Rough terrain crane XCR75_U

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U.S.EPA TIER 4F

XCMG North America Corporation 5145 Schirlls St Las Vegas, NV 89118 Email: xcmgna@xcmg.com Phone: 725-605-2777 Web: www.xcmg-usa.com



INTRODUCTION OF XCMG

XCMG is the leading construction equipment manufacture in China and is the third largest equipment manufacture in the world. In addition, XCMG ranks 305th among the worlds top brands.

XCMG builds 16 categories of equipment including cranes, excavators, concrete production and transporting, earth moving, mining, and road reclamation and paving. XCMG also produces many of its own hydraulic, power transmission, and electronic control systems components. XCMG is the top manufacture in the world of cranes, foundation machines and concrete production and distribution equipment.

XCMG's research and development groups have accumulated more than 9000 patents in China and 130 international patents. There are R&D centers and manufacturing facilitates in 10 countries including Germany, the United States, Brazil and India. The manufacturing facility in Brazil has become a model of economic cooperation between China and Brazil. XCMG exports equipment to 187 countries around the world.

OVERVIEW

XCR75_U is widely used for lifting operations in oilfields, mines, road and bridge construction, etc.







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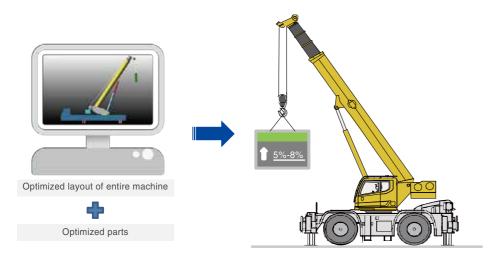






— Wide working range, industry leading lifting capacity

Using the latest multi-body dynamic optimization tools, XCMG engineers were able to reduce the formed boom's deflection and increase the rigidity while giving it 5-8% more capacity.



High mobility and efficiency

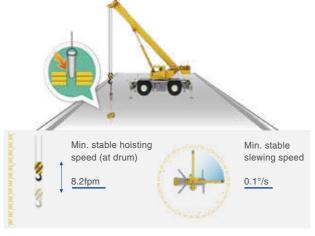
- The XCR75_U has 2 and 4 wheel drive modes, 4 steering modes, and the ability to drive with the boom over the rear. It has the smallest turning radius of any 75ton Rough Terrain Crane;
- High power engine combined with torque converter power shift transmission gives the XCR75_U up to 10% better acceleration and fast job-site transfer;
- 4 wheel drive with differential locks along with deep lugged off road tires enable worry free driving on almost any terrain.





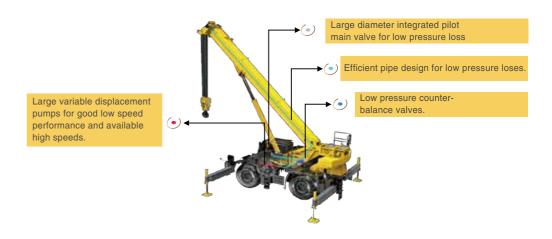
High working efficiency, better stability

- Independent pumps for winch and boom functions give completely independent operation between functions and when needed, the flow can be combined for maximum speed;
- Oversized hydraulic cooler with automatic control along with optional oil heaters allow operation in the most extreme environments:
- Precise and smooth controls contribute to higher operator efficiency.



Three major energy-saving measures lead to lower use cost

 A duel variable displacement load sense hydraulic system along with gravity assisted boom lowering contribute to a 10-15% reduction in fuel use under varied working conditions.



Three major energy-saving measures lead to lower use cost

ECO energy-saving centrol function lead to 5%-9% reduction in fuel consumption under various working conditions.

The torque converter with lockup function features large torque at low speeds and high efficiency at high speed

leading to 20% reduction in fuel consumption.



Fault self-diagnosis

• Fault can be inquired at the touch of a button.



More intelligent

Automatic planning of working conditions

After entering information about the load to be lifted and the details of the lift, the LMI will list out possible crane
configurations that can be selected to complete the job.



Steering mode is selected only by one key

 All steering movements are controlled by the steering wheel. Any steering mode can be selected at any time and the rear wheels will automatically align to the correct angles.



XCMG exclusive one knob steering mode selection makes for quick mode changes.

Response time < 500ms Accuracy < 0.5°

Active safety protection

- With European, North American, GCC and Chinese standards complied, maximum active protection is ensured;
- For increased transportation safety, the XCR75_U includes automatic fault warnings,automatic braking, automatic shifting and speed limiting depending on the driving modes and crane configuration.



XCMG human-machine interaction system

Controls designed around the operator include buttons grouped into functional areas, full display of of crane
information, ingratiated fault diagnosis, lift planning, crane set up and active load monitoring.



People-oriented design, comfortable to drive

 Complete climbing/maintenance access, dedicated human-machine engineering simulation analysis and user-oriented detail design contribute to perfect combination of functionality and aesthetics.



Boom	5 section, with 3 telescoping modes. Formed U-shaped cross section from ultra high strength steel. 6 lower boom head sheaves. Boom length:38.7ft~147.6ft.
Jib	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: 30.2ft~52.5ft.
Engine	QSB6.7, in line, six-cylinder water-cooled compression ignition diesel engine, manufactured by Cummins, with rated power of 260/2200(bhp/rpm), max. torque of 730/1500(ft-lb/rpm), U.S. EPA Tier 4F emission standard compliant. Fuel tank capacity: approx. 80.6gal
Transmission	6WG210, automatic transmission from ZF Germany, with 6 forward and 3 reverse gears.
Axles	High strength axles with front and rear steering and driving.
Tires	4 specialized off-road tires, large load capacity. Tire specifications: 29.5R25.
Steering	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 mode is changed.
Brakes	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 applied, hydraulic released disk brake on front axle.
Electrical System	24 V DC, two sets of 12 V battery in series. It is equipped with LMI, headlights, turning lights, reversing lights, turntable working light, boom working light, slewing warning light, etc.
Hydraulic system	A dual-variable displacement pump, used for hoisting, luffing and telescoping operations, and a gear pump, used for slewing, outrigger, steering and braking operations; a load sensing proportional multi-way directional valve is used as main valve; includes an independent hydraulic oil cooler. Tank capacity: approx. 295.7gal.

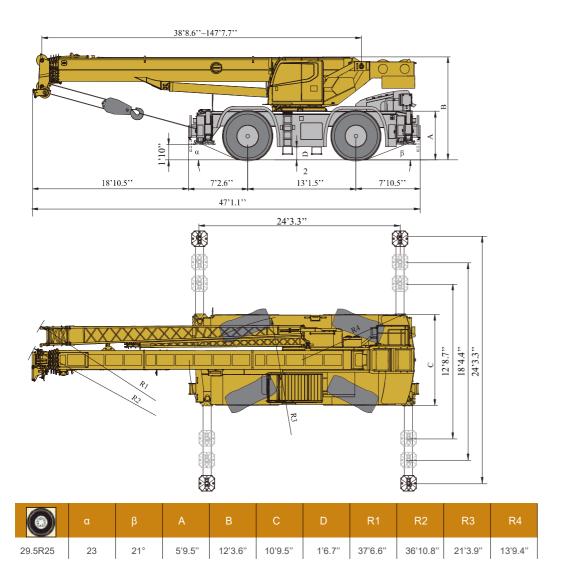
Main and auxiliar winch system	ryThe system is driven by hydraulic motors through planetary gear reducers, with constant closed brakes and equipped with counter balance valve.						
Slewing system	Single-row four-point ball contact slewing ring, driven by a hydraulic motor through planetary gear reducer, and with a normally closed brake fitted.						
Operator's cab	Tiltable cab, with sliding door and adjustable seat. It is equipped with safety glass and roof protective grille. Sun shade is installed on for windshield and roof window. Heater and air conditioner, radio, 12 V and 24 V DC outlets are standard configuration.						
Safety devices	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, 360° turntable locking device .						
Counterweight	13889lb •						
	19842lb. Two counterweight configurations of 0 t and 19842lb are available. (If the optional O 19842lb slab is selected, the 13889lb standard slab will not be supplied.)						
Hook Block	60USt hook block, 5.5USt hook block.						

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

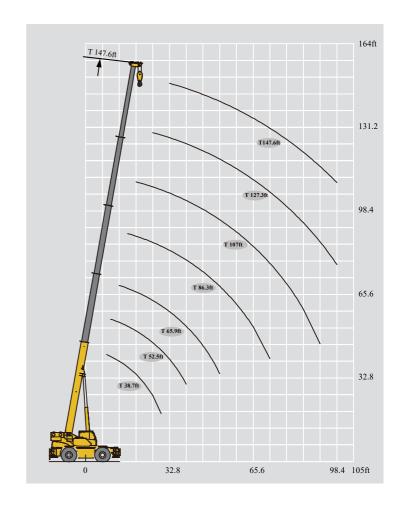
- ——it means the standard configuration;
- ——it means the optional configuration.

TECHNICAL SPECIFICATIONS

Dimensions



Lifting heights



Lifting capacities (T 38.7~147.6ft)













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	38.7ft	52.5ft	65.9ft	72.8ft	107.0ft	127.3ft	147.6ft	59.1ft	79.7ft	100.1ft	120.4ft	72.8ft	93.2ft	113.5ft	134.2ft
8.2	154323*														
9.8	132277	93696						60627							
11.5	121254	95901						61729							
13.1	110231	99208	81571					62832	44092			59525			
14.8	101413	94799	81571					62832	44092			59525			
16.4	88185	88185	73855	59525				62832	44092			59525	46297		
19.7	73855	73414	69446	59525	41888			62832	44092	27558		59525	46297		
23	60627	60627	60407	59525	39242			60627	44092	29542		59525	46297	27558	
26.2	51809	51809	50706	59525	38360	26455		51809	44092	29542		52911	46297	29321	
29.5	44092	44092	44092	59525	37479	25353		44092	43651	29542		44092	45636	29321	
32.8		39022	38140	52911	36376	24692	20503	38801	40785	27337	11023	39683	37258	29321	
39.4		27117	26235	44092	29101	22487	19401	30644	32187	23810	11023	29542	31085	26235	
45.9			18960	39683	22708	21385	18739	23149	24692	21164	18739	22046	23589	23369	14330
52.5			13889	29542	17637	18519	17196		19401	18960	16535	16976	18298	19180	17637
59.1				22046	13889	14771	14550		15653	16535	14771	13228	14550	15432	16094
65.6				16976	11023	11905	12566		12787	13669	13228		11684	12566	13228
72.2				13228	8818	9700	10362			11464	11905		9480	10362	11023
78.7					7055	7937	8598			9700	9921		7716	8598	9259
85.3					5071	6393	7055			8157	8378			7055	7716
91.9					3968	5291	5952				7275			5952	6393
98.4						3968	4850				6173			4850	5512
2nd	0	50%	100%	100%	100%	100%	100%	0%	0%	0%	0%	50%	50%	50%	50%
3 rd	0	0	0	25%	50%	75%	100%	25%	50%	75%	100%	25%	50%	75%	100%
4th	0	0	0	25%	50%	75%	100%	25%	50%	75%	100%	25%	50%	75%	100%
5th	0	0	0	25%	50%	75%	100%	25%	50%	75%	100%	25%	50%	75%	100%

The lifting load with a * followed is available only when the boom sheave block is used together with the single top, with 13 parts of line.

Table of main technical parameters

Category	Item		Unit	Parameter		
	Outline size (length×wi	dth×height)	ft	47.1×10.8×12.3		
	Wheel base		ft	13.1		
Dimensions	Track (Front/ Rear)		ft	8.3/8.3		
	Front/ Rear overhang		ft	7.2/7.9		
	Front/ Rear extension	ft	18.8/0			
	Total vehicle mass in tra	lb	103077			
Weight	Axle load 1st ax	de	lb	53467		
	2nd a	xle	lb	49610		
	Engine model		QSB6.7			
Power	Engine rated power/rpm	bhp/(rpm)	260/2000			
	Engine rated torque/rpn	lb.ft/(rpm)	730/1500			
	Max. travel speed		mph	≥24.9		
	Min. turning diameter	ft	≤42.7			
	Min. ground clearance		ft	1.6		
Travel	Approach angle	0	23			
	Departure angle	o	21			
	Braking distance (at 14.	.91 mph)	ft	≤29.5		
	Max. grade ability	%	≥70			
Category	Item		Unit	Parameter		
	Max. total rated lifting capac	ity	USt	75		
	Min. rated working radius	ft	8.2			
	Tail swing at turntable tail	ft	13.8			
	Max. load moment	Base boom	lb-ft	1496218		
Main	wax. load moment	Fully-extended be	oom lb-ft	902038		
performa-	Outrigger span	Longitudinal	ft	24.3		
nce	Outrigger spair	Lateral	ft	24.3		
	Hoist height	Base boom	ft	42		
	Tioist neight	Fully-extended be	oom ft	148.6		
	Daniel I and the	Base boom	ft	38.7		
	Boom length	Fully-extended be	oom ft	147.6		
	Jib offset angle	0	0°、15°、30°			
Working	Boom raising time	S	≤50			
	Boom fully extending time	S	≤90			
Working speed	Max. slewing speed		rpm	≥1.5		
	Hoisting speed (single line,	Main winch	fpm	≥492		
	4th layer, no load)	Auxiliary winch	fpm	≥328		

OPTIMUM SERVICES, XCMG GUARANTEED



XCMG approved attachments



Genuine parts



Financial solutions



Maintenance contract



Professional Integrated Complete Solutions

XCMG group has built a strong reputation based on the quality, reliability and durability of its construction machinery. What's more, XCMG has gradually established a service network to constantly provide its local integrated and highly efficient complete solutions for all customers.

Full Range of Services Ready for you

In order to respond to your needs as fast as possible, XCMG experts are on their way to your job site from one of our facilities near you. Full range of services are available in order to reduce your total cost of ownership and increase your revenue.

XCMG Global Spare parts System

