XCA60_E
All Terrain Crane

Technical specifications

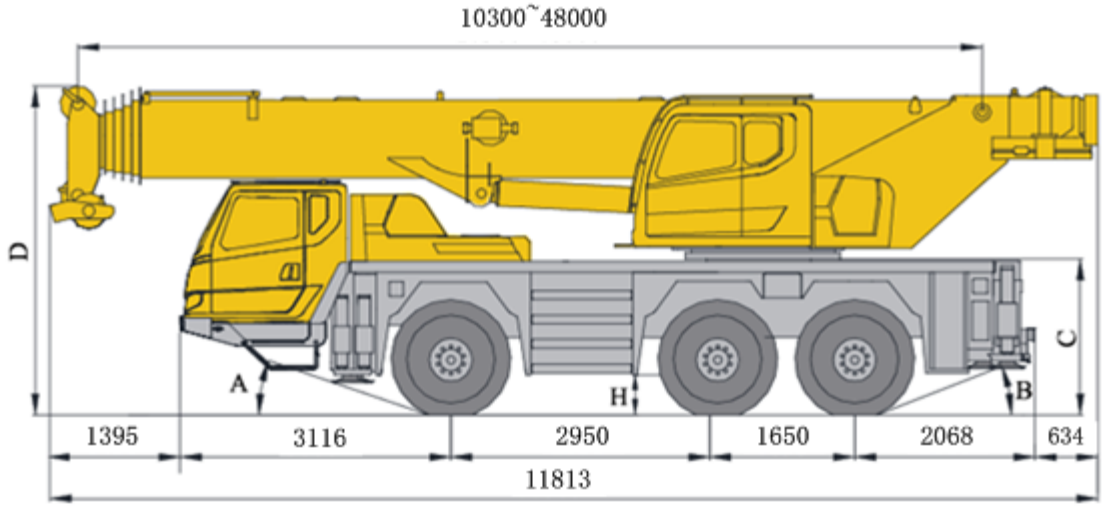
max	60 t		48 m	m	63 m

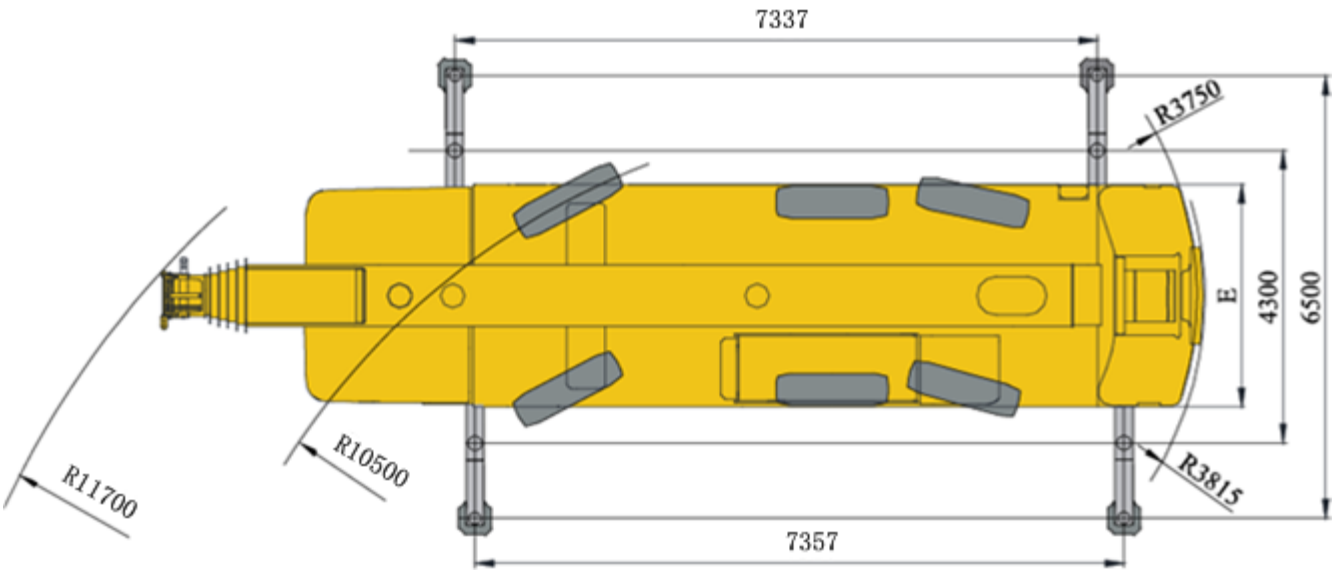
XCA60_E

XCMG ALL TERRAIN CRANE
60t LIFTING CAPACITY

Contents

Dimensions





	A	B	C	D	E	H
525/80 R 25 (20.5 R 25)	19°	14°	1825mm	3830mm	2780mm	373mm

Technical specifications

Chassis

Frame	Designed and manufactured by XCMG, made of high strength steel with inverted trapezium cross-section.
Outrigger	H-type outrigger, outrigger beam is one-stage telescoping with push-pull outrigger float and two telescoping working position (fully-extended and half-extended) to satisfy various working condition requirements. Outrigger control panel is controlled by CAN bus located on the sides of chassis.
Engine	Daimler AG OM470LA, 6 cylinders, diesel. Rated power/rpm: 280 kw /1700 rpm. Max. output torque/rpm: 1900 N.m /1300 rpm. Emission standard: EU Stage IV/EPA Tier 4f, Fuel tank capacity: 260 L.
Transmission	American Alison automatic transmission with 6 forward gears and 1 reverse gear.
Alxes	High strength divided axles with independent suspension. Two axles for driving: 6×4×6.
Suspension	With advanced independent suspension technology, the right and left tires can move independently to improve the drive smoothness. The suspension is equipped with effective damped cylinder and accumulator buffer ; fixed on the frame, the main reducer can rise and fall with the frame to greatly improve the passing ability of vehicle. The stroke of suspension cylinder : -110mm ~ +110mm.
Tires	Tire specifications: 525/80 R25(20.5R25.)
Steering	Axle 1 mechanically steering and axles 2, 3 electric-hydraulic proportional steering.
Brakes	Service brake: double-circuit air pressure brake, acting on all wheels. Parking brake: spring-loaded brake, acting on the wheels of axles 1, 2 and 3. Auxiliary brake: engine retarded brake.
Driver's cab	New type steel structure full dimension cab with suspension connecting structure, and there is shock absorb fitted at the rear of the cab, equipped with adjustable seats, safety glass of electrically operated door window lift , electric-adjustable mirrors, steering wheel adjustable in height and angle, large screen liquid crystal display.New type of combined control panel is reasonably and ergonomically arranged in arch shape. Heater, air conditioner and radio receiver are standard.
Electrical System	DC 24 volts is in series with two 12-volt battery packs.

Superstructure

Frame	Designed and manufactured by XCMG, made of high-strength steel.
Hydraulic system	The load-sensing plunger pump and gear pump driven are used to control hoisting, elevating, telescoping, slewing and auxiliary system. Load-sensing proportional multi-way valve is equipped. Air-cooled hydraulic radiator is also applied.
Operating mode	Pilot electric proportional control is adopted with distributed CAN bus control technology. Apart from the normal control functions, it also has the functions of real time monitoring, automatic fault diagnosis, intelligent boom control, function self-adaptability and single cylinder pinning control.
Main winch system	Hydraulic motor with planetary gear reducer and constant-closed brake, specific anti-disorder rope winding drum, anti-coiling wire rope.
Slewing system	Single-row four-point ball contact external tooth slewing ring and driven by a hydraulic motor, with a planetary gear reducer and a normally closed brake equipped, for 360° continuous rotation. Power control and free slewing function as well as stepless speed regulation are available.

Technical specifications

Operator's cab	The cab is ergonomically designed for safety and comfort. It is equipped with safety glass and protective grilles. Windshield sun shade, a sliding door and an adjustable seat are available. The cab can be tilted up to 20°. Heating & air conditioning are available.
Safety devices	Hydraulic balance valve, hydraulic relief valve, hydraulic two-way valve, LMI, display, central controller, length/angle sensor, oil pressure sensor and spring centering system for control levers. Lowering limiter for preventing wire rope from over-releasing. Anti-two block at boom head for preventing wire rope from over-winding. Anemometer for measuring the wind velocity.
LMI	The safety protection device is installed in operator's cab. When actual moment approaches overload value, it may send out visual alarm, and automatically stop dangerous movements before overloading. Overload memory function (black box) and fault self-diagnosis function are available.
Combined counterweight	Total weight is 12t. 7 counterweight combinations of 0t, 2.1t, 2.7t,3.4t, 4.5t, 7.6t and 12t are available.
Electrical System	24 V DC

Boom system

Boom	6-section, U-shape cross section, welding structure. Single-cylinder pinning interlocked telescoping system. 46%, 92% and 100% telescoping pattern are available. Boom length:10.3m～48m.
Single top	Fitted at boom head, used for single line operation.
Fixed jib	Lattice welding structure, with 0°, 15° and 30° jib offset angles available. Jib length: 9.2m～16m.

Additional equipment

Independent jib head	2.5 m, may be installed on the tip of boom for lifting operations.

Product parts details As mentioned above, please refer to the product quotation for specific parts.

Weight

Axle	1	2	3	Total weight
t	≤12	≤12	≤12	≤36[1)]

1) Superstructure without hook block, jib, single top, auxiliary winch, and with 2.1 t counterweight. Chassis without spare tire, spare tire bracket, storage box , outrigger floats and coupling device. Drive/steering type is 6×4×6; Tire specification: 525/80 R 25 (20.5R25)

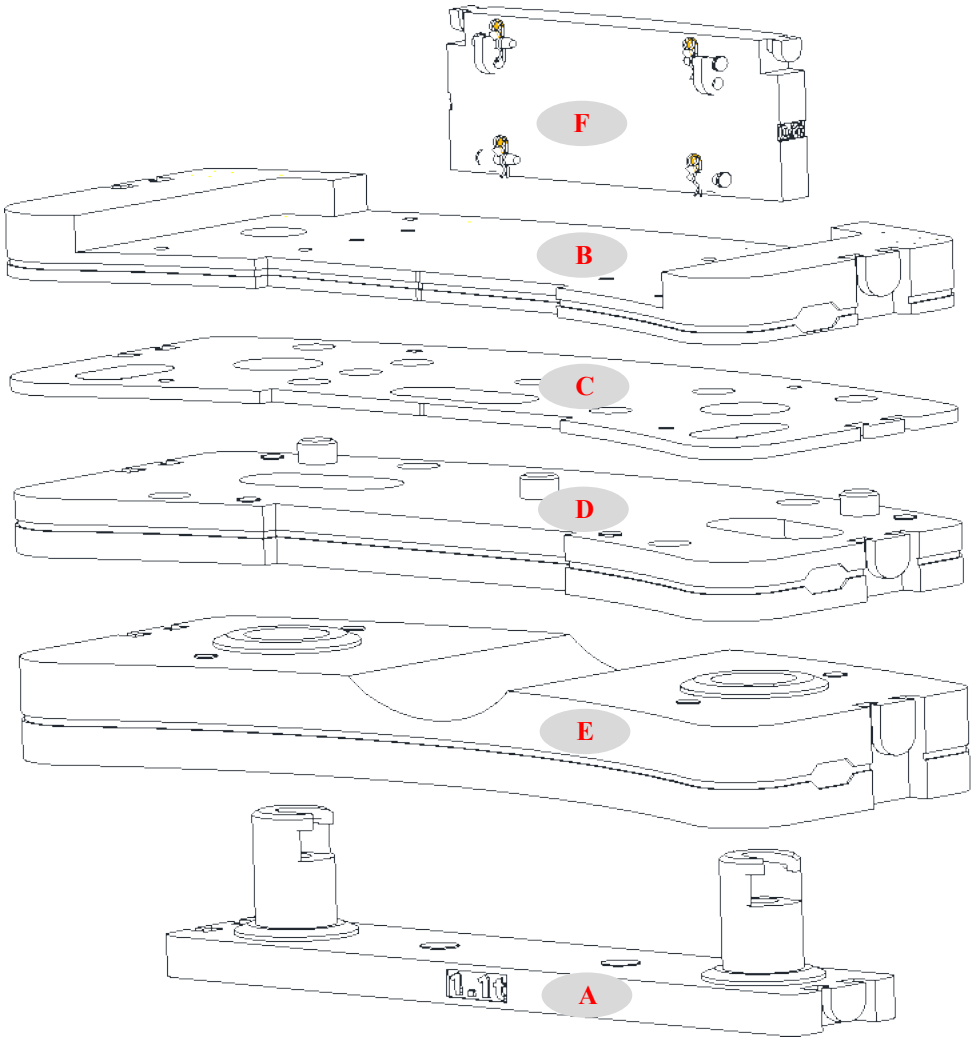
Hook	No. of lines	Weight kg	Remarks
60 t	12	560	Single hook
35 t	7	305	Single hook
15 t	3	270	Single hook Optional
5t	1	100	Single hook

Working speeds

	Km/h	
525/80 R 25 (20.5 R 25)	3~85	60%

Drive	Working speed	Max. single line pull	Rope diameter/ length
1	0-135 m/min, single line,4th layer, no load	50KN	18 mm/208 m
2	0-135 m/min, single line,4th layer, no load	50KN	18 mm/140 m
360°	0-1.5 r/min		
	Approx. 38s for boom elevation from -1° to 81°		
	Approx. 400s for boom extension from 10.3m to 48m		

Counterweight

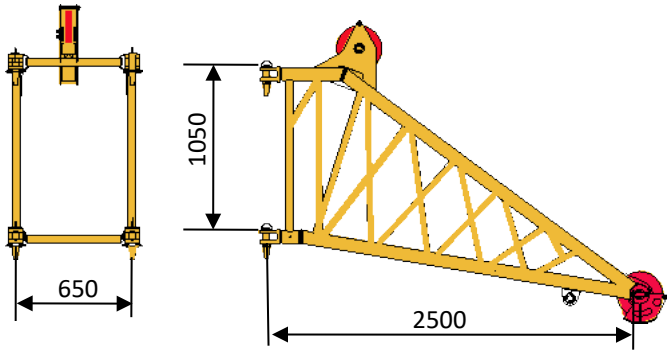


Counterweight	A	B	C	D	E	F
Size（L×W×H） m	2.11×0.44 ×0.587	2.5×1.139 ×0.235	2.5×1.139 ×0.045	2.5×1.139 ×0.212	2.5×1.139 ×0.399	1.1×0.57 ×0.247
Weight t	1.1	2.1	0.7	3.1	4.4	0.6

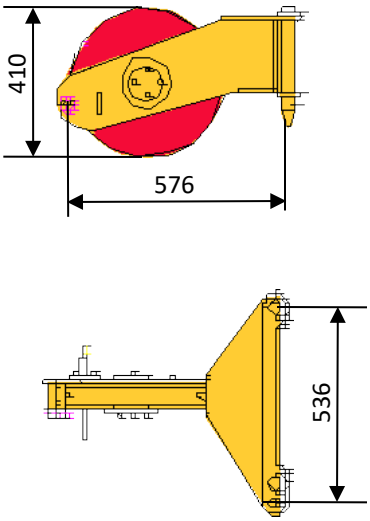
Working mode	12t	7.6t	4.5t	3.4 t	2.7t	2.1t
Combinations	A+B+C+D+E+F	A+B+C+D+F	A+B+C+F	B+C+F	B+F	B

Transportation components dimension

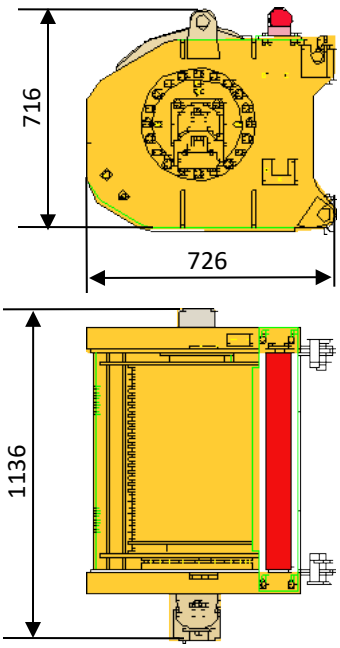
Independent jib head 435kg（optional）



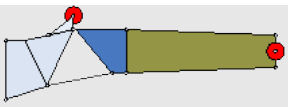
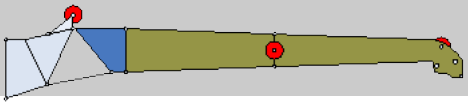
Single top 46kg



Auxiliary winch 648kg (rope included)

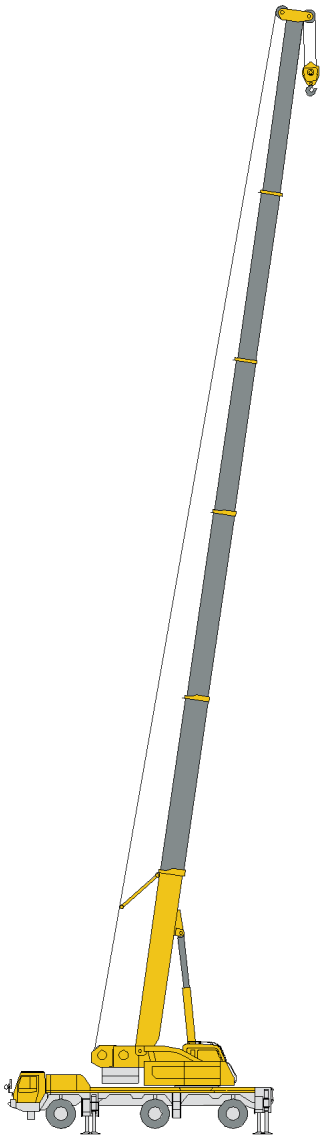
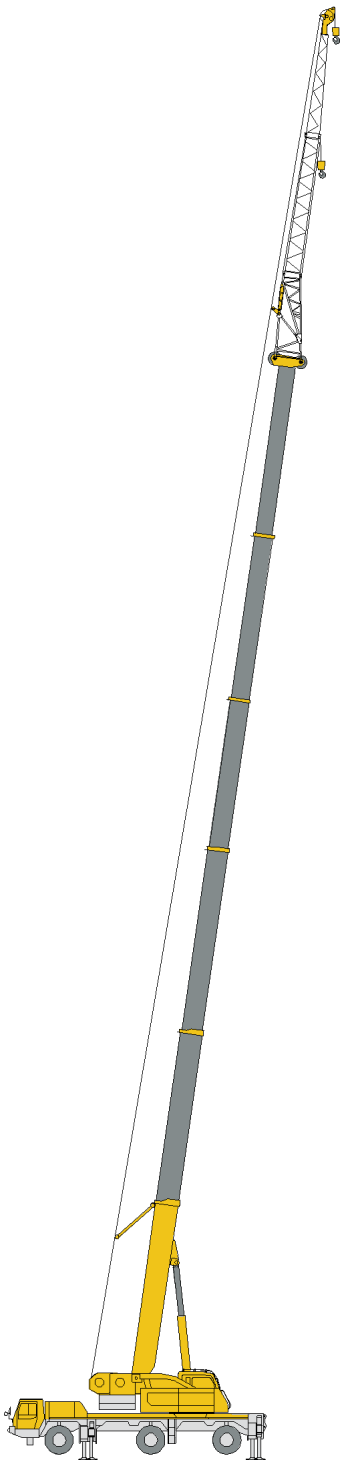


Boom / Jib combinations

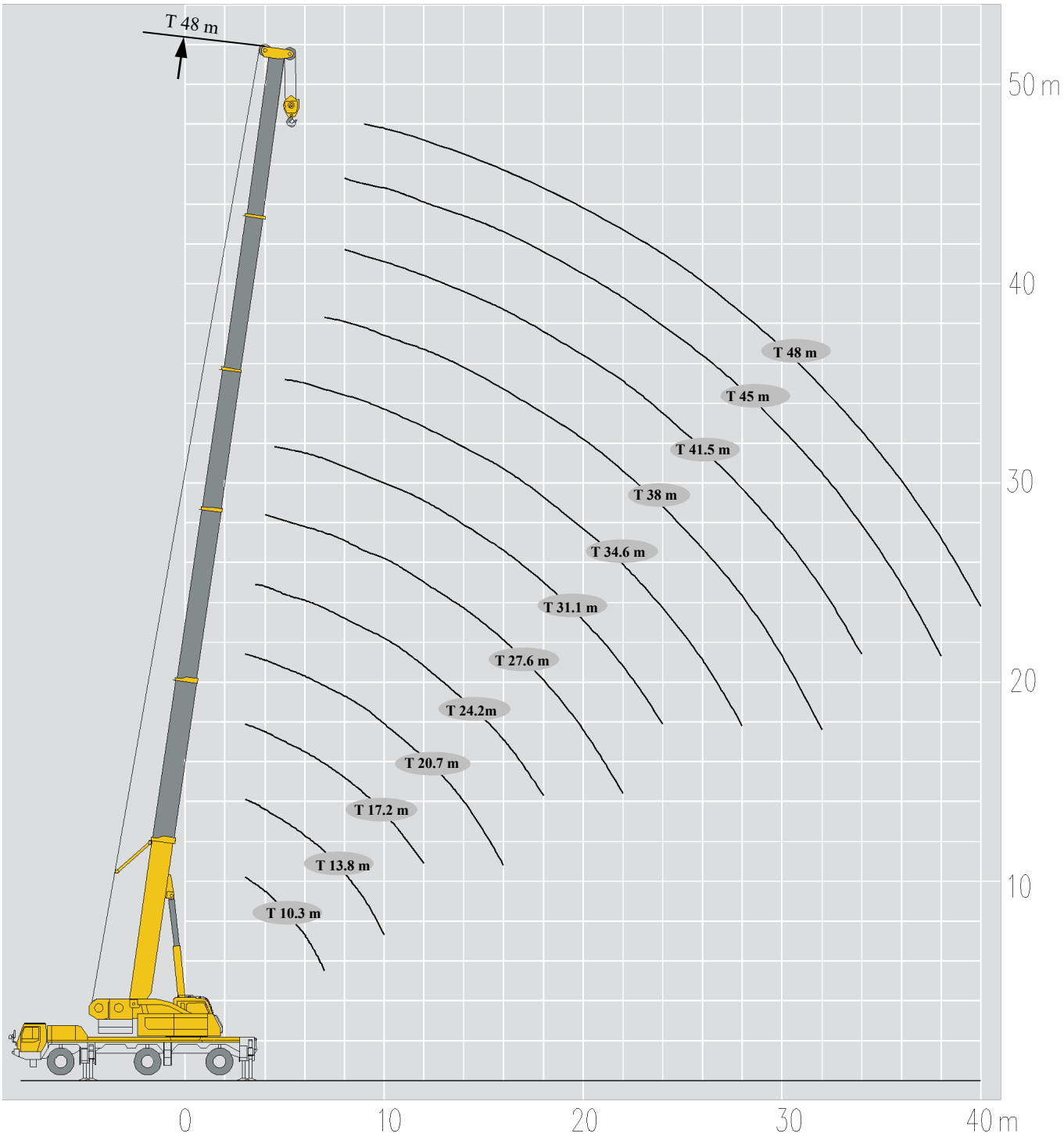
Jib – 9.2m	
Jib – 16m	

Component	Structure	Size（L×W×H） mm	Weight kg
Connection bracket		1100×650×1050	135.6
First jib section assembly		8760×650×580	485.4
Second jib section assembly		6300×250×360	240

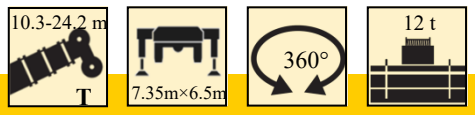
Boom / Jib combinations

T Boom	J Jib
	
Telescopic boom	**Jib**
T：10.3~48 m	T：41.6~48 m J：9.2~16 m

Lifting heights



Lifting capacities(complying with the standards of EN13000) T 10.3~24.2m

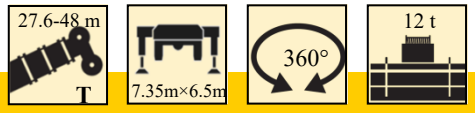


m	10.3 m*	10.3 m	13.8 m	13.8 m	13.8 m	17.2 m	17.2 m	m
2.1	60							2.1
3	54.6	42.5	42.3	41.5	40.5	41.5	40.5	3
3.5	49.9	42.5	42.2	41.0	40.0	41.0	40.0	3.5
4	44.5	40.7	41.4	40.2	39.0	38.5	37.9	4
4.5	39.8	37.5	38.0	36.9	35.0	35.0	34.9	4.5
5	36.4	34.5	35.0	35.2	33.0	33.0	33.3	5
6	31.6	29.0	29.8	30.0	29.0	29.8	29.8	6
7	26.5	24.3	24.5	24.8	25.3	26.0	25.5	7
8			20.5	21.0	21.5	21.6	22.5	8
9			17.5	18.0	18.3	17.7	18.5	9
10			14.8	15.2	15.5	14.7	15.6	10
12						10.6	11.3	12
组合 combination	正后方作业	00000	01000	00100	00010	11000	01100	组合 combination

m	17.2 m	20.7 m	20.7 m	20.7 m	24.2 m	24.2 m	24.2 m	m
3	28.1	35.0	27.6	23.9				3
3.5	26.4	35.0	25.8	23.0	27.4	30.0	23.7	3.5
4	24.8	35.0	23.9	22.1	24.5	30.0	22.8	4
4.5	23.4	33.5	21.5	21.2	22.4	29.0	22.0	4.5
5	22.1	31.5	20.3	20.3	21.4	28.0	21.2	5
6	19.9	28.5	18.2	19.1	19.4	27.2	19.9	6
7	18.1	25.5	16.5	17.8	17.8	24.7	18.7	7
8	16.6	21.5	15.1	16.3	16.3	22.0	17.7	8
9	15.4	18.5	13.8	15.1	14.9	18.5	16.3	9
10	14.4	15.5	12.7	14.0	13.8	15.7	15.1	10
12	11.9	11.0	11.0	12.2	11.2	11.5	12.2	12
14		8.4	8.7	9.7	8.6	9.0	9.7	14
16		6.5	6.9	7.8	6.7	7.0	7.9	16
18					5.4	5.7	6.5	18
组合 combination	00110	11100	02100	00111	12100	11110	01111	组合 combination

Lifting capacities

T 27.6~48m

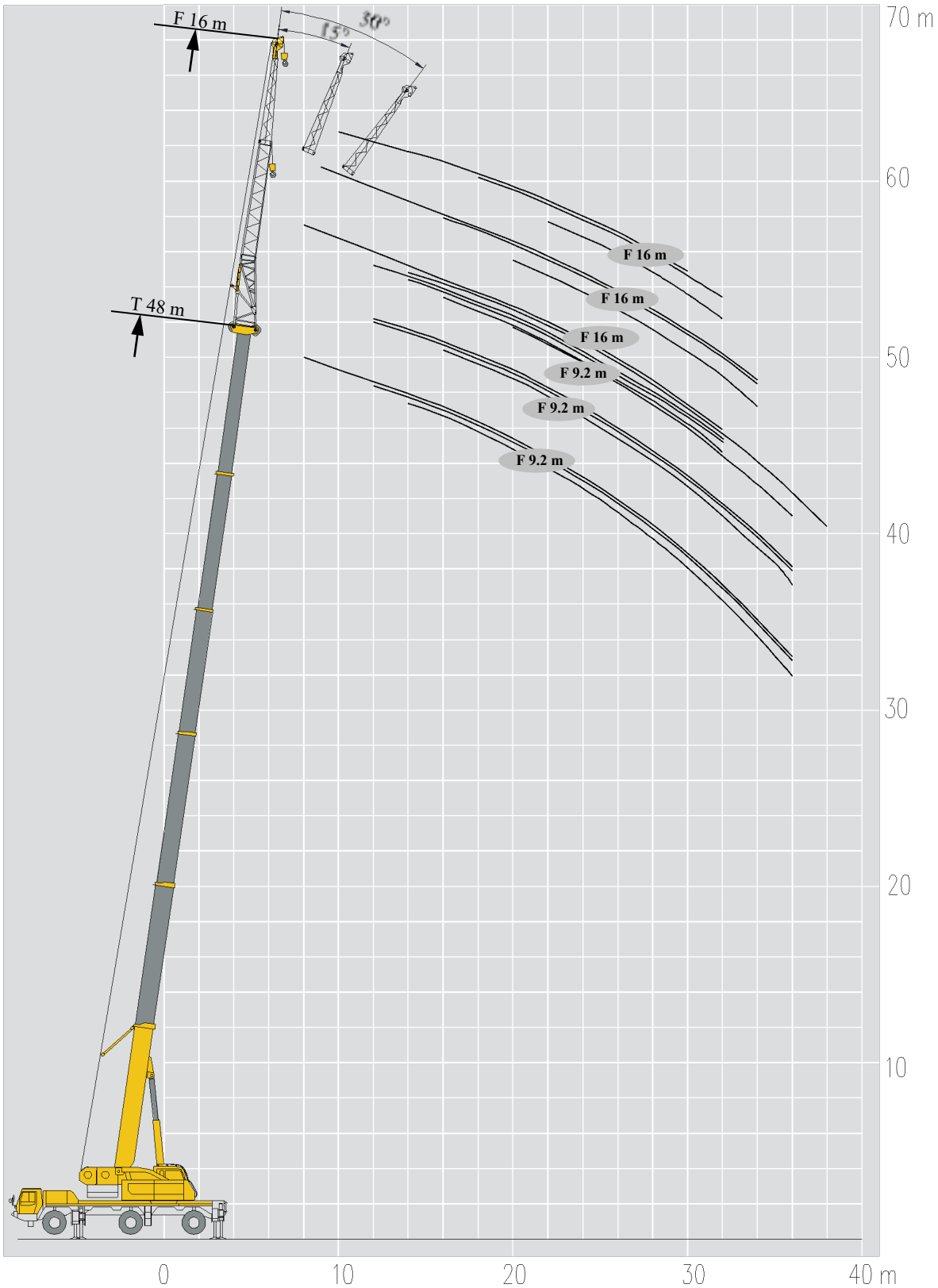


m	27.6 m	27.6 m	27.6 m	31.1 m	31.1 m	31.1 m	34.6 m	34.6 m	m
4	24.5	25.0	18.2						4
4.5	24.0	25.0	17.3	20.0	20.0	15.0			4.5
5	23.5	25.0	16.6	20.0	20.0	14.7	15.0	15.0	5
6	22.4	25.0	15.2	19.9	18.4	13.5	15.0	15.0	6
7	20.3	24.2	14.0	18.7	17.0	12.5	15.0	14.4	7
8	18.5	21.0	13.0	17.7	15.8	11.6	14.8	13.4	8
9	17.0	18.0	12.2	15.9	14.7	10.8	14.2	12.6	9
10	15.2	16.0	11.5	14.6	13.7	10.1	13.3	11.8	10
12	11.3	12.0	10.7	11.7	11.9	8.9	11.1	10.4	12
14	8.7	9.4	9.7	9.1	9.4	7.9	9.0	9.3	14
16	6.9	7.5	8.1	7.3	7.7	7.1	7.2	7.5	16
18	5.5	6.2	6.7	5.9	6.1	6.5	5.9	6.3	18
20	4.5	5.1	5.6	4.8	5.1	5.7	4.8	5.1	20
22	3.7	4.3	4.8	3.9	4.2	4.9	3.9	4.3	22
24				3.3	3.5	4.2	3.3	3.6	24
26							2.7	3.0	26
28							2.3	2.5	28
组合 combination	21110	11111	01112	21111	12111	01122	22111	12211	组合 combination

m	34.6 m	38 m	38 m	38 m	41.5 m	41.5 m	45 m	48 m	m
5	13.1								5
6	12.5								6
7	11.8	12.8	12.2	11.5					7
8	11.1	12.6	11.6	10.9	10.8	10.0	8.7		8
9	10.3	12.2	10.9	10.4	10.4	9.4	8.7	7.1	9
10	9.4	11.5	10.3	9.8	9.8	9.0	8.5	7.1	10
12	8.1	10.2	9.0	8.8	9.0	8.0	7.6	6.9	12
14	7.0	8.8	7.7	7.8	7.8	6.8	6.7	5.9	14
16	6.2	7.4	6.7	6.8	6.8	5.9	6.3	5.7	16
18	5.6	6.0	5.9	6.0	6.2	5.4	5.5	5.0	18
20	4.9	4.9	5.3	5.5	5.2	4.7	5.0	4.4	20
22	4.8	4.1	4.5	4.6	4.4	4.2	4.4	4.0	22
24	4.0	3.4	3.8	4.0	3.6	3.9	3.6	3.6	24
26	3.5	2.9	3.2	3.4	2.9	3.3	3.2	3.0	26
28	3.1	2.4	2.6	2.9	2.5	2.8	2.7	2.6	28
30		1.9	2.2	2.5	2.1	2.4	2.3	2.2	30
32		1.6	1.9	2.2	1.7	2.1	1.9	1.9	32
34					1.4	1.8	1.6	1.6	34
36							1.4	1.4	36
38							1.2	1.2	38
40								1.0	40
组合 combination	01222	22211	12221	11222	22221	12222	22222	33333	组合 combination

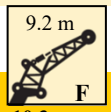
Lifting heights

Jib

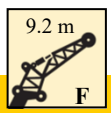


Lifting capacities

J 9.2m



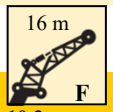
m	10.3 m			34.6 m			38 m			m
	0°	15°	30°	0°	15°	30°	0°	15°	30°	
3	7.9									3
3.5	7.7	6.8								3.5
4	7.4	6.7								4
4.5	7.1	6.7								4.5
5	6.8	6.7								5
6	6.3	6.2	5.2							6
7	5.8	5.6	5	5						7
8	5.2	5.2	4.8	5						8
9	4.7	4.6	4.2	5	5					9
10	4.2	4	3.8	5	5		5			10
12	3.3	3.2	3	5	5	5	5	5.0	4.3	12
14	2.7	2.6	2.5	5	5	5	5	4.6	4.1	14
16				5	5	4.9	4.6	4.1	3.9	16
18				5	4.9	4.7	4.2	3.9	3.5	18
20				4.7	4.4	4.2	3.5	3.5	3.1	20
22				3.9	3.9	3.7	3.2	3.1	2.9	22
24				3.5	3.4	3.4	2.8	2.7	2.7	24
26				3	3.1	3	2.4	2.4	2.4	26
28				2.5	2.6	2.7	2.2	2.1	2	28
30				2.1	2.2	2.2	2	2	2	30
32				1.7	1.8	1.9	1.7	1.7	1.7	32
34				1.4	1.5		1.4	1.4	1.5	34
36				1.2	1.2		1.1	1.2		36
38							1.0	1.1		38
组合 combination	00000			22111			22211			组合 combination



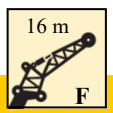
m	41.6 m			45.1 m			48 m			m
	0°	15°	30°	0°	15°	30°	0°	15°	30°	
10	5									10
12	5	4.8		3.9	3.6		3.4			12
14	4.8	4.6	4.2	3.8	3.5		3.3	3.4		14
16	4.3	4.2	4	3.7	3.3	3.2	3.3	3.3	3	16
18	3.8	3.6	3.5	3.2	3.1	2.9	3	2.9	2.7	18
20	3.3	3.2	3.2	2.8	2.7	2.6	2.7	2.5	2.4	20
22	2.8	2.8	2.7	2.6	2.5	2.3	2.2	2.2	2.1	22
24	2.6	2.4	2.4	2.3	2.2	2.1	2	1.9	1.8	24
26	2.2	2.1	2.1	2	2	2	1.7	1.6	1.5	26
28	2	2	1.9	1.7	1.6	1.5	1.5	1.4	1.4	28
30	1.7	1.7	1.6	1.5	1.4	1.4	1.3	1.3	1.2	30
32	1.5	1.5	1.5	1.4	1.3	1.2	1	1	1	32
34	1.4	1.3	1.3	1.1	1.1	1.1				34
36	1.1	1.1	1.1	1	1	1				36
组合 combination	22221			22222			33333			组合 combination

Lifting capacities

J 16m



m	10.3 m			34.6 m			38 m			m
	0°	15°	30°	0°	15°	30°	0°	15°	30°	
3	4.1									3
3.5	4.1									3.5
4	4									4
4.5	4									4.5
5	3.9									5
6	3.7									6
7	3.6									7
8	3.4			3.9						8
9	3.2	3.2		3.8						9
10	3.1	3		3.8						10
12	2.8	2.6	2.4	3.7	3.1		3.3			12
14	2.6	2.5	2.3	3.5	3		3.2			14
16	2.3	2.2	2	3.4	2.9	2.4	3.2	2.8		16
18	2	2	1.8	3.3	2.8	2.4	3.1	2.6		18
20	1.7	1.8	1.6	3.2	2.7	2.3	2.8	2.6	2.3	20
22				3	2.6	2.3	2.7	2.5	2.2	22
24				2.9	2.5	2.2	2.4	2.4	2.1	24
26				2.7	2.4	2.2	2.1	2	2	26
28				2.5	2.4	2.1	2	1.9	1.9	28
30				2.3	2.3	2.1	1.9	1.9	1.7	30
32				1.9	2.0	2.1	1.6	1.5	1.5	32
34				1.8	1.8	1.9		1.3	1.3	34
36				1.3	1.5	1.6		1.1	1.1	36
38				1.1	1.2	1.3		1		38
40					1.0					40
组合 combination	00000			22111			22211			组合 combination



m	41.6 m			45.1 m			48 m			m
	0°	15°	30°	0°	15°	30°	0°	15°	30°	
12	3			2.6			2.3			12
14	2.8			2.6			2.2			14
16	2.8	2.6		2.5	2.4		2.2			16
18	2.8	2.5		2.4	2.3		2.2	2.2		18
20	2.6	2.5	2.2	2.3	2.2	2	2.1	2.1		20
22	2.4	2.4	2.2	2.2	2.2	2	2	2.1	2	22
24	2.3	2.3	2.1	1.9	2	1.9	1.7	1.7	1.7	24
26	2.1	1.9	1.9	1.7	1.7	1.7	1.5	1.5	1.4	26
28	1.8	1.8	1.8	1.5	1.5	1.5	1.4	1.4	1.3	28
30	1.5	1.5	1.5	1.4	1.4	1.4	1.1	1.1	1.1	30
32	1.4	1.4	1.3	1.2	1.2	1.3		1	1	32
34		1.2	1.2	1.1	1.1	1.1				34
36		1.1	1.1							36
38		1								38
40		0.8								40
组合 combination	22221			22222			33333			组合 combination

Table of Main Technical Parameters

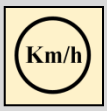
Category	Item		Unit	Parameter
Dimensions	Outline size（length×width×height）		mm	11813×2780×3830
	Axle load		mm	2950+1650
	Track（Front/ Rear ）		mm	2220
	Front/ Rear overhang		mm	3116/2068
	Front/ Rear extension		mm	1395/634
Weight	Total vehicle mass in travel configuration		kg	36000
	Axle load	1st axle	kg	12000
		2nd axle	kg	12000
		3rd axle	kg	12000
Power	Engine model		——	OM470LA
	Max. net power/rpm		kW/(r/min)	280/1700
	Max. output torque/rpm		N.m/(r/min)	1900/1300
Travel	Max. travel speed		km/h	≥85
	Min. travel speed		km/h	3
	Min. turning diameter		m	≤21
	Min. ground clearance		mm	373
	Approach angle		°	19
	Departure angle		°	14
	Braking distance (at 30 km/h)		m	≤10
	Max. grade ability		%	60
	Fuel consumption per 100 km		L	49
Noise	Noise level at seated position		dB(A)	≤90

Table of Main Technical Parameters

Category	Item			Unit	Parameter
Main performance	Max. total rated lifting capacity			t	60
	Min. rated working radius			m	2.1
	Turning radius at turntable tail	Counterweight		mm	3750
		Auxiliary winch		mm	4319
	Max. load moment	Base boom		kN.m	1858
		Fully-extended boom		kN.m	894
		Fully-extended boom + Jib		kN.m	529
	Outrigger span	Longitudinal		m	7.35
		Lateral		m	6.5
	Hoist height	Base boom		m	10.2
		Fully-extended boom		m	48
		Fully-extended boom + Jib		m	63
	Boom length	Base boom		m	10.3
		Fully-extended boom		m	48
		Fully-extended boom + Jib		m	64
	Jib offset angle			°	0、15、30
Working speed	Boom raising time			s	≤38
	Boom fully extended time			s	≤400
	Max. slewing speed			r/min	≥1.5
	Outrigger extending and retracting time	Outrigger beam	Retracting	s	≤20
			Extending	s	≤20
		Outrigger jack	Retracting	s	≤60
			Extending	s	≤30
	Hoisting speed (single line, 4th layer, no load)	Main winch		m/min	≥135
		Auxiliary winch		m/min	≥135
Noise	Noise level at seated position			dB（A）	≤85
	Exterior noise level			dB（A）	≤109

Description of symbols

General symbols

	Outriggers		Axle
	Radius		Driving speed
	Boom position		Gradeability
	Boom length		Tires
	Hook block		Counterweight
	360° rotation		superstructure
	Winch		Chassis

Crane specific symbols

	Boom		Jib

Notes

1. The total rated loads given in the rated load charts are the maximum lifting capacity 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 to correctly calculate the load weight.
2. The working radius shown in the rated load charts is the radius when the load is lifted off the ground, and it is the actual value including loaded boom deflection.
3. A lifting operation is permissible only when the wind force is below grade 5 (instantaneous wind speed is 14.1/s, wind pressure is 125N/m^2).
4. Before beginning lifting operation, the operator should know the weight of the load to be lifted and its working range, and then select proper working conditions. Never operate the crane beyond the limit shown in the chart. Use the lower value from the chart when the boom length or working radius is between the range of values.
5. 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. Otherwise, the crane will tip.
6. The boom length given in the rated load charts should accord with the telescoping code of boom sections .

XCA60_E All Terrain Crane

RONCO GROUP