All Terrain crane

Model: XCA220

Basic technical specifications

Lifting capacity	
Max. lifting load	220 t
Dimension	
Overall length	15500 mm
Overall width	2980 mm
Overall height	3930 mm
In travel configuration	
Total weight	54990 kg
Axle load of 1st axle	11990 kg
Axle load of 2nd axle	12000 kg
Axle load of 3rd axle	12000 kg
Axle load of 4th axle	9500 kg
Axle load of 5th axle	9500 kg
Performance	
Max. travel speed	84km/h
Max. grade ability	67%
Boom	7 sections, 13.4 m～73 m
Length of jib	12m～44 m
Lifting height of fully extended (boom+jib)	108 m

Xuzhou Heavy Machinery Co., Ltd.

Features and advantages of XCA220 All Terrain Crane

XCA220 All Terrain Crane is designed to aim at both markets abroad and domestic. It is suitable for lifting operation and installation work in oilfields, docks, and bridge construction. It has powerful lifting capacity and wide working range. It is mounted on a five-axle chassis specialized for all terrain crane, which features better ride-ability, manoeuver ability and pass-ability. Integration of mechatronics and hydraulic system for precise full-axle steering and braking technology contribute to superior ride-ability.

Seven-section boom, stepless luffing lattice jib, double independent winches, combined counterweight, H-type outriggers and new energy-saving hydraulic system are available. The crane has newly designed XCMG G1 appearance of All Terrain Crane, and XCMG man-machine interactive system with the level of a car. Its performance takes the lead in the industry. It is more intelligent, energy-saving and user friendly to operate.

(1) High performance

The seven-section boom with oval profile is made of imported high strength steel. The boom can be extended up to 73 m, which takes the lead in the same class in the industry. Compact boom tail and brand new single-plate boom head lead to increased boom compactness and effective overlapping lengths between boom sections, which result in improved ability of resistance to deformation.

A jib of 36 m is designed. The total length of lattice jib is extended to 44 m after the jib is combined with an optional boom extension and hydraulic infinitely luffing technology is adopted. The max. boom length is up to 108.2 m due to optimization technique of boom structure and lightweight design. The combined length of boom and jib takes the lead in the same class in the industry, leading to the lifting load charts with competitive advantage.

The imported power transmission system with optimized technology matched makes the max. travel speed is up to 84 km/h and grade ability up to 67%, resulting in leading ride-ability in the industry.

(2) Intelligent

The latest control technology platform is adopted to perform intelligent crane operations and travel control.

The latest intelligent boom technologies are applied to improve operation efficiency, including full-automatic boom extension, elevating compensation, winch rope servo action and automatic planning of working conditions.

The latest counterweight erection technology with one key is designed, which is carried out through detection and control of slewing angle and oil cylinder state, to improve operation efficiency and reduce labor cost.

An intelligent lighting device that light follows the hook motion is designed to improve visibility during operations at night.

(3) Energy-saving

New full-closed energy-saving hydraulic system combined with fine control system and control stratigy of variable displacement pump and motor for winch contributes to improved inching control, smoothness and reduced energy consumption.

A closed volume-speed regulating system consisting of variable displacement pump and hydraulic cylinder is used for the elevating system. When lowering the boom, the closed pump controls the load, which will effectively absorb negative power and reduce system generating heat, consequently saving energy.

The intelligent hydraulic system for driving fan is adopted to meet the demand of the power cooling system. The fan's speed can be independently regulated. The fan can be stepless regulated between the max. and min. rotation speed. The cooling power can be adjusted according to working demands, reducing fuel consumption by 5%.

(4) Appearance and ergonomics

The crane has newly designed XCMG G1 appearance of All Terrain Crane, which looks more sturdy and elegant.

The entire crane has been ergonomically improved.

The air suspensions equipped for the low-noise driver's cab improve driver comfort.

New designed aluminium deck presents aesthetic.

Covering door, made of advanced composite material, and bottom plate and handrail, made of aluminium alloy material, reduce the weight of coverings by 30%~40%.

XCMG man-machine interactive system with the level of family car, i.e. ergonomically designed work space, 13 intelligent and informative interactive techniques and user friendly

man-machine interaction are available.

Newly designed virtual chassis instrument makes vehicle condition be clear at a glance.

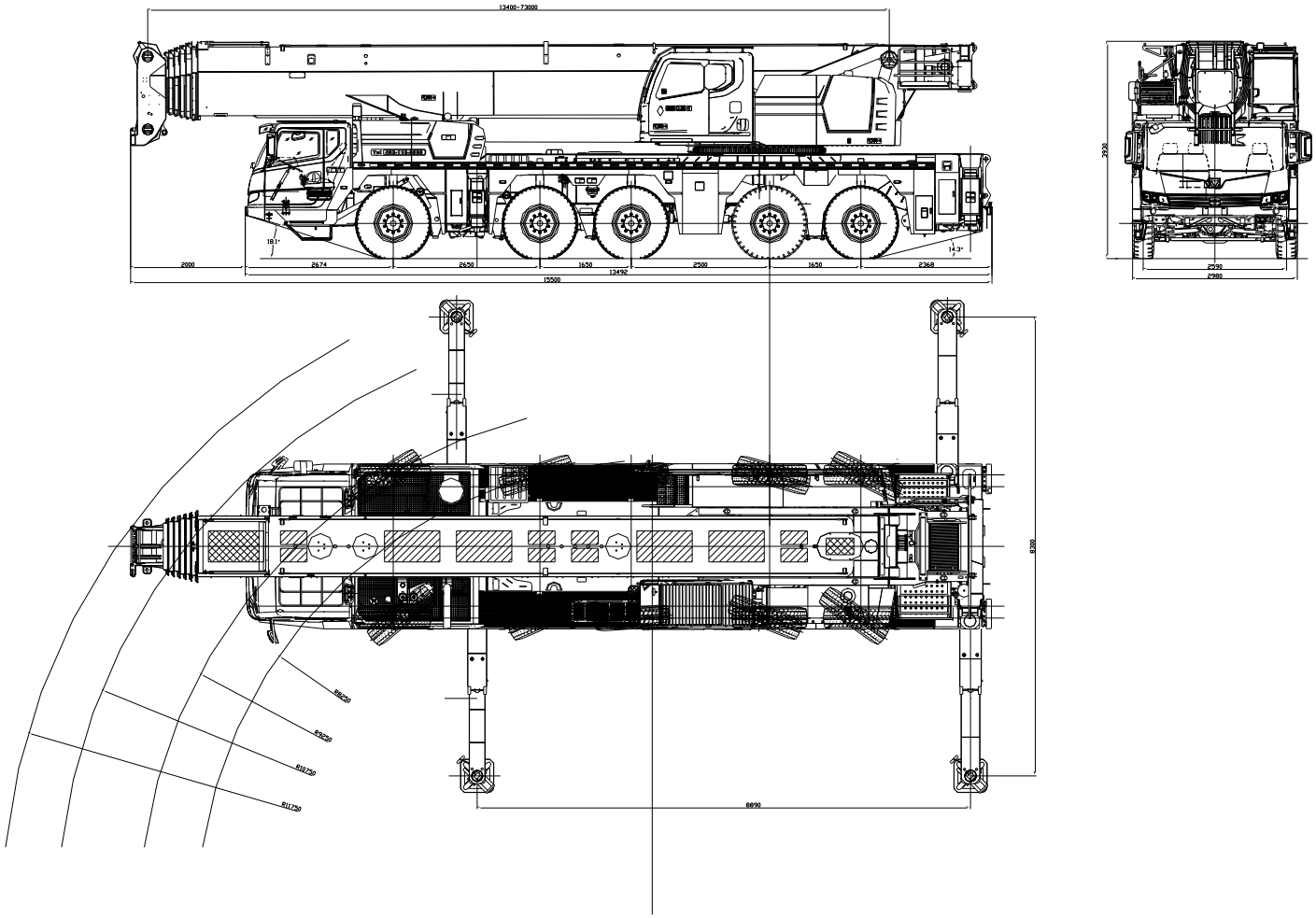
Well designed access to superstructure makes access to winch and boom easier.

(5) Brand new single engine power-transmission system

Benz OM460 engine with max. net power of 360 kW provides power for both superstructure and chassis. The engine has simple structure and is easy to maintain. It is cost effective.

The engine can deliver different power charts during travel and lifting operations, which will allow the engine to always run at high efficiency and economic operating areas, resulting in reduced operating cost.

Overall dimensions and turning track of crane in travel configuration



We reserve the right to modify the design without notice for improvement.

Technical specifications of superstructure

Model	XCA220
Hydraulic system	Hydraulic pump: the variable piston pump driven by engine is used to control hoisting, elevating, telescoping and slewing operations. The gear pump is used for oil refilling, auxiliary system pilot control and air conditioner. Control valve: closed control main valve controlled by electric proportional pilot hydraulic oil Oil circuit: air-cooled hydraulic oil cooler, which may effectively reduce the temperature of oil in the system. Oil tank capacity: approximate 850L
Boom	Seven-section boom with oval profile, made of high strength steel. The single-cylinder pinning interlocked system is used as telescoping system. A double-action oil cylinder controls the boom and variable boom combinations are available. Each telescopic boom section can be extended out 46%, 92% and 100%. Boom length:13.4 m～73 m. Single-plate boom head, and compact boom tail are available. fully-extending/retracting time……fully-extending ≤600s
Jib	A boom extension of 8 m, a jib connecting bracket, a rotating bracket, two jib sections, jib inserts of 4 m and 8 m may be combined to extend the total boom length,with 0 °, 20 °and 40 °jib offset angles available. Jib length: 12 m～44m.
Single top	Installed at the boom top, used for single line operation. Its lifting performance is the same as that for boom, but the max. lifting load could not exceed 12500 kg.
Elevating system	A single-cylinder is used for front support elevation. New elevating balance valve is used to get smoother movements of lowering the boom.

The inner-controlled gravity fall combined with power lowering boom not only ensures smooth lowering movements but also reduces the energy consumption in the hydraulic system and increases the lowering speed from a larger boom angle.
Raising time……≤55s

Main winch

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 and a grooved drum equipped. It has features of high speed with a light load and low speed with a heavy load.
The main winch can be operated separately.
Single line pull: 125 KN
Single line speed (no load): 130 m/min
Diameter ×length: φ23 mm×300 m

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 and a grooved drum equipped. It has features of high speed with a light load and low speed with a heavy load.
The auxiliary winch can be operated separately.
Single line pull:125 KN
Single line speed (no load): 130 m/min
Diameter ×length: φ23 mm×260 m

Hook blocks

No.	Type	Lifting capacity (t)	Number of pulley	Parts of line	Weight (kg)	Qty	Remark
1	Double-hook	160 t	7	15	2133	1	Optional
2	Double-hook	80 t	3	7	2087	1	Standard
3	Single hook	30 t	1	3	1410	1	Standard
4	Single hook	12 t	——	1	458	1	Standard

Slewing system	Single-row four-point ball contact external tooth slewing ring is driven by the planetary gear reducer of slewing mechanism driven by a hydraulic motor, may continuously slew 360° . Power control or free slewing function is available, and the slewing speed may be infinitely regulated. Max slewing speed: ≥1.9r/min
Operating mode	Electric hydraulic proportional control is used for controlling the superstructure. Left and right CAN control joysticks control main movements, and CAN modular control station is used to control conventional switches. The touch screen display in the operator's cab is used to show information about the working data and fault diagnosis, to inquire lifting conditions, and to control auxiliary movements related to PTO and counterweight erection. Wireless remote control device is used for remote operation of main and auxiliary movements, leading to improved convenience and safety of the operation.
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. Wipers are fitted for the windshield and roof window. 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. A sliding door and a pull-out step are available to make it easy and safe as access and egress the cab.
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; Anemometer for measuring the wind velocity;

Winch monitor for real-time monitoring winch running.

LMI

Hirschmann load moment limiting system, a safety protective unit for real-time calculation of load moment.
When actual load moment is approaching overloading value, audible and visible warning will be sent out, and the dangerous movement will be automatically stopped ahead of overloading.
Overload memory function (black box) and fault self-diagnosis function are available.
What can be shown as follows:

- Working parameters
- Load moment percentage
- Actual lifting capacity
- Rated lifting capacity
- Working radius
- Boom length
- Boom angle
- Max. lifting height
- Working condition code
- Parts of line
- Limit boom angle
- Information code
- Memorized pressure of main winch pump
- Current pressure of main winch pump
- Memorized pressure of auxiliary winch pump
- Current pressure of auxiliary winch pump
- Slewing pump pressure
- Slewing angle
- Pressures of large and small chambers of elevating cylinder

In addition, the LMI will store main operation parameters for 30 working days to facilitate remote diagnosis of crane operating conditions and faults.

Combined counterweight

Total weight is 74 t.

Counterweights of 12 t, 22 t, 32 t, 42 t, 52 t and 74 t are available.

Combination of counterweight slabs

Working condition	Total weight (t)	Combination sequence
1	74	①+2×②+③+④+2×⑤

2	52	①+2×②+③+④
3	42	①+2×②+③
4	32	①+2×②
5	22	①+②
6	12	①

Dead weight and number of counterweight slabs

Item	Fixed slab ①	Slab ②	Slab ③	Slab ④	Slab ⑤
Dead weight (t)	12	10	10	10	11
Number of slabs	1	2	1	1	2

Color

Chassis: black. Wheel rim: grey.

Driver's cab, superstructure and boom: engineering yellow.

Technical specification of chassis

Type

Left-hand drive steering wheel, drive/steering type is 10×8×10, axles 1, 2, 4 and 5 for driving and axles 1, 2, 3, 4 and 5 for steering.

Frame

In-house designed and manufactured by XCMG, and load-bearing structure is optimized. It is made of high strength steel and has anti-torsion box structure with walking surface covered.

Engine

Model	OM460LA.E3B/3
Type	In-line, 6-cylinder, water cooled, supercharging intercooler, electronic unit pump, compression ignition engine
Manufacture	Daimler AG
Power/kw/rpm	361.1/1800
Torque/N.m/rpm	2200/1300
Displacement/ml	12.82
Fuel tank capacity	About 450L
Emission standard	China National Ⅴ
Remark	

Transmission

ZF12AS2531 SO automated transmission with 12-forward speed, 2- reverse speed, is stable and reliable to work.

Transfer case

Germany KESSLER mechanical transfer case, with an emergency steering pump fitted, has large output torque. It can transfer power to superstructure.

Clutch

Dry, pull-type diaphragm spring clutch

Steering system

1st and 2nd axles are mechanically steered plus hydraulic booster, 3rd, 4th and 5th axles are electric-control hydraulic steering.

An all-axle emergency steering booster system located on the transfer case is actuated by the inertia of ongoing wheels and acts on all axles.

Axles	Five high strength load-bearing axles with reliable performance, axles 1, 2, 4 and 5 for driving, all axles for steering, made by distinguished manufacturer. 1st axle: single tire, for steering and driving; 2nd axle: single tire, for steering and driving; 3rd axle: single tire, for steering; 4th axle: single tire, for steering and driving; 5th axle: single tire, for steering and driving;
Drive shaft	Cross serrated flange is adopted for connection of drive shafts, so transmission torque is enlarged and power transmission is optimized. Consequently smooth and reliable transmission may be gained.
Suspensions	Hydro-pneumatic suspensions are adopted for the crane. High, medium and low configurations are available. This kind of suspension is stable and reliable, and has high performance.
Braking system	Service brake: foot pedal operated double-circuit air pressure brake. The 21st circuit acts on the wheels of axles 2 and 3; the 22nd circuit acts on the wheels of axles 1, 4 and 5. Parking brake: air-release brake, acting on axles 2, 3, 4 and 5 by the spring energy storing air chamber on each axle; Auxiliary brake: engine exhaust brake+ engine compression brake +transmission retarder brake.
Hydraulic system	The system works through a variable displacement piston pump driven the engine. The system consists of electric hydraulic steering, outriggers, suspensions and independent cooling hydraulic systems. The electric hydraulic steering system is controlled by pumps and valves. The system consists of a constant pressure variable displacement main pump, an emergency pump, selector valves, proportional valve blocks, locking valve blocks, booster

cylinders, locking cylinders and a hydraulic oil radiator.
The hydraulic system for outriggers and suspensions also is controlled by pumps and valves. The system consists of a constant pressure variable displacement main pump, solenoid change valves, extension cylinders, jack cylinders and suspension cylinders.
The independent cooling system is controlled by an electric controlled variable displacement pump, which will drive the fan's motor.

Outriggers

H-type, four-point support outriggers, electrically controlled hydraulic control. There is an outrigger control station located at each side of the chassis, and there is a level gauge on each control station. Outrigger floats are secured under jacks through ball pivots. The outriggers are designed to support the entire crane for better operations under various working conditions.
Outrigger span:
Longitudinal × lateral…….....…8.89m×8.3 m
Float dimension…….....600×600 mm
Reaction force of outrigger at max. lifting load……1250 KN

Electric system

24V DC, negative ground, 2 batteries. There is a perfect illuminating system complying with Chinese road traffic standard, including head lamps, fog lamps and reversing lamp, etc.

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, rear mirrors, electric control washer, electronic lifters of doors and windows, heater & air conditioner, radio cassette player, etc. An air suspension seat for the driver and a simple sleeper for the co-driver's seat are installed to supply comfort and reduce fatigue. Newly designed cab appearance includes exquisite door handles and step coating, decoration of rear of side

	window and A-pillars, headlamps and air-inlet grille.
Tires	385/95R25 tubeless tires, has features of strong load-bearing capacity and light weight.
Tools	A set of maintenance tools is supplied.

List of parts transported (road travel)

No.	Name		Weight (kg)	Total weight (t)	Dimension (mm)	Remark
1	Hook block	160 t	2133	6.09	2200×850×1000	Optional
2		80 t	2087		2100×600×900	Standard
3		30 t	1410		1700×450×720	Standard
4		12 t	458		900×480×480	Standard
5	Counterweight	Slab A	12000	74t	3590×2400×1020	Standard
6		Slab B	10000		3590×2400×230	
7		Slab C	10000		3590×2400×230	
8		Slab D	10000		3590×2400×210	
9		Slab E	11000		1710×1300×1040	
10	Jib	Connecting bracket	320	0.9	5200×1050×1700	Optional
11		Rotating bracket	390			
12		Infinite luffing oil cylinder	190			
13		1st jib section assembly	550	0.55	7700×950×1100	
14		2nd jib section assembly	400	0.4	8000×600×700	
15		Insert I	530	0.53	8200×950×1100	
16		Insert II	320	0.64	4200×950×1100	
17		Boom extension	600	0.6	8200×1050×1400	
18	Fuse drum		460	0.46	1500×1500×670	Optional
19	Auxiliary winch assembly (rope included)		2130	2.13	1000×1210×950	Optional
20	Front outrigger beam		1340	5.58	2710×1130×340	Standard
21	Rear outrigger beam		1450		2750×1260×380	Standard

List of parts transported (jobsite transfer)

No.	Name		Weight (kg)	Total weight (t)	Dimension (mm)	Remark
1	Hook block	160 t	2133	5.63	2200×850×1000	Optional
2		80 t	2087		2100×600×900	Standard
3		30 t	1410		1700×450×720	Standard
4	Jib	Connecting bracket	320	0.9	5200×1050×1700	Optional
5		Rotating bracket	390			
6		Infinite luffing oil cylinder	190			
7		1st jib section assembly	550	0.55	7700×950×1100	
8		2nd jib section assembly	400	0.4	8000×600×700	
9		Insert I	530	0.53	8200×950×1100	
10		Insert II	320×2	0.64	4200×950×1100	
11		Boom extension	600	0.6	8200×1050×1400	

Main parts list

(Take real parts as standard)

No.	Name	Manufacturer
1	Engine	Daimler AG
2	Transmission	Germany ZF
3	Transfer case	Germany KESSLER
4	Steering gear	Jiangmen Xingjiang Steering Gear Co., Ltd. Nantong Huanqiu Steering Gear Co., Ltd.
5	Axle	Germany KESSLER
6	Tire	Double Coin Group (Rugao) Tire Co., Ltd.
7	Wheel rim	CITIC Dicastal Wheel Manufacturing Co., Ltd.
8	Chassis hydraulic pump	Bosch Rexroth
9	Extension cylinder	Xuzhou Hydraulic Parts Co., Ltd. XCMG Zhangjiakou Changyu
10	Front jack cylinder	Xuzhou Hydraulic Parts Co., Ltd. XCMG Zhangjiakou Changyu
11	Rear jack cylinder	Xuzhou Hydraulic Parts Co., Ltd. XCMG Zhangjiakou Changyu
12	Superstructure hydraulic pump	Bosch Rexroth
13	Superstructure transfer case	Stiebel (Shanghai) Co., Ltd.
14	Slewing ring	Xuzhou Rothe Erde Slewing Bearing Co., Ltd.
15	Slewing motor	Bosch Rexroth
16	Slewing reducer	Bosch Rexroth
17	Main/ Auxiliary winch motor	Bosch Rexroth
18	Main/ Auxiliary winch reducer	Bosch Rexroth
19	Main/ Auxiliary winch rope	Pfeifer (Shanghai) Co., Ltd.
20	Elevating cylinder	Xuzhou Hydraulic Parts Co., Ltd. XCMG Chengdu Hydraulic Cylinder Co., Ltd.
21	Telescoping cylinder	Xuzhou Hydraulic Parts Co., Ltd. XCMG Chengdu Hydraulic Cylinder Co., Ltd.
22	LMI	Xuzhou Hirschmann Electronics Co., Ltd.
23	Electric proportional joysticks	P+G

Technical Specifications

Main Technical Data Table of XCA220 in Travel configuration

(Subject to technical improvement)

Category	Item		Unit	Parameter
Dimensions	Outline size（lengthch×width×height）		mm	15500×2980×3930
	Wheel base		mm	2650+1650+2500+1650
	Track		mm	2590/2590/2590/2590/2590
	Front/ Rear overhang		mm	2640/2368
	Front/ Rear extension		mm	2042/0
Weight	Total weight in travel configuration		kg	54990
	Axle load	1st axle	kg	11990
		2nd axle	kg	12000
		3rd axle	kg	12000
		4th axle	kg	9500
		5th axle	kg	9500
Power	Engine model		——	OM460LA.E3B/3
	Engine rated power		kw/(r/min)	361.1/1800
	Max. net power		kw/(r/min)	360/1800
	Engine rated torque		N.m/(r/min)	2200/1300
Travel	Max. travel speed		km/h	≥84
	Min. travel speed		km/h	1～1.5
	Min. turning diameter		m	≤18.5
	Min. turning diameter at boom tip		m	≤22.5
	Min. ground clearance		mm	280
	Approach angle		°	18
	Departure angle		°	14
	Braking distance (at 30 km/h)		m	≤9
	Max. grade ability		%	≥67
	Fuel consumption per 100 km		L	65
	Exterior noise level		dB (A)	≤88
	Noise level at seated position		dB (A)	≤90

Main Technical Data Table for Lifting Operation

(Subject to technical improvement)

Category	Item			Unit	Parameter
Main performance	Max. total rated lifting capacity			t	220
	Min. rated working radius			m	3
	Turning radius at turntable tail	Counterweight		mm	5030
		Auxiliary winch		mm	4850
	Max. load moment	Base boom		kN.m	7393
		Fully-extended boom		kN.m	2963
		Fully-extended boom + Jib		kN.m	1220
	utrigger span ully-extended)	Longitudinal		m	8.89
		Lateral		m	8.3
	Hoist height	Base boom		m	13.4
		Fully-extended boom		m	73.5
		Fully-extended boom + Jib		m	108
	Boom length	Base boom		m	13.4
		Fully-extended boom		m	73
		Fully-extended boom + Jib		m	108.2
	o offset angle			°	0, 20, 40
	Boom raising time			s	≤55
	Boom fully extended time			s	≤600
	Max. slewing speed			r/min	≥1.9
	Outrigger extending and retracting time	Outrigger beam	Retracting	s	≤40
			Extending	s	≤70
		Outrigger jack	Retracting	s	≤70
			Extending	s	≤100
	oisting speed (single line, 4th layer)	Main winch		m/min	≥130
		Auxiliary winch		m/min	≥130
Noise	Exterior noise level			dB (A)	≤122
	Noise level at seated position			dB (A)	≤90

Rated Load Charts of XCA220 All Terrain Crane

Rated Lifting Load Tables for Boom

(Lifting load in t, boom length, radius and lifting height in m)

On fully-extended outriggers, with counterweight of 74 t																			
Boom length / Radius	13.4	18.0	18.0	18.0	22.5	22.5	22.5	22.5	22.5	27.1	27.1	27.1	27.1	31.7	31.7	31.7	31.7	31.7	31.7	33.3
3	150.0	66.9	150.0	150.0	150.0	150.0	49.9	71.3	140.0											
3.5	150.0	63.2	145.0	145.0	140.0	140.0	46.4	68.4	140.0											
4	148.0	60.1	140.0	140.0	137.9	137.5	43.6	65.4	139.2	121.0	47.9	69.4	121.0							
4.5	142.7	57.0	135.8	134.9	128.5	127.6	41.0	62.4	129.8	121.0	43.4	66.2	121.0							
5	133.6	54.4	127.2	126.3	120.3	119.5	38.6	59.7	121.6	115.4	39.9	63.6	117.9	101.0	101.0	34.4	52.1	66.7	101.0	32.7
6	118.2	49.6	113.0	112.4	106.6	105.7	34.8	55.3	107.9	102.1	35.9	59.5	104.4	100.5	95.2	31.0	47.1	62.4	96.2	29.5
7	105.5	46.0	101.6	101.0	95.6	95.0	31.8	51.4	97.1	91.3	32.7	55.7	93.9	90.0	85.3	28.2	42.4	59.0	87.8	26.8
8	94.3	42.4	92.2	91.5	86.8	85.9	29.2	48.3	88.1	82.8	29.9	52.3	85.5	81.7	77.2	25.9	38.5	55.5	80.8	24.7
9	82.8	39.8	83.1	82.2	79.3	78.4	26.8	44.9	80.7	75.6	27.4	49.4	78.2	74.8	70.7	23.8	35.4	52.5	74.4	22.8
10	71.7	37.3	73.8	73.0	71.4	70.4	25.1	41.3	73.0	69.6	25.4	46.7	72.2	68.9	64.8	22.0	32.8	50.0	68.9	21.1
12		33.7	59.3	58.4	56.9	55.9	22.0	35.9	58.6	55.8	22.1	40.9	59.1	57.6	56.0	19.1	28.5	45.4	59.5	18.4
14		30.6	48.7	48.0	46.6	45.7	19.6	31.4	48.3	45.5	19.6	36.4	48.8	47.4	45.9	16.8	25.2	40.7	49.4	16.2
16					39.0	38.1	17.5	27.9	40.7	38.1	17.4	32.6	41.3	40.0	38.5	15.1	22.5	36.6	41.8	14.4
18					33.1	32.1	16.0	25.3	34.8	32.3	15.8	29.5	35.4	34.2	32.8	13.6	20.2	33.4	36.1	13.1
20										27.7	14.3	27.1	30.8	29.7	28.2	12.4	18.4	30.7	31.5	11.9
22										23.3	13.2	25.0	27.0	26.0	24.2	11.4	16.9	28.4	27.7	10.8
24														22.4	20.6	10.4	15.5	26.0	24.6	9.9
26														19.4	17.7	9.7	14.4	23.2	21.6	9.2
28														16.9	15.2	9.0	13.4	20.6	19.0	8.5
30																				8.0
Telescoping code of boom sections	000000	000001	001000	010000	110000	200000	000002	000011	011000	210000	000021	000111	011100	111100	211000	000022	000211	001111	011110	000033
Hook block capacity	160	80	160	160	160	160	80	80	160	160	80	80	160	160	160	80	80	80	160	80
Parts of line	14	7	14	14	14	14	5	7	13	11	5	6	11	9	9	3	5	6	9	3

We reserve the right to modify the design without notice for improvement.

On fully-extended outriggers, with counterweight of 74 t																				
Boom length / Radius	36.2	36.2	36.2	36.2	36.2	40.8	40.8	40.8	40.8	40.8	45.4	45.4	45.4	45.4	50.0	50.0	50.0	50.0	50.0	53.1
6	80.0	80.0	32.1	36.7	52.5															
7	80.0	78.6	29.5	34.1	48.2	64.3	75.6	29.0	44.8	65.2										
8	79.9	71.8	27.3	31.6	44.1	60.6	69.1	26.6	41.2	59.7	59.5	53.9	27.9	33.5						
9	73.3	66.0	25.4	29.4	40.4	57.6	63.3	24.6	38.0	55.0	56.2	49.5	26.5	30.9	48.5	45.6	44.2	26.1	38.3	
10	67.4	61.3	23.6	27.3	36.8	55.2	58.4	22.9	35.3	51.1	52.0	45.8	24.6	28.8	45.0	42.5	40.9	24.6	35.6	22.4
12	58.1	52.9	20.7	23.8	31.9	50.9	50.6	20.0	30.9	44.3	45.6	39.5	21.6	25.1	39.0	36.8	35.5	21.6	31.1	19.6
14	48.0	46.3	18.5	21.1	28.0	47.0	44.6	17.7	27.4	38.8	40.4	34.8	19.2	22.3	34.6	32.3	31.1	19.2	27.7	17.4
16	40.6	38.9	16.5	18.9	24.9	41.1	39.5	15.9	24.7	34.7	36.3	30.8	17.3	20.0	31.0	28.9	27.7	17.2	24.9	15.7
18	34.9	33.3	15.0	17.1	22.5	35.4	33.9	14.4	22.4	31.4	32.8	27.7	15.7	18.1	27.9	25.9	25.0	15.7	22.5	14.3
20	30.4	28.8	13.7	15.5	20.3	30.9	29.4	13.1	20.5	28.5	29.9	25.1	14.4	16.6	25.5	23.7	22.7	14.4	20.5	13.0
22	26.6	25.2	12.6	14.2	18.5	27.3	25.7	12.1	18.9	26.0	26.4	22.9	13.2	15.3	23.5	21.6	20.7	13.2	19.0	12.0
24	23.5	21.7	11.6	13.0	17.0	24.3	22.7	11.3	17.4	23.9	23.4	21.1	12.3	14.2	21.7	19.8	19.0	12.3	17.7	11.1
26	20.6	18.7	10.8	12.1	15.6	21.6	19.8	10.5	16.3	22.2	20.8	19.2	11.5	13.3	20.1	18.4	17.6	11.4	16.4	10.3
28	18.1	16.3	10.2	11.3	14.5	19.2	17.3	9.8	15.3	19.8	18.3	16.7	10.9	12.4	18.2	17.0	16.3	10.7	15.3	9.7
30	16.0	14.2	9.4	10.5	13.4	17.0	15.2	9.2	14.4	17.6	16.2	14.6	10.2	11.7	16.1	15.4	15.2	10.1	14.4	9.1
32	14.1	12.3	8.9	9.8	12.6	15.2	13.4	8.7	13.5	15.8	14.4	12.8	9.6	11.0	14.3	13.6	13.4	9.5	13.6	8.5
34						13.6	11.8	8.2	12.8	14.2	12.8	11.2	9.1	10.4	12.7	12.0	11.8	9.0	12.9	8.1
36						12.2	10.4	7.8	12.0	12.8	11.5	9.9	8.6	9.8	11.3	10.7	10.5	8.6	12.2	7.7
38											10.2	8.7	8.2	9.3	10.1	9.4	9.2	8.2	11.6	7.3
40											9.1	7.6	7.8	8.9	9.0	8.4	8.2	7.8	10.8	6.9
42															8.0	7.4	7.2	7.4	9.8	6.5
44															7.1	6.5	6.3	7.1	8.9	6.3
46																				6.1
Telescoping code of boom sections	111110	211100	000122	000221	002111	111111	211110	000222	002211	021111	211111	222100	001222	002221	221111	222110	222200	002222	022211	003333
Hook block capacity	80	80	80	80	80	80	80	30	80	80	80	80	30	80	80	80	80	30	80	30
Parts of line	7	7	3	4	5	6	7	3	4	6	5	5	3	3	5	4	4	3	4	2

On fully-extended outriggers, with counterweight of 74 t																	
Boom length / Radius	54.5	54.5	54.5	54.5	54.5	59.1	59.1	59.1	59.1	59.1	63.7	63.7	63.7	68.2	69.8	71.4	73.0
10	31.2	36.0	34.0	24.7	28.8												
12	30.4	33.9	32.2	22.9	26.5	22.8	24.1	27.8	26.8	22.1	19.7	22.1	21.0				
14	27.2	30.4	28.8	20.6	23.6	21.2	22.4	27.3	26.6	20.7	19.7	21.2	20.8	19.0	17.3	16.0	15.0
16	24.4	27.2	25.6	18.6	21.2	19.9	21.0	24.5	23.9	18.7	19.2	20.3	20.8	17.8	16.5	15.5	14.8
18	22.1	24.6	23.2	16.9	19.3	18.6	19.5	22.2	21.6	17.1	17.9	19.4	19.3	16.8	16.0	14.9	14.0
20	20.1	22.3	21.0	15.6	17.6	17.2	18.3	20.3	19.8	15.7	16.4	18.0	17.6	16.1	15.7	14.5	13.4
22	18.5	20.5	19.2	14.4	16.2	15.9	17.1	18.7	18.0	14.5	15.2	16.5	16.2	14.9	14.5	13.9	13.4
24	17.1	18.9	17.7	13.4	15.1	14.8	16.1	17.4	16.7	13.4	14.1	15.3	14.9	13.7	13.3	12.8	12.1
26	15.9	17.5	16.3	12.5	14.1	13.9	15.1	16.1	15.4	12.5	13.1	14.3	13.9	12.7	12.4	11.8	11.3
28	14.9	16.3	15.2	11.6	13.2	13.0	14.2	15.0	14.4	11.6	12.1	13.3	13.0	11.8	11.4	11.0	10.7
30	13.9	15.2	14.1	10.9	12.3	12.2	13.4	14.0	13.5	10.9	11.4	12.5	12.0	11.0	10.7	10.3	10.0
32	13.1	14.3	13.2	10.3	11.6	11.4	12.7	13.2	12.7	10.3	10.7	11.7	11.3	10.4	10.1	9.7	9.4
34	12.3	12.9	12.4	9.7	10.9	10.9	11.8	12.4	11.9	9.7	10.2	11.0	10.6	9.9	9.5	9.1	8.8
36	11.6	11.5	11.1	9.3	10.3	10.3	11.2	11.8	11.1	9.3	9.6	10.5	10.0	9.3	9.0	8.6	8.4
38	11.0	10.3	9.9	8.9	9.8	9.8	10.7	10.9	10.6	8.8	9.2	9.9	9.5	8.9	8.5	8.2	7.9
40	10.0	9.2	8.8	8.4	9.4	9.4	10.2	9.8	9.5	8.4	8.8	9.4	9.1	8.5	8.1	7.8	7.5
42	9.0	8.2	7.8	8.0	8.9	9.0	9.3	8.9	8.5	8.0	8.4	9.0	8.5	8.0	7.7	7.4	7.1
44	8.1	7.3	7.0	7.7	8.5	8.6	8.4	8.0	7.7	7.7	8.0	8.4	8.1	7.6	7.3	7.0	6.8
46	7.3	6.5	6.2	7.4	8.2	8.4	7.6	7.2	6.9	7.3	7.7	7.6	7.3	7.3	6.9	6.7	6.5
48	6.5	5.8	5.4	7.1	7.8	8.0	6.8	6.4	6.1	7.1	7.4	6.9	6.6	7.0	6.7	6.4	6.2
50	5.9	5.1	4.7	6.9	7.1	7.3	6.2	5.8	5.5	6.8	7.0	6.2	5.9	6.5	6.4	6.1	5.9
52						6.7	5.5	5.2	4.8	6.7	6.4	5.6	5.3	5.8	5.9	5.9	5.7
54						6.1	5.0	4.6	4.3	6.3	5.8	5.0	4.7	5.3	5.3	5.3	5.3
56											5.3	4.5	4.2	4.7	4.8	4.8	4.8
58											4.8	4.0	3.7	4.2	4.3	4.3	4.3
60														3.8	3.9	3.9	3.9
62														3.4	3.4	3.4	3.4
64															3.0	3.0	3.0
66																	2.7

68																	2.3
Telescoping code of boom sections	122220	222111	222210	012222	022221	112222	221122	222112	222211	022222	122222	222122	222221	222222	332222	333322	333333
Hook block capacity	80	80	80	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Parts of line	3	3	3	3	3	2	2	3	3	2	2	2	2	2	2	2	2

吊钩重量： Weight of hook block

吊钩起重量：Hook block capacity

Total Rated Lifting Load Tables for Jib

(Lifting load in t, boom length, radius and lifting height in m)

On fully-extended outriggers, with counterweight of 74 t, 32 m jib					
Boom length / Radius	59.1+8	59.1+8	63.7+8	63.7+8	68.2+8
20	3.4	3.8			
22	3.4	3.7	3.2	3.4	
24	3.3	3.7	3.1	3.3	3.0
26	3.2	3.6	3.1	3.3	2.9
28	3.2	3.5	3.0	3.2	2.9
30	3.1	3.5	3.0	3.2	2.8
32	3.1	3.4	2.9	3.1	2.8
34	3.0	3.3	2.9	3.1	2.8
36	3.0	3.3	2.9	3.0	2.7
38	2.9	3.2	2.8	3.0	2.7
40	2.9	3.1	2.8	2.9	2.6
42	2.8	3.1	2.7	2.9	2.6
44	2.8	3.0	2.7	2.8	2.6
46	2.7	3.0	2.6	2.8	2.6
48	2.6	2.9	2.6	2.7	2.5
50	2.5	2.8	2.5	2.7	2.3
52	2.4	2.8	2.3	2.6	2.3
54	2.3	2.7	2.2	2.5	2.3
56	2.2	2.7	2.1	2.4	2.2
58	2.1	2.5	2.0	2.3	2.1
60	2.0	2.3	2.0	2.3	2.0
62	1.8	2.2	1.9	2.2	1.8
64	1.8	2.2	1.9	2.1	1.6
66	1.7	2.1	1.8	2.1	1.4
68	1.7	2.1	1.7	1.9	1.2
70	1.7	2.0	1.6	1.7	1.0

We reserve the right to modify the design without notice for improvement.

72	1.6	1.9	1.5	1.6	
74	1.5	1.7	1.3	1.4	
76	1.4	1.4	1.1	1.2	
78	1.3	1.2		1.0	
80	1.2				
82	1.1				
84					
Telescoping code of boom sections	112222	222211	122222	222221	222222

Notes on the rated load charts:

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.

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 of 14.1 m/s, wind pressure of 125 N/m^2).

The relationship between boom length L and wind force is as follows:

When L≤20m: instantaneous wind speed v≤14.1m/s

When L≤30m: instantaneous wind speed v≤12.8m/s

When L≤60m: instantaneous wind speed v≤11.1m/s

When L＞60m: instantaneous wind speed v≤9m/s

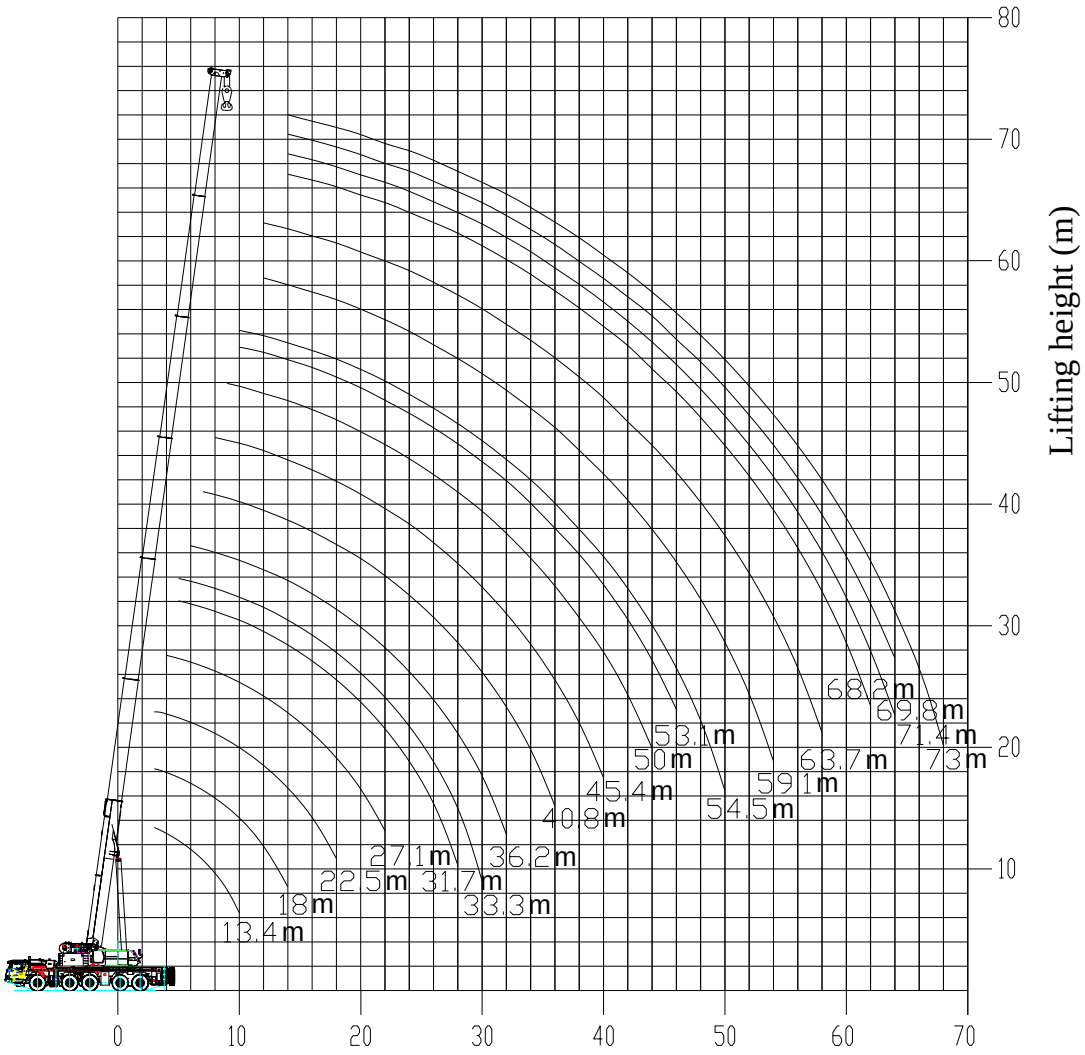
4.Before beginning lifting operation, the operator should know the weight of the load to be lifted and its working range, and then select proper working conditions. Never operate the crane beyond the limit shown in the chart. Use the lower value from the chart when the boom length or working radius is 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.

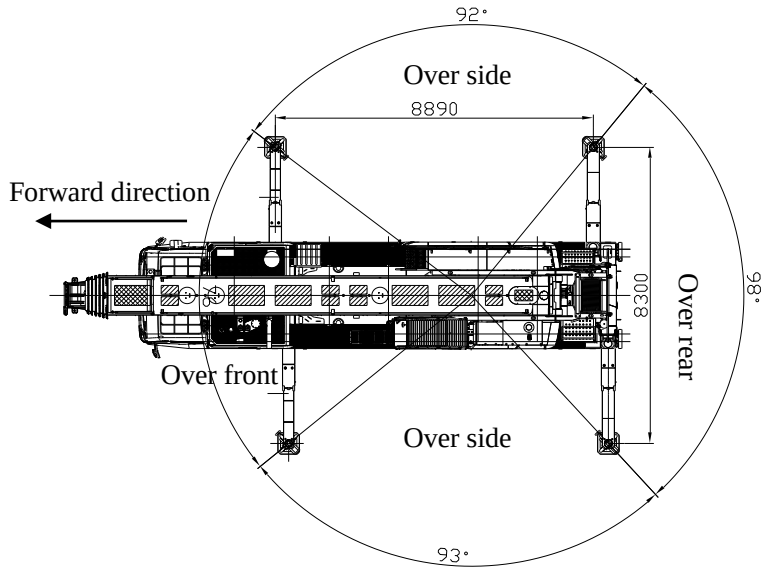
6.The total rated load for single top is the same as that for the boom, and the max. lifting load should not exceed 12500 kg.

7.Total rated load shown in tables is the value without the jib attached.

Lifting Height Chart



Working Areas of Crane
(on fully-extended outriggers)



Working Areas of Crane
(on half-extended outriggers)