

# XCR55L4 Rough Terrain Crane

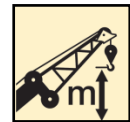
## Technical specifications



55t



36.5m



49.6m

# XCR55L4

XCMG ROUGH TERRAIN CRANE

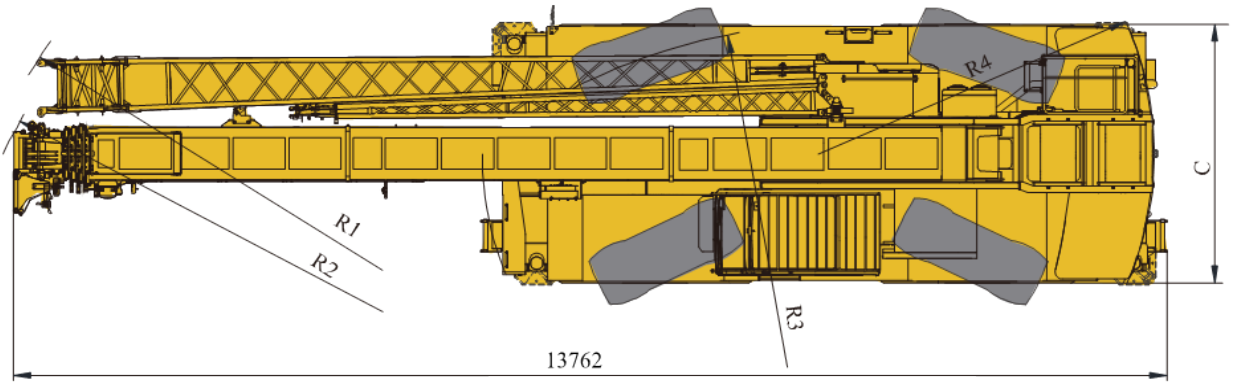
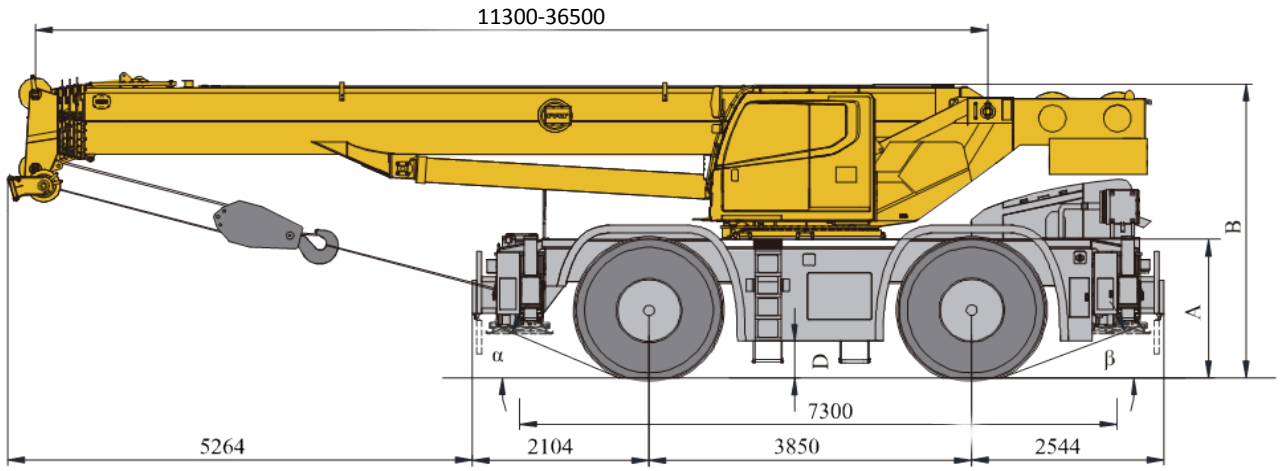
55t LIFTING CAPACITY

# Contents

## Contents


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# Dimensions



	$\alpha$	$\beta$	A	B	C	D	R1	R2	R3	R4
23.5R25	26°	20.5°	1612	3590	3000	445	10820	10647	6000	4158

# Technical specifications

		
<b>Boom</b>	1 basic boom and 3-telescoping sections, U-shape cross section welding structure. One cylinder plus ropes telescoping mechanism. 6 pulleys on boom head are standard. Boom length: 11.3m ~ 36.5m.	●
<b>Jib</b>	Two-section lattice structure. Three offset angles of 0° , 15° and 30° are available. It is stowed along the side of the boom. Jib length: 9.2 m~16 m.	●
<b>Frame</b>	Made of high strength fine grained steel, welded torsion-resistant frame type construction with large cross-section, high load-bearing capacity.	●
<b>Outrigger</b>	4 outriggers, H-shaped arrangement, which are controlled by electrical and hydraulic and located at both sides of chassis frame.	●
<b>Engine</b>	SC7H220G3, in line six-cylinder water-cooled compression ignition diesel engine, manufactured by Shangchai, rated power 162/2200(kW/(r/min)), max. torque 860/(1400)(N.m/(r/min)), off-road EU Stage IIIA emission standards Fuel tank capacity: Approx. 305 L.	●
<b>Gearbox</b>	AWG180, automatic transmission imported from hangzhou, with 6 forward and 3 reverse gears available.	●
<b>Axles</b>	Both front and rear axles are for driving and steering, and the axles have features of great load bearing capacity.	●
<b>Suspension</b>	Front axle is rigidly connected with frame; rear axle is equipped with swing hydraulic suspensions, which have cushioning function when driving on roads; the rear suspension cylinder may be locked to rigid state so as to meet the requirement for travel with a load suspended, increasing operation stability.	●
<b>Tires</b>	4 specialized off-road, large bearing capacity. Tire specifications: 23.5R25.	●
<b>Steering</b>	Front axle independent steering, tight turning radius steering, crab walk steering and rear axle independent steering modes are available. The steering angle can be self-adjusted when changing mode.	●
<b>Brakes</b>	Service brake: double-circuit hydraulic disc brake, acting on all wheels. Automatically braking and alarm are available when the pressure in braking system is too low. Parking brake: spring-loaded brake, acting on front axles, hydraulic-released independent disc brake.	●

<b>Hydraulic system</b>	A dual-variable displacement pump, used for hoisting, elevating and telescoping operations, and a gear pump, used for slewing, outrigger, steering and braking operations; a load sensitive proportional multi-way change valve is used as main valve; an independent hydraulic oil radiator. Tank capacity: approx. 864 L.	●
<b>Operating mode</b>	Hydraulic controlled pilot operation system is equipped with two levers controlling the main movements of the crane.	●
<b>Electrical System</b>	24 V DC, two sets of 12 V battery in series.	●
<b>Main and auxiliary winch system</b>	The system is driven by a hydraulic motor through a planetary gear reducer, with a normally closed brake and a balance valve equipped.	●
<b>Slewing system</b>	Single-row four-point ball contact slewing ring, driven by a hydraulic motor through planetary gear reducer, and with a normally closed brake fitted.	●
<b>Operator's cab</b>	Tilttable cab, with sliding door and adjustable seat equipped. It is equipped with safe glass and roof protective grille. Sun shade is available for windshield and roof window. Heater and air conditioner, radio, 12 V and 24 V DC outlets are standard.	●
<b>Safety devices</b>	Hydraulic balance valve, hydraulic relief valve, hydraulic double-way valve and LMI. Lowering limiter is equipped in winch to prevent rope over-releasing. Anti-two block is fitted on the boom head to prevent rope over-winding.	●
<b>Counterweight</b>	The counterweight weight is 7.5 t.	●
<b>Hook Block</b>	55 t hook , 5t hook block	●

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

**Symbol explanation:**

- —it means the standard configuration;
- —it means the optional configuration.

## Weight



Axle	Front Axle	Rear Axle	Total weight
t	19.475	20.74	40.215








Hook	No. of lines	Weight (kg)	Remarks
55t	12	522	Single hook
5	1	100	Single hook

## Working speeds

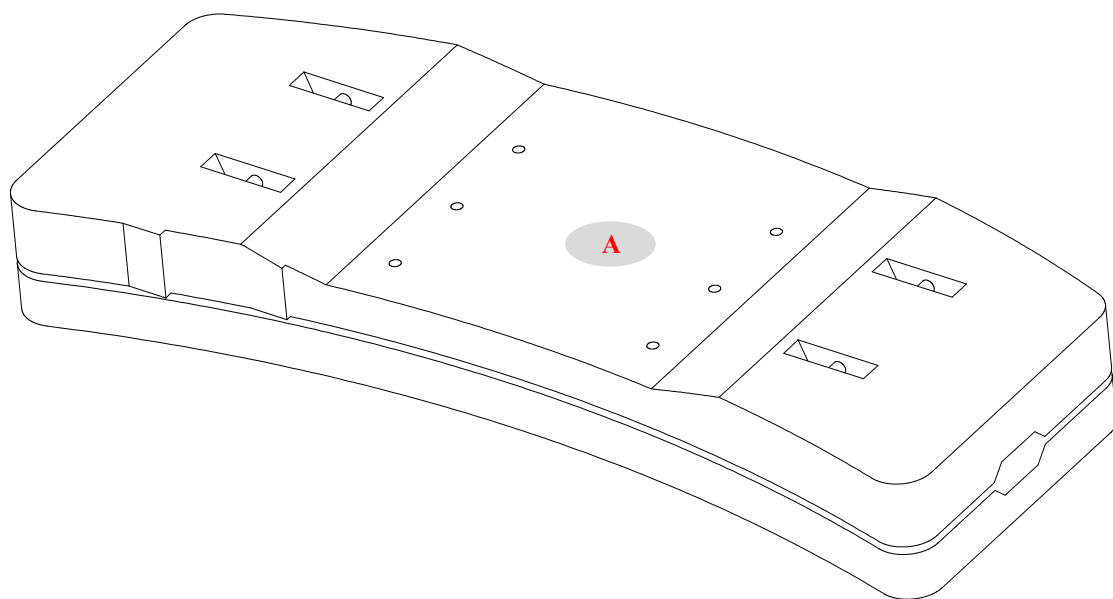


23.5 R 25	35	70%
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Drive	Working speed	Max. single line pull	Rope diameter/ length
	0-150 m/min, no load, 4th layer	51kN	18mm/192m
	0-130 m/min, no load, 4th layer	51kN	18mm/130m
	0-2r/min		
	Approx. 45s for boom elevation from -1.5° to 80°		
	Approx. 70s for boom extension from 11.3m to 36.5m		

## Counterweight



### Counterweight

A

Size ( L×W×H ) mm

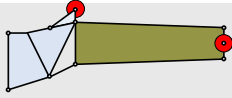
2980×1253×380

Weight t

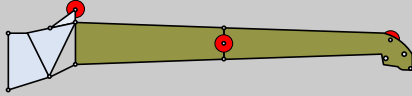
7.5

## Boom / Jib combinations

Jib – 9.2m



Jib – 16m



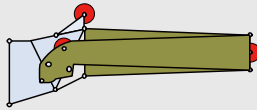
**Component**

**Structure**

**Size ( L×W×H ) mm**

**( Weight kg )**

First and second jib section  
assembly + Connecting bracket



Folded : 9784×950×1263

932

## Boom / Jib combinations



Telescopic boom

11.3~36.5m

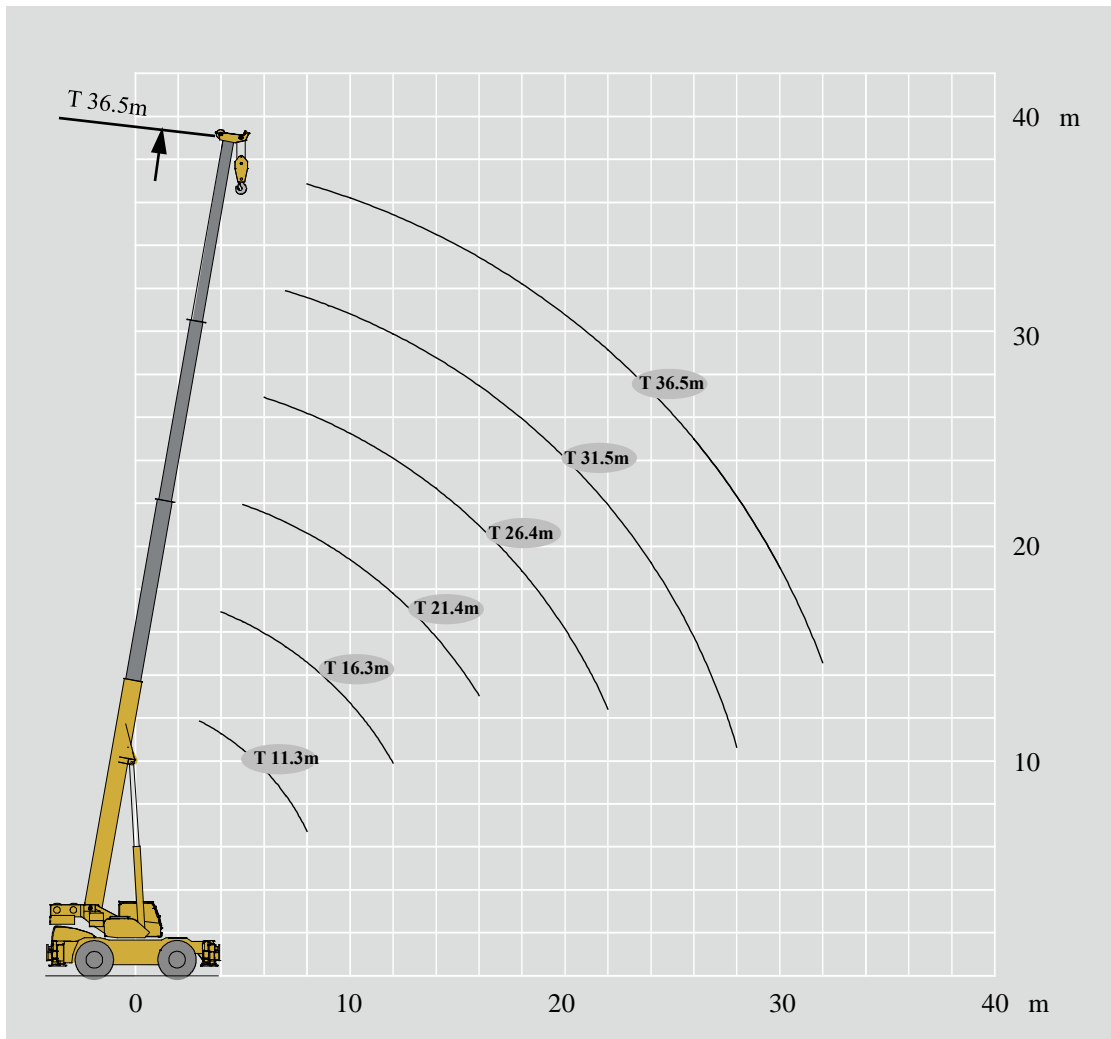
Telescopic boom+Jib


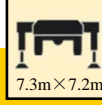




36.5m+9.2m

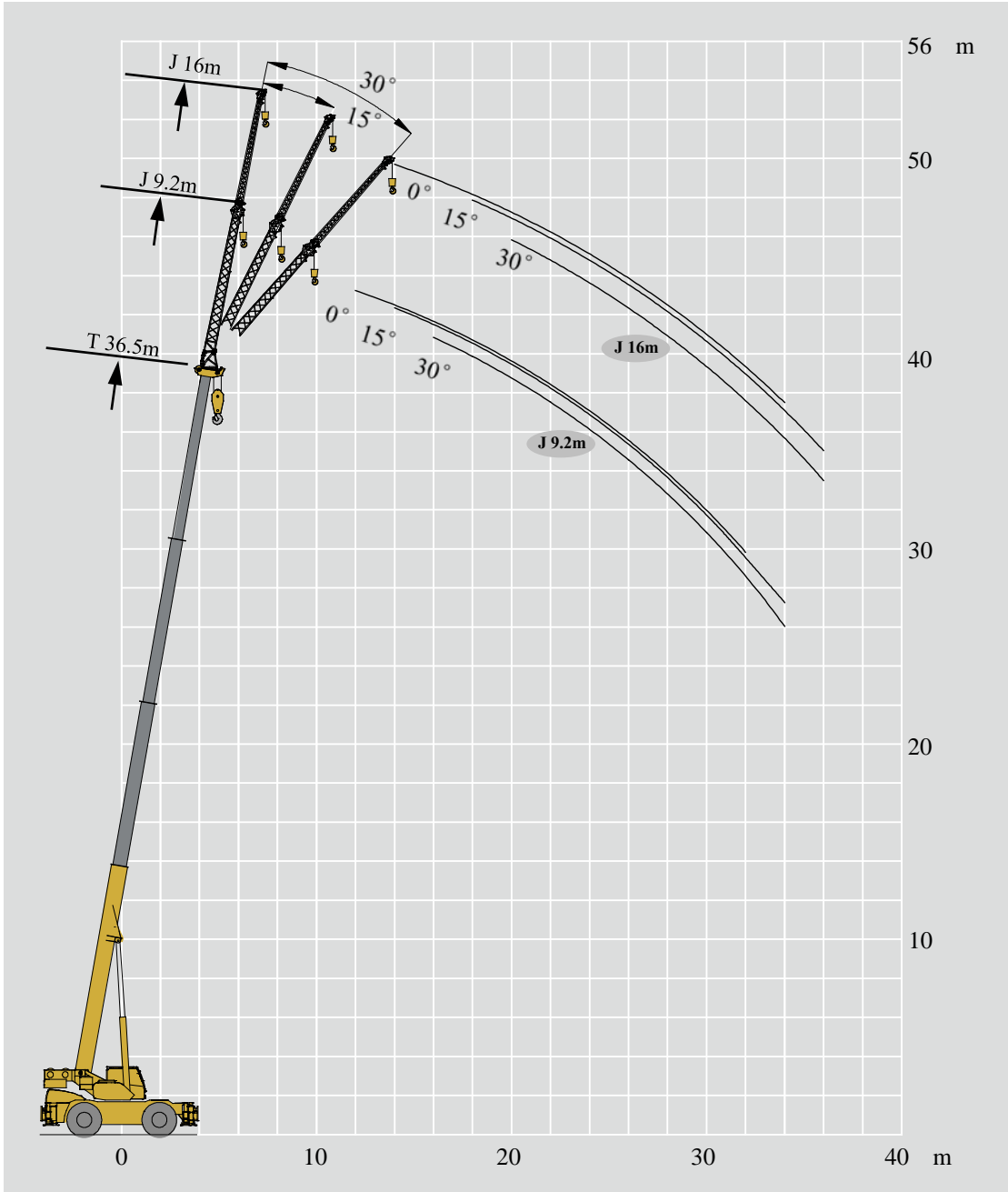
Telescopic boom+Jib


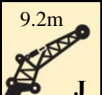


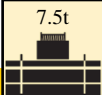
36.5m+16 m


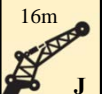
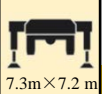






   							
	11.3m	16.3m	21.4m	26.4m	31.5m	36.5m	
3	55						3
3.5	51						3.5
4	48	40.9					4
4.5	43	38.5					4.5
5	41.5	38	33				5
6	33	31	31	23.4			6
7	27.4	27	26	21.8	17		7
8	20.3	22.6	23	20.4	17	12.9	8
9		17.8	18.3	18.6	16	12.9	9
10		14.6	15	15.3	15	12.9	10
12		10.4	10.8	11	11.1	11.3	12
14			8.1	8.3	8.5	8.6	14
16			6.3	6.5	6.7	6.8	16
18				5.2	5.4	5.5	18
20				4.2	4.4	4.5	20
22				3.5	3.6	3.7	22
24					3	3	24
26					2.4	2.5	26
28					2	2.1	28
30						1.7	30
32						1.4	32
2nd	0	20%	40%	60%	80%	100%	2nd
3rd	0	20%	40%	60%	80%	100%	3rd
4th	0	20%	40%	60%	80%	100%	4th

















		 36.5m T	 9.2m J	 7.3m×7.2 m	 360°	 7.5t	36.5 m+9.2m			
							0°	15°	30°	
12							5.0			12
14							4.8	3.5		14
16							4.7	3.4	2.6	16
18							4.3	3.3	2.5	18
20							3.8	3.1	2.5	20
22							3.0	3.0	2.3	22
24							2.4	2.8	2.3	24
26							1.9	2.1	2.1	26
28							1.4	1.6	1.8	28
30							1.1	1.2	1.4	30
32							0.9	0.9	1	32
34								0.7	0.7	34

		 36.5 m T	 16m J	 7.3m×7.2 m	 360°	 7.5t	36.5 m+16m			
							0°	15°	30°	
12										12
14							2.7			14
16							2.5			16
18							2.1	1.7		18
20							2.0	1.5	1.2	20
22							1.8	1.4	1.1	22
24							1.7	1.4	1.1	24
26							1.5	1.2	1.0	26
28							1.4	1.2	1.0	28
30							1.3	1.1	0.9	30
32							1.1	1.1	0.9	32
34							0.7	0.8	0.7	34
36								0.8	0.7	36

## Description of symbols

### Symbol glossary

	Outriggers		Axle
	Radius		Driving speed
	Boom angle		Grade ability
	Boom length		Tires
	Hook block		Counterweight
	360° rotation		Superstructure
	Winch		Chassis

### Crane specific symbols

	Boom		Jib
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**Table of main technical parameters**

Category	Item	Unit	Parameter	Allowance	
Dimensions	Outline size (length×width×height)	mm	13762×3000×3590	±1%	
	Wheel base	mm	3850	±1%	
	Track (Front/ Rear)	mm	2330/2330	±1%	
	Front/ Rear overhang	mm	2104/2544	±1%	
	Front/ Rear extension	mm	5264/0	±1%	
Weight	Total vehicle mass in travel configuration	kg	40215 (7.5 t counterweight)	±3%	
	Axle load	1st axle	kg	19475	±3%
		2nd axle	kg	20740	±3%
Power	Engine model	—	SC7H220G3	-	
	Engine rated power/rpm	kW/(r/min)	162/2200	-	
	Engine rated torque/rpm	N.m/(r/min)	860/ ( 1400 )	-	
Travel	Max. travel speed	km/h	35	≥	
	Min. travel speed	km/h	1.8	≤	
	Min. turning diameter	m	≤12	-	
	Min. ground clearance	mm	445	±1%	
	Approach angle	°	26	±1%	
	Departure angle	°	20.5	±1%	
	Braking distance (at 24 km/h)	m	9	≤	
	Max. grade ability	%	70	≥	

**Table of main technical parameters**

Category	Item		Unit	Parameter	Allowance	
Main performance	Max. total rated lifting capacity		t	55	±5%	
	Min. rated working radius		m	3	±1%	
	Turning radius at turntable tail	Counterweight	mm	4158	±1%	
	Max. load moment	Base boom	kN.m	2033.5	±1%	
		Fully-extended boom	kN.m	1328.9	±1%	
	Outrigger span	Longitudinal	m	7.3	±1%	
		Lateral	m	7.2	±1%	
	Hoist height	Base boom	m	11.9	±1%	
		Fully-extended boom	m	36.9	±1%	
		Fully-extended boom + Jib	m	49.6	±1%	
	Boom length	Base boom	m	11.3	±1%	
		Fully-extended boom	m	36.5	±1%	
		Fully-extended boom + Jib	m	52.5	±1%	
Jib offset angle			°	0、15、30	±1%	
Working speed	Boom raising time		s	45	≤	
	Boom fully extending time		s	70	≤	
	Max. slewing speed		r/min	2	≤	
	Outrigger extending and retracting time	Outrigger beam	Retracting	s	20	≤
			Extending	s	30	≤
		Outrigger jack	Retracting	s	30	≤
			Extending	s	35	≤
	Hoisting speed (single line, 4th layer, no load)	Main winch	m/min	150	≥	
Auxiliary winch		m/min	130	≥		

## 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  $125 \text{ N/m}^2$ ).
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.





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