



ROUGH TERRAIN CRANE

# XCR100\_U

MASTER OF LIFTING





# COMPANY PROFILE

XCMG's Hoisting machinery division is the leader in China's lifting industry focusing on the research, development and the production of mobile cranes. At XCMG's core is a commitment to technological innovation while utilizing the latest digital technologies to push the boundaries of product development and production while following our principles of social responsibility, building a sustainable and better future, and to create value for our customers.



# PRODUCT RANGE

XCMG's Hoisting machinery division boasts a complete product range. Our cranes are sold and serviced in more than 190 countries and regions worldwide.



## MOBILE CRANES

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↗ 5 t-300 t Truck Crane

↗ 40 t-4000 t All Terrain Crane

↗ 13 t-150 t Rough Terrain Crane

## CRAWLER CRANES

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↗ 45 t-4000 t Lattice Crawler Crane

↗ 30 t-220 t Telescopic Crawler Crane



## Unparalleled off-road performance, effortless lifting mastery

Strong adaptability to driving and lifting demands; Extra large and comfortable cab + intelligent auxiliary system bring economical operation and worry-free lifting.

## Spacious cab for comfortable driving

1.1 m (3.6 ft) wide cab and sedan-class human-machine interaction system make it easy to control the vehicle, and more comfortable and convenient to operate.

## Flexible and maneuverable, convenient for jobsite transfer

Equipped with all-wheel driving system, 4 steering modes, and forward and backward driving function, the minimum turning radius is only 6.5 m (21.35 ft), ensuring high maneuverability; with specialized off-road patterned tires, it can travel across various terrains effortlessly.

## Superior capacity for excellent lifting performance

The crane features 48 m (157.4 ft) 5-section boom, and the maximum length of boom and jib can reach 65.5 m (214.9 ft) after jib is installed. Therefore, the crane can cover a wide range of operation modes and widely apply for oilfields, mines, road and bridge construction.

## Precise control with highly efficient operations

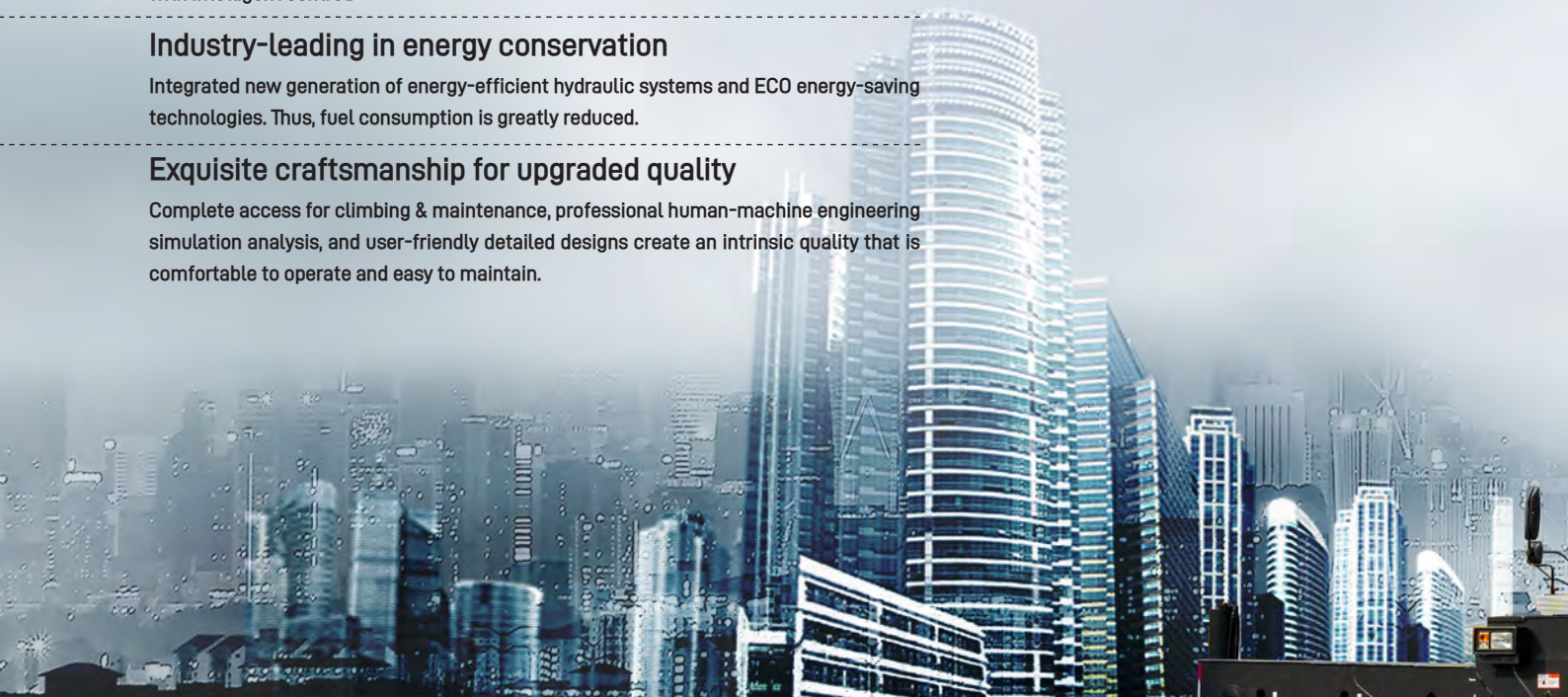
Pump control system with dual variable pumps and multi-mode steering technology with automatic steering angle adjustment contribute to efficient and safe operations with intelligent control.

## Industry-leading in energy conservation

Integrated new generation of energy-efficient hydraulic systems and ECO energy-saving technologies. Thus, fuel consumption is greatly reduced.

## Exquisite craftsmanship for upgraded quality

Complete access for climbing & maintenance, professional human-machine engineering simulation analysis, and user-friendly detailed designs create an intrinsic quality that is comfortable to operate and easy to maintain.



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## SPACIOUS CAB FOR COMFORTABLE DRIVING



# SPACIOUS CAB FOR COMFORTABLE DRIVING

### 1.1 m (3.6 ft) SUPER LARGE CAB, MORE SUITABLE FOR USERS WITH TALL AND LARGE PHYSIQUES

Dust-proof, noise-canceling, highly-sealed cab, with extra-space design, meets the tall user's demand for free movement of head, elbows, and legs; wide seats for more space and comfort.

The sedan-class man-machine interaction system enables friendly interaction between operator and the crane.

①	Large windshield	Reduce blind spots for improved driving safety.
②	Instrument panel	Well-bedded and streamlined design for convenient operation.
③	HVAC	Adjustable air outlets and T3 HVAC for comfortable driving.
④	Emergency stop switch	Accessible for safe operation.
⑤	Operation display	The 10.4 inch true color touch screen display with adjustable angle provides friendly screens and rich information at a glance.
⑥	Monitor	Monitor the winch and the situation behind when reversing, with all-round visibility for operation and driving with safer use.
⑦	Control lever	Vibration lever is equipped to perceive the lifting operation speed easily.
⑧	Other humanized configuration	12/24V power interface, radio, cup holder and double-layer storage box, etc.

## FLEXIBLE AND MANEUVERABLE

- It has crab steering mode, tight-turning radius mode, independent front-axle and rear-axle steering modes, all of which are controlled by steering wheel, which is more in line with driving habits.
- With forward and backward driving function, and a minimum turning radius of only 6.5 m (21.35 ft), it is flexible with strong adaptability in narrow spaces.

## STRONG POWER

- High power engine + low speed high torque hydraulic torque converter drivetrain, matched to all-axle drive + specialized off-road patterned tires, strong pass ability for potholes, muddy roads and other harsh road conditions.



## SUPERB LIFTING PERFORMANCE

- The crane features 48 m (157.4 ft) 5-section boom, and the maximum length of boom and jib can reach 65.5 m (214.9 ft) after jib is installed. Therefore, the crane can cover a wide range of operation modes and widely apply for oilfields, mines, road and bridge construction.



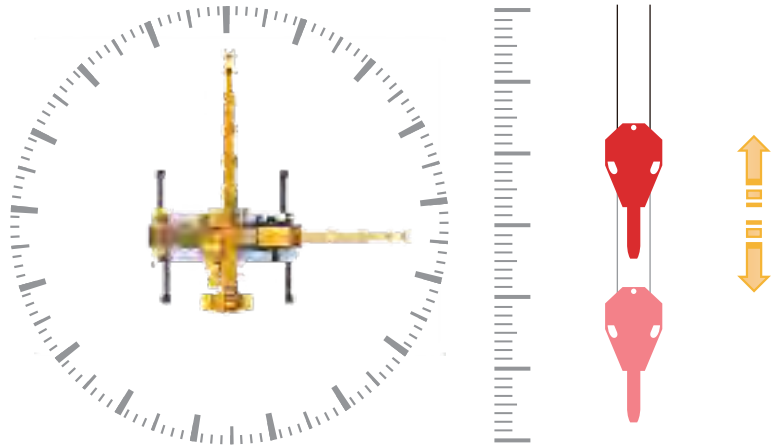
# PRECISE CONTROL WITH HIGHLY EFFICIENT OPERATIONS

## PUMP CONTROL SYSTEM WITH DUAL VARIABLE PUMPS

- Dedicated dual-pump flow control technology is available; double-pump confluence for single movement with quick operation; independent subsystem oil supply for combined movements; the movements are accurate and controllable for high operation efficiency. Hydraulic oil cooler with automatic temperature control for sustainable operation in high or low temperature environment.

### FINE CONTROL

Millimeter precision is achieved when winching, slewing and luffing.

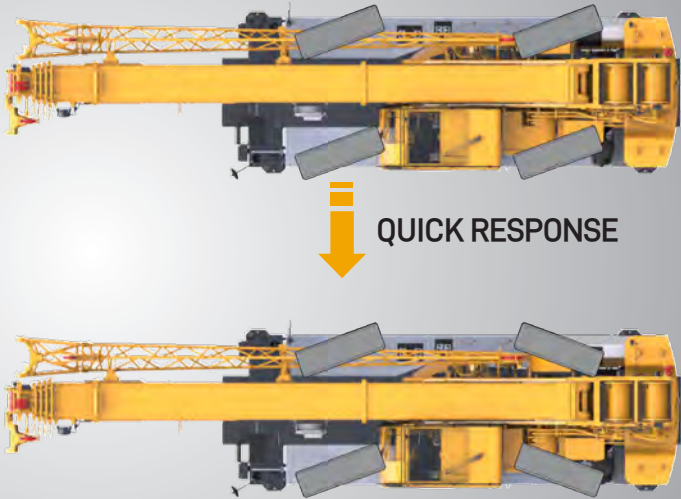


**INNOVATIVE AUTOMATIC STEERING ANGLE ADJUSTMENT TECHNOLOGY**

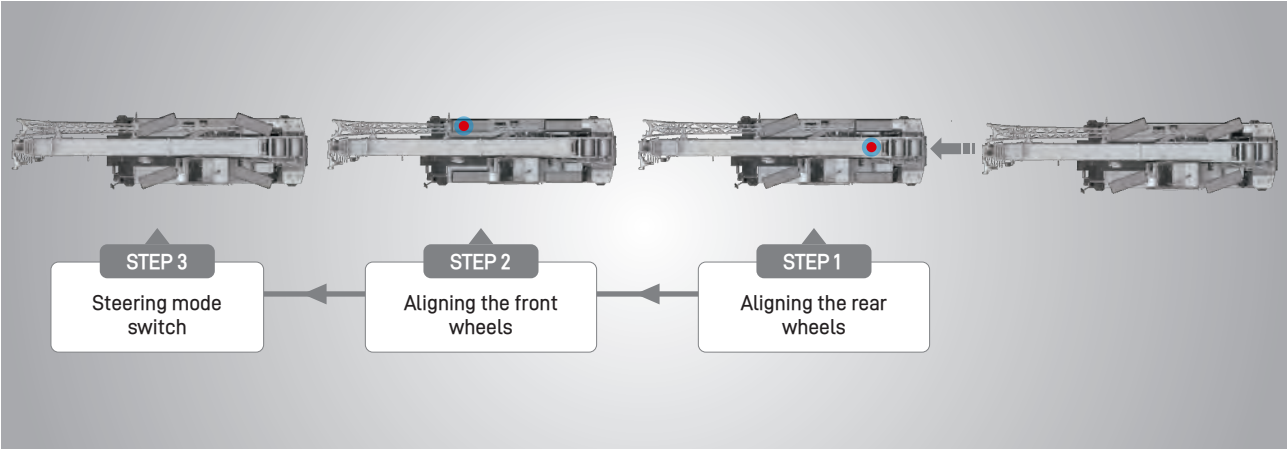
- The steering modes can be switched at any time with the turn of the knob and the crane takes care of the rest.
- Dedicated display mode showing the exact position of the wheels and the status of the system. No more guessing where the wheels are at.

**STEERING MODE SWITCHING IN XCMG ROUGH TERRAIN CRANES  
EASY SELECTION FOR EFFICIENT AND TIME-SAVING OPERATION**

**XCMG MULTI-MODE STEERING TECHNOLOGY WITH REAR WHEEL AUTO CENTERING**



**STEERING MODE SWITCHING IN OTHER ROUGH TERRAIN BRANDS**



# INDUSTRY-LEADING IN ENERGY CONSERVATION

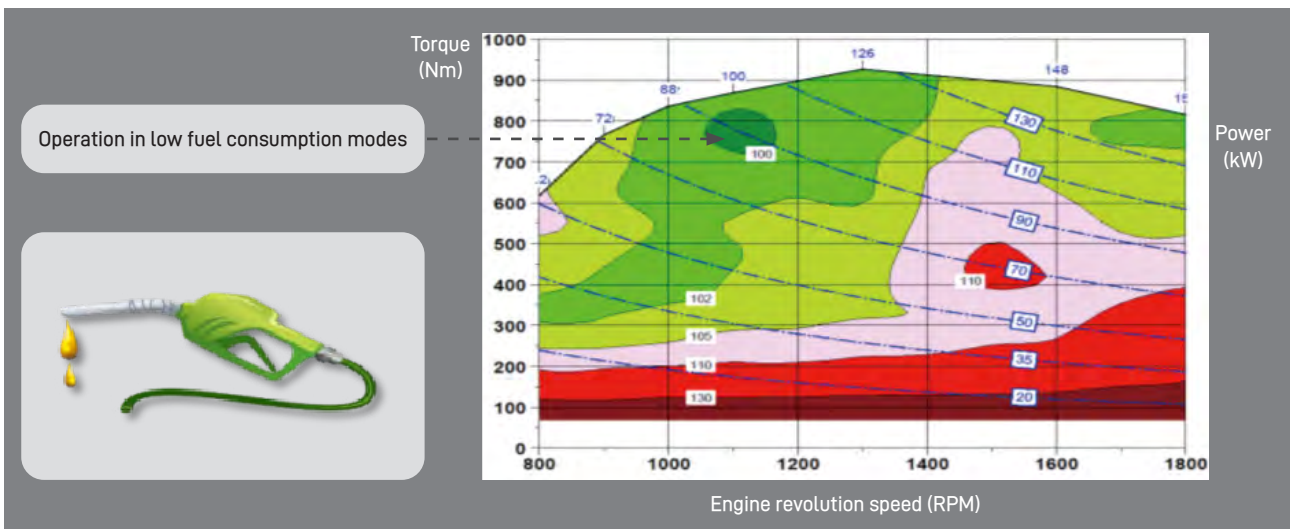
## ADVANCED ENERGY-SAVING HYDRAULIC SYSTEM

- Latest technology energy-saving hydraulic system with electronic controlled dual-variable pumps. By using gravity assistance for luffing down, fuel use can be greatly reduced under various operation modes.



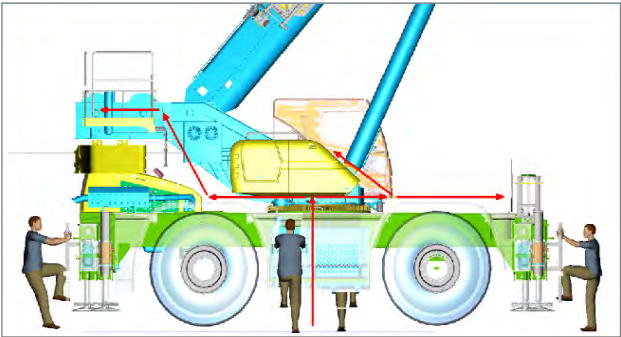
## ECO ENERGY-SAVING MODE

- Under different operation modes, limiting the engine speed and utilizing the high-flow pumps, XCMG RT cranes achieve the lowest fuel consumption during lifting operations.



**WELL-PLANNED ACCESS**

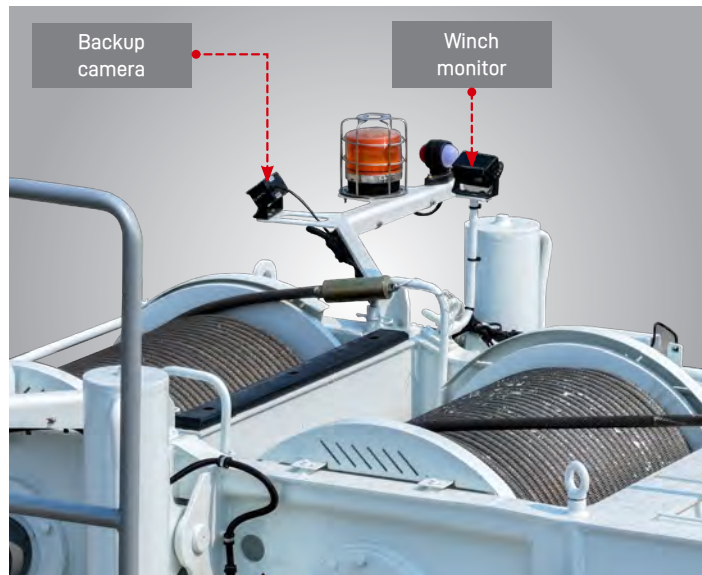
- With complete cab and deck, and maintenance access, the operator can get on the vehicle from all four sides no matter the upper rotation.
- Professional ergonomic simulation analysis, and user-friendly detailed design.



# EXQUISITE CRAFTSMANSHIP FOR UPGRADED QUALITY

## MULTI-DIRECTIONAL MONITORING, SAFER DRIVING AND LIFTING OPERATIONS

- The standard backup camera and winch monitor provide a comprehensive coverage of visibility for both lifting and driving period, ensuring better safety.



## THREE DIMENSIONAL AIR VENTS FOR COMFORTABLE DRIVING

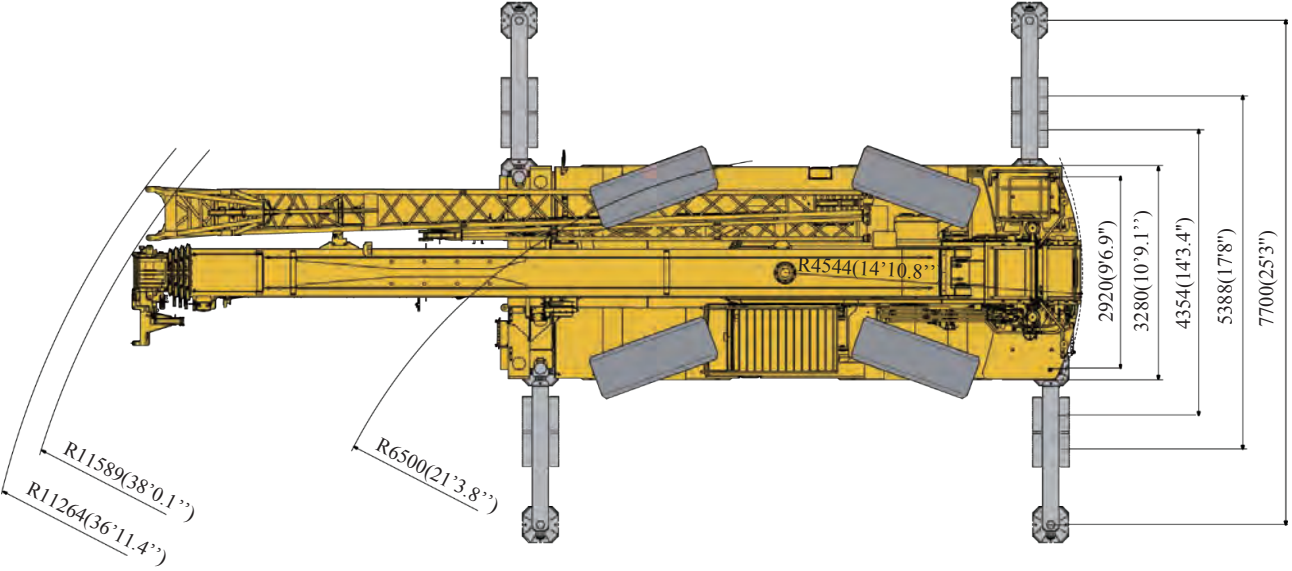
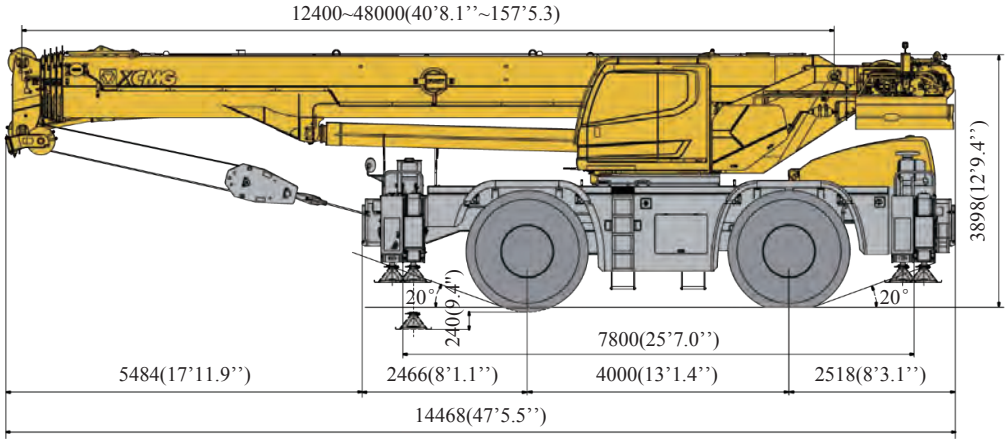
- High power HVAC is equipped with three dimensional air vents for more uniform and delicate flow velocity.



## HIGH GRADE ELECTRICAL PROTECTION FOR MORE RELIABLE OPERATION

- The circuit connection is reliable, with high rate of connector fixation, tail protection and waterproof rating.





# TECHNICAL SPECIFICATIONS



<b>Boom</b>	1 base boom and 4-telescoping sections, U-shape cross section welding structure. Dual-cylinder wire-rope-type telescoping mechanism 6 sheaves on boom head are standard. Boom length: 12.4 m(40.7 ft)~48 m(157.4 ft).	●
<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: 10.5 m(34.4 ft)~17.5 m(57.4 ft).	●
<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>Outriggers</b>	4 outriggers, H-shaped arrangement, which are controlled by electrical and hydraulic and located at both sides of chassis frame.	●
<b>Engine</b>	B6.7, in line, six-cylinder water-cooled compression ignition diesel engine, manufactured by Cummins, with rated power of 209/2000(kW/(r/min)) (280/2200(hp/(r/min))), maximum torque of 1152/1500(N.m/(r/min)) (850/1500(lb-ft/(r/min))), U.S. EPA Tier 4F /Eu stage V emission standard compliant. Fuel tank capacity: approx. 305 L(80.52 gal).	●
<b>Transmission</b>	6WG210, automatic transmission from ZF Germany, with 6 forward and 3 reverse gears.	●
<b>Axles</b>	Both front and rear axles are for driving and steering, and the axles have large load bearing capacity	●
<b>Suspension</b>	Front axle is locked 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 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: 29.5R25.	●
<b>Steering</b>	Front axle independent steering, tight-turning radius, crab steering and independent rear axle 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 lifting, luffing 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. 1057 L (279.2 gal).	●
<b>Control system</b>	Hydraulically controlled pilot control system is equipped with two levers controlling the main movements of the crane, by which speed may be felt.	●
<b>Electrical system</b>	24 V DC, two sets of 12 V battery in series. And the capacity of each battery is 180 Ah. LMI, head lights, steering lights, backup lights, turntable lights, boom lights and slewing lights are equipped.	●



<b>Main 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>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 bearing, driven by a hydraulic motor through planetary gear reducer, and with a normally closed brake fitted.	●
<b>Cab</b>	Tiltable cab, with sliding door and adjustable seat equipped. It is equipped with safe glass and roof protective grilles. Sun screen is available for windshield and roof window. Heater and air conditioner, radio, 12 V and 24 V DC outlets are standard.	●
<b>Operational aids</b>	Hydraulic counterbalance 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, 360° turntable locking device .	●
<b>Counterweight</b>	Total 10 t(22,046 lb)	●
	Optional 1.5 t(3,306 lb)	○
<b>Hook block</b>	55 t(60 Ust) hook block, 7 t(7.7 Ust) hook block	●

Other items of equipment available on request.

Symbol explanation:

- —standard configuration;
- —optional configuration.

# WEIGHTS







AXLE	1	2	GROSS VEHICLE WEIGHT
t (lb)	28.157 (62,086)	25.266 (55,712)	53.423(117,608) 10 t(22,046 lb) counterweight)
	27.49 (61,004)	27.433 (59,911)	54.923(120,915) 10 t(22,046 lb) counterweight + Optional 1.5 t(3,306 lb) counterweight)













CONFIGURATION	WEIGHTS	FRONT AXLE	REAR AXLE
Basic configuration weight	39592 kg (87300 lb)	27412 kg (60443 lb)	12180 kg (26857 lb)
Add:10 t (22050 lb) counterweight	10000 kg (22046 lb)	-4450 kg (-9810.5 lb)	14450 kg (31856.5 lb)
Add:1.5 t (3307.5 lb) counterweight	1500 kg (3306.9 lb)	-667.5 kg (-1471.6 lb)	2167.5 kg (4778.5 lb)
Add:Auxiliary winch system (with wire rope)	921 kg (2030.4 lb)	-406 kg (-895.1 lb)	1327 kg (2925.5 lb)
Add:Jib	1330 kg (2932.1 lb)	2067 kg (4556.9 lb)	-737 kg (-1624.8 lb)
Add:80 t (88 USt) hook block (Fixed in front of the crane)	800 kg (1763.7 lb)	1900 kg (4188.7 lb)	-1100 kg (-2425.1 lb)
Add:55 t (60USt) hook block (Fixed in front of the crane)	570 kg (1256.6 lb)	1354 kg (2985 lb)	-784 kg (-1728.4 lb)
Add:7 t (7.7 USt) hook block(Fixed in front of the crane)	210 kg (463 lb)	280 kg (617.3 lb)	-70 kg (-154.3 lb)

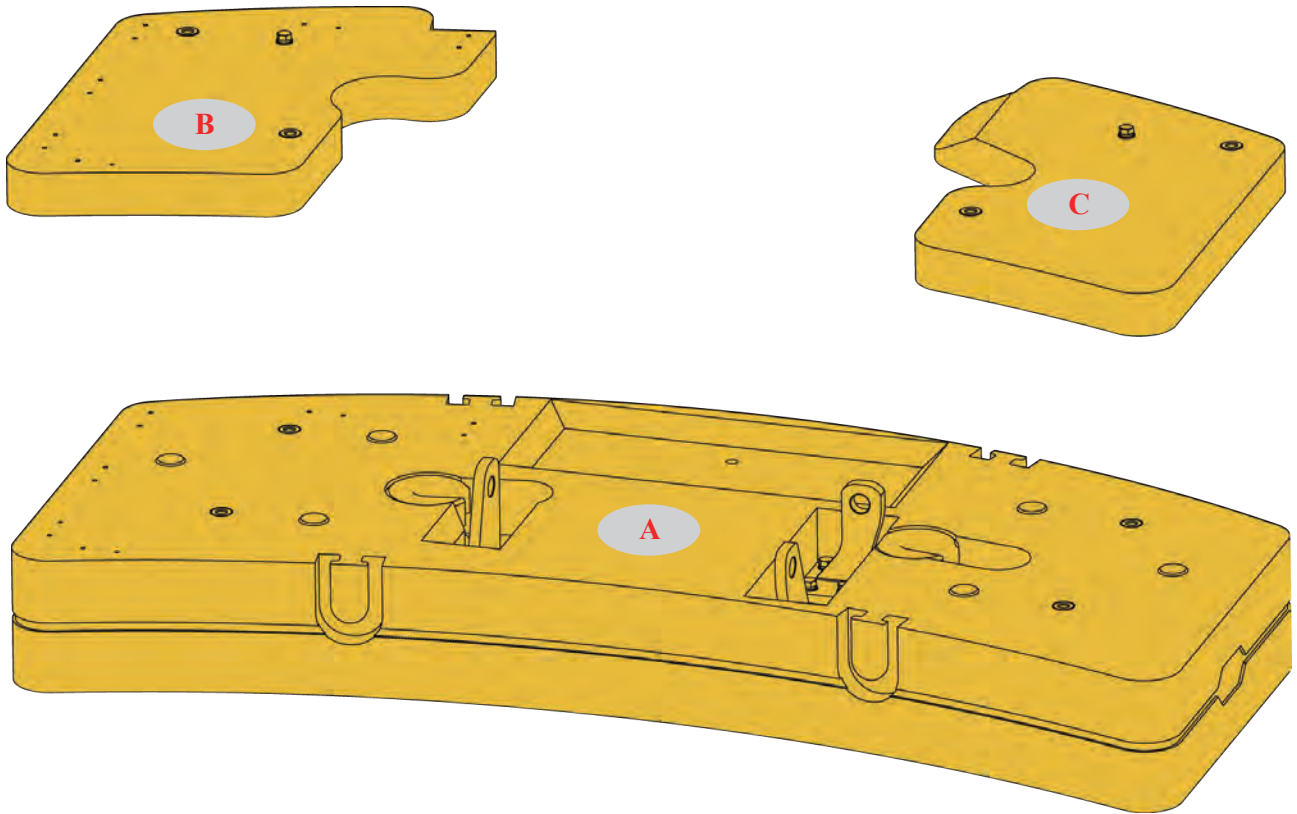


HOOK BLOCK	PARTS OF LINE	WEIGHT kg(lb)	REMARKS
55 t (60 USt)	9	570(1257)	Single hook
7 t (7.7 USt)	1	210(463)	Single hook

			
29.5 R 25		34.8 km/h(21.6 mph)	64.6%

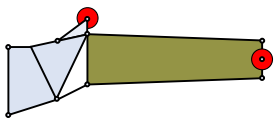
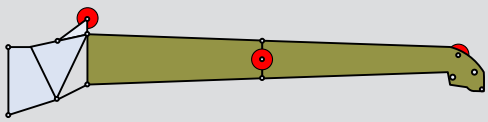
				
	0-145 (0-475.7) m(ft)/min, no load, 4th layer	70.8kN (15,916 lb)	20 mm (0.7874 in)	240 m (787.4 ft)
	0-90 (0-295.3) m(ft)/min, no load, 4th layer	70.8kN (15,916 lb)	20 mm (0.7874 in)	150 m (492.1 ft)
	0-1.5r/min			
	Approx. 55s for boom luffing from -1.5° to 80°			
	Approx. 110s for boom extending from 12.4 m(40.7 ft) to 48 m(157.4 ft)			

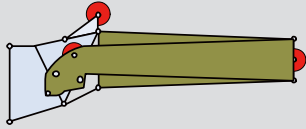
# COUNTERWEIGHT



	A	B (OPTIONAL)	C (OPTIONAL)
Dimensions (L×W×H) mm (ft)	3260×1539×550 (10.7×5.0×1.8)	1372×980×124 (4.5×3.2×0.4)	1372×980×124 (4.5×3.2×0.4)
Weight t (lb)	10 (22046)	0.75 (1653)	0.75 (1653)

OPERATION MODES	0 T (0 LB)	10 T (22046 LB)	10 T+1.5 T (22046 LB+3306 LB) (OPTIONAL)
Combinations	—	A	A+B+C

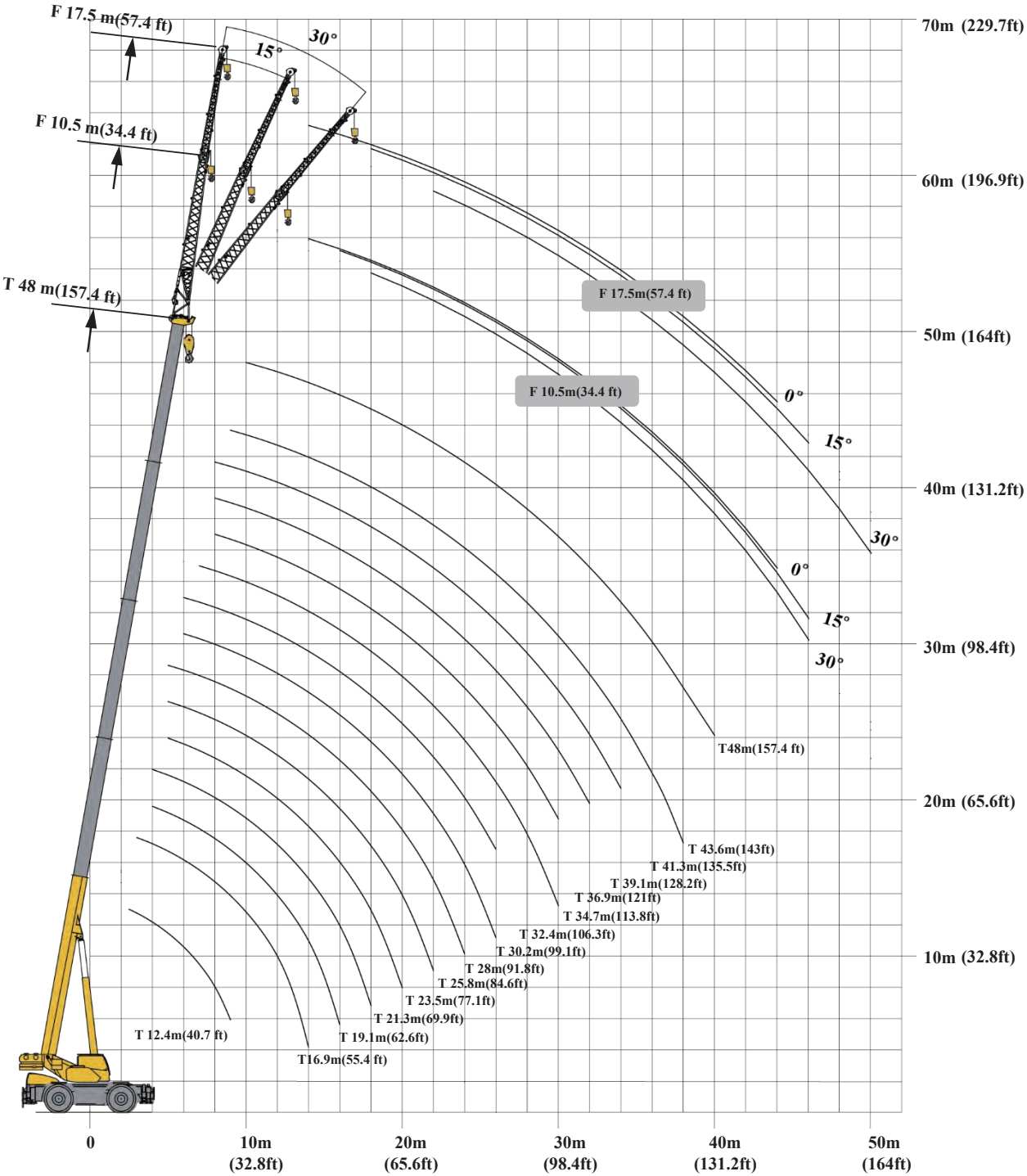
Jib – 10.5 m(34.4 ft)	
Jib – 17.5 m(57.4 ft)	

COMPONENT	STRUCTURE	DIMENSION(L×W×H) mm(ft)	WEIGHT kg(lb)
First and second jib sections assembly + Connecting bracket		(Folded): 11100×900×1350 (36.4×3.0×4.4)	1330 (2932.1)

# BOOM / JIB COMBINATIONS

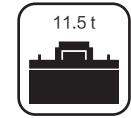
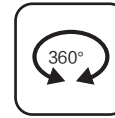
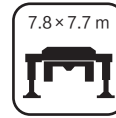
BOOM	BOOM + ONE JIB SECTION	BOOM + TWO JIB SECTIONS
12.4~48m (40.7 ft~157.4 ft)	48m+10.5m (157.4 ft + 34.4 ft)	48m+17.5 m (157.4 ft + 57.4 ft)





# LOAD CHARTS

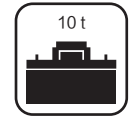
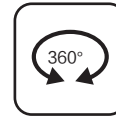
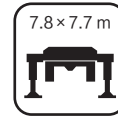
**UNITS: t**  
**ASME B30.5 85%**



	12.4	16.9	19.1	21.3	23.5	25.8	28	30.2	32.4	34.7	36.9	39.1	41.3	43.6	48	
2.5	90.7*															2.5
3	80*	63.3														3
3.5	75.0	63.3														3.5
4	72.4	63.3	35.1	46.0												4
5	57.9	57.9	35.0	45.0	34.8	35.3	33.5									5
6	48.3	48.3	35.0	40.0	34.8	33.9	33.5	32.4	23.3							6
7	41.4	41	35.0	38.0	34.8	31.6	31.9	29.7	21.9	25.4						7
8	35.0	35	35.0	36.4	34.8	29.7	29.5	27.9	20.7	23.3	21.0	16.1	17.3			8
9	28.8	28	33.2	29.5	32.3	27.9	27.5	26.7	19.5	21.9	20.1	15.4	17.3	13.1		9
10		25.0	27.0	23.7	26.2	26.4	25.3	25.3	18.4	20.5	19.2	14.8	17.2	13.0	11.4	10
12		17.0	19.7	16.1	19.0	21.0	19.1	19.2	16.7	18.3	17.6	13.6	16.6	12.5	11.4	12
14			14.9	12.0	14.2	14.9	14.1	15.6	15.1	14.0	16.1	12.1	14.4	12.0	11.4	14
16				9.0	10.9	11.7	9.9	12.1	13.3	10.8	12.7	10.8	11.3	10.6	10.3	16
18					8.5	9.4	7.7	8.9	10.8	9.2	10.2	9.8	9.1	9.5	9.1	18
20						7.6	6.5	7.6	8.9	7.3	7.5	8.9	7.9	8.1	7.7	20
22							4.9	5.8	7.4	5.9	6.3	7.7	6.2	7.2	6.8	22
24								4.8	6.3	4.6	5.7	6.5	5.1	6.0	5.6	24
26								3.9	5.3	3.7	4.8	5.6	3.8	5.1	4.7	26
28										2.6	4.0	4.8	3.2	4.3	3.9	28
30										2	3.0	4.1	2.5	3.6	3.2	30
32												3.5	2	2.7	2.3	32
34													1.6	2.2	1.9	34
36														1.7	1.4	36
38														1.4	1	38
40															0.8	40

Notes: The lifting load with a \* followed is available only when additional equipment is used;  
When a load weighing more than 55 t(60 Ust) is lifted, a larger hook block is required for operation.

**UNITS: t**  
**ASME B30.5 85%**

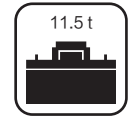
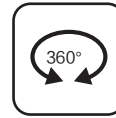


	12.4	16.9	19.1	21.3	23.5	25.8	28	30.2	32.4	34.7	36.9	39.1	41.3	43.6	48	
2.5	90.7*															2.5
3	80*	63.3														3
3.5	75.0	63.3														3.5
4	72.4	63.3	35.1	46.0												4
5	57.9	57.9	35.0	45.0	34.8	35.3	33.5									5
6	48.3	48.3	35.0	40.0	34.8	33.9	33.5	32.4	23.3							6
7	41.4	41.0	35.0	38.0	34.8	31.6	31.9	29.7	21.9	25.4						7
8	35.0	35.0	35.0	35.0	34.8	29.7	29.5	27.9	20.7	23.3	21.0	16.1	17.3			8
9	28.7	28.0	31.5	27.9	30.6	27.9	27.5	26.7	19.5	21.9	20.1	15.4	17.3	13.1		9
10		24.4	25.6	22.3	24.8	26.4	23.9	25.3	18.4	20.5	19.2	14.8	17.2	13.0	11.4	10
12		16.6	18.5	14.9	17.3	19.9	16.7	18.1	16.7	17.6	17.6	13.6	16.6	12.5	11.4	12
14			13.9	10.8	12.7	14.1	13.2	13.6	15.1	13.1	15.2	12.1	13.7	12.0	11.4	14
16				8.0	9.7	11.0	9.2	11.3	12.5	10.1	11.9	10.8	10.6	10.6	10.3	16
18					7.2	8.8	7.1	8.2	10.1	7.9	9.5	9.8	8.4	9.5	9.1	18
20						7.2	5.9	7.0	8.3	6.7	7.0	8.6	6.8	8.1	7.7	20
22							4.3	5.3	6.9	5.4	5.8	7.2	5.7	6.7	6.8	22
24								4.3	5.8	4.3	5.2	6.1	4.7	5.6	5.6	24
26								3.5	4.9	3.4	4.3	5.1	3.4	4.7	4.2	26
28										2.3	3.6	4.4	2.8	3.9	3.5	28
30										1.8	2.6	3.7	2.2	3.2	2.8	30
32												3.2	1.8	2.3	1.9	32
34													1.3	1.9	1.7	34
36														1.5	1.2	36
38														1.1	0.9	38
40															0.6	40

Notes: The lifting load with a \* followed is available only when additional equipment is used;  
When a load weighing more than 55 t(60 Ust) is lifted, a larger hook block is required for operation.

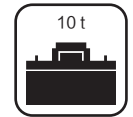
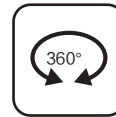
# LOAD CHARTS

**UNITS: t**  
**ASME B30.5 85%**



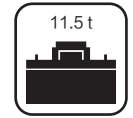
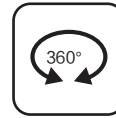
	12.4	16.9	21.3	28	
4	12.5	12.1	15.5		4
5	9.8	9.4	9.1	12.9	5
6	7.8	7.4	7.1	10.2	6
7	6.2	5.8	5.5	6.6	7
8	4.8	4.5	4.2	5.3	8
9		3.4	3.2	4.2	9
10		1.8	1.5	2.6	10
12				1.4	12

**UNITS: t**  
**ASME B30.5 85%**



	12.4	16.9	21.3	28	
4	12	11.5	11.2		4
5	9.3	8.9	8.6	9.7	5
6	7.3	6.9	6.6	7.7	6
7	5.8	5.3	5.1	6.1	7
8	4.5	4	3.8	4.8	8
9		2.5	2.8	3.7	9
10				2	10

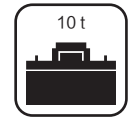
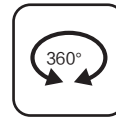
**UNITS: t**  
**ASME B30.5 85%**



	12.4	16.9	21.3	28	
4	8.6	8.4	8.1	9.3	4
5	6.7	6.2	6	7.1	5
6	5	4.6	4.3	5.4	6
7	3.7	3.3	3	4.1	7
8	2.6	2.3	2	3.1	8
9		1.4	1.1	2.2	9
10				0.9	10



**UNITS: t**  
**ASME B30.5 85%**



	12.4	16.9	21.3	28	
4	8.3	7.9	7.6	8.2	4
5	6.2	5.8	5.5	6.6	5
6	4.6	4.2	3.9	5	6
7	3.3	2.9	2.6	3.7	7
8	2.3	1.9	1.6	2.7	8
9		1.1	0.8	1.9	9
10				0.6	10



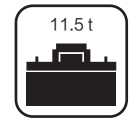
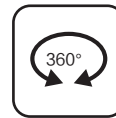
# LOAD CHARTS

**UNITS: t**  
**ASME B30.5 85%**



	48+10.5			
	0°	15°	30°	
14	5.5			14
16	5.5	4.5		16
18	5.5	4.5	2.6	18
20	5.5	4.4	2.5	20
22	5.2	4.1	2.4	22
24	4.5	3.8	2.2	24
26	3.8	3.6	2.1	26
28	3.1	3.2	2	28
30	2.5	2.6	2	30
32	2.2	2.1	1.9	32
34	1.8	1.8	1.8	34
36	1.4	1.5	1.5	36
38	1	1.1	1.3	38
40	0.8	1	1.1	40
42	0.6	0.7	0.8	42
44	0.5	0.6	0.7	44
46		0.5	0.5	46

**UNITS: t**  
**ASME B30.5 85%**



	48+17.5			
	0°	15°	30°	
14	2.8			14
16	2.8			16
18	2.8	2.1		18
20	2.8	2		20
22	2.8	1.8	1.1	22
24	2.8	1.7	1.1	24
26	2.7	1.6	0.9	26
28	2.5	1.5	0.9	28
30	2.3	1.3	0.9	30
32	2.1	1.2	0.8	32
34	1.8	1.2	0.8	34
36	1.5	1.1	0.8	36
38	1.2	1.1	0.8	38
40	0.9	1.1	0.8	40
42	0.6	0.9	0.8	42
44	0.5	0.6	0.8	44
46		0.5	0.6	46
48			0.5	48
50			0.5	50

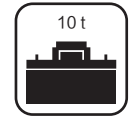
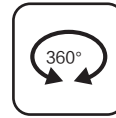
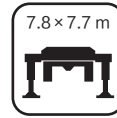
# LOAD CHARTS

**UNITS: t**  
**ASME B30.5 85%**



	48+10.5			
	0°	15°	30°	
14	5.5			14
16	5.5	4.5		16
18	5.5	4.5	2.6	18
20	5.5	4.4	2.5	20
22	5.2	4.1	2.4	22
24	4.5	3.8	2.2	24
26	3.8	3.6	2.1	26
28	3.1	3.2	2	28
30	2.5	2.6	2	30
32	2	2.1	1.8	32
34	1.6	1.6	1.7	34
36	1.2	1.3	1.4	36
38	0.9	1	1.2	38
40	0.7	0.8	0.9	40
42	0.5	0.5	0.6	42
44			0.5	44

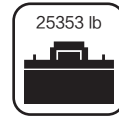
**UNITS: t**  
**ASME B30.5 85%**



	48+17.5			
	0°	15°	30°	
14	2.8			14
16	2.8			16
18	2.8	2.1		18
20	2.8	2		20
22	2.8	1.8	1.1	22
24	2.8	1.7	1.1	24
26	2.7	1.6	0.9	26
28	2.5	1.5	0.9	28
30	2.3	1.3	0.9	30
32	2	1.1	0.7	32
34	1.6	1.1	0.7	34
36	1.3	1	0.7	36
38	1	1	0.7	38
40	0.7	0.9	0.7	40
42	0.5	0.7	0.7	42
44		0.5	0.6	44
46			0.5	46

# LOAD CHARTS

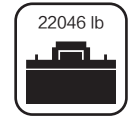
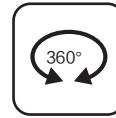
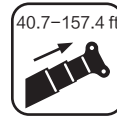
**UNITS: lb**  
**ASME B30.5 85%**



	40.7	55.4	62.6	69.9	77.1	84.6	91.8	99.1	106.3	113.8	121	128.2	135.5	143	157.4	
8.2	200000*															8.2
9.8	176368*	139551														9.8
11.5	165345	139551														11.5
13.1	159613	139551	77381	101412												13.1
16.4	127646	127646	77161	99207	76720	77822	73854									16.4
19.7	106482	106482	77161	88184	76720	74736	73854	71429	51367							19.7
23.0	91270	90389	77161	83775	76720	69665	70327	65477	48281	55997						23.0
26.2	77161	77161	77161	80247	76720	65477	65036	61508	45635	51367	46297	35494	38140			26.2
29.5	63492	61729	73193	65036	71209	61508	60627	58863	42990	48281	44312	33951	38140	28880		29.5
32.8		55115	59524	52249	57761	58201	55776	55776	40565	45194	42328	32628	37919	28660	25132	32.8
39.4		37478	43431	35494	41887	46297	42108	42328	36817	40344	38801	29983	36596	27558	25132	39.4
45.9		22266	32849	26455	31305	32849	31085	34392	33289	30864	35494	26676	31746	26455	25132	45.9
52.5			20723	19841	24030	25794	21826	26676	29321	23810	27998	23810	24912	23369	22707	52.5
59.0				11243	18739	20723	16975	19621	23810	20282	22487	21605	20062	20944	20062	59.0
65.6					11464	16755	14330	16755	19621	16094	16535	19621	17416	17857	16975	65.6
72.2						11243	10803	12787	16314	13007	13889	16975	13669	15873	14991	72.2
78.7							5512	10582	13889	10141	12566	14330	11243	13228	12346	78.7
85.3								8598	11684	8157	10582	12346	8377	11243	10362	85.3
91.8										5732	8818	10582	7055	9480	8598	91.8
98.4										4409	6614	9039	5512	7937	7055	98.4
105.0												7716	4409	5952	5071	105.0
111.5													3527	4850	4189	111.5
118.1														3748	3086	118.1
124.6														3086	2205	124.6
131.2															1764	131.2

Notes: The lifting load with a \* followed is available only when additional equipment is used;  
When a load weighing more than 55 t(60 Ust) is lifted, a larger hook block is required for operation.

**UNITS: lb**  
**ASME B30.5 85%**

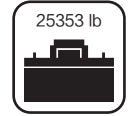
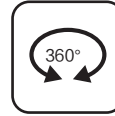
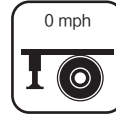
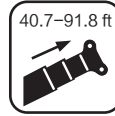


	40.7	55.4	62.6	69.9	77.1	84.6	91.8	99.1	106.3	113.8	121	128.2	135.5	143	157.4	
8.2	200000*															8.2
9.8	176368*	139551														9.8
11.5	165345	139551														11.5
13.1	159613	139551	77381	101412												13.1
16.4	127646	127646	77161	99207	76720	77822	73854									16.4
19.7	106482	106482	77161	88184	76720	74736	73854	71429	51367							19.7
23.0	91270	90389	77161	83775	76720	69665	70327	65477	48281	55997						23.0
26.2	77161	77161	77161	77161	76720	65477	65036	61508	45635	51367	46297	35494	38140			26.2
29.5	63272	61729	69445	61508	67461	61508	60627	58863	42990	48281	44312	33951	38140	28880		29.5
32.8		53792	56438	49163	54674	58201	52690	55776	40565	45194	42328	32628	37919	28660	25132	32.8
39.4		36596	40785	32849	38140	43872	36817	39903	36817	38801	38801	29983	36596	27558	25132	39.4
45.9		21385	30644	23810	27998	31085	29101	29983	33289	28880	33510	26676	30203	26455	25132	45.9
52.5			20062	17637	21385	24251	20282	24912	27558	22266	26235	23810	23369	23369	22707	52.5
59.0				10582	15873	19400	15653	18078	22266	17416	20944	21605	18519	20944	20062	59.0
65.6					11023	15873	13007	15432	18298	14771	15432	18960	14991	17857	16975	65.6
72.2						11023	9480	11684	15212	11905	12787	15873	12566	14771	14991	72.2
78.7							5512	9480	12787	9480	11464	13448	10362	12346	12346	78.7
85.3								7716	10803	7496	9480	11243	7496	10362	9259	85.3
91.8									6614	5071	7937	9700	6173	8598	7716	91.8
98.4										3968	5732	8157	4850	7055	6173	98.4
105.0												7055	3968	5071	4189	105.0
111.5													2866	4189	3748	111.5
118.1														3307	2646	118.1
124.6														2425	1984	124.6
131.2															1323	131.2

Notes: The lifting load with a \* followed is available only when additional equipment is used;  
When a load weighing more than 55 t(60 Ust) is lifted, a larger hook block is required for operation.

# LOAD CHARTS

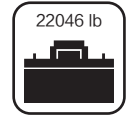
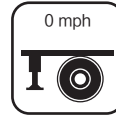
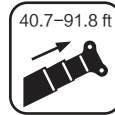
**UNITS: lb**  
**ASME B30.5 85%**



	40.7	55.4	69.9	91.8	
13.1	27558	26676	34171		13.1
16.4	21605	20723	20062	28439	16.4
19.7	17196	16314	15653	22487	19.7
23.0	13669	12787	12125	14550	23.0
26.2	10582	9921	9259	11684	26.2
29.5		7496	7055	9259	29.5
32.8		3968	3307	5732	32.8
39.4				3086	39.4



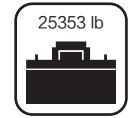
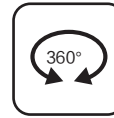
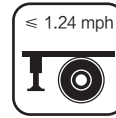
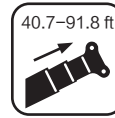
**UNITS: lb**  
**ASME B30.5 85%**



	40.7	55.4	69.9	91.8	
13.1	26455	25353	24692		13.1
16.4	20503	19621	18960	21385	16.4
19.7	16094	15212	14550	16975	19.7
23.0	12787	11684	11243	13448	23.0
26.2	9921	8818	8377	10582	26.2
29.5		5512	6173	8157	29.5
32.8				4409	32.8



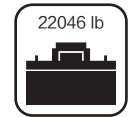
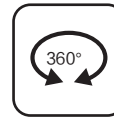
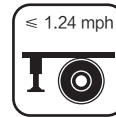
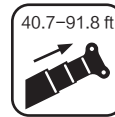
**UNITS: lb**  
**ASME B30.5 85%**



	40.7	55.4	69.9	91.8	
13.1	18960	18519	17857	20503	13.1
16.4	14771	13669	13228	15653	16.4
19.7	11023	10141	9480	11905	19.7
23.0	8157	7275	6614	9039	23.0
26.2	5732	5071	4409	6834	26.2
29.5		3086	2425	4850	29.5
32.8				1984	32.8



**UNITS: lb**  
**ASME B30.5 85%**

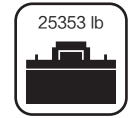
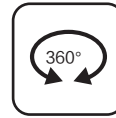


	40.7	55.4	69.9	91.8	
13.1	18298	17416	16755	18078	13.1
16.4	13669	12787	12125	14550	16.4
19.7	10141	9259	8598	11023	19.7
23.0	7275	6393	5732	8157	23.0
26.2	5071	4189	3527	5952	26.2
29.5		2425	1764	4189	29.5
32.8				1323	32.8



# LOAD CHARTS

**UNITS: lb**  
**ASME B30.5 85%**



	157.4+ 34.4			
	0°	15°	30°	
45.9	12125			45.9
52.5	12125	9921		52.5
59	12125	9921	5732	59
65.6	12125	9700	5512	65.6
72.2	11464	9039	5291	72.2
78.7	9921	8377	4850	78.7
85.3	8377	7937	4630	85.3
91.8	6834	7055	4409	91.8
98.4	5512	5732	4409	98.4
105	4850	4630	4189	105
111.5	3968	3968	3968	111.5
118.1	3086	3307	3307	118.1
124.6	2205	2425	2866	124.6
131.2	1764	2205	2425	131.2
137.8	1323	1543	1764	137.8
144.3	1102	1323	1543	144.3
150.9		1102	1102	150.9

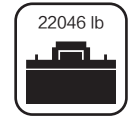
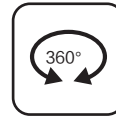
**UNITS: lb**  
**ASME B30.5 85%**



	157.4+ 57.4			
	0°	15°	30°	
45.9	6173			45.9
52.5	6173			52.5
59	6173	4630		59
65.6	6173	4409		65.6
72.2	6173	3968	2425	72.2
78.7	6173	3748	2425	78.7
85.3	5952	3527	1984	85.3
91.8	5512	3307	1984	91.8
98.4	5071	2866	1984	98.4
105	4630	2646	1764	105
111.5	3968	2646	1764	111.5
118.1	3307	2425	1764	118.1
124.6	2646	2425	1764	124.6
131.2	1984	2425	1764	131.2
137.8	1323	1984	1764	137.8
144.3	1102	1323	1764	144.3
150.9		1102	1323	150.9
157.4			1102	157.4
164			1102	164

# LOAD CHARTS

**UNITS: lb**  
**ASME B30.5 85%**



**157.4 ft + 34.4 ft**



	157.4 ft + 34.4 ft			
	0°	15°	30°	
45.9	12125			45.9
52.5	12125	9921		52.5
59	12125	9921	5732	59
65.6	12125	9700	5512	65.6
72.2	11464	9039	5291	72.2
78.7	9921	8377	4850	78.7
85.3	8377	7937	4630	85.3
91.8	6834	7055	4409	91.8
98.4	5512	5732	4409	98.4
105	4409	4630	3968	105
111.5	3527	3527	3748	111.5
118.1	2646	2866	3086	118.1
124.6	1984	2205	2646	124.6
131.2	1543	1764	1984	131.2
137.8	1102	1102	1323	137.8
144.3			1102	144.3

ROUGH TERRAIN CRANE **XCR100\_U**

MASTER OF LIFTING

**UNITS: lb**  
**ASME B30.5 85%**



**157.4 ft + 57.4 ft**








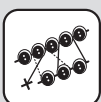





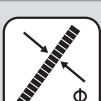
	<b>157.4 ft + 57.4 ft</b>			
	<b>0°</b>	<b>15°</b>	<b>30°</b>	
45.9	6173			45.9
52.5	6173			52.5
59	6173	4630		59
65.6	6173	4409		65.6
72.2	6173	3968	2425	72.2
78.7	6173	3748	2425	78.7
85.3	5952	3527	1984	85.3
91.8	5512	3307	1984	91.8
98.4	5071	2866	1984	98.4
105	4409	2425	1543	105
111.5	3527	2425	1543	111.5
118.1	2866	2205	1543	118.1
124.6	2205	2205	1543	124.6
131.2	1543	1984	1543	131.2
137.8	1102	1543	1543	137.8
144.3		1102	1323	144.3
150.9			1102	150.9













# TABLE OF MAIN TECHNICAL PARAMETERS













CATEGORY	ITEM		UNIT	PARAMETER		ALLOWANCE
Dimensions	Outline dimension (length×width×height)		mm(ft)	14468×3280×3898 (47.5×10.8×12.8)		±1%
	Wheel base		mm(ft)	4000 (13.1)		±1%
	Track ( Front/ Rear )		mm(ft)	2520/2520 (8.3/8.3)		±1%
	Front/ rear overhang		mm(ft)	2466/2518 (8.1/8.3)		±1%
	Front/ rear extension		mm(ft)	5484/0 (18.0/0)		±1%
Weights	Gross vehicle weight		kg(lb)	53423(117608) (10 t(22046 lb) counterweight)	54923(120915) (11.5 t(25353 lb) counterweight)	±3%
	Axle load	Axle 1	kg(lb)	28157 (62086)	27490 (61004)	±3%
		Axle 2	kg(lb)	25266 (55712)	27433 (59911)	±3%
Power	Engine model		—	Cummins B6.7 Teir 4F/Eu stage V		—
	Engine rated power/rpm		kW/(r/min) (hp/(r/min))	209/2000 (280/2000)		—
	Engine rated torque/rpm		N.m/(r/min) (lb-ft/(r/min))	1152/1500 (850/1500)		—
Travel	Maximum travel speed		km/h (mph)	≥34.8(21.6)		—
	Minimum turning diameter		m(ft)	≤13(42.7)		—
	Minimum ground clearance		mm(ft)	550(1.8)		±1%
	Approach angle		°	24		±1°
	Departure angle		°	24		±1°
	Braking distance (at 24km/h(14.9mph) )		m(ft)	≤9(29.5)		—
	Maximum grade ability		%	≥64.6		—








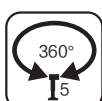



CATEGORY	ITEM		UNIT	PARAMETER	ALLOWANCE	
Main performance	Maximum total rated lifting capacity		t(USt)	90.7(100)	±5%	
	Minimum rated working radius		m(ft)	2.5(8.2)	±1%	
	Slewing radius at turntable tail	At counterweight	mm(ft)	4544 (14.9)	±1%	
	Maximum load moment	Base boom section	kN.m (lb-ft)	2840 (2096559)	±5%	
		Fully-extended boom	kN.m (lb-ft)	1615 (1192233)	±5%	
	Outrigger span	Longitudinal	m(ft)	7.8 (25.6)	±1%	
		Lateral	m(ft)	7.7 (25.3)	±1%	
	Maximum outrigger load		kN(lb)	636 (143,104)	—	
	Lifting height	Base boom section	m(ft)	13 (42.7)	±1%	
		Fully-extended boom	m(ft)	48 (157.5)	±1%	
		Fully-extended boom + jib	m(ft)	63.1 (207.0)	±1%	
	Boom length	Base boom	m(ft)	12.4 (40.7)	±1%	
		Fully-extended boom	m(ft)	48 (157.4)	±1%	
		Fully-extended boom + Jib	m(ft)	65.5 (214.9)	±1%	
Jib offset angle		°	0°, 15°, 30°	—		
Working speeds	Boom raising time		s	≤55	—	
	Boom fully extending time		s	≤110	—	
	Maximum slewing speed		r/min	≥1.5	—	
	Outrigger extending and retracting time	Outrigger beams	Retracting	s	≤35	—
			Extending	s	≤40	—
		Outrigger jacks	Retracting	s	≤40	—
			Extending	s	≤55	—
	Lifting speed (single line, 4th layer, no load)	Main winch	m/min (fpm)	≥145(475.7)	—	
Auxiliary winch		m/min (fpm)	≥90(295.3)	—		

# DESCRIPTION OF SYMBOLS

	Superstructure
	Rated lifting load
	Counterweight
	Slewing radius of variable-position counterweight
	Hook block
	Parts of line
	Boom length combination
	Wind speed
	Configuration
	Optional equipment
	Wire rope length
	Wire rope diameter

	Boom
	Boom length
	Working radius
	Lifting height with boom
	Boom angle
	Extension
	Independent jib head
	Simple jib head
	Fixed jib
	Fixed jib length
	Fixed jib offset angle
	Luffing jib

	Maximum single line pull
	Maximum working speed
	Main winch
	Auxiliary winch
	Chassis
	Outrigger span
	Tires
	Axle load
	Grade ability
	Travel speed
	Luffing
	EN 13000 standard

	Maximum lifting height
	Maximum working radius
	Super lift
	Wind power jib
	Telescoping
	Slewing
	360° slewing
	360° slewing with the 5th jack down
	Side and rear operation
	Operation over front
	Crane on tires

# CONSISTANT SAFE AND RELIABLE MACHINES

G-SAFE LIFE CYCLE SAFE QUALITY

## INTELLIGENT ENGINEERING AND MANUFACTURING LEADS TO QUALITY

- Starting with digital models, XCMG is leading the way with intelligent and quality manufacturing technologies. Integrating process simulation and the latest simulation technologies we have creating a high-end manufacturing platform that combines manufacturing and processes to supply the best cranes.



**INTELLIGENT AND CONSISTANT ASSEMBLING**



**AUTOMATED PAINTING TO INSURE CONSISTANT QUALITY**



**DIGITIZED WELDING AND MACHINING**



**DIGITAL AUTOMATED PROCESS FLOWS**

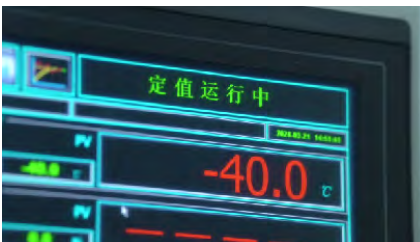


**UNMANNED AUTOMATIC WELDING**

## PARTS AND COMPLETE MACHINE TESTING

- Each new technology and component is required to meet the most stringent design and quality protocols.
- Each complete machine undergoes rigorous run in and testing, components are subject to ongoing testing.

## OVER 2,000 COMPONENTS FROM 123 MANUFACTURERS UNDERGOING LIFE CYCLE TESTING



HMI display  
Low-temperature performance test under -40 °C



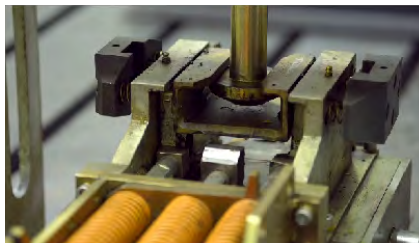
Length measurement sensor  
48-hour rain test



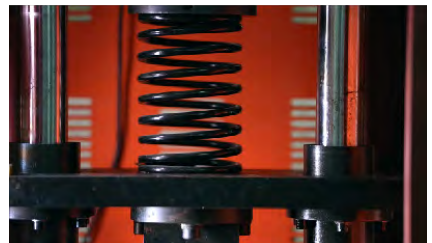
Panel buttons cycled  
1.2 million times



Hydraulic pump undergoing Low-temperature performance test under -40 °C



Telescoping mechanism  
Smoothness test



Telescoping mechanism  
Smoothness test

## 178 POST PRODUCTION FULL-SCALE TESTS ON THE COMPLETE MACHINE



Passability



Climbing & Hill holding



Dynamic & Static lifting

# NOTES FOR LIFTING

- ❖ 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 with the tires free of the ground. The weights of the hookblock, rigging and the rope between the boom tip and block must be deducted as well as optional items such as the auxiliary sheave and jib.
- ❖ 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. The operator will need to take boom deflection into consideration before beginning a lifting operation.
- ❖ A lifting operation is permissible only when the wind force is below grade 5 (instantaneous wind speed is 14m/s (46.2ft/s), and wind pressure is below 124Pa (2.59lb/ft<sup>2</sup>).
- ❖ Before beginning lifting operation, the operator should know the weight of the load to be lifted and the crane's 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.
- ❖ 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 may overturn.
- ❖ The boom should be extended according to the telescoping codes shown on the load charts.



Address: 305A Equipment Ct NE  
Lawrenceville, GA 30046  
Email: [letsgo@xcmgusa.com](mailto:letsgo@xcmgusa.com)  
Phone: 725-605-2777  
Website: [www.xcmg-usa.com](http://www.xcmg-usa.com)

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