XCA120G7-1AU All Terrain Crane

Technical specifications

120 t

66 m

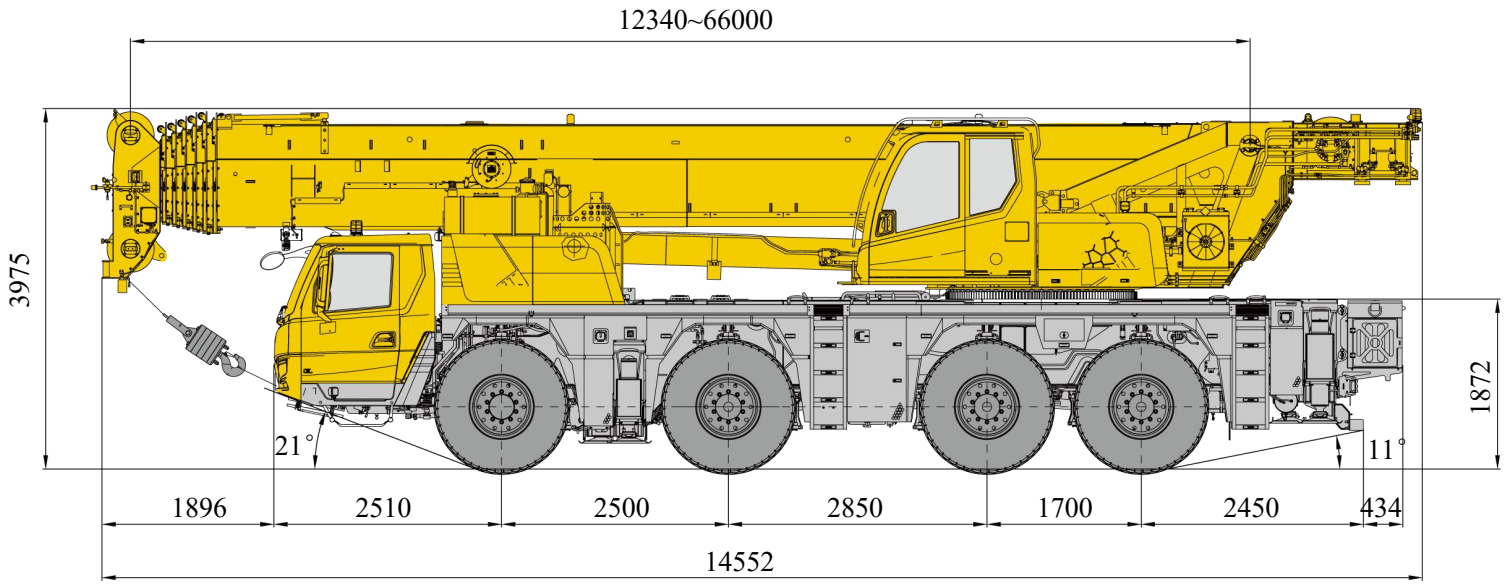
Crane Connection PTY LTD

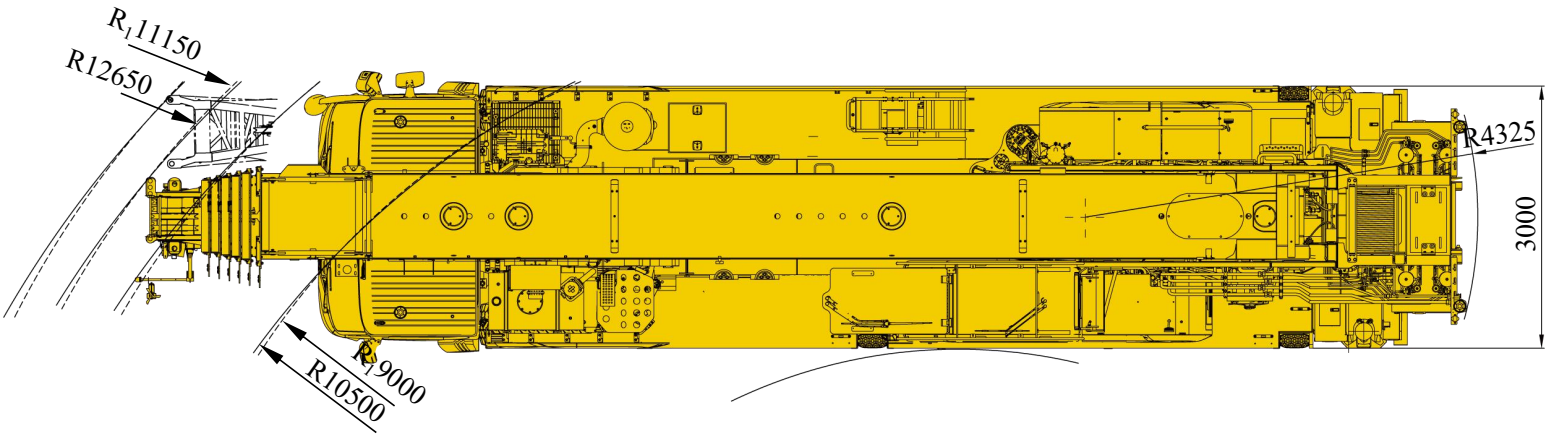
Second edition, July 2025

Contents

Dimensions	5-6
Technical specifications	7-8
Configuration and optional equipment	9
Weights	10
Working speeds	11
Boom/jib combinations	12
Working range diagram	13
Load chart-counterweight in the rear position	14
Table of main technical parameters	15-16
Cautions	17

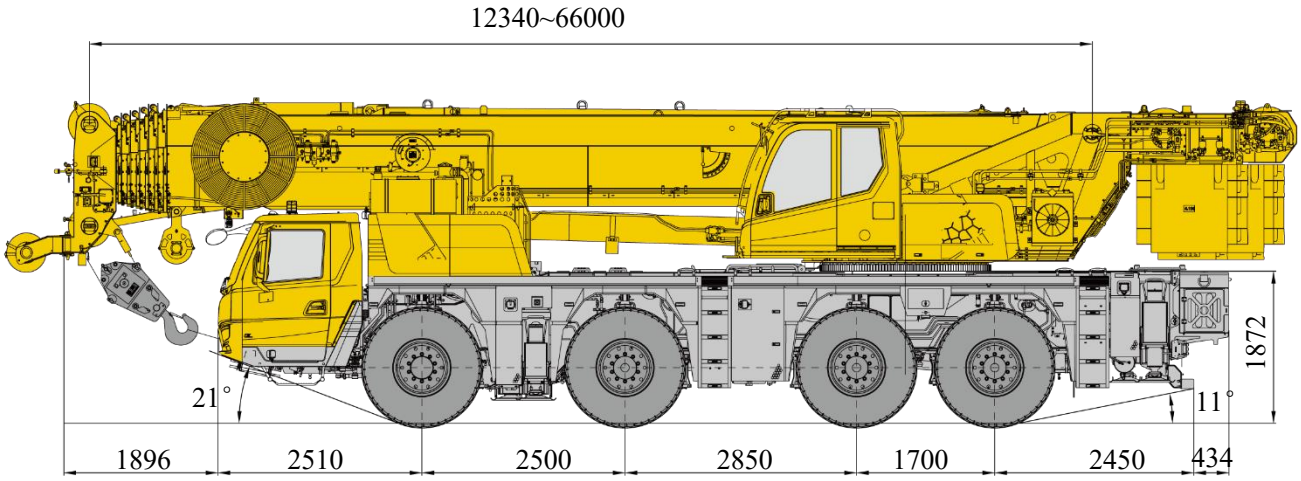
Dimensions

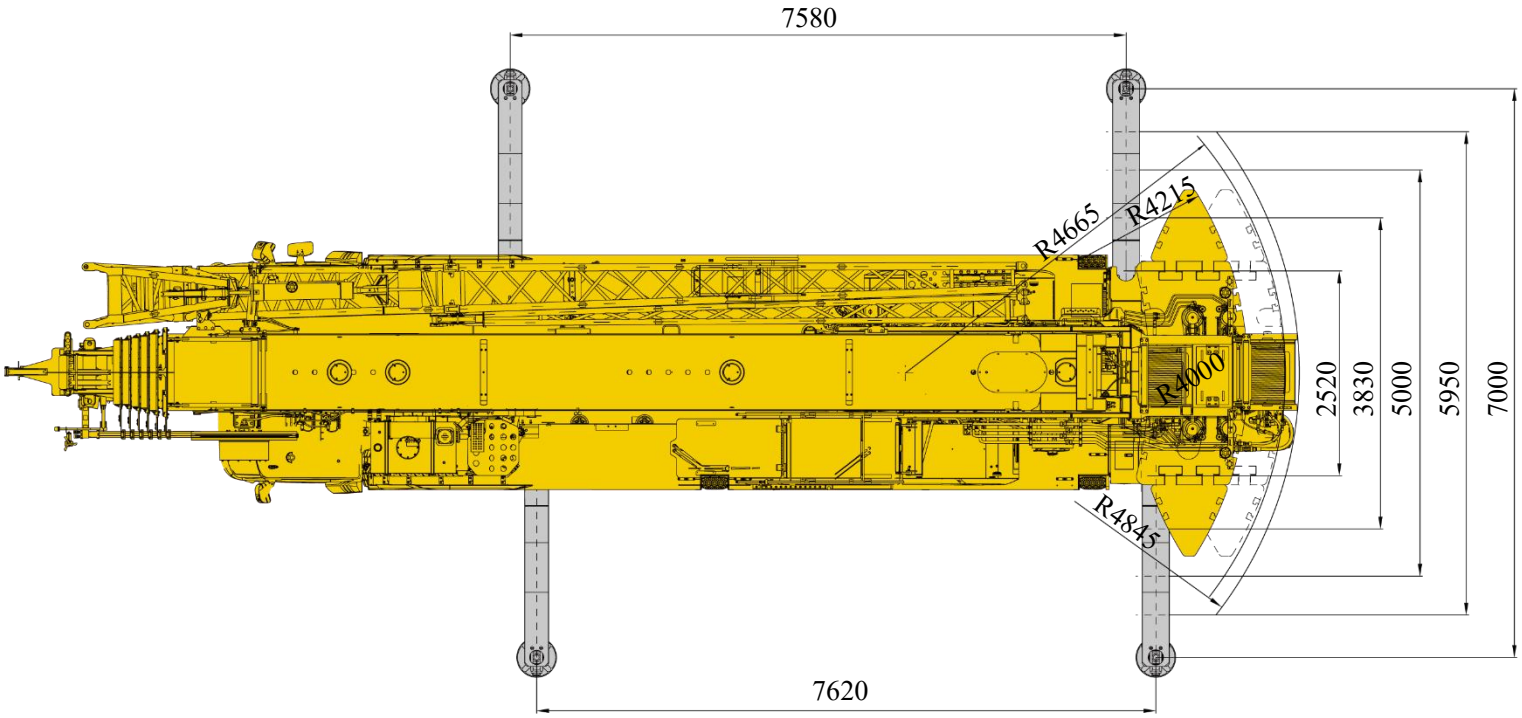




R: turning radius in the road steering ; R1: turning radius in tight-turning radius.

Dimensions


12340~66000
21°
11°
1872
1896
2510
2500
2850
1700
2450
434


7580
R4665
R4215
R4000
R4845
2520
3830
5000
5950
7000
7620

Technical specifications

Chassis

Frame	Designed and manufactured by XCMG, made of high strength steel.
Outriggers	H-shaped outriggers, with push-pull outrigger floats. There are four working positions (fully extended, 3/4 extended, half extended and 1/4 extended) to meet different operation mode requirements. Outrigger control panel is controlled by CAN bus located at two sides of the chassis. Outrigger float diameter: φ 490 mm.
Engine	MTU engine OM471LA.E5-2, with maximum net power of 360 kw/1600 rpm and maximum torque of 2400 Nm/1300 rpm, compliant with EU Stage V emission standard. Fuel tank capacity: 420 L; AdBlue/DEF tank capacity: 40 L.
Hydraulic system	Variable pump is connected to the engine through PTO for controlling the independent cooling, steering, outrigger and suspension hydraulic systems.
Transmission	ZF Germany AMT transmission 12TX2616SO, 12 forward gears and 2 reverse gears available with retarder.
Safety devices	360° panoramic image, ABS, outrigger pressure detection, outrigger length detection and axle load detection are available.
Axles	High-strength axles 2-4 are equipped with two reducers, and pneumatically-controlled disc brake are installed in axles 1~4. Axles 2, 3 and 4 are for driving; Driving/steering mode: 8×8×6.
Suspension	Hydro-pneumatic independent suspension system has good shock-absorbing effect. Various functions such as automatic leveling, moving up and down of suspension, and switching between locked and unlocked suspension are available. The stroke of suspension cylinder: -110 mm ~ +110 mm.
Tires	8 tires and 1 spare tire. Tire specification: 525/80R25.
Brakes	Service brake: dual-circuit air pressure brake, acting on all wheels. Parking brake: spring-loaded brake, acting on axles 2~4. Auxiliary brake: engine in-cylinder brake and transmission retarder brake.
Steering	All axles steering; axles 1 adopts the mechanical and hydraulic power steering, and axles 2 ~ 4 adopt the electro-hydraulic control steering. It is suitable for various demands of operation modes and several steering modes can be realized.
Driver's cab	New full dimension steel structure cab is equipped with safety glass, electrically-operated door window lifter, electric adjustable rearview mirrors, multi-function steering wheel, airbag for the driver's seat and the co-driver's seat. There is a brand-new combined central control panel arranged with arc shape, 12.3-inch large screen color LCD display, audio system, 6 kg fire extinguisher and HVAC available.
Electrical system	DC 24 V, with 2 sets of 12 V batteries in series.

Technical specifications

Superstructure

Structure	Designed and manufactured by XCMG, made of high strength steel.
Hydraulic system	Two axial variable pumps are driven by the transmission for luffing, telescoping and winch operations; the slewing system adopts a separate closed hydraulic circuit driven by the engine, with proportional slewing brake to improve slewing maneuverability; dual slewing motors enhance low-speed slewing stability; the hydraulic oil cooler uses temperature feedback control to reduce vehicle noise. Hydraulic oil tank capacity: 645 L.
Control system	Pilot electro-hydraulic proportional control, stepless speed regulation. All movements of the crane are controlled by 2 levers at left and right sides and virtual buttons on the display screen.
Wireless remote control	Full-function wireless remote control device can be used to perform main operations (telescoping, luffing, winch, slewing), auxiliary operations (operator's cab, counterweight cylinder, swing-away jib folding/unfolding), chassis outrigger operation, engine operation and light control, improving the convenience and safety of crane operations.
Main winch system	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 counterbalance valve and a grooved drum equipped. Main winch and auxiliary winch are independently operated. Wire rope has a rope end, which is directly installed in rope socket.
Slewing system	Single-row four-point ball contact external tooth slewing bearing with a dual slewing system is driven by hydraulic motor, with built-in planetary gear reducer and constant-closed brake equipped, and can continuously slew 360°. Power control or free slewing function, proportional braking function as well as stepless speed regulation are available.
Operator's cab	New steel cab can tilt backward 20°. It features a spacious, panoramic, and multi storage layout. All-round view safety glass with an openable windshield. Push-pull sliding door, protective grilles and pull-out side step are equipped. Dual-motor wipers are fitted for the front and roof windows. 2.5 L washer tank is also available. Stylish interior design; 2 kg fire extinguisher; Sun screens for front, rear and side windows; Double-layer sun screen for the roof window. Mechanical shock absorber and adjustable seat with leather + breathable mesh is adjustable. Dual LED interior lights and electric fan are available. HMI control panel, display, armrest box, engine accelerator pedal, engine start switch are HVAC are also equipped.
Safety devices	Hydraulic counterbalance valve, hydraulic relief valve, hydraulic double-way lock, load moment indicator, winch monitor, lowering limiter to prevent rope over-releasing, anti-two block on the boom head to prevent rope over-winding, and anemometer to detect the wind speed.
Electrical system	DC 24 V, with 2 sets of 12 V batteries in series.
LMI	When the actual load moment is approaching the overloading value, audible and visual warning will be sent out, and the dangerous operation will be automatically cut off before overloading occurs. Overload memory function (black box) and fault diagnosis function are available.
Counterweight	Total weight is 31.5 t.
Hook block	60 t hook block, 25 t hook block and 11 t hook block.
Luffing system	Single cylinder luffing, with counterbalance valve featuring the load compensation function.
Boom	7-section boom with U-shaped cross-section, welded structure. Single cylinder pinning telescoping system with dual-cylinder head is safer and more reliable. 46%, 92% and 100% telescoping patterns are available. Boom length: 12.3 m ~ 66 m.

Other items of equipment available on request.

Configuration and optional equipment

Configuration	Function description
Standard	7-section boom of 66 m.

Note: only standard configuration is available for this model.

Optional equipment	Component description
Hook block	130 t hook block and 90 t hook block.
Auxiliary winch system	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 counterbalance valve and a grooved drum equipped. Main winch and auxiliary winch are independently operated. Wire rope has a rope end, which is directly installed in rope socket.
Additional sheave	To increase the parts of line and realize greater lifting capacity.
Wireless zoom camera	Wireless zoom camera monitors the status of the boom head, expanding the operator's field of view.
18.5 m stepless jib	18.5 m hydraulic luffing jib
7 m extension	Boom extension of 7 m.
Independent jib head	Independent jib head of 2.9 m.
Emergency power	Provide power source for superstructure winch, slewing, luffing and telescoping systems.
GPS	Provide accurate positioning and real-time monitoring of the crane.

Weights

	Parts of line	Hook block weight (kg)	Dimensions (mm)	Notes
130 t	14	1200	1907×860×837	Dual-hook
90 t	10	920	1668×774×673	Dual-hook
60 t	7	560	1470×780×493	Dual-hook
25 t	3	365	1468×651×318	Single-hook
11 t	1	227	810×320×320	Single-hook

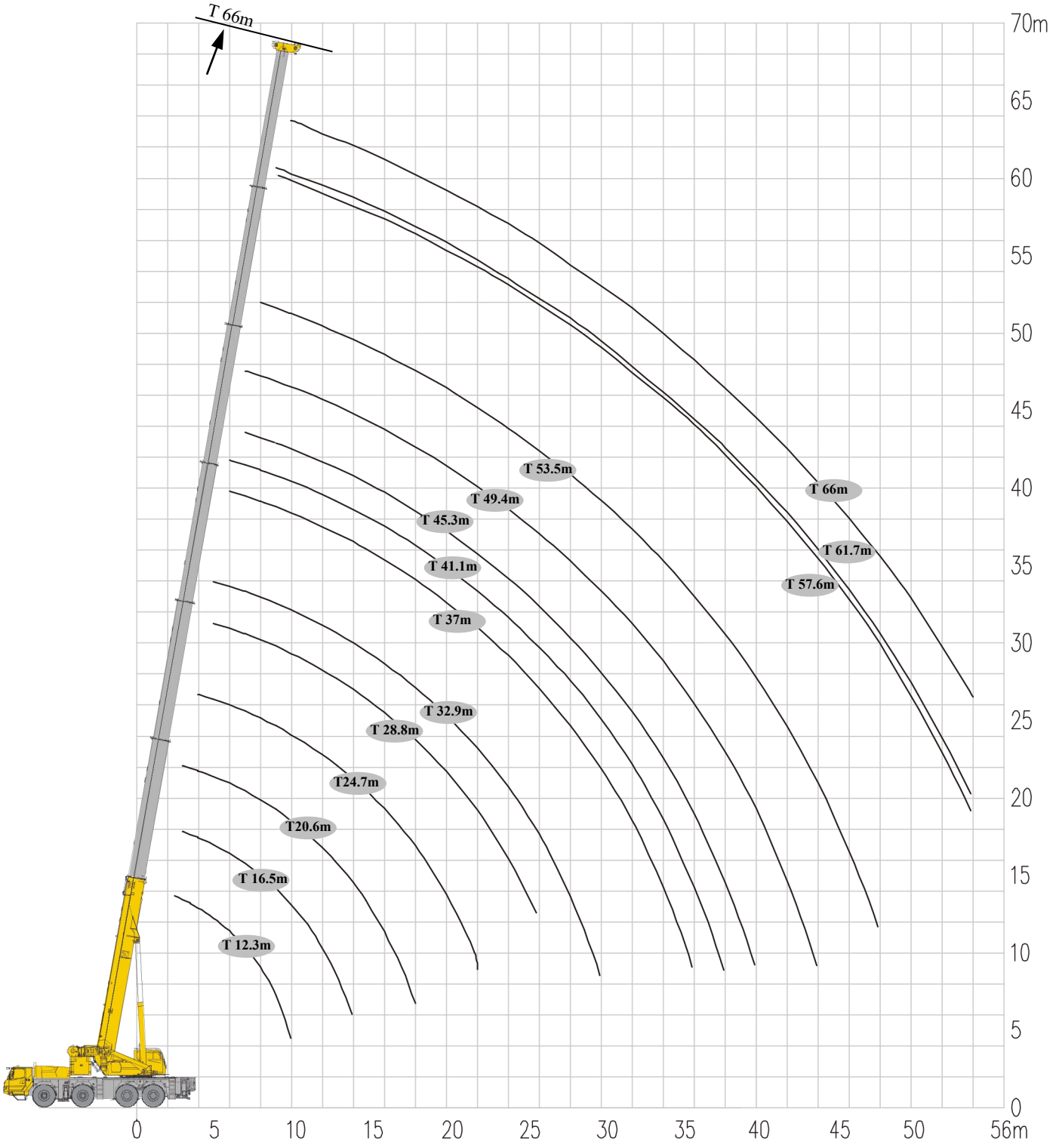
Working speeds

525/80 R 25 (20.5 R 25)	2 ~ 80 km/h	60%

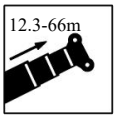
	Max	F	ϕ	
	0-135 m/min, single line, no load	89 kN	20 mm	250 m
	0-135 m/min, single line, no load	89 kN	20 mm	205 m
	0-1.45 r/min			
	Approx. 60 s for boom luffing up from -0.5° to 82°			
	Approx. 550 s for boom extending from 12.3 m to 66 m			

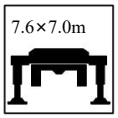
Boom/jib combinations

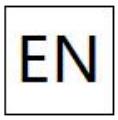
Boom
T:12.3-66 m


T 66m
70m
65
60
55
50
45
40
35
30
25
20
15
10
5
0
T 53.5m
T 49.4m
T 45.3m
T 41.1m
T 37m
T 32.9m
T 28.8m
T24.7m
T20.6m
T 16.5m
T 12.3m
T 66m
T 61.7m
T 57.6m
0
5
10
15
20
25
30
35
40
45
50
56m

T 12.3-66 m







	12.3*	12.3	16.5	20.6	24.7	28.8	32.9	37	41.1	45.3	49.4	53.5	57.6	61.7	66	
2.5	120**															2.5
3	80	70.0	67.0	65.0												3
3.5	78	70.0	65.4	63.0												3.5
4	72	66.4	65.1	60.2	57.0	55.3										4
4.5	68	61.7	61.0	56.8	54.0	52.0										4.5
5	64	57.4	57.4	54.0	50.5	48.8	46.7									5
6	55	50.1	50.1	48.5	46.7	44.3	42.5	40.8	40.3							6
7	48	45.0	46.0	45.0	43.2	40.9	38.5	38.7	36.8	29.0						7
8	41	39.5	40.6	40.5	39.7	37.9	35.4	34.2	33.1	29.0						8
9	34.5	34.5	36.1	36.0	36.5	35.5	32.6	31.4	30.4	27.4	23.8					9
10	26.5	25.0	32.1	32.5	32.2	32.8	30.1	29.7	27.6	26.1	23.2	18.2				10
12			25.6	25.8	26.6	26.2	25.1	25.7	24.2	22.7	21.2	18.0	14.2	11.4		12
14			19.4	21.5	22.3	22.0	21.9	21.6	20.7	19.6	18.8	16.4	14.3	11.2	8.8	14
16				18.1	19.0	18.1	18.6	17.6	17.1	16.5	16.4	15.0	13.3	11.1	8.6	16
18				15.1	16.0	15.5	15.9	15.2	14.7	13.8	13.9	13.2	12.0	10.5	8.3	18
20					13.7	13.4	13.5	13.1	12.9	11.8	11.6	11.4	10.9	10.0	8.0	20
22					11.6	11.7	11.5	11.2	11.4	10.7	10.0	10.2	9.8	9.2	7.6	22
24						10.6	9.9	10.1	9.9	9.7	8.9	8.9	8.7	8.1	7.1	24
26						9.3	8.9	9.1	8.6	8.6	8.1	8.1	7.6	7.2	6.6	26
28							8.0	8.0	7.5	7.6	7.2	7.3	6.7	6.3	6.1	28
30							7.2	7.1	6.7	6.7	6.4	6.5	6.1	5.7	5.3	30
32								6.3	6.1	5.9	6.0	5.7	5.5	5.0	4.7	32
34								5.6	5.7	5.3	5.4	5.2	4.8	4.4	4.1	34
36									5.2	4.9	4.8	4.7	4.3	3.8	3.6	36
38									4.8	4.5	4.4	4.1	3.8	3.3	3.1	38
40										4.1	3.9	3.7	3.3	2.9	2.7	40
42										3.4	3.4	3.2	2.9	2.5	2.4	42
44											3.1	2.9	2.6	2.2	2.0	44
46											2.8	2.6	2.3	1.8	1.7	46
48												2.3	1.9	1.5	1.5	48
50												1.8	1.6	1.3	1.2	50
52															1.0	52
54															0.8	54

Table of main technical parameters

Category	Item		Unit	Parameters
Dimensions	Dimensions (L×W×H)		mm	14552×2750×3975
	Axle spacing		mm	2500+2850+1700
	Track (front/rear)		mm	2364
	Front/rear overhang		mm	2510/2884
	Front/rear extension		mm	1896/212
Weights	Maximum permissible total weight		kg	48000
	Axle load	Axle 1	kg	12000
		Axle 2	kg	12000
		Axle 3	kg	12000
		Axle 4	kg	12000
Power	Engine model		——	OM471LA.E5-2
	Maximum net power/rpm		kW/(r/min)	360/1600
	Maximum output torque/rpm		N.m/(r/min)	2400/1300
Travel	Maximum travel speed		km/h	80
	Minimum stable travel speed		km/h	2
	Minimum turning diameter		m	≤18 (tight-turning radius steering) ≤21 (road steering)
	Minimum turning diameter at boom head		m	≤22.3 (tight-turning radius steering) ≤25.3 (road steering)
	Minimum ground clearance		mm	390
	Approach angle		°	21
	Departure angle		°	11
	Braking distance (initial speed at 30 km/h)		m	≤10
	Maximum grade ability		%	60
	Fuel consumption per 100 km		L	50
Noise	Exterior noise level when accelerating		dB(A)	≤83

Table of main technical parameters

Category	Item			Unit	Parameters
Main performance	Maximum rated total lifting load			t	120
	Minimum rated working radius			m	2.5
	Slewing radius at turntable tail	At counterweight		mm	4325
		At auxiliary winch		mm	4845
	Maximum load moment	Base boom		kN.m	3293
		Fully-extended boom		kN.m	1680
	Outrigger span	Longitudinal		m	7.6
		Lateral		m	7.0/5.95/5.0/3.83
	Lifting height	Base boom		m	13.4
		Fully-extended boom		m	64.3
	Boom length	Base boom		m	12.3
		Fully-extended boom		m	66
		Fully-extended boom + jib		m	87.2
	Jib offset angle			°	0, 20, 40
Working speeds	Time for raising boom			s	≤60
	Time for fully extending the boom			s	≤550
	Maximum slewing speed			r/min	≥1.45
	Time for extending/retracting outriggers	Outrigger beams	Retracting	s	≤25
			Extending	s	≤20
		Outrigger jacks	Retracting	s	≤55
			Extending	s	≤45
	Lifting speed (Single line, no load)	Main winch system		m/min	≥135
		Auxiliary winch system		m/min	≥135
Noise	Exterior noise level			dB(A)	≤105
	Noise level at seated position			dB(A)	≤80

Notes

1. The document is intended as reference only. It is only a guide and should not be used to operate the crane. See product manuals for correct operation instructions.
2. The total rated loads given in the load charts are the maximum lifting capacity (in tonne) 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 rigging. The weight of above-mentioned devices should be deducted from the rated lifting load.
3. The working radius is the horizontal gravity center distance of the load from the rotational axis of the crane superstructure measured at 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 of 14.1 m/s, wind pressure of 125 N/㎡).

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