XCA130_E All Terrain Crane

Technical specifications

max 130t

62m

m 92.5m

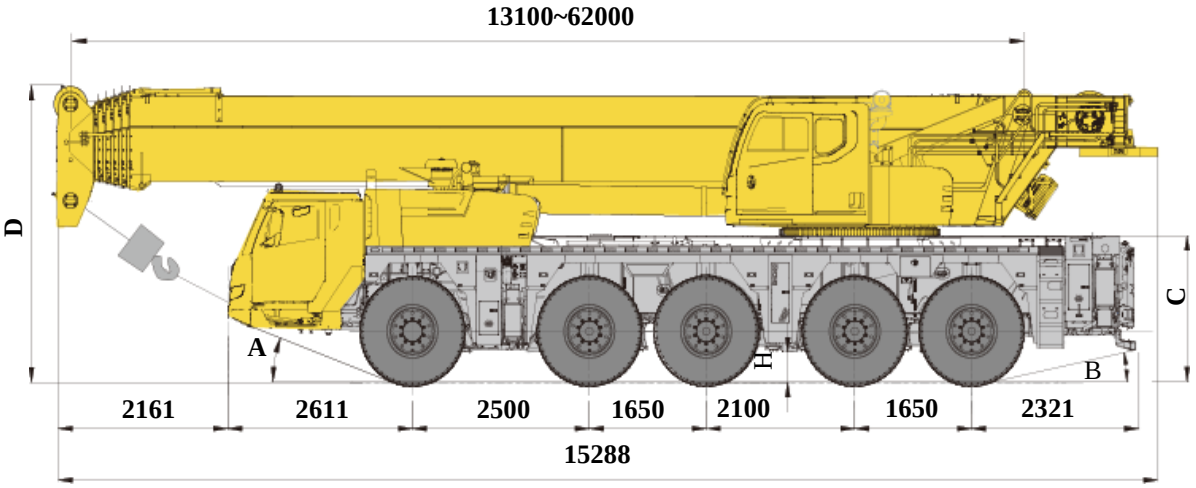
XCA130_E

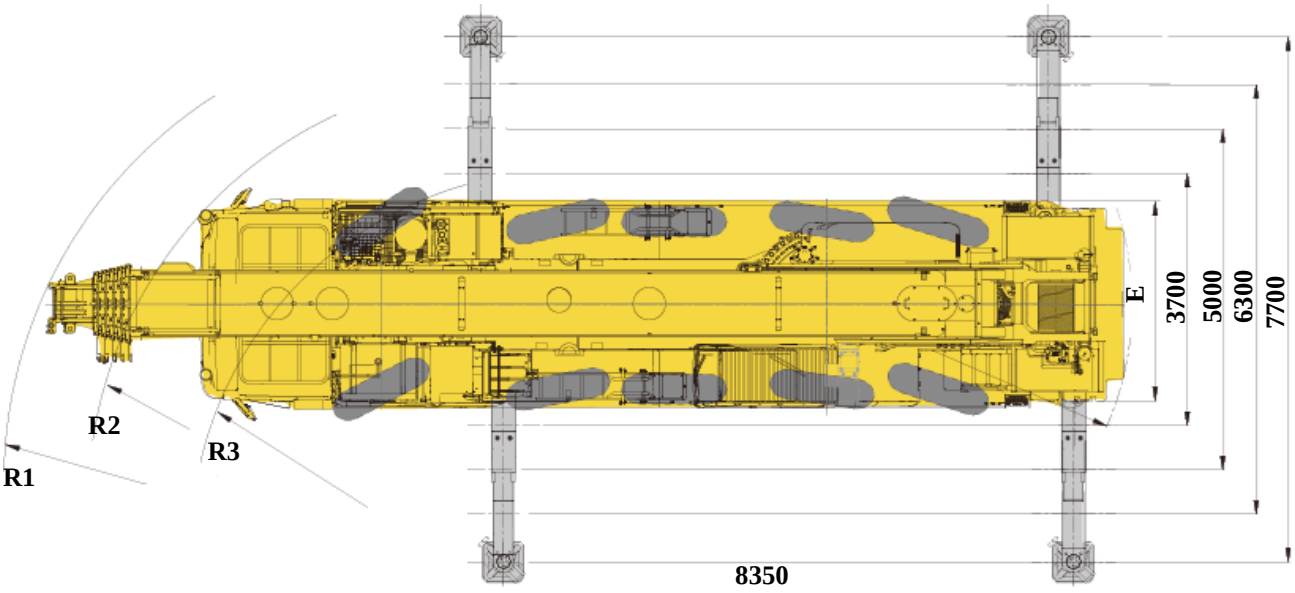
XCMG ALL TERRAIN CRANE

130t LIFTING CAPACITY

Contents

Dimensions





R：
Tight turning radius mode

	A	B	C	D	E	R1	R2	R3	H
525/80R25 (20.5R25)	19°	12°	1967mm	4000mm	2940mm	12500mm	11400mm	9750mm	350mm

Technical specifications

	**Chassis**	
Frame	Box structure design with high load-bearing capacity, made of high strength steel. Finite element analysis method is adopted for all working conditions analysis and calculation. High standard testing is realized for the whole manufacturing process. Flaw detection is applied for the key parts to guarantee the high reliability of strength and stability during the load-bearing process.	●
Outrigger	H-type outriggers, two-stage telescoping outrigger beam with push-pull outrigger floats. There are four working positions (1/4 extended, half extended, 3/4 extended and fully extended) to meet different requirements. Outrigger control panels controlled by CAN bus are located at both sides of chassis.	●
Engine	Daimler AG OM471LA, 6 cylinders, diesel. Rated power/rpm: 360 kw /1700 rpm. Rated torque/rpm: 2300 N.m /1300 rpm. Emission standard: EU Stage IV/EPA Tier 4F. Fuel tank capacity: 460L.	●
Transmission	ZF Germany AMT transmission; 12 forward gears and 2 reverse gears available with retarder.	●
Axles	5-axle chassis with Kessler disconnected axle; 2nd, 3rd, 4th and 5th axles for driving, all wheel steering.	●
Suspensions	Advanced independent suspension technology is adopted, and the tires on left and right side move separately to adapt to the road conditions with improved stability; Hydro-pneumatic suspensions have good shock-absorbing effect and automatic leveling function. The height of chassis above the ground may be adjusted. Main reducer is attached to the frame, which can be lifted or lowered with frame, leading to improved pass ability. The stroke of suspension cylinder is ±150 mm.	●
Tires	525/80R25	●

Brakes	Service braking: foot pedal operated double-circuit air pressure brake. 1st circuit acts on the wheels of 3rd, 4th and 5th axles, 2nd circuit acts on the wheels of 1st and 2nd axles; Parking brake is air-release brake, which acts on the 2nd, 4th and 5th axles, and gives effect by the spring-loaded air chamber on each axle. Auxiliary brake: engine retarding brake and transmission retarding brake.	●
Steering	1st and 2nd axles are mechanically steered, 3rd, 4th and 5th axles are of electric-hydraulic proportional steering system.	●
Driver’s cab	New full-dimension enclosed cab, luxury and comfort. It is designed to be leakproof, anti-corrosive and shockproof. It is equipped with a windshield offering outstanding visibility, electrical adjustable rear mirrors, electric control washer, electronic lifters of doors and windows, air conditioner, radio cassette player, etc. A simple sleeper for co-driver.	●
	Beacon lamp at the driver’s cab	●
Electrical system	24V DC, two sets of 12V battery in series.	●

Technical specifications

	**Superstructure**		
Structural members	Designed and manufactured by XCMG, made of high strength steel.		●
Hydraulic system	Variable plunger pump and gear pump driven by chassis engine are used for lifting, elevating, telescoping, slewing operations and auxiliary systems; Electric control multi-way valve; Air-cooled hydraulic oil radiator;		●
Operating mode	The electric-proportional pilot operation system is equipped with two levers at left and right sides controlling the main movements of the crane, and stepless slewing speed regulation is available.		●
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 balanced valve and a grooved drum equipped.	Main winch	●
		Auxiliary winch	●
Slewing system	A single-row, four-point contact-ball external slewing bearing; the system is driven by a hydraulic motor through a planetary gear reducer with constant-closed brake equipped, and may continuously slew 360°. Power control and free slewing function as well as stepless speed regulation are available.		●
Operator's cab	New fully-enclosed steel cab has better sealing and anti-corrosive properties. It is equipped with a full-view front window. Safety glass and sun shield are used for windows. 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 to make it easy and safe as access and egress the cab. Wipers are fitted for the windshield and roof window. Control panel with man-machine interactive system is used in operator's cab. The cab can be tilted up to 20°.		●
Safety device	Hydraulic counterbalance valve; hydraulic relief valve; hydraulic double-way valve; LMI; lowering limiter; anti-two block; anemometer; winch monitor		●
Combined counterweight	Total weight is 44.5t. 8 counterweight combinations of 3.6, 6.2, 9, 15.7, 21, 25.8, 30.5 and 44.5 are available.		●

Centralized lubrication system	Controlled by computer program; lubrication points are at slewing ring, bearing pedestals of main winch and auxiliary winch, upper and lower pivots of elevating cylinder, pivot of tilt cylinder and rear pivot of boom.	●
Hook block	11t Hook block	●
	25t Hook block	●
	60t Hook block	●
	90t Hook block	●
	130t Hook block	●

	Boom system	
Boom	6-section boom with oval profile, welded structure with single-plate boom head and compact boom tail. Single-cylinder pinning telescoping system. Boom length: 13.1m～62 m.	●
Single top	Fitted at boom head, used for single line operation. Its lifting performance is the same as that for boom, but the maximum lifting load does not exceed 7000kg.	●

Weight

Axle	1	2	3	4	5	Total weight
t	≤12	≤12	≤12	≤12	≤12	≤60[1)]

1)11t hook block and 2.2t counterweight are carried. Jib and auxiliary winch are excluded from superstructure. Spare tire and spare tire bracket, outrigger floats and storage box are excluded from chassis. Drive/steering type is 10×8×10; Tire specification: 525/80 R 25

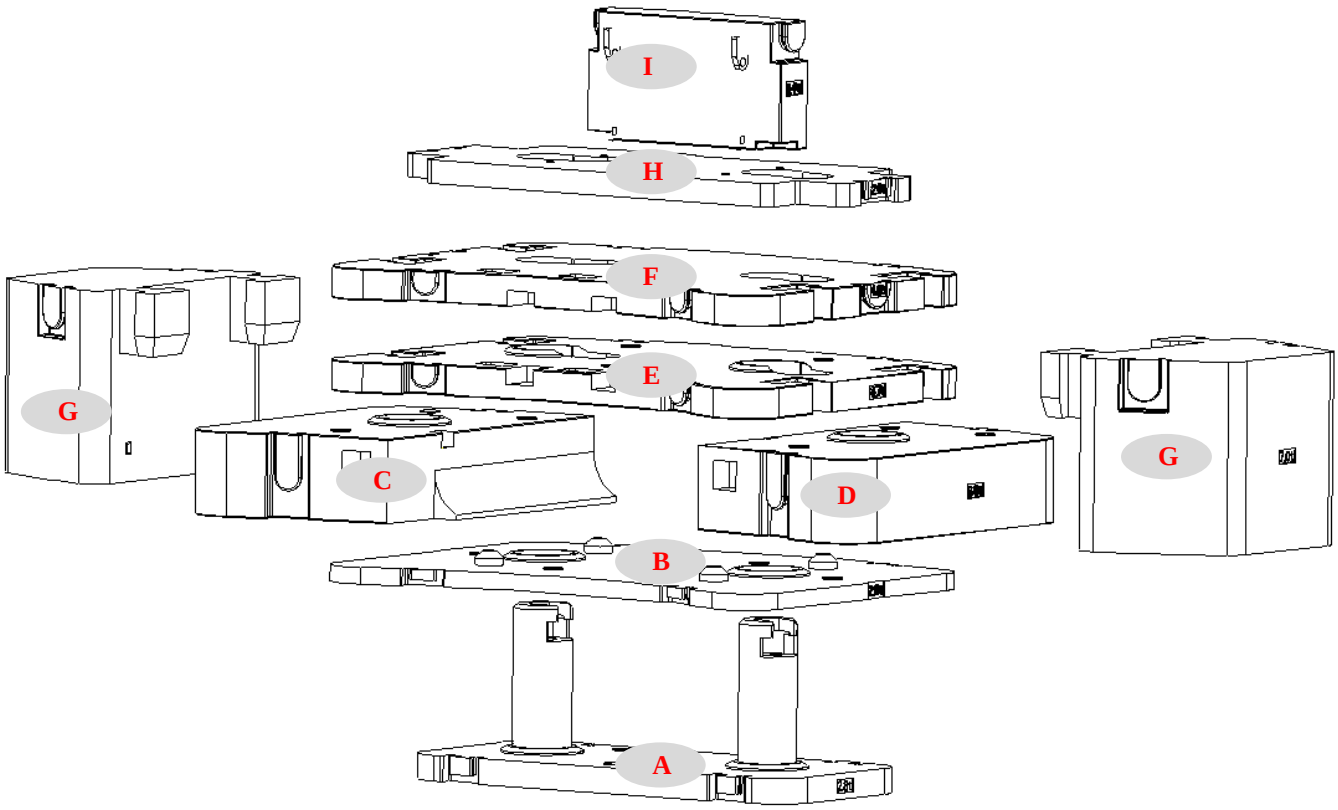
Max. lifting capacity of the hook block	Parts of line	Rated lifting capacity	Weight (kg)	Dimensions (mm)	Remarks
130t	14	101t	1200	1907×760×837	Double hook
90t	10	83t	820	1661×630×590	Double hook
60t	7	58t	580	1456×630×350	Double hook
25t	3	25t	400	1439×630×335	Single hook
11t	1	8.9t	296	744×440×440	Single hook

Working speeds

525/80R25(20.5R25)	1~80	60%

Drive	Working speed	Max. single line pull	Rope diameter/ length
1	0-130 m/min, single line, 4th layer	87kN	20 mm/265 m
2	0-130 m/min, single line, 4th layer	87kN	20 mm/205 m
360°	0-1.65 r/min		
	Approx. 65s for boom elevation from -0.5° to 82°		
	Approx. 740s for boom extension from 13.1m to 62m		

Counterweight

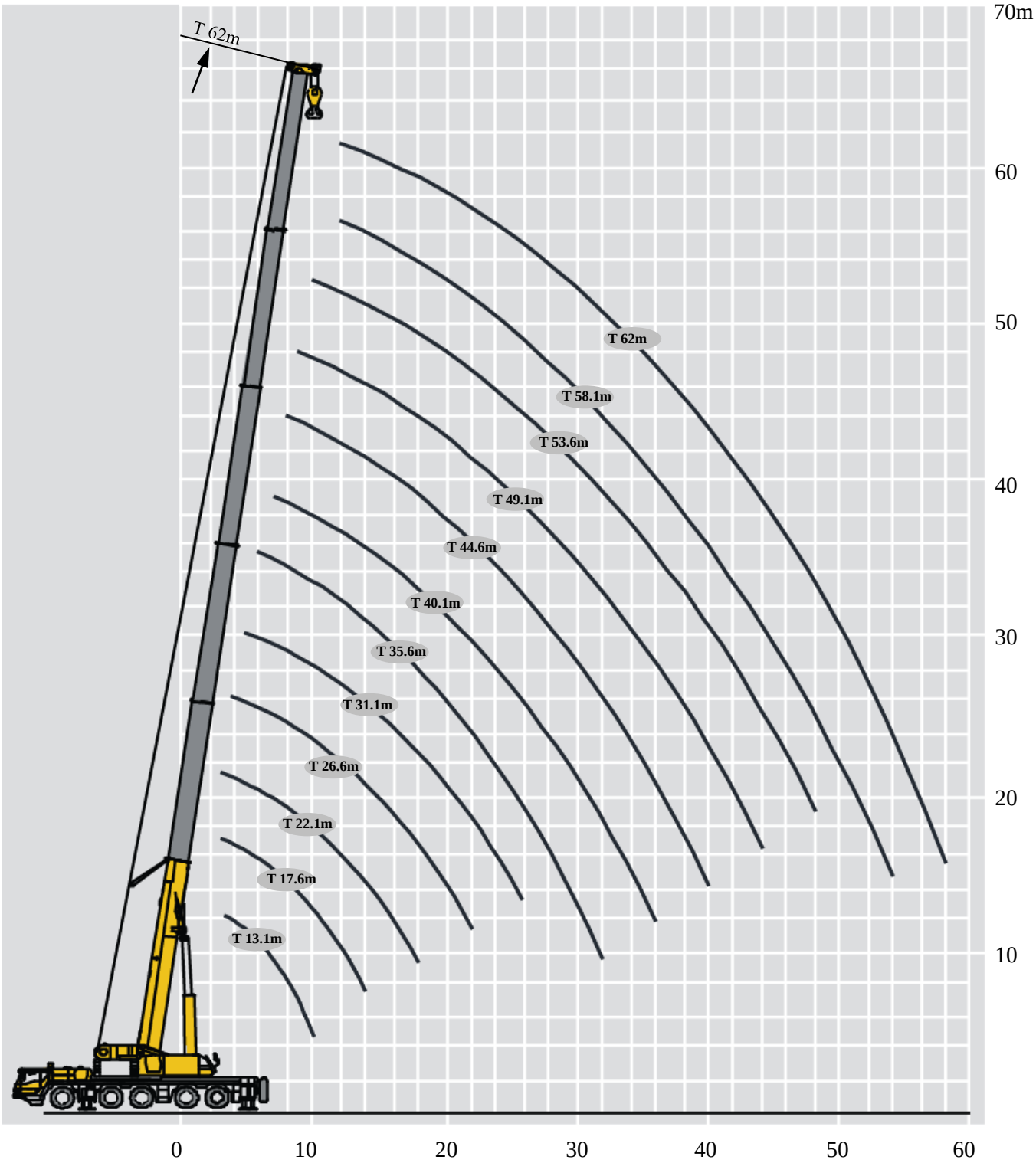


Counterweight	A	B	C	D	E	F	G	H	I
Size (L×W×H) (m)	2380×980×873	2740×2026×154	1270×2026×462	1270×2026×462	2740×2026×186	2740×2026×160	1450×1133×92	2740×1100×120	1200×384×650
Weight (t)	2.6	2.8	6	6	4.7	4.8	7	2.2	1.4

Working mode	44.5t	30.5t	25.8t	21t	15.7t	9t	6.2t	3.6t
Combinations	I+H+A+B+C+D+E+F+G*2	I+H+A+B+C+D+E+F	I+H+A+B+C+D+F	I+H+A+B+C+D	I+H+A+E+F	I+H+A+B	I+H+A	I+H

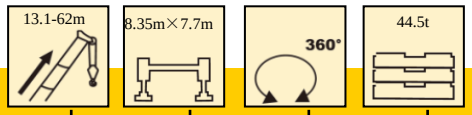
Lifting height chart

Boom



Lifting capacities

T 13.1~62m



	13.1	17.6m	17.6m	17.6m	22.1m	22.1m	22.1m	26.6m	26.6m	26.6m	
3	130.0*	83.0	83.0	58.0	83.0	83.0	61.7				3
3.5	101.0	83.0	83.0	54.8	83.0	83.0	59.0				3.5
4	93.0	83.0	83.0	52.0	83.0	83.0	56.3	67.0	67.0	58.8	4
4.5	86.0	83.0	83.0	49.6	82.0	82.0	53.7	67.0	67.0	56.6	4.5
5	81.0	78.0	79.0	47.3	76.0	77.0	51.5	67.0	67.0	54.4	5
6	71.0	69.0	69.0	43.4	67.0	68.0	47.5	66.0	66.5	50.7	6
7	62.0	61.0	62.0	40.0	60.0	61.0	44.4	59.0	59.0	47.4	7
8	55.0	55.0	56.0	37.2	54.0	55.0	41.6	53.0	54.0	44.7	8
9	47.0	50.0	50.0	34.9	49.0	50.0	38.7	48.0	49.0	42.1	9
10	38.0	45.0	45.6	32.6	44.0	45.0	35.9	44.0	45.0	39.9	10
12		36.0	36.8	29.3	36.0	37.0	30.9	36.7	37.1	35.2	12
14		27.0	27.0	26.8	29.0	30.2	27.2	29.8	30.3	31.3	14
16					23.2	24.3	24.4	24.0	24.5	26.4	16
18					19.0	20.1	21.8	19.8	20.3	22.1	18
20								16.5	17.0	18.8	20
22								14.0	14.5	16.2	22
Code	00000	01000	00100	00001	11000	01100	00011	11100	02100	00111	Code

	31.1m	31.1m	31.1m	35.6m	35.6m	35.6m	40.1m	40.1m	40.1m	
5	58.0	56.3	48.1							5
6	58.0	52.9	43.6	50.0	50.0	49.2				6
7	58.0	49.7	39.6	50.0	50.0	45.4	42.0	42.0	32.0	7
8	53.0	47.0	35.8	50.0	48.8	41.8	42.0	41.8	30.0	8
9	48.0	44.8	32.9	46.7	46.3	38.5	42.0	39.1	28.3	9
10	44.0	42.6	30.6	43.0	44.0	35.0	40.3	35.3	26.8	10
12	37.4	38.6	26.6	37.0	38.0	30.0	34.0	31.0	23.9	12
14	30.7	32.1	23.6	30.3	31.5	26.6	29.6	27.8	21.6	14
16	24.8	26.2	21.0	24.5	25.7	23.7	25.3	25.2	19.8	16
18	20.6	21.9	18.9	20.3	21.4	21.4	21.0	21.3	18.1	18
20	17.4	18.6	17.2	17.0	18.1	18.5	17.8	18.1	16.8	20
22	14.8	16.1	15.9	14.5	15.6	15.9	15.2	15.5	15.6	22
24	12.8	14.0	14.3	12.5	13.5	13.9	13.2	13.5	14.1	24
26	11.1	12.3	12.6	10.8	11.8	12.2	11.5	11.8	12.4	26
28				9.3	10.4	10.7	10.1	10.4	11.0	28
30				8.1	9.2	9.5	8.8	9.1	9.8	30
32				7.0	8.0	8.0	7.8	8.1	8.7	32
34							6.9	7.2	7.8	34
36							6.1	6.4	7.0	36
Code	11110	01111	00211	21110	11111	02111	21111	12111	11112	Code

Notes: The technical data with a * followed are for the nominal load，special equipment is required.

Lifting capacities

T 13.1~62m

	44.6m	44.6m	44.6m	49.1m	49.1m	49.1m	53.6m	53.6m	58.1m	62m	
8	32.7	31.7	24.0								
9	32.7	30.9	22.7	25.1	24.2	21.3					9
10	32.9	29.3	21.5	25.1	24.2	20.5	18.7	18.1			10
12	29.7	26.5	19.3	25.1	22.9	18.8	17.8	18.1	14.7	11.8	12
14	26.7	24.0	17.5	22.6	21.0	17.4	16.8	18.1	14.8	11.8	14
16	23.5	21.7	15.9	20.1	19.0	16.0	15.8	16.7	14.8	11.9	16
18	21.0	19.9	14.6	17.8	17.0	14.8	14.7	14.9	14.2	12.0	18
20	17.8	18.1	13.4	16.1	15.4	13.7	13.9	13.6	12.9	11.7	20
22	15.2	15.7	12.5	14.6	14.0	12.8	12.8	12.3	11.6	10.6	22
24	13.2	13.7	11.6	13.2	12.8	12.0	11.7	11.3	10.5	9.6	24
26	11.5	12.0	10.9	11.7	11.7	11.2	10.7	10.4	9.6	8.8	26
28	10.0	10.5	10.1	10.2	10.8	10.6	9.8	9.6	8.9	8.1	28
30	8.8	9.3	9.6	9.0	9.6	10.0	9.0	8.9	8.2	7.5	30
32	7.8	8.3	9.0	8.0	8.6	9.1	8.3	8.2	7.6	6.8	32
34	6.9	7.4	8.1	7.1	7.7	8.2	7.4	7.7	7.0	6.4	34
36	6.1	6.6	7.3	6.3	6.9	7.4	6.6	7.1	6.5	5.9	36
38	5.4	5.9	6.6	5.6	6.2	6.7	5.9	6.6	6.1	5.5	38
40	4.7	5.2	6.0	4.9	5.5	6.0	5.3	5.9	5.6	5.1	40
42				4.4	5.0	5.5	4.7	5.4	5.1	4.7	42
44				3.9	4.5	5.0	4.2	4.8	4.5	4.3	44
46							3.7	4.4	4.1	4.0	46
48							3.3	3.9	3.6	3.7	48
50									3.3	3.3	50
52									2.9	2.9	52
54									2.6	2.6	54
56										2.3	56
58										1.6	58
Code	22111	12211	11122	22211	12221	11222	22221	12222	22222	33333	Code

Symbol glossary

General symbols

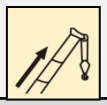
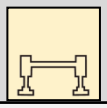
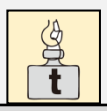
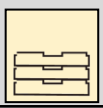
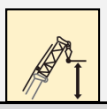
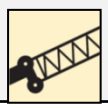
	Superstructure		Chassis
	Lifting capacity		Axle
	Boom length		Driving speed
	Radius		Grade ability
	Boom angle		Tires
	Boom hoist height		Outriggers
	Fixed jib length		Hook block
	Jib offset angle		Counterweight
	Jib hoist height		Winch
	Independent jib head		360° rotation
	Boom extension		

Table of main technical parameters

Category	Item		Unit	Parameter
Dimensions	Dimension (length ×width ×height)		mm	15288×2940×4000
	Wheel base		mm	2500+1650+2100+1650
	Track (Front/ Rear)		mm	2352
	Front/ Rear overhang		mm	2611/2321
	Front/ Rear extension		mm	2161/295
Weight	Max. permissible total weight		kg	≤60000
	Axle load	1st axle	kg	≤12000
		2nd axle	kg	≤12000
		3rd axle	kg	≤12000
		4th axle	kg	≤12000
		5th axle	kg	≤12000
Power	Engine model		——	OM471LA
	Engine rated power/rpm		kW/(r/min)	360/1700
	Engine rated torque/rpm		N.m/(r/min)	2300/1300
Travel	Max. travel speed		km/h	≥80
	Min. stable travel speed		km/h	≤3
	Min. turning diameter		m	≤19.5(Tight-turning radius mode，five-axle steering）；≤23（Normal road mode，five-axle steering）
	Min. turning diameter at boom tip		m	≤25（Tight-turning radius mode，five-axle steering）；≤28.3（Normal road mode，five-axle steering）
	Min. ground clearance		mm	350
	Approach angle		°	19
	Departure angle		°	12
	Braking distance (at 30 km/h)		m	≤10
	Max. grade ability		%	60
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	130
	Min. rated working radius			m	3
	Turning radius at turntable tail	Counterweight		mm	4630/4335
		Auxiliary winch		mm	4600
	Max. load moment	Base boom		kN.m	4468
		Fully-extended boom		kN.m	2297
	Outrigger span	Longitudinal		m	8.35
		Lateral		m	3.7/5/6.3/7.7
	Hoist height	Base boom		m	12.1
		Fully-extended boom		m	61.5
	Boom length	Base boom		m	13.1
		Fully-extended boom		m	62
Working speed	Boom raising time			s	≤65
	Boom fully extended time			s	≤740
	Max. slewing speed			r/min	≥1.65
	Outrigger extending and retracting time	Outrigger beam	Retracting	s	≤25
			Extending	s	≤20
		Outrigger jack	Retracting	s	≤55
			Extending	s	≤45
	Hoisting speed (single line, 4th layer, no load)	Main winch		m/min	≥130
		Auxiliary winch		m/min	≥130
Noise	Noise level at seated position			dB（A）	≤85

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 from the rated lifting load.
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. Take boom deflection into consideration before beginning a lifting operation.
3. 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/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 should be extended according to the telescoping code shown by digits, which means the percentage of boom sections extended.

XCA130_E All Terrain Crane

RONCO GROUP