



## TRUCK CRANE

# XCT80\_Y1





XCMG's Hoisting machinery division is the leader in China's lifting industry focusing on the research, development and the production of mobile cranes. At XCMG's core is a commitment to technological innovation while utilizing the latest digital technologies to push the boundaries of product development and production while following our principles of social responsibility, building a sustainable and better future, and to create value for our customers. XCMG's Hoisting machinery division boasts a product range that includes, 5–220 mt truck cranes, 40–4000 mt all-terrain cranes, 25–150 mt rough terrain cranes, 30–160 mt telescopic crawler cranes and 45–4000 mt lattice boom crawler cranes. Our cranes are sold and serviced in more than 190 countries and regions worldwide.







徐工重型



徐工集团徐州重型机械有限公司  
XUZHOU HEAVY MACHINERY CO., LTD. OF XCMG







Superb lifting performance

Superb driving performance

New appearance and humanized design

Smart and safe control





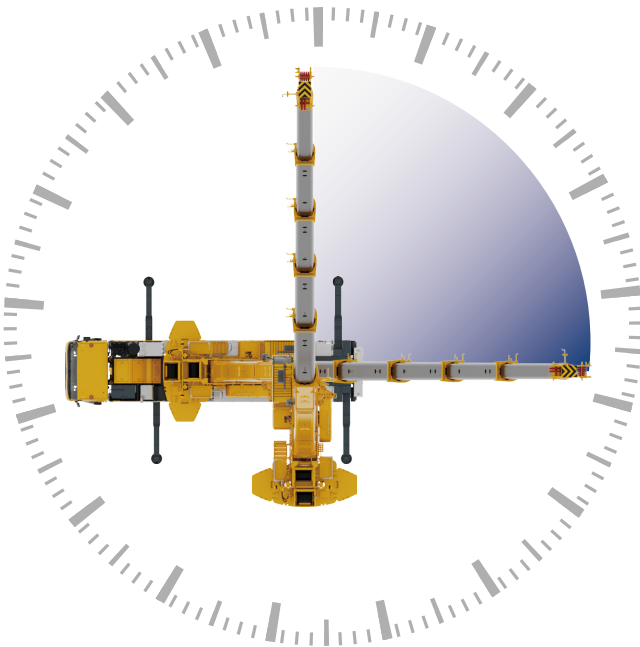
- ▶ Innovative single-plate boom head and compact boom tail structure, best overlapping ratio in its class and stronger boom load-bearing capacity.
- ▶ Five-section "U-type profile" boom with length of 50.5m.
- ▶ 9.5m/16m fixed jib, with 0°, 15° and 30° jib offset angles available.



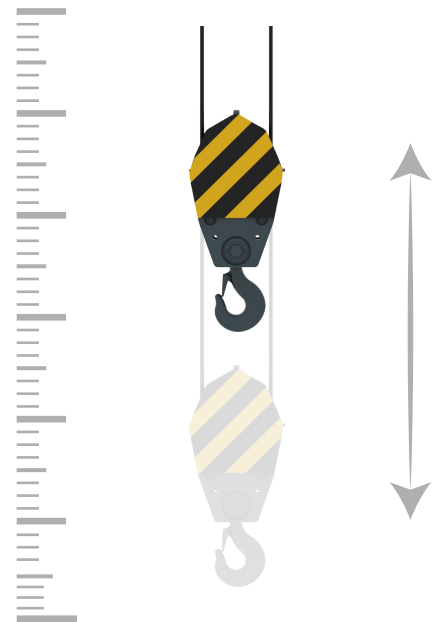


### Efficient and reliable hydraulic system

- ▶ Adopted variable pump load sensing hydraulic control technology, low-speed large torque slewing system, fixed-displacement motor winch system, its displacement can be adjusted automatically with the change of main valve opening, which can reduce the energy consumption, and promote smoothness and inching control. Multi function operations to be used at all times, including duel, hook, luffing and slewing.
- ▶ Dual-pump independent and confluent control technology for efficient operation.  
Centralized lubrication system with regular automatic filling of lubricating oil.



The min. stable slewing speed is  $0.1^{\circ} / s$



The min. stable hoisting speed is 0.8–1m/min,  
3 speed for hoisting operations, super slow,  
slow and fast



### **Low-placed H-shaped outriggers, higher safety**

- ▶ The front outrigger beams adopt low-placed H-shaped outriggers, and optimized box structure, which have greater load-bearing capacity.

### **Strong power, excellent travel performance**

- ▶ Rated power 257 kW, maximum output torque 1700 N. M
- ▶ Mechanical transmission made by Shaanxi Fast Gear Co., Ltd., operated through a flexible shaft, with a synchronizer fitted.
- ▶ Off-road chassis, with approach angle of  $22^{\circ}$ , ramp angle of  $25^{\circ}$ , and departure angle of  $13^{\circ}$ , meets the N3G off-road chassis standard, reaching industry-leading pass-ability under complex road conditions.
- ▶ Max. travel speed is 48 km/h and max. grade ability is 45%.







### **Braking and suspension system**

- ▶ Foot pedal operated dual-circuit air pressure brake.  
Parking brake: spring-loaded brake, acting on the wheels of axles 2, 3 and 4.
- ▶ Auxiliary brake: engine exhaust brake and engine in-cylinder retarder brake.
- ▶ Leaf springs are adopted for front suspensions.
- ▶ Rubber suspension with V-type control arm for rear suspensions.

### **Full counterweight during jobsite transfer, economical and efficient**

- ▶ 20 t full counterweight can be carried during short-distance job site transfer. It is a model of "One-man operation of the machine", more economical to use.
- ▶ 385 large tires on the front axle, combined with high-level reinforced tires for the entire vehicle, bring a 10% increase in load-bearing capacity, making driving safer.
- ▶ Optimized matching of the crane multi-state mass center allows the uniform distribution of front and rear axle loads in the travel configuration, more reliable in jobsite transfer.
- ▶ The anti-torsion box chassis structure, combined with axles of stronger bearing capacity, makes full-counterweight jobsite transfer easy and efficient.



## **NEW APPEARANCE**

- ▶ New styling, extra-large space, large field of view, generous storage space, rich configuration, diverse configurations, providing delicate craft and comfortable driving.



### **DRIVER'S CAB**

- ▶ Dust-proof, noise-canceling, highly-sealed cabs with soft instrument panel, flame-retardant, skid-proof, easy-to-clean mat, and thermally-pressed, edge-sealed, non-woven fabric ceiling.
- ▶ Heater and air conditioner are standard.
- ▶ Electric window lifter.
- ▶ Mechanical shock-absorbing seat for main driver.

### **OPERATOR'S CAB**

- ▶ Ergonomic design of workspace makes operation more comfortable and safer.
- ▶ T3 air conditioning, electric fan.
- ▶ Classic large arc-shaped operator's cab enables no obstruction above the viewing angle, providing a wider field of vision and undistorted viewing.





### **XCMG human-machine interaction system**

- ▶ The human-machine interaction system enables friendly dialog between operator and the crane. Information about lifting operations can be known easily, leading to easier and more convenient use.
- ▶ LMI is equipped in the vehicle. LCD color screen can show the operation parameters of the crane with words and pictures in a clear and direct way, which makes the operation modes clear at a glance.

### **Luffing system**

- ▶ Single luffing cylinder, with high reliability.
- ▶ Luffing counterbalance valve with load compensation function.

### **Winch system**

- ▶ Constant-displacement pump – open-type hydraulic system with variable-displacement motor.
- ▶ Planetary gear reducer, constant closed brake.
- ▶ Max. single line pull: 49 kN.
- ▶ Max. lifting speed: 130 m/min.

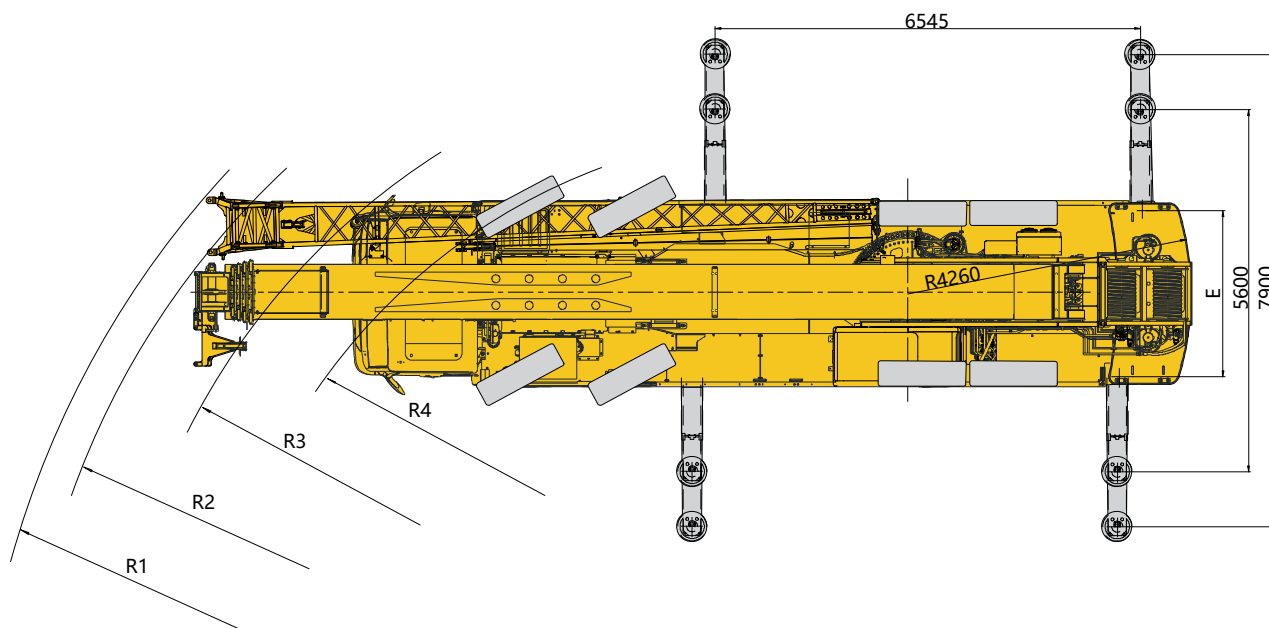
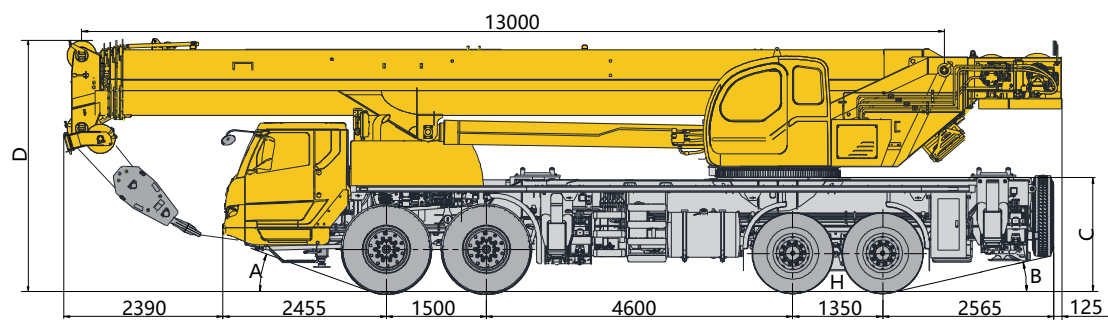


### **User-friendly design makes operation and maintenance more convenient**

- ▶ Widened winch rearview mirror for safer operation of winch.
- ▶ Over 20 inspection ports ensure the convenience of maintenance.
- ▶ Aluminum alloy fuel tank and stainless steel expansion tank.







385/95 R25  
325/95R24

A	B	C	D	E	R1	R2	R3	R4	H
22°	13°	1715	3790	2800	15300	14800	13500	12000	373





## Chassis

Frame	The frame, designed and manufactured by XCMG, is made of high-strength steel with fully-covered walking surface and anti-torsion box-typed structure.	●
Outrigger	Four outriggers arranged in H-shape are hydraulically controlled by control levers. Double-stage outrigger beams are adopted. There are outrigger control levers located at each side of the chassis, and there is a level gauge, LED illuminator and speed buttons in each control panel. There is a check valve fitted in each outrigger cylinder, and a double-way hydraulic lock fitted in each jack cylinder. Float dimension: 435 mm × 435 mm Reaction force of outrigger at max. lifting load: 784 kN.	●
Engine	WP10HG350E670, in-line, 6-cylinder, water cooled, electrical diesel engine manufactured by Weichai, with rated power of 257 kW/1900 rpm and max. torque of 1700 Nm/1000~1400 rpm. Max. engine reference torque can reach 1852N.m. Compliant with India BS V emission standard. AdBlue tank capacity: 34.3 L Fuel tank capacity: approx. 430 L.	●
Transmission	Manual transmission, made by Shaanxi Fast Gear Co., Ltd., 10-forward speed and 2-reverse speed.	●
Axles	High strength axles, made by famous manufacturers. Axles 1 and 2 are for steering, while axles 3 and 4 are for driving.	●
Suspension system	Leaf spring suspension is used as front suspension, and rubber suspension is used as rear suspension.	●
Tires	12 tires and 1 spare tire, 1st and 2nd axles are equipped with single tire, 3rd and 4th axles are equipped with double-tire. Tire specifications: 385/95R25 (front axles) 325/95R24 (rear axles)	●
Brake	Service brake: dual-circuit air pressure brake acting on all wheels. Parking brake: spring-loaded brake, acting on the wheels of axles 2, 3 and 4. Auxiliary brake: engine in-cylinder retarder brake.	●
	ABS Assembly	○
Steering system	Axles 1 and 2 are mechanically steered + hydraulic power assistance.	●
Driver's cab	Windshield with wide visual field, electric wiper and electric window lifters are available; heater and air conditioner can let the air blow face or feet or realize defrosting; radio player is also equipped. Mechanical shock-absorbing seat for the driver, while dual sleeper for the co-driver's seat. Fire extinguisher of 3 kg.	●
	Backup camera	●
Electrical system	24 V DC, two sets of 12 V battery in series. Generator: 28 V-80 A.	●

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

Symbol explanation

● — Standard configurations; ○ — Optional configurations.



### Superstructure

Structure	Designed and manufactured by XCMG, made of high strength steel.	●
Hydraulic system	Variable pump driven by chassis engine, used for hoisting, luffing and telescoping operations. Load sensing proportional multi-way change valve with impact resistance valve and cavitation-proof valve integrated; air-cooled hydraulic oil cooler. Tank capacity: 1206 L	●
Operating method	Pilot hydraulic control is used for controlling the superstructure. All crane movements are controlled by the hydraulic pump and proportional valve through two control levers on the left and right sides.	●
Hoisting gears	Hydraulic control is used for speed regulation. The system is driven by a hydraulic motor through a planetary gear reducer, with a normally closed brake, a balance valve and a grooved drum equipped.	●
Slewing system	Four-point contact-ball slewing ring is driven by the planetary gear reducer of slewing mechanism, which is driven by a hydraulic motor, and may continuously slew 360°. Power control and free slewing function as well as stepless speed regulation are available. There is a horn switch fitted on the slewing control lever.	●
Luffing system	A front support dual-acting hydraulic cylinder is equipped for luffing operation, with a counterbalance valve fitted.	●
	Heater and air conditioner	○
Operator's cab	New steel cab is equipped with a front window. Safety glass and sun shield are used for windows. Standard controls and indicators are ergonomically arranged in the cab. The cab features a new ergonomic seat design with backrest adjustment and armrests with joysticks fitted. Wipers are fitted for the windshield and roof window.	●
Safety devices	Hydraulic balance valve, hydraulic relief valve, double-way hydraulic valve, LMI, lowering limiter for preventing wire rope from over-releasing, anti-two block at boom head for preventing wire rope from over-winding and tri colored light bar.	●
Combined CWT	8t	●
	5t	●
	5t	●
	2t	●
Hook block	55t hook block	●
	5.5t hook block	●





## Boom and jib system

Boom	5-section boom with U cross-section, welding structure. Double-cylinder plus ropes telescoping system Boom length: 13m ~ 50.5m.	●
Auxiliary sheave	Installed at the boom top, used for single line operation. Its lifting performance is the same with that of boom, but the max. lifting load can not exceed 5.5t.	●
	Lattice structure for 1st section and box-type structure for 2nd section. Three offset angles of 0° , 15° and 30° .	●
Fixed jib	Fixed jib length: 9.5 m.	●
	Fixed jib length: 16m.	●

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

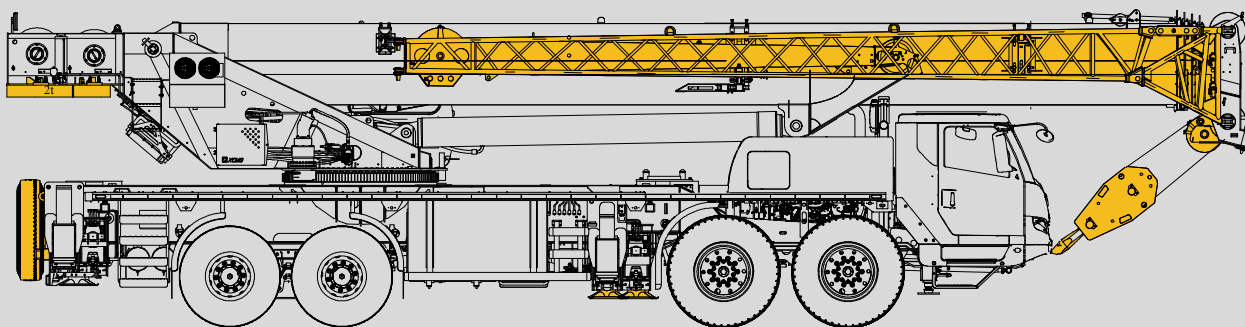
Symbol explanation ● — Standard configurations; ○ — Optional configurations.



Axle	1	2	3	4	Total weight
t	10.5	10.5	12.95	12.95	46.9 <sup>1</sup> )
t	11.35	11.35	21	21	64.7 <sup>2</sup> )

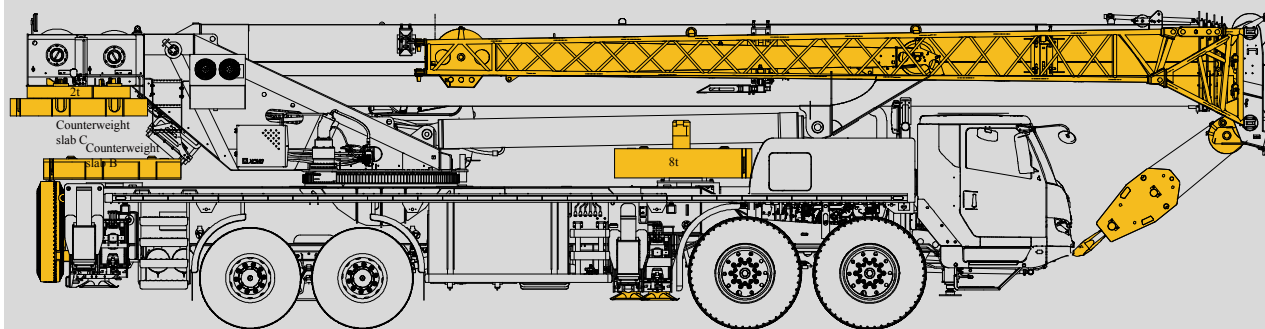
1) Traveling configuration: jib, 2t fixed counterweight at the tail of the turntable, 55t hook block, 5.5t hook block, auxiliary sheave, spare tire and spare tire bracket, counterweight bracket, front outrigger floats are carried; the counterweight slab B of 5t and 8t, and counterweight slab C of 5t are removed.

Steering mode: 8 × 4 × 4; tire specifications: 385/95R25 tires for axle 1 and 2 and 325/95R24 tires for axle 3 and 4.



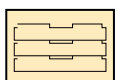
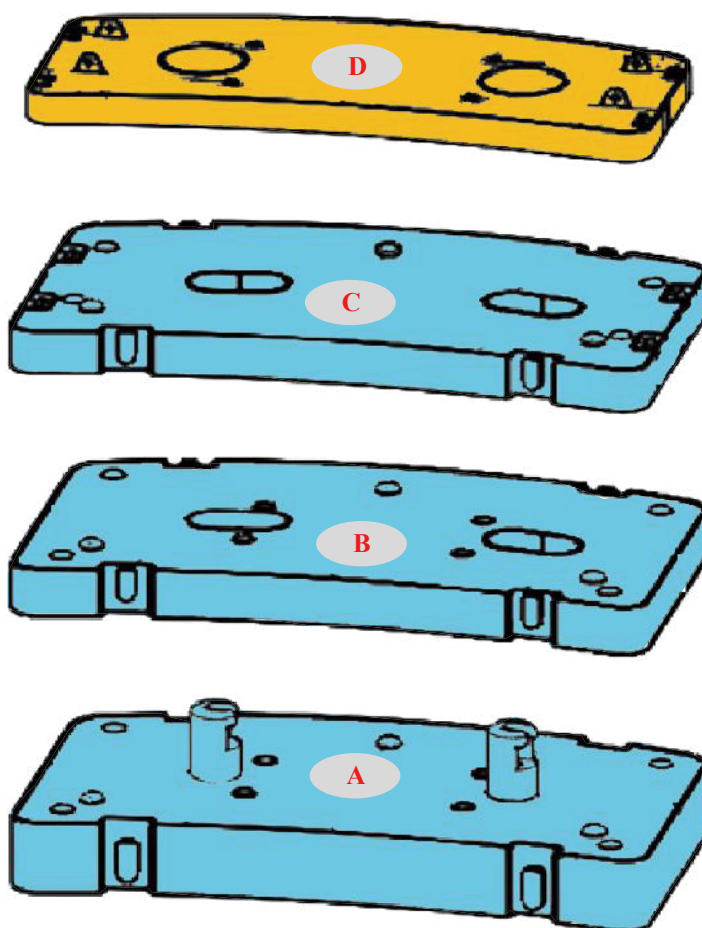
2) Short distance job site transfer: on the basis of the crane in traveling configuration, with maximum traveling speed of 10km/h: counterweight slab B of 5t and 8t at the vehicle tail, counterweight slab C of 5t at the turntable tail are carried.

Steering mode: 8 × 4 × 4; tire specifications: 385/95R25 tires for axle 1 and 2 and 325/95R24 tires for axle 3 and 4.



Hook block	Parts of line	Weight of hook block (kg)	Dimension (mm)	Remarks
55t	9	470	1586 × 520 × 452	Single hook block
5.5t	1	150	717 × 370 × 370	Single hook block





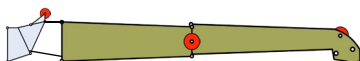
Counterweight	A	B	C	D	
Dimensions (L × W × H) (mm)	2790 × 1652 × 690	2790 × 1652 × 260	2790 × 1652 × 240	2730 × 1242 × 226	
Weight (t)	8	5	5	2	
Operation modes	20t	15t	10t	7t	2t
Combinations	A+B+C+D	A+C+D	A+D	C+D	D

Remark: the counterweight slabs in blue are not included in traveling configuration.

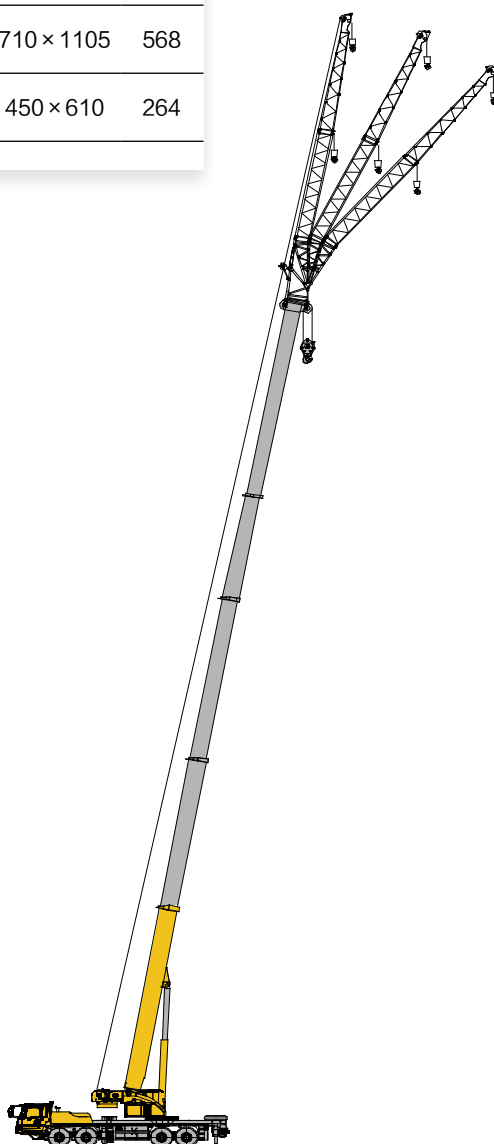
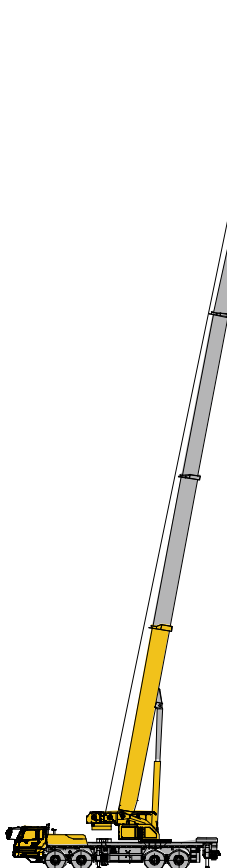
Jib 9.5m



Jib 16m



Components	Structure	Dimensions (L × W × H) (mm)	Weight (kg)
Connecting bracket		1200 × 880 × 1200	231
1st jib section assembly		9925 × 710 × 1105	568
2nd jib section assembly		6910 × 450 × 610	264



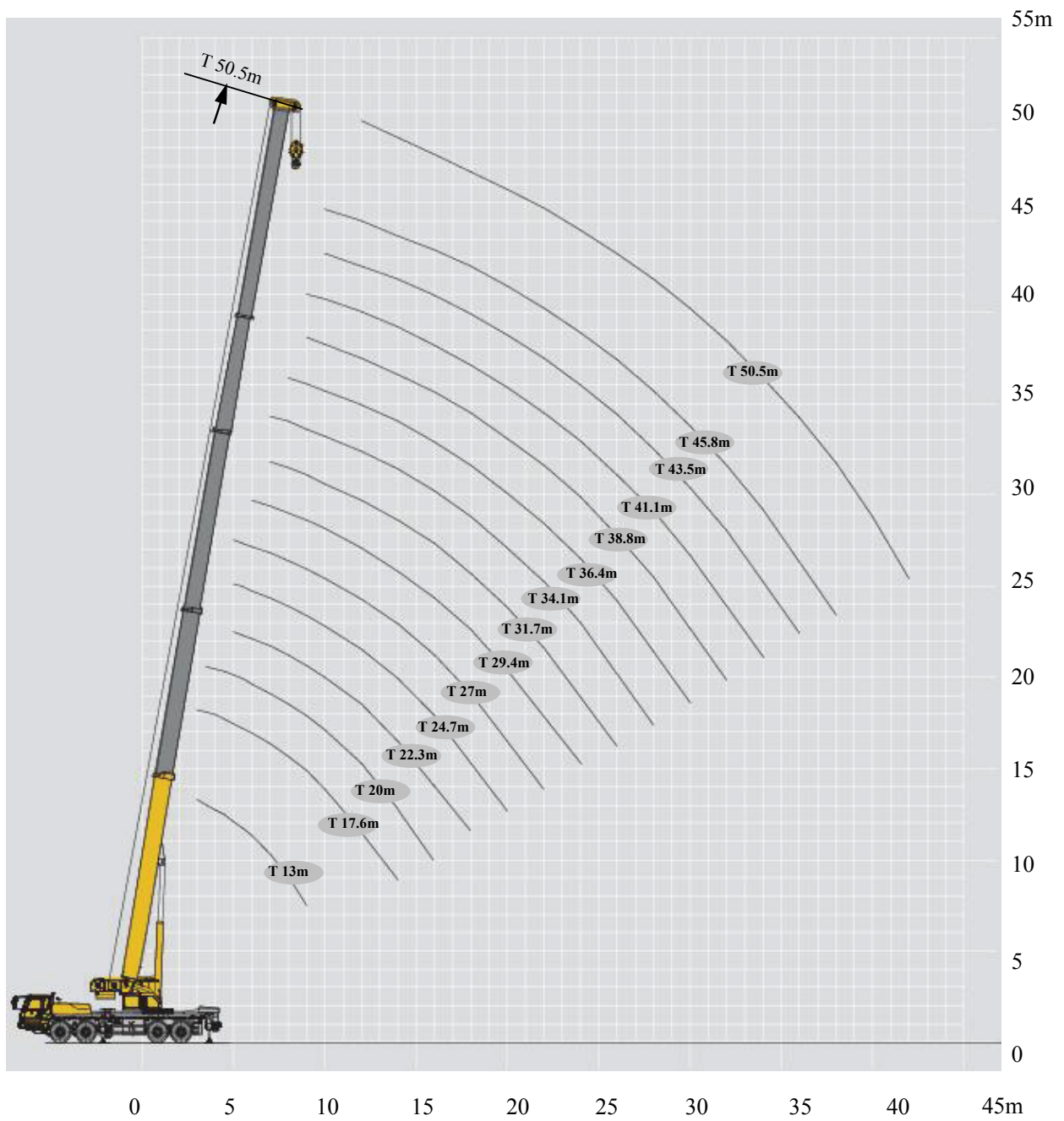
Boom

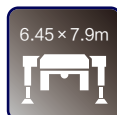
T: 13~50.5 m

Jib



T: 50.5 m  
J: 9.5/16 m





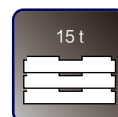
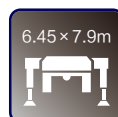




## T 13-50.5m

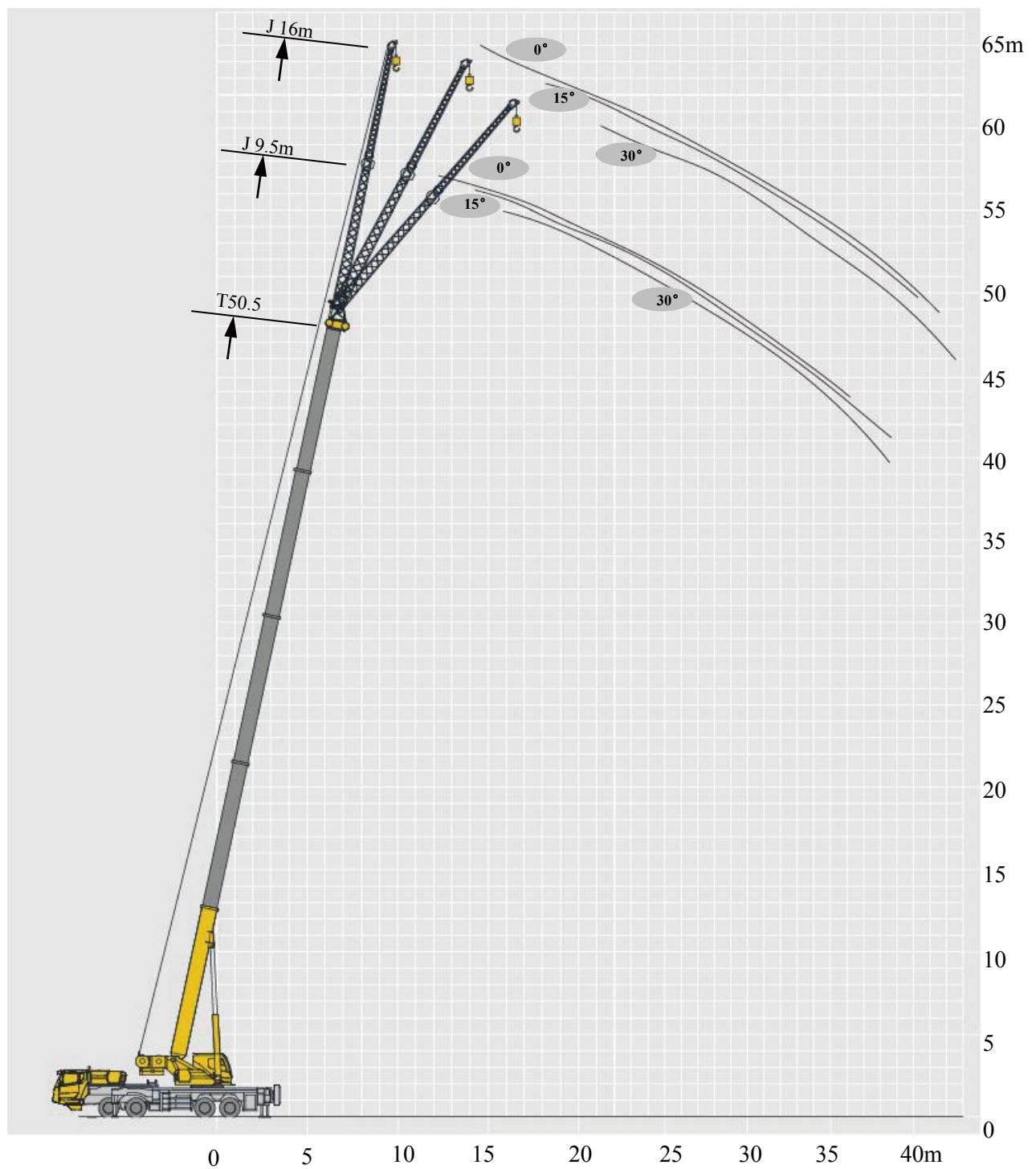
	13	17.6	20	22.3	24.7	27	29.4	31.7	34.1	36.4	38.8	41.1	43.5	45.8	50.5	
3	80	70														3
3.5	75	68	34													3.5
4	70	67	34													4
4.5	66	63	34													4.5
5	60	60	34	40	34	31.5										5
5.5	55	54	34	40	34	31.5										5.5
6	50	49	34	40	34	31.5	34									6
7	43	42	34	38	34	30	32	32	21.8							7
8	37	35	34	34	34	29.5	28.9	31	20.8	25.3						8
9	32	31	30.7	30.8	31	27.5	26.4	29	18.9	23.2	20.5	16.7				9
10		27	28.5	28.1	27.5	26	24.1	26	17.7	21.3	19.2	16	18.1	14.9		10
12		21	21.8	20.9	22.5	22	20.4	22.5	15.8	18.4	17.5	14.4	16.2	13.6	12.6	12
14			18	15.7	17.6	18.2	17	18.3	14.2	15.9	15.7	13.1	14.2	12.4	11.7	14
16			14.5	12	13.9	15.3	13.4	14.6	12.8	13.8	14.2	11.9	12.7	11.3	10.8	16
18				9.3	11.3	12.6	10.7	12	11.8	11.5	12.4	10.8	11.2	10.2	10	18
20					9	10.6	8.7	9.9	10.7	9.4	10.4	9.6	9.9	9.4	8.8	20
22						8.8	7	8.3	9.3	7.9	8.8	8.9	8.3	8.6	8.1	22
24							5.7	7	8	6.6	7.5	8.1	7	7.7	7.4	24
26								6	6.9	5.5	6.4	7.2	6	6.7	6.4	26
28									6	4.6	5.5	6.3	5.1	5.8	5.5	28
30										3.8	4.7	5.5	4.3	5	4.7	30
32											4	4.8	3.7	4.4	4	32
34												4.2	3.1	3.8	3.5	34
36													2.6	3.3	3	36
38														2.8	2.5	38
40															2.1	40
42															1.8	42



# T 13–50.5m

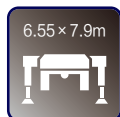




	13	17.6	20	22.3	24.7	27	29.4	31.7	34.1	36.4	38.8	41.1	43.5	45.8	50.5	
3	80	70														3
3.5	75	68	34													3.5
4	70	67	34													4
4.5	66	63	34													4.5
5	60	60	34	40	34	31.5										5
5.5	53	53	34	40	34	31.5										5.5
6	48	48	34	40	34	31.5	34									6
7	40	40	34	38	34	30	32	32	21.8							7
8	34	34	34	33	34	29.5	28.9	31	20.8	25.3						8
9	30	30	30.5	29	30	27.5	26.4	29	18.9	23.2	20.5	16.7				9
10		25.5	26.5	25	26.5	26	24.1	26	17.7	21.3	19.2	16	18.1	14.9		10
12		18.2	20.7	17.8	19.8	21.4	19.2	20.6	15.8	18.4	17.5	14.4	16.2	13.6	12.6	12
14			15.8	13.2	15	16.5	14.5	15.8	14.2	15.2	15.7	13.1	14.2	12.4	11.7	14
16			12.5	10	11.8	13.2	11.3	12.5	12.8	12	13	11.9	12.5	11.3	10.8	16
18				7.7	9.4	10.8	8.9	10.1	11.2	9.6	10.6	10.8	10.1	10.2	10	18
20					7.6	9	7.1	8.3	9.3	7.8	8.8	9.6	8.3	9	8.6	20
22						7.5	5.7	6.9	7.9	6.4	7.3	8.1	6.9	7.6	7.2	22
24							4.6	5.7	6.8	5.3	6.2	7	5.7	6.5	6.1	24
26								4.8	5.8	4.4	5.2	6	4.8	5.5	5.1	26
28									4.9	3.5	4.4	5.2	4	4.7	4.3	28
30										2.9	3.7	4.5	3.3	4	3.6	30
32											3.1	3.9	2.7	3.4	3	32
34												3.4	2.2	2.9	2.5	34
36													1.8	2.5	2.1	36
38														2.1	1.7	38
40															1.3	40







## J 10.5m/17.5m



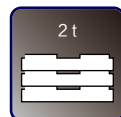
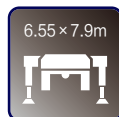
	9.5 m			16 m			
	0°	15°	30°	0°	15°	30°	
80	5.5	5.5	2.7	4.0	2.9	1.4	80
78	5.5	5.3	2.5	4.0	2.8	1.3	78
75	5.5	4.9	2.3	4.0	2.5	1.2	75
72	5.5	4.5	2.1	4.0	2.1	1.2	72
70	5.5	4.3	2.0	3.7	2.0	1.2	70
65	4.8	3.8	1.8	3.2	1.8	1.0	65
60	3.6	3.2	1.7	2.6	1.6		60
55	2.9	2.6	1.7	2.1	1.5		55
50	2.2	2.1	1.6	1.5	1.3		50





	9.5 m			16 m			
	0°	15°	30°	0°	15°	30°	
80	5.5	5.5	2.7	4.0	2.9	1.4	80
78	5.5	5.3	2.5	4.0	2.8	1.3	78
75	5.5	4.9	2.3	4.0	2.5	1.2	75
72	5.5	4.5	2.1	4.0	2.1	1.2	72
70	5.5	4.3	2.0	3.7	2.0	1.2	70
65	4.5	3.8	1.8	3.2	1.8	1.0	65
60	3.1	2.9	1.7	2.6	1.6		60
55	2.2	2.1	1.7	1.8	1.5		55
50	1.6	1.5	1.4	1.2	1.1		50

# Rated load chart

XCT80\_Y1



	9.5 m			16 m			
	0°	15°	30°	0°	15°	30°	
80	5.5	5.5	2.7	4.0	2.9	1.4	80
78	5.5	5.3	2.5	4.0	2.8	1.3	78
75	5.5	4.9	2.3	4.0	2.5	1.2	75
72	4.4	3.8	2.1	3.6	2.1	1.2	72
70	3.5	3.1	2.0	2.8	2.0	1.2	70
65	1.9	1.8	1.7	1.6	1.4	1.0	65

Category	Item		Unit	Parameters
Dimensions	Dimensions (L × W × H)		mm	14985 × 2800 × 3790
	Axle spacing		mm	1500+4600+1350
	Track (front/rear)		mm	2400/2063
	Front overhang/rear overhang		mm	2455/2565
	Front extension/rear extension		mm	2390/125
Weight	Maximum permissible weight		kg	46900
	Axle load	Axle 1	kg	10500
		Axle 2	kg	10500
		Axle 3	kg	12950
		Axle 4	kg	12950
Power	Engine model		—	WP10HG350E670
	Rated power/rotation speed		kW/(r/min)	257/1900
	Max. net power/rotation speed		kW/(r/min)	252/1900
	Max. output torque/rotation speed		N.m/(r/min)	1700/1000 ~ 1400
Travel	Max. travel speed		km/h	48
	Min. stable travel speed		km/h	1.7~3
	Min. turning diameter		m	≤ 24
	Min. turning diameter at boom head		m	≤ 30.5
	Min. ground clearance		mm	373
	Approach angle		°	22
	Departure angle		°	13
	Braking distance (initial speed at 38.4 km/h)		m	≤ 15.2
	Max. grade ability (%)		%	45
	Fuel consumption per 100 km		L	43
Noise	Exterior noise level when accelerating		dB(A)	≤ 84
	Noise level at seated position		dB(A)	≤ 90



Category	Item			Unit	Parameters
Main performance	Maximum rated lifting capacity			t	80
	Minimum rated working radius			m	3.0
	Turning radius at turntable tail	At counterweight		mm	4460
		At auxiliary winch		mm	4293
	Maximum load moment	Base boom		kN.m	2965
		Fully-extended boom		kN.m	1764
		Fully-extended boom + jib		kN.m	1237
	Outrigger span	Longitudinal		m	6.545
		Lateral		m	7.9 (5.6)
	Lifting height	Basic boom		m	13.3
		Fully-extended boom		m	50.5
		Fully-extended boom + jib		m	65
	Boom length	Base boom		m	13
		Fully-extended boom		m	50.5
		Fully-extended boom + jib		m	66.5
	Jib offset angle			°	0, 15, 30
Working speed	Time for raising boom			s	≤ 55
	Time for fully extending the boom			s	≤ 125
	Max. slewing speed			r/min	≥ 1.8
	Time for extending / retracting the outriggers	Outrigger beam	Retract	s	30
			Down	s	40
		Outrigger jack	Up	s	30
			Down	s	40
	Hoisting speed (single line, 4th layer, unloaded)	Main winch system		m/min	135
Auxiliary winch		m/min	90		
Noise	Exterior noise level			dB (A)	109
	Noise level at seated position			dB(A)	85

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Featured machines in photos may include additional equipment.

See your XCMG dealer for available options.

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