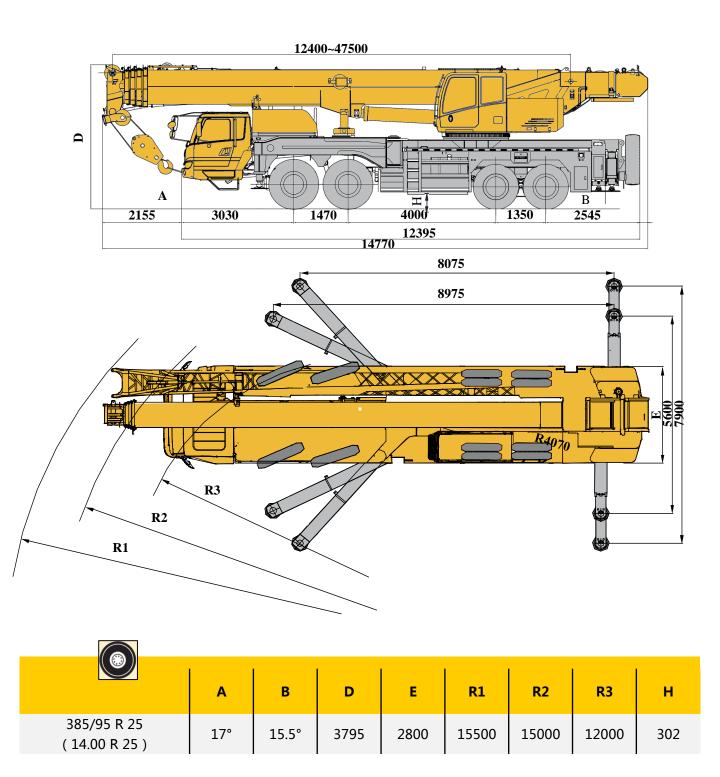
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#### 尺寸参数 Dimensions



#### **Technical specifications**



#### 底盘

**车架** 徐工设计、制造,全覆盖式走台板,防扭转

箱型结构,高强度钢材制造。

支腿 4支腿,前摆腿后水平支腿结构,水平伸缩和垂直伸缩由液压控制,底盘两侧装有电控操

纵控制台,控制台板装有水平仪、照明灯和 调速按钮,支腿油缸均设有单向阀,且垂直

支腿带有双向液压锁。 支脚盘尺寸:φ450mm

最大起重量时支腿反力:739kN

发动机 MC11.40-50/WP12.375E50,直列六缸水冷电

控柴油发动机,重汽曼/潍柴制造,额定功率297kW/1900rpm/276kW/1900rpm,最大扭矩

1900Nm/1000-1400rpm/1800Nm/1000-

1400rpm, 国V排放标准。 燃油箱容积:350L。

变速箱 伊顿机械式变速箱,10个前进档,2个倒档。

**车桥** 1,2桥转向,3,4桥驱动。

悬挂 前悬架采用钢板弹簧悬架,后悬架采用橡胶

县边

轮胎 12个轮胎,1个备胎

轮胎规格:

前桥385/95R25 (14.00R25)

后桥12.00R24

制动 行车制动:双回路气压制动,作用于所有车

轮。

驻车制动:弹簧储能制动,作用于2,3,4轴车

轮。

辅助制动:发动机排气制动和缓速制动。

转向 1、2桥机械转向+液压助力

驾驶室 新型复合结构驾驶室,全封闭、装备豪华舒

适。性能上:优越的密封性和防腐蚀、防震设计;配置大视野的前挡风安全玻璃、后视镜,电控洗涤器,电子门窗升降器,带有除霜风挡的室内空气加热器,冷暖空调,收放音机等。主驾采用空气悬浮座椅副驾采用简

易卧铺等。2公斤灭火器

标配冷暖空调。

电气系统 直流24伏特, 串联12伏特的电池组2个。

发电机 28伏特-80安培。

# 1

#### 上车

**结构** 徐工设计、制造,高强度钢材制造。

液压系统 底盘发动机驱动四联泵,主泵为变量泵用

于起升、变幅、伸缩。回转、空调和先导 控制由齿轮泵驱动;负载敏感式比例多路

换向阀;风冷式液压油散热器;

液压油箱容积:1200L

操纵方式 液控先导操纵系统,由左右2个操纵手柄控

制., 主操纵阀为负载敏感控制多路换向阀

**主起升机构** 液压控制调速,装有双折线绳槽卷筒,由 液压马达通过行星齿轮减速器驱动,内置

常闭式制动器并带有平衡阀;

副起升机构 液压控制调速,装有双折线绳槽卷筒,由

液压马达通过行星齿轮减速器驱动,内置

常闭式制动器并带有平衡阀;

回转机构 三排滚柱式回转支承联结上车与底盘,可

连续回转360°,回转支承滚柱轨道密封可防水防尘。低速大扭矩定量马达,行星齿

轮减速,内置常闭式制动器,可无级调速。

变幅机构 单支双作用前置液压变幅油缸

操纵室 新型钢制操纵室,装有无视野死角的前景 窗,安全玻璃,车窗装有遮阳板,推拉式

车门,座椅靠背可倾斜定位,操纵杆安装 在座椅两侧的扶手台上;带推拉踏板;前 窗顶窗装有雨刮器;标配冷暖空调;2公斤

灭火器

安全装置 液压平衡阀;液压溢流阀;液压双向锁;

力矩限制器;三圈保护器,防止钢丝绳过放;臂头设置高度限位,防止钢丝绳过卷; 三色报警灯;上车水平仪;卷扬监视器;

支腿压力检测

**组合配重** 标配11.5t , 有2.2t、1.3t、3.5t、4.5t , 共

有2.2t、3.5t、8t、11.5t共4种组合方式。

#### **Technical specifications**

#### 上车

**主臂** 5节 , "U" 形截面的筒形焊接结构。双缸

绳排伸缩机构

主臂长度:12.4m~47.5m。

副臂 单滑轮,安装在主臂顶端用于单股钢丝

绳起重作业,起重性能对应主、副臂工况

的性能,不能超过6.3吨

臂端单滑轮 桁架式焊接结构,具有0°、15°、30°三种

固定副臂安装角

固定副臂长度:10.5m/17.5m

#### 选装配置

安全装置 风速仪;

发动机配置 WP12.375N潍柴发动机、额定功率

(国三) 276kW/1900rpm、最大扭矩1800Nm/(1000-

1400rpm)、国III排放标准。

MC11.39-30重汽发动机,额定功率

290kW/1900rpm、最大扭矩1900Nm/(1000-

1400rpm)、国III排放标准。

平衡重 倒车影像

产品各部件明细如上所述,具体部件明细请 参照产品报价单

#### **Technical specifications**

Technic	eal specifications
340	Chassis
Frame	Designed and manufactured by XCMG, with all covered walking surface, anti-torsion box structure and optimal load-bearing structure design, made of imported high strength steel.
Outrigger	4 outriggers, K-shaped arrangement, lateral and vertical outrigger controlled by the hydr-aulic control. Both sides of the chassis equip-ed with electronic control console, the console installed with luminous level, lighting and speed buttons; outrigger cylinders equipped with one-way valve, and the vertical outrigger has two-way hydraulic lock. Float dimension: φ450mm Reaction force of outrigger at max. lifting load:739KN
Engine	MC11.40-50/WP12.375E50, in-line six-cylinder water-cooled EFI diesel engine, manufactured by MC/WEICHAI POWER, rated power 297kW/1900rpm/276kW/1900rpm, max. torque 1900Nm/1000-1400rpm/1800Nm/1000-1400rpm, the national V emission standards. Fuel tank capacity: 350L
Gearbox	Mechanical transmission, made by EATON manual flexible shaft control, 10-forward speed and 2-reverse speed.
Alxes	Four-axle chassis, 1&2 alxes sreering,3&4 alxes driving.
Suspension	Front suspension is steel spring,rear suspension is rubber spring.
Tires	12 tires and 1 spare tire, 1&2 axles are equipped with single tire,3&4 axles are equipped with double tire.  Tire specifications: Front:385/95R25 ( 14.00R25 ) Rear:12.00R24
Brakes	Service braking: foot pedal operated double-circuit air pressure brake. The first circuit acts on the wheels of axles 1 and 2; the second circuit acts on the wheels of axles 3 and 4.  Parking brake: air-release brake, acting on the 2nd, 3rd and 4th axles, it works through the springloaded air chamber on each axle.  Auxiliary brake: engine exhaust brake and engine retarder brake.
Steering	1&2 alxes sreering, mechanical steer with hydraulic assist
Cab	New enclosed cab, luxury and comfort. It is designed to be leakproof, anti-corrosive and shockproof. It is equipped with a windshield offering outstanding visibility, rear mirrors, electric control washer, electronic lifters of doors and windows indoors in hymidisficativity windows and

windows, indoor air humidifier with windscreen defroster, air conditioner, radio cassette player, etc.

24V DC, negative ground, 2 batteries.

Electric

	Superstructure
Frame	Designed and manufactured by XCMG; made of high-strength steel
Hydraulic system	Quadruple pump driven by chassis engine, the variable pump as main pump is used to control hoisting, elevating and telescoping operations. The gear pump is used to control slewing operation as well as for air conditioner and pilot control. Load sensitive proportional multi-way change valve, Aircooled hydraulic oil radiator; Volume of hydraulic oil tank: 1200L
Operating mode	Hydraulic pilot control of all crane movements using two control levers. Main control valve is load-sensitive control multi-way change valve.
Main winch system	Hydraulic controlled speed regulation, groove drum is equipped, driven by hydraulic motor through planetary gear reducer, and built-in normally closed brake and counterbalance valve are available.
Auxiliary winch	Hydraulic controlled speed regulation, groove drum is equipped, driven by hydraulic motor through
system	planetary gear reducer, and built-in normally closed brake and counterbalance valve are available.
Slewing system	Three-row roller slewing ring for connecting superstructure with chassis may continuously slew 360°. Slewing ring track is water-proof and dust-proof. A constant displacement motor with low speed and large torque, a planetary gear slewing reducer and a build-in normally closed brake are equipped. The slewing speed may be infinitely regulated.
Elevating System	Single-supported double acting front-mounted hydraulic elevating cylinder, with balance valve equipped.
Operator's cab	New fully-enclosed steel tiltable cab with a full-view front window. Safety glass and sun shield are used for windows. Wipers are fitted for the windshield and roof window. The cab features a new ergonomic seat design with backrest adjustment and armrests with joysticks fitted. A sliding door and a pull-out step are available. Heater and Air conditioner are available. Fire extinguisher 2kg
Safety devices	Hydraulic balance valve; Hydraulic relief valve; Double-way hydraulic valve; LMI; spring aligning device for joystick; Lowering limiter for preventing wire rope from over-releasing; Anti-two block at boom head for preventing wire rope from over-winding; tri-color warning lamp. level gauge, Winch monitor, outrigger pressure detection.

#### **Technical specifications**

SINK!	Boom system
Boom	5-section, U-shape cross section, welding structure. Boom length:12.4m ~ 47.5m.
Single top	Fitted at boom head, used for single line operation. Its lifting performance is the same as that for boom and jib, but could not exceed 6.3t.
Jib	2-section, Lattice jib, welded structure. Three offset angles of $0^\circ$ , $15^\circ$ and $30^\circ$ . Fixed jib length: $10.5\text{m}/17.5\text{m}$

#### **Additional equipment**

Safety devices Anemometer

Engine WP12.375N, rated power 276kW /1900rpm, max. torque 1800Nm/1000-1400rpm, the national III

emission standards.

MC11.39-30, rated power 290kW /1900rpm, max. torque 1900 Nm/1000-1400 rpm, the national III emission standards.

Electrical

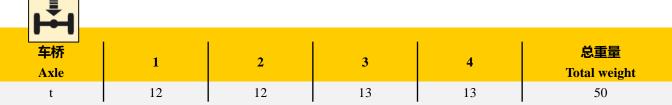
Reversing camera

system

Product parts list is as mentioned above, please refer to the product quotation for specific parts.

#### 重量

#### Weight

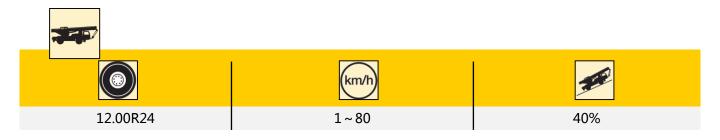


- 1) 车架中间放置1.3吨活动平衡重,中长钩固定在驾驶室前方,其余吊钩不带;
- 2) The 1.5 ton Counterweight should be put on the chassis deck, not taking any other counterweight and rearview mirror; The main block should be fastened in front of the chassis cab, and not taking any other blocks.

t				
吊钩	倍率	吊钩重量	吊钩尺寸	备注
Hook	No. of lines	Weight kg	Dimensions mm	Remarks
80t	12	994	1735×554×520	双钩 Double hook ,标配 Standard
40t	6	560	1600×520×370	单钩 Single hook ,标配 Standard
7t	1	251	717×370×370	单钩 Single hook ,标配 Standard

#### 作业速度 Working speeds

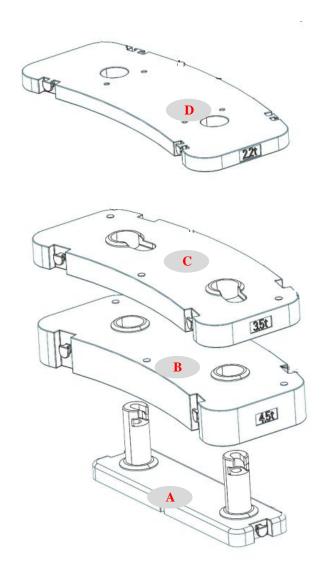
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作业机构 Drive	作业速度 Working speed	最大单绳拉力 Max. single line pull	钢 <mark>丝绳直径/长度</mark> Rope diameter/ length				
	m/min,单绳,第四层 m/min, single line,4th layer	83kN	20 mm/235m				
[2]	m/min,单绳,第四层 m/min, single line,4th layer	58.6 kN	20 mm/145 m				
360*	0-1.9 r/min						
	从-1°抬起至79°约70s Approx. 70s for boom elevation from -1° to 79°						
1/1	从12.4m伸出至47.5m约150s Approx. 150s for boom extension from 12.4m to 47.5m						

#### 平衡重

#### Counterweight



平衡重 Counterweight	A	В	C	D
尺寸(长×宽×高) m Size(L×W×H) m	560×2100×659	1490×2700×322	1490×2700×203	1490×2700×127
重量 t Weight t	1.3	4.5	3.5	2.2

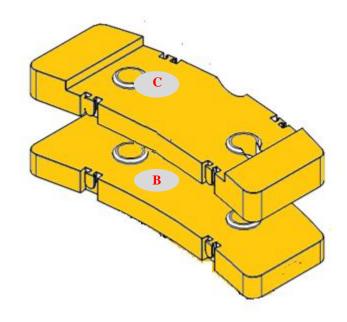
工况模式 Working mode	11.5t	8t	3.5t	2.2t
组合形式 Combinations	A+B+C+D	A+B+D	A+D	D

#### 运输部件尺寸

#### **Transportation components dimension**

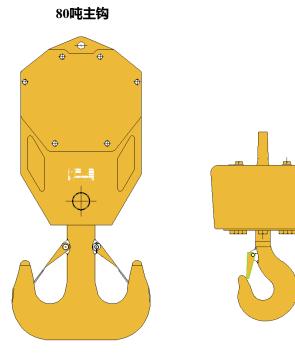
平衡重 8t Counterweight 8t

平衡重B: 4.5t	平衡重C: 3.5t
2750×1126×621	2750×1126×267
单位(Unit): mm	



80吨主钩 994kg+7吨副钩 80 ton hook block 994 kg+ 7ton hook block

80吨吊钩	7吨吊钩
710×603×1784	426×426×740
单位(Unit):mm	





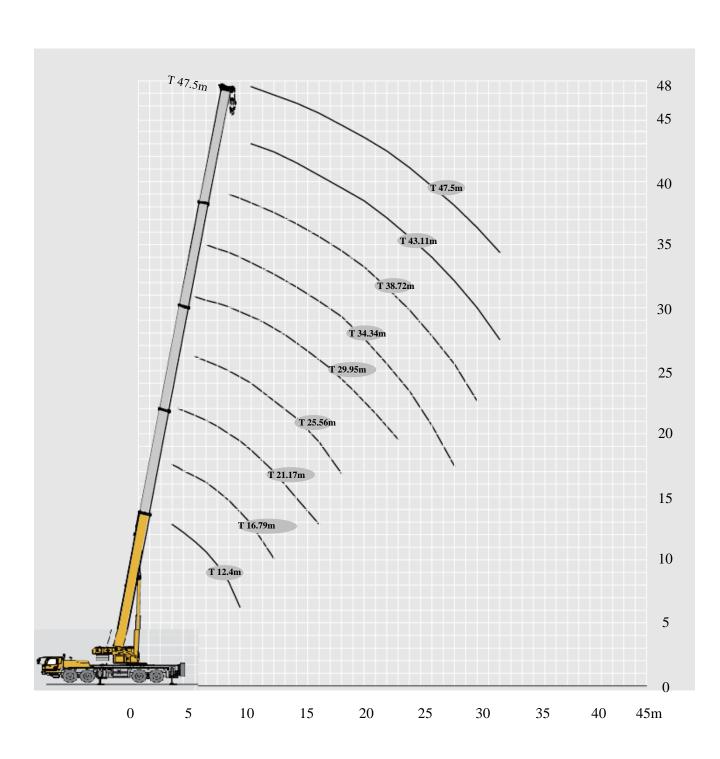


主臂	副臂
Telescopic boom	Jib

T: 12.4~47.5m

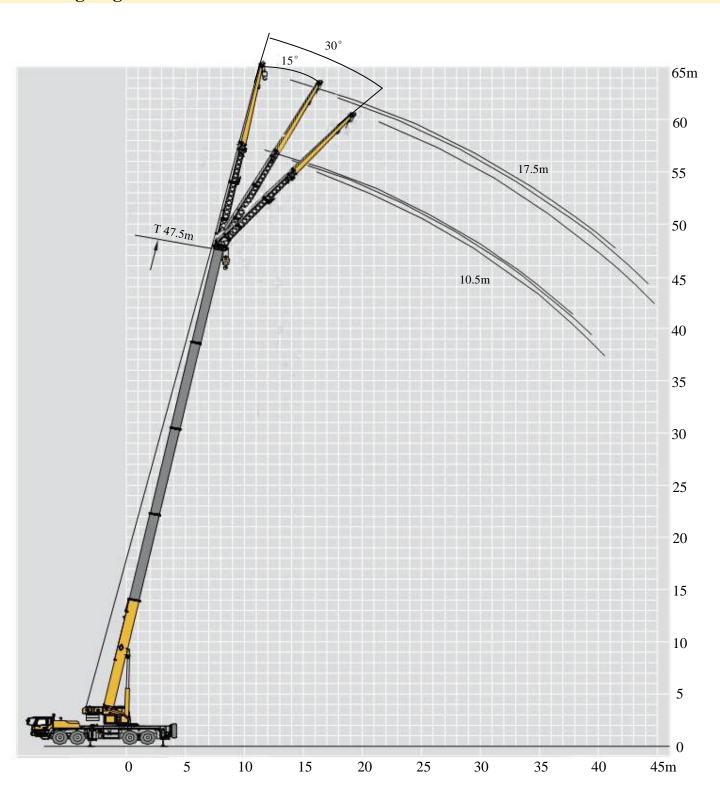
T: 12.2~47.5m

J: 10.5m/17.5m



#### Lifting capacities

	12.4-47.5m		360°	11.5t						
	12.4m	16.79m	21.17m	25.56m	29.95m	34.34m	38.72m	43.11m	47.5m	
3	80	65								3
3.5	75	63	45							3.5
4	68	61	45							4
5	58	54	43	38	32					5
6	51	47	38	35	30	24.5				6
7	43.5	42	34.5	32	28	22.5				7
8	37	36.8	31.6	28	25.5	20	17.9			8
9	30.5	29.9	28.2	26.5	23.8	18.9	16.9			9
10		24.3	24	23.7	21.8	17.7	15.7	13.4	12.5	10
12		17.1	16.9	17.9	18.6	16.6	14.9	13	11	12
14			12.4	13.3	14	14.5	12.7	11	10	14
16			9.3	10.3	10.9	11.4	11	9.5	9	16
18				8	8.7	9.1	9.5	8.4	8	18
20					7	7.4	7.7	7.3	7.2	20
22					5.6	6	6.2	6.4	6.4	22
24						5	5.2	5.3	5.4	24
26						4.1	4.3	4.5	4.7	26
28						3.2	3.4	3.7	3.9	28
30							2.9	3.1	3.3	30
32								2.6	2.8	32
34								2.1	2.3	34
36									1.8	36



# 起重性能表

## Lifting capacities

主臂仰角 Boom angle (°)	47.5m 10.5m 8075m× 0° 安装角 Jib offset angle 0°	15° 安装角 Jib offset angle 15°	30°安装角 Jib offset angle 30°	主臂仰角 Boom angle (°)
78	6.3	4.4	4.2	78
75	5.8	4	3.7	75
72	5.1	3.7	3.5	72
70	4.7	3.5	3.4	70
65	3.9	3.2	3	65
60	2.8	2.6	2.5	60
55	2.1	1.9	1.8	55
50	1.2	1.1	1.1	50

	47.5m 17.5m 8075m×7.9m 11.5t			
主臂仰角 Boom angle (°)	0°安装角 Jib offset angle 0°	15°安装角 Jib offset angle 15°	30°安装角 Jib offset angle 30°	主臂仰角 Boom angle (°)
78	3.7	2	1.6	78
75	3.2	1.6	1.4	75
72	2.7	1.4	1.3	72
70	2.5	1.3	1.3	70
65	1.9	1.2	1.1	65
60	1.7	1.1	1.1	60
55	1.4	1	0.9	55
50	1.1			50

# 符号标识 Description of symbols

	上车 Superstructure	72		底盘 Chassis
/ t	起重能力 lifting capacity	H	1	车桥 Axle
1/3	吊臂长度 Boom length	km	/h)	行驶速度 Driving speed
	工作幅度 Radius	#		爬坡能力 Gradability
	吊臂仰角 Boom position			轮胎 Tyres
A T	主臂起升高度 Hoist height with Boom		į.	支腿 Outriggers
	固定副臂长度 Fixed jib length	t		吊钩 Hook block
A DESCRIPTION OF THE PROPERTY	副臂安装角 Jib offset angle		#	平衡重 Counterweight
The state of the s	副臂起升高度 Hoist height with jib			卷扬 Winch
	独立臂头 Independent jib head		360°	360°全回转 360° rotation

#### 注意事项

#### **Notes**

- 1. 本手册仅供参考,所有信息均仅供说明,不应依赖它 去操作起重机,起重机的正确操作说明请参见操作手 册和额定起重量手册
- 2. 表中所列起重量单位均为公吨(t),是当前臂长及幅度下,起重机在稳固、水平表面上能够保证的最大总起重量,包括吊钩和吊具的重量,吊重时必须减去上述装置的重量。
- 3. 表中的工作幅度为起吊重物离地时起重物到起重机回 转轴线的水平距离。
- 4. 应按主臂仰角范围作业,即使是空载,也不应使主臂仰角处于范围外。
- 5. 只允许在5级(瞬时风速14.1m/s,风压125N/m2) 风以下进行作业。

- The manual is intended as reference only. See Operation Manual and Rated Lifting Load Manual for correct operation instructions.
- 2. The total rated loads given in the rated load charts are the maximum lifting capacity (in t) under corresponding boom length and radius when the crane is set up on firm and level ground, which includes the weight of the hook block and slings. The weight of above-mentioned devices should be deducted from the rated lifting load.
- The working radius shown in the rated load charts is the horizontal distance between the load and slewing axis of crane when the load is lifted off the ground.
- 4. Observe the boom angle limit. Never operate the crane with the boom angle beyond the recommended limit even if a load is not being carried.
- 5. A lifting operation is permissible only when the wind force is below grade 5 (instantaneous wind speed is 14.1 m/s, wind pressure is 125 N/m2).

#### 主要技术参数

#### **Main Technical Data**

类别	项目		单位	参		
Category	9 .		Unit	Parai	neter	
	外形尺寸(长×宽×高)		mm 14770×2800×389		800×3890	
	Outline size (length× width× height)					
	轴距 Wheel base		mm	1470+4000+1350		
尺寸参数						
Dimensions	Track (Front/ Rear )		mm	2380/2075		
	前悬/后悬 Front/ Rear overhang		mm	3030/2545		
	前伸/后伸 Front/ Rear extension		mm	2155/220		
	最大允许总质量 Total vehicle mass in travel configuration		kg	50000		
重量参数	—轴 1st ax		kg	12000		
Weight	轴荷 二轴 2nd ax		kg	12000		
	Axle load <u>三轴 3rd ax</u>		kg	13000		
	四轴 4th ax		kg	130	000	
	发动机型号 Engine mod	del		MC11.40-50	WP12.375E50	
动力参数	额定功率/转速 Engine rated power/rpm		kW/(r/min)	297/1900	276/1900	
<b>知力参数</b> Power	最大净功率/转速 Max. net power/rpm		kW/(r/min)	294/1900	271/1900	
	最大输出扭矩/转速		N.m/(r/min)	1900/1000-1400	1800/1000-1400	
	Engine rated torque/rpm	n		-,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
	最高车速 Max. travel speed		km/h	≥80		
	最低稳定车速			2 2		
	Min. travel speed		km/h	2~3		
	最小转弯直径		m	≤24		
	Min. turning diameter			_27		
	臂头最小转弯直径 Min. turning diameter at boo	om tin	m	≤30		
	最小离地间隙	ли пр				
行驶参数	Min. ground clearance		mm	371		
Travel	接近角		0	10		
	Approach angle 离去角			15.5		
			0			
	Departure angle 制动距离(制动初速度为30km/h)			≤10		
	Braking distance (at 30 km/h)		m			
	最大爬坡能力		0/.	40		
	Max. grade ability		%	4	0	
	百公里油耗		L	45		
	Fuel consumption per 100	km		70		
陽幸	加速行驶机外噪声 Exterior poise level		dB(A) ≤84		34	
噪音 Noise	Exterior noise level 驾驶员耳旁噪声					
Noise	Noise level at seated posit	ion	dB(A)	≤9	90	

#### 主要技术参数

#### **Main Technical Data**

类别 Category		单位 Unit	参数 Parameter		
	最大额定总起重量 Max. total rated lifting capacity			t	80
	最小额定工作幅度	Min. rated workin	g radius	m	3.0
	转台尾部回转半经	平衡重处 Counterweight		mm	4670
	Turning radius at turntable tail		xiliary winch	mm	4220
	最大起重力矩	基本臂 Base boom		kN.m	3060
	Max. load moment		注臂 inded boom	kN.m	1392
	支腿跨距	纵向 Lo	ongitudinal	m	8.075 ( 8.975 )
主要性能参数	Outrigger span	横向	Lateral	m	7.90 ( 5.6 )
Main performance			本臂 boom	m	12.8
	起升高度 Hoist height	最长主臂 Fully-extended boom		m	47.5
		最长主臂+副臂 Fully-extended boom + Jib		m	64.0
		基本臂 Base boom		m	12.4
	起重臂长度 Boom length	最长主臂 Fully-extended boom		m	47.5
		最长主臂+副臂 Fully-extended boom + Jib		m	65
	副臂安装角 Jib offset angle			٥	0, 15, 30
	起重臂起臂时间 Boom raising time			s	70
	起重臂全伸时间 B	s	150		
	最大回转速度	r/min	2.0		
	支腿收放时间 Outrigger extending and retracting time	水平支腿 Outrigger beam	收 Retracting	s	40
工作速度参数 Working speed			放 Extending	s	50
Working speed		垂直支腿 Outrigger jack	收 Retracting	s	45
			放 Extending	s	50
	起升速度(单绳, 第四层,空载) Hoisting speed (single line, 4th layer, no load)  主起升机构 Main winch  副起升机构 Auxiliary winch		m/min	130	
			Auxiliary winch	m/min	110
噪声	机外辐射 Exterior noise level			dB ( A )	122
Noise	司机位置处 Noise level at seated position			dB (A)	90



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