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Grúas · Transportes · Montacargas · Maniobras

Lázaro Cárdenas No. 2951 Col. Álamo industrial, Tlaquepaque Jal. C.P. 45593

XCMG 徐工集团

徐工集团起重机械事业部
XCMG HOISTING MACHINERY BUSINESS DIVISION

Code of handbook

C1

XCT90 Truck Crane Brochure

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DEVELOPMENT COURSE

The history witnesses our innovation and progress!

1963
QY51 was launched, which was the first generation Chinese Mechanical Crane.

1970s
XCMG took the lead in involving in full hydraulic truck crane sector.

Later in 1990s
New generation of K series Truck cranes was launched, which took the lead in the industry in terms of technical development direction.

2002
QAY 25 was launched, which was the first Chinese All Terrain Crane with independent intellectual property rights.

2007
240 t and 300 t All Terrain Cranes were successfully developed and put into markets, which presented a full product line of hundreds-tonnage cranes (130 t ~300 t).

2008
400 t and 500 t All Terrain Cranes were successfully developed and put into markets, and the key technology of large tonnage cranes was mastered.

2010–2012
A full product line of thousands-tonnage All Terrain Cranes was completed.
All Terrain Cranes were awarded National Science & Technology progress prize in terms of key technical development and industrialization.
QAY1600, the largest All Terrain Crane in the world, were successfully shown in 2012 Shanghai Bauma.

2014
With the technical platform of G1 wheeled cranes completely applied, the G1 cranes were launched, which took the lead in the industry in terms of technical development direction.

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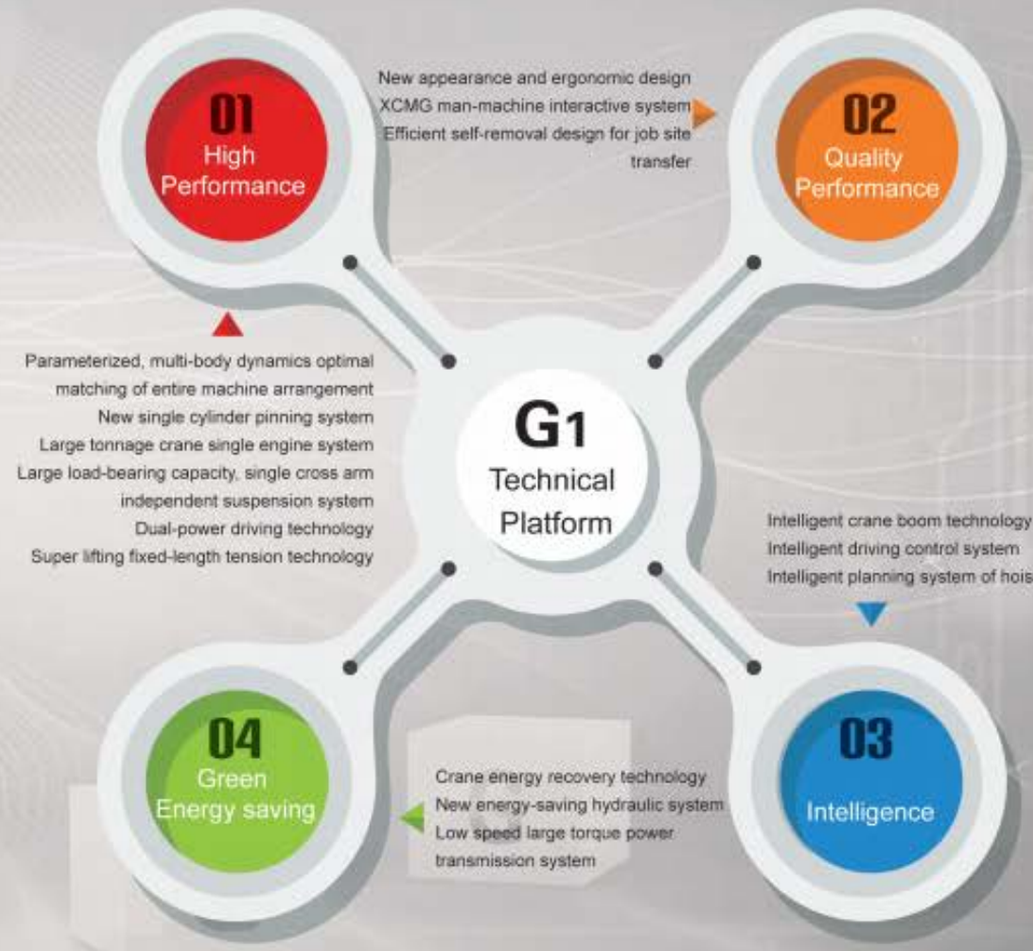
G1 Wheeled Cranes

G1

Technical innovations derive from continuous exploration into markets, users and engineering applications. In 2014, XCMG made a new initiative once again, i.e. launched new G1 cranes, which were based on the leading G1 technical platform and took the lead in the world in terms of technical development direction of wheeled cranes. The G1 cranes include XCT (Truck crane code) and XCA (All terrain crane code) two family lines.

Each G1 crane model is a classic work, which integrates various leading technologies in the G1 technical platform, and will bring customers with new experience in terms of high performance, quality performance, science and technology intelligence, and green energy saving. They also are the products that continuously lead the technical revolution in the industry!



CONTENTS

I. Product orientation

Four-axle optimal truck crane, energy-saving, high efficiency and operating performance takes the lead in the industry. Overall layout is optimized design, lifting performance and driving performance take the in the industry. With new energy-saving hydraulic system and low speed large torque power transmission system adopted, energy consumption is lowest in its class.

1.1 Market orientation

The crane is designed to mainly aim at domestic market, and to take international market requirements into consideration. Various options are available to meet the demands from various markets.

It is widely used for the lifting operations in general engineering projects, such as construction site, urban renewal, communication and transportation, ports, bridges, oilfields and mines, and complex working environments.

1.2 Competitive product

Manufacturer	Model	Basic information	Launching time
Sany	STC1000A	Four-axle truck crane, all-wheel steering, GVW in travel configuration is 46 t, six-section U-type boom of 56 m, two-section fixed jib of 15.5 m, and optional jib insert of 6 m is available.	2015

XCT90 Truck Crane Key Advantages XCMG

II. Key advantages

High performance
Six-section new designed boom (58 m) with new single-cylinder pinning telescoping system

Ergonomic design
XCMG man-machine interactive system, provides comfortable operating experience

Energy-saving
Energy recovery technology and new energy-saving hydraulic system, open XCMG new green energy-saving pattern

Compact structure
Overall length of 14 m, overall width of 2.78 m in travel configuration

Intelligent and safe
Intelligent boom technology, more intelligent and easier selection of working conditions

Powerful
Low speed large torque power transmission system, 12% reduction in fuel consumption and 10% improvement in grade ability

All-wheel steering
Turning radius of 10 m, better manoeuver ability

XCT90 Truck Crane G1 Generation Truck Crane

2.1 Super lifting performance

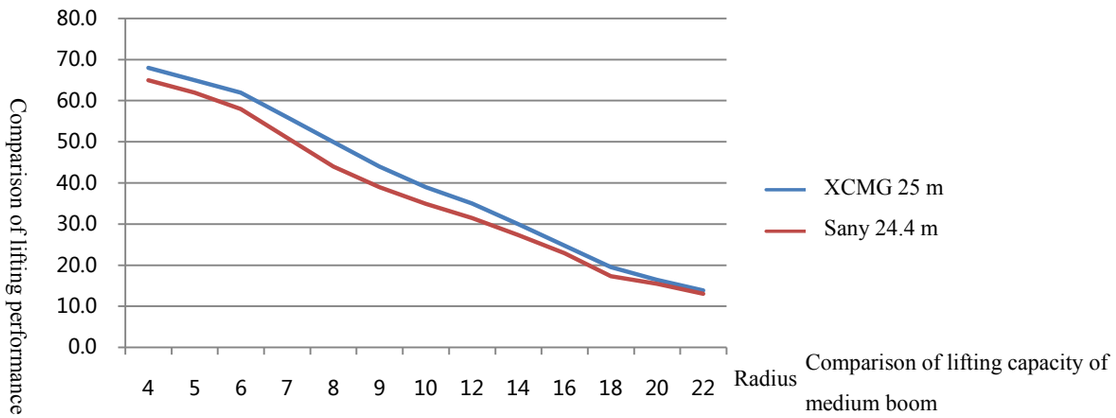
Maximum boom length is 58 m, the lifting capacity of the crane is 5%~15% higher than the highest level in the industry, both lifting performance and the working range take the lead in its class.

(1) Comparison of boom length and lifting height

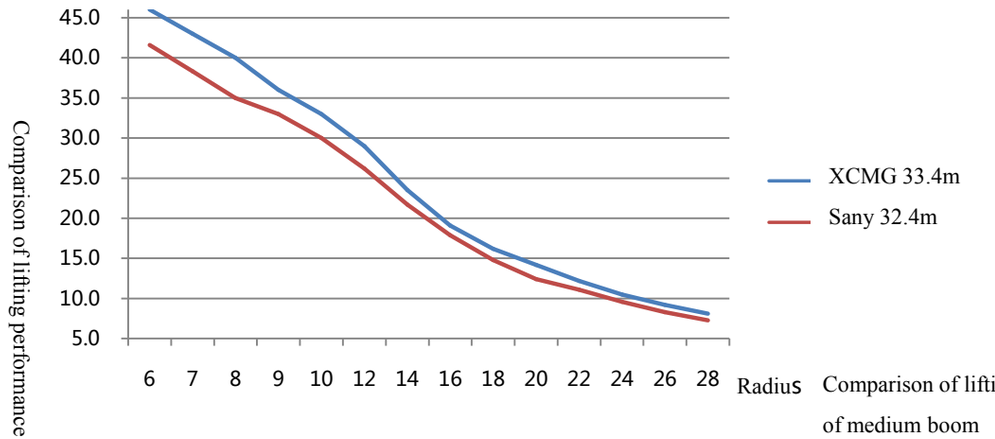
Item	XCMG XCT90	Sany STC1000A
Max. boom	58	56
Max. jib	18.3 (25.3)	15.5 (21.5)
Max. lifting height of boom	58	56
Max. lifting height of boom +jib	75 (82)	71.5 (77.5)

(2) Comparison of lifting capacity and performance

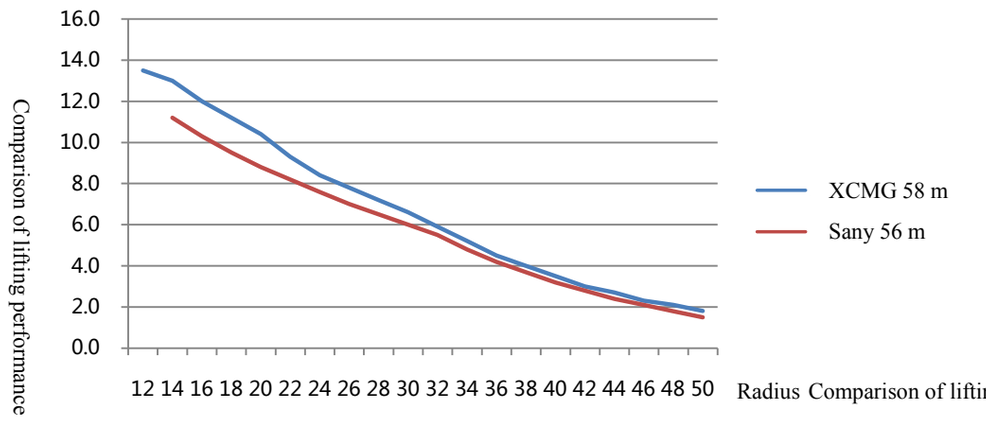
The lifting capacity of the crane is 5%~15% higher than Sany's STC1000A.



Comparison of lifting capacity of medium boom



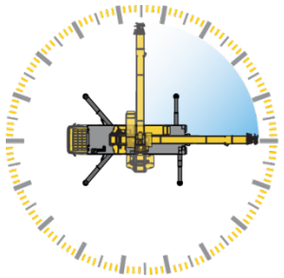
Comparison of lifting capacity of medium boom



Comparison of lifting capacity of max. boom

2.2 New energy-saving hydraulic system

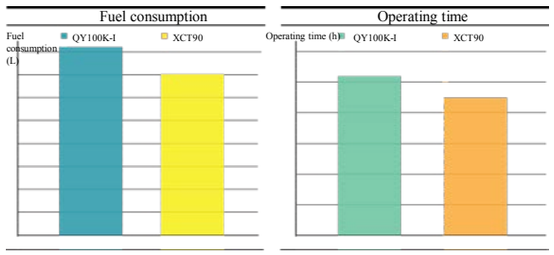
XCMG exclusive new energy-saving hydraulic system with optimized hydraulic parts, combined with intelligent engine control technology, improves energy utilization, resulting in more than 15% reduction in fuel consumption; independent, large power hydraulic cooling system is designed to efficiently reduce hydraulic oil temperature and improve the continuous operating time of the crane and hydraulic system reliability; double-pump confluence control and large displacement pump contribute to leading performance of simultaneous movements and more than 10% improvement in the working efficiency; electrical proportional pump control system, with precise control of flow, leads to more than 20% improvement in inching control and smoothness, bringing best operating experience and more economic value for users.



The minimum stable slewing speed is **0.1° /s.**

The minimum stable lifting speed (at drum) is **2.5 m/min**

Hoisting **Elevating, slewing** **Elevating, lowering**

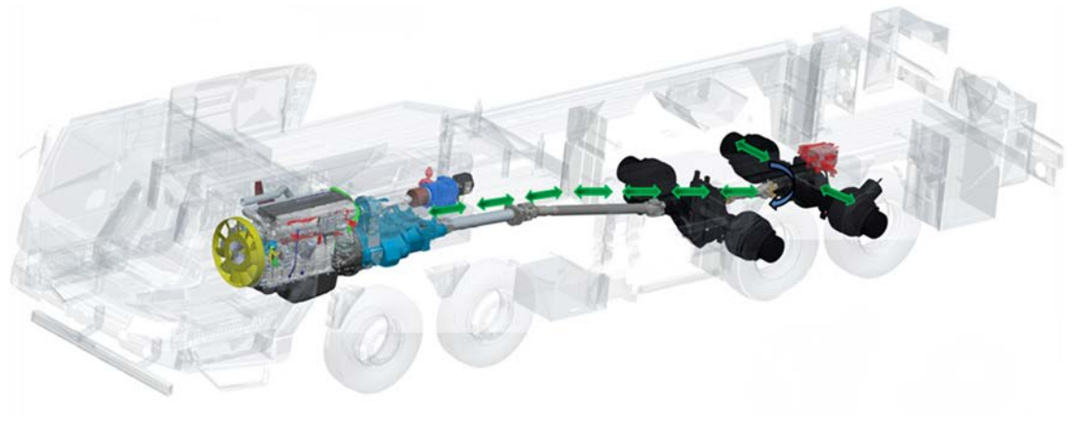


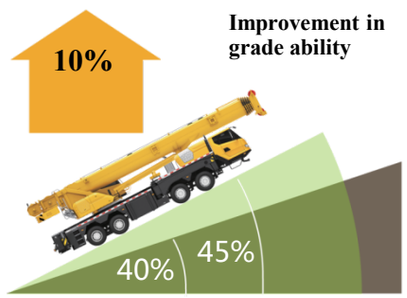
Fuel saved: 15% **High efficiency: time saved 10%**

Significant improvement in fine control, meeting accurate hoisting requirement

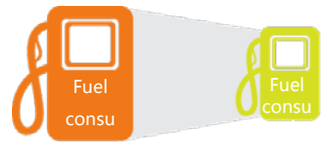
2.3 Low speed large torque power transmission system

Low speed large torque power transmission system, contributes to perfect combination of optimal power and optimal economical efficiency, leading to more than 20% reduction in fuel consumption and 10% improvement in grade ability.





Improvement in grade ability



Reduction in fuel consumption

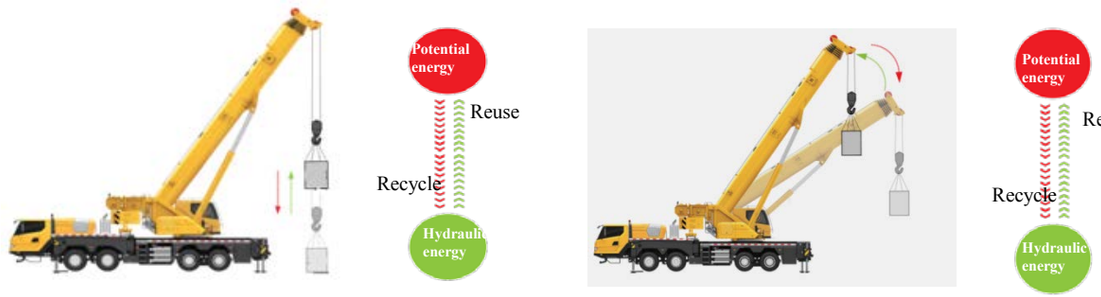
More than 12%

Lowest fuel consumption

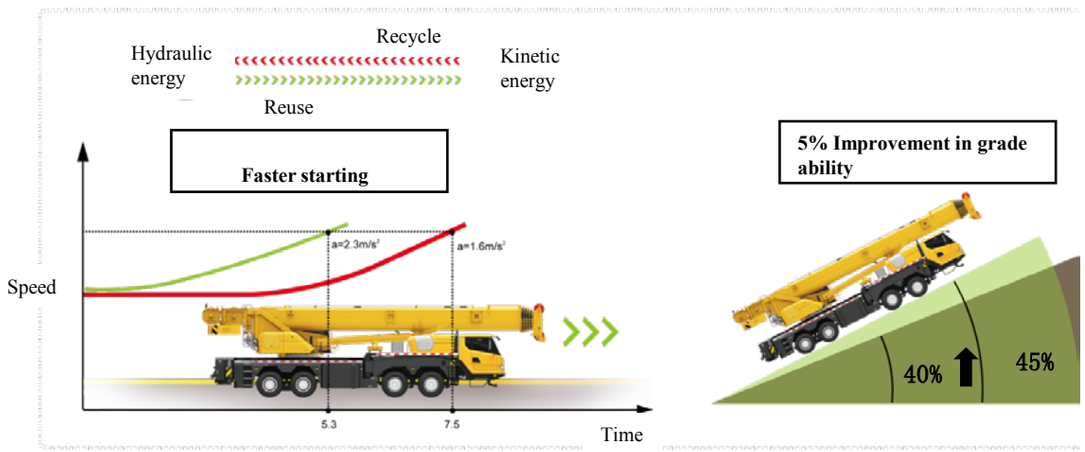
The fuel saved is 500 L by calculation according to 10,000 km per year, compared with competitive products

2.4 Energy recovery technology (optional)

The pioneering energy recovery technology is adopted to recycle and reuse the potential energy from the movements of lowering hook and boom, resulting in 15% average oil-saving rate.



With hydraulic recovery system, the energy generated by the braking system is constantly stored, in result, the acceleration performance after starting, grade ability and braking performance on long downhill are improved.

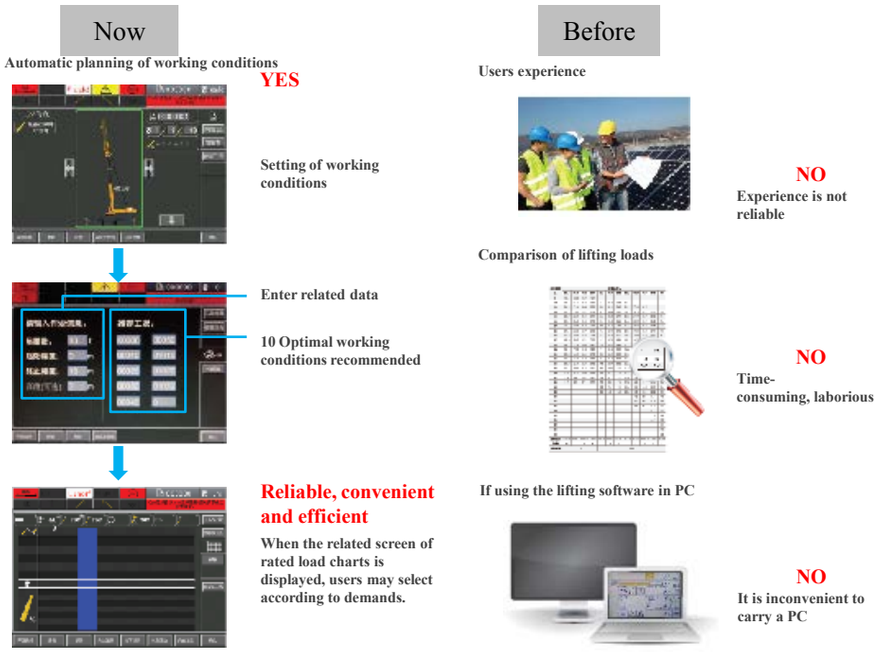


2.5 Intelligent boom technology

With breakthrough of traditional crane control idea, the in-house design of the intelligent crane boom technology enables automatic planning of working conditions, winch rope servo control, automatic elevating compensation function. greatly improves the automation of boom system control, lifting efficiency and lifting safety.

(1) Automatic planning of working conditions

After the information about lifting load, the initial and final working radii, and lifting hight are entered on the display, the system will automatically recommend the most proper working conditions, which can meet lifting demands. Inquiring working conditions for users at anytime is possible, so that there is no necessary to take relevant materials and equipment, and at the same time, simplifying the setting process of working conditions and reducing operating errors.



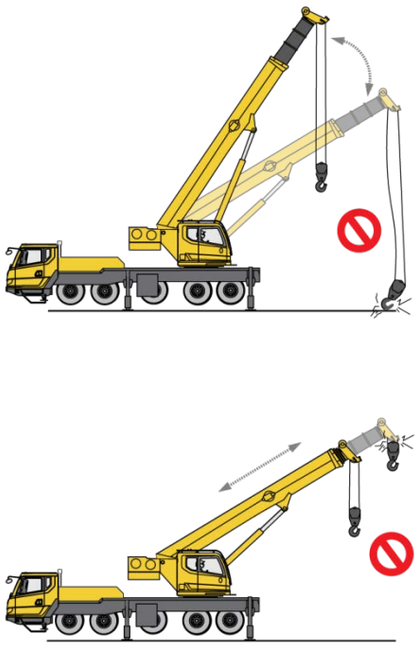
The query time is or less than 10 s; 10 optimal working conditions are recommended.

With the planning software used, user's operating practices will become standard, the operation safety will be improved, the most effective hoisting plans will be provided and the working efficiency will be increased.

Control technology of winch rope servo action

During telescoping and elevating operations, the control system automatically controls the spooling in and out of winch rope, leading to reduction in operating time by 20%, easier, safer and more reliable operation.

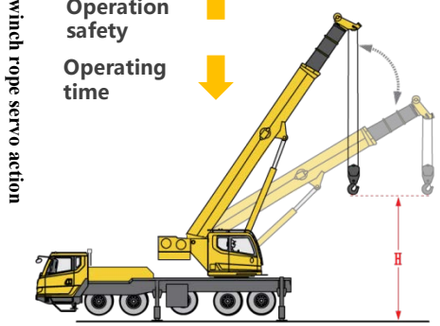
Without control technology of winch rope servo action adopted



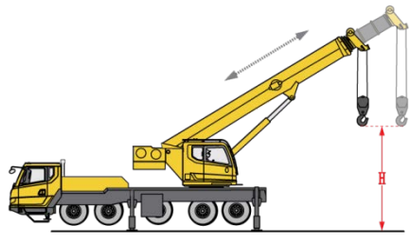
Technology of winch rope servo action

Operation safety

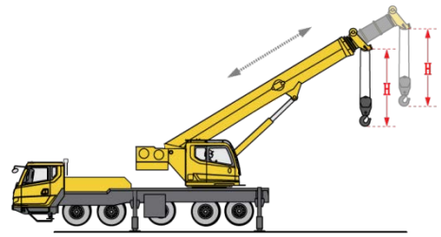
Operating time



Winch rope servo action mode while elevating the boom



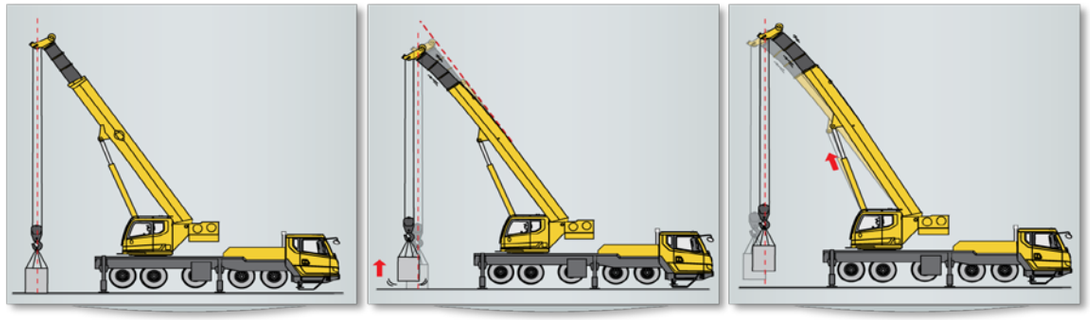
Winch rope servo action mode while telescoping the boom



Winch rope servo action mode while telescoping the boom

(3) Elevating compensation control technology

It works by controlling boom angle to compensate radius change caused by boom deformation while the load is clearing of the ground, which will facilitate vertical load lifting and reduce operating difficulty and improve lifting safety.



Preparation of lifting operation → Boom deformation while the load is clearing of the ground → Vertical load lifting due to automatic elevating compensation

2.6 XCMG man-machine interactive system (single screen)

First launched in the industry, man-machine interactive system with the level of a car enables friendly dialog between operator and the crane. Information about driving and lifting operations may be known easily, leading to easier and more convenient operation.

10.4 in. color touch screen

Ergonomically designed working space, offers more comfortable and safer operating environment.

User friendly man-machine interaction due to 13 intelligent and informative interactive techniques

Three control areas for safety protection, lifting operation and operating environment make control easier and more convenient

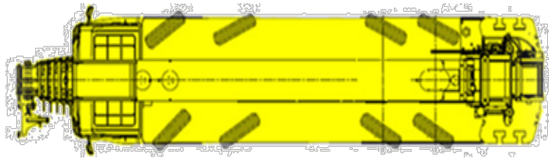
Knob control, simple to operate

Driving state indicating area

2.7 Cylinder-controlled steering system (all-wheel steering)

- Three steering modes of rear wheel locked, all-wheel steering and crab walk, contribute to reliable driving stability at high speeds and manoeuver ability at low speeds.
- Steering angle error caused by accumulation of hinge point gap and linking system deformation is avoided, fuel consumption and tire wear are reduced.

Rear wheel locked steering mode

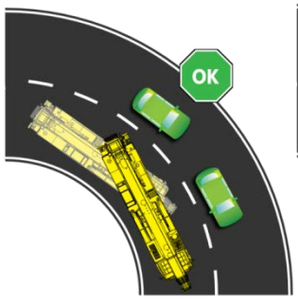


All-wheel steering mode

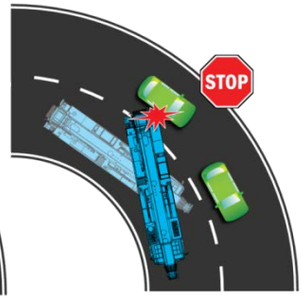
Crab walk steering mode

Domestic competitive product: mechanical pull rod + hydraulic boost steering system

- Simple steering mode, fixed steering angle relationship, big steering diameter and inflexible steering.
- Big steering angle error due to accumulation of hinge point gap and linking system deformation, and large swing of rear wheel, poor stability at high speeds, serious tire wear.

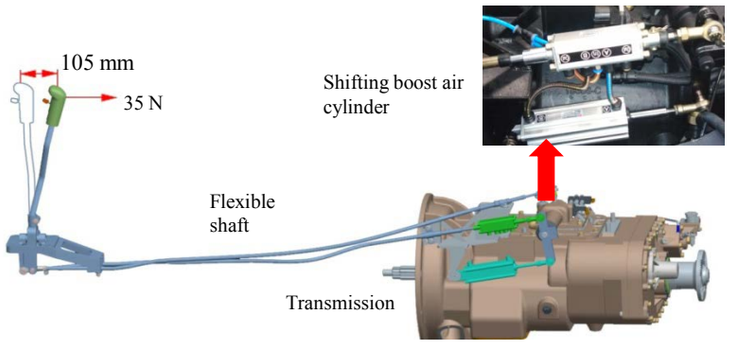


XCT90
Steering mode is automatically selected



Domestic competitive product
Manoeuver ability at low speeds and driving stability at high speeds could not be simultaneously ensured

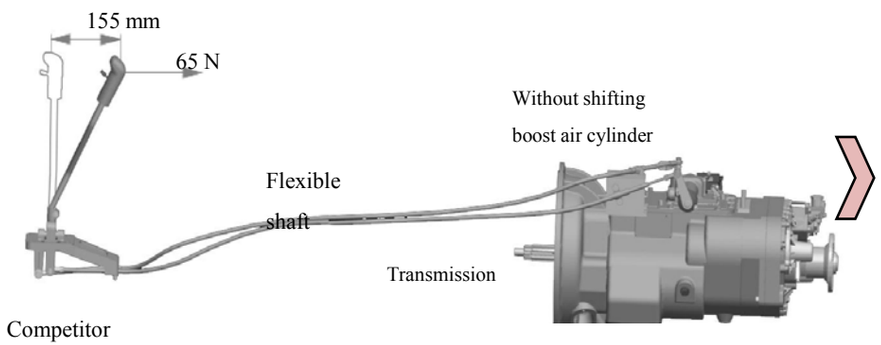
2.8 Shifting boost system



➢A shifting boost air cylinder is added, leading to less shifting force and shorter shifting stroke, and it is effortless and comfortable manipulate;

➢High reliability, mechanical shifting is possible in case of fault.

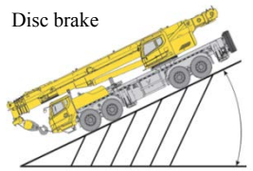
XCT90



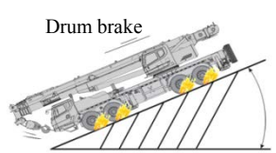
Competitor

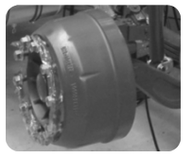
➢ Without a shifting boost air cylinder fitted, large shifting force and longer shifting stroke are needed, leading to poor shifting comfort and fatigue after driving for a long time.

2.9 Disc brake, measurement of outrigger pressure, safe and reliable operation



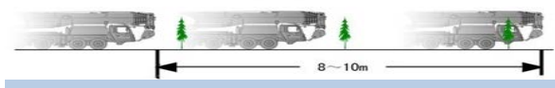
➢ Disc brake has better stability, high reliability and less heating





➢ Drum brake is liable to break into pieces, more heating and poor reliability

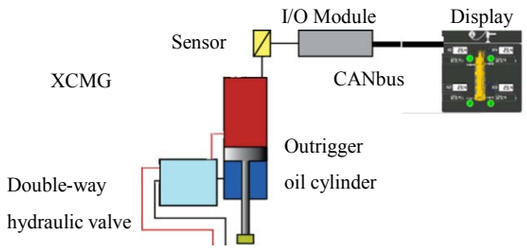
➢ Braking system pressure is increased, quick response and good effect



➢ Braking system pressure is lower, slow response and general effect

Measurement of outrigger pressure

➢ Outrigger pressure detection function, enables to detect outrigger pressure in real time. When the operation stability is insufficient or actual outrigger pressure exceeds the set scope, emergency alarm will sound to prevent tipping-over accident



- Competitive product has not outrigger pressure detection function，. Tipping-over accident is liable to occur when outrigger pressure is too large， or stability is insufficient.

2.10 G1 generation appearance and ergonomic design

New G1 generation appearance design presents power and vigor, such as the fashionable appearance of driver's cab and operator's cab, delivering the feeling of perfect combination of streamlining and strength; with ergonomic analysis and personalized consideration of details integrated, a quality product is created that is convenient to maintain, easy to drive and comfortable to operate.

Brand new appearance design——perfect presentation of original visual experience

New designed appearance

·Strong structure
·Dynamic outline
·Excellent parts and components

·Development with ergonomics
·Design compliant with the international standards
· Manufacture with advanced and optimized process

Ergonomic design

Comfortable, safe and aesthetic

III. Comparative analysis

3.1 Specification comparison

Category	Item		XCMG	Sany
	Product name		XCT90	STC1000A
Lifting performance	Boom length	Basic boom (m)	12.4	12.26
		Maximum boom (m)	58	56
		Maximum boom + jib (m)	76.3 (83.3)	71.5 (77.5)
	Outrigger span	Longitudinal (m)	7.95	7.9
		Lateral (m)	7.9	7.8
Speed	Hoisting speed	Main winch(m/min）	135	123
	Telescoping speed	Fully extending (s)	450	480
	Slewing speed (r/min)		1.8	1.6
Travel	Engine	Manufacturer	Hangzhou Man/WEICHAI POWER	Dongkang
		Rated power (KW)	297/276	275
	Max. travel speed (km/m)		90	80
	Max. grade ability %		45	40
	Minimum turning radius (m)		10	10.5
	Minimum ground clearance (mm)		367	320
	Fuel consumption per 100 km (L)		45	50

3.2 Comparison of main configurations

No.	Item	XCT90	STC1000A
1	Engine	Hangzhou Man/WEICHAI POWER	Dongkang
2	Transmission	SHAANXI FAST	SHAANXI FAST
3	Axle	Chongqing Dajiang, Meritor Axle	Chongqing Dajiang
4	Tire	Double Coin Holding Ltd. Guizhou Tyre Co., Ltd. Triangle Group Co., Ltd	—
5	Main pump	Rexroth	Rexroth
6	Main valve	SUNBUN	Self-made
7	Winch motor	Rexroth	Rexroth
8	Winch reducer	DALIAN HUARUI, Tai'an Fushen	Sany subordinate company
9	Slewing ring	Rothe Erde Maanshan Fangyuan	Sany subordinate company

3.3 Competitiveness comparison

Items		XCT90	STC1000A	Advantages
Performance	Operation performance	1. Six-section boom of 12.4 m~58 m 2. Operating efficiency: Hoisting:135 m/min Slewing: 1.8 r/min Elevating: 50 s Extending boom: 450 s	1. Six-section boom of 56 m 2. Operating efficiency: Hoisting:123 m/min Slewing: 1.6 r/min Elevating: 60 s Extending boom: 480 s	Operation performance is better than competitive product Lifting performance is 10%~15% better than competitive product
	Driving performance	1. Max. travel speed: 90 km/h 2.Grade ability: 45% 3. Min. ground clearance: 367 mm 4. Approach angle: 21°	1. Max. travel speed: 80 km/h 2.Grade ability: 40% 3. Min. ground clearance: 320 mm 4. Approach angle: 21°	Driving performance is better than competitive product
Technical advancement	Energy-saving, environmental protection	1. With the power transmission system of low speed large torque matched, high power performance and low fuel consumption are perfectly combined, fuel consumption per 100 km is 45 L. 2. Low pressure loss hydraulic system with electrical proportional variable pump, large inner diameter main valve, balance valve opened by low pressure, and key parts that structure are optimized, contributes to 15% reduction in energy loss. 3. Energy recovery technology	1. Fuel consumption per 100 km: 50 L 2. Electrical proportional variable pump controlled hydraulic system with cartridge main valve, less throttling pressure loss	During superstructure operation, energy-saving is better than competitive product
	Controllability	1. Electrical proportional pump controlled speed-regulation, high performance motor, minimum stable winch speed second to none, more suitable for precise lifting operation; 2. Closed hydraulic system for slewing, electrical proportional control, better manipulation performance; 3. A sliding valve is used as main valve, leading to smoother switching of system and less pressure impact.	1. Electrical proportional pump controlled speed-regulation, high performance motor, better minimum stable winch speed; 2. Closed hydraulic system for slewing, electrical proportional control, better manipulation performance; 3. A cartridge valve is used as main valve, which is liable to generate pressure impact during switching of system, and poor stability when starting and stopping a movement.	The controllability during superstructure operation is better than competitive product

3.3 Competitiveness comparison

Items		XCT90	STC1000A	Advantages
Technical advancement	Safety	1. Electrical wiring harness is waterproof and enclosed, resulting in decreased use of plug-ins 2. Man-machine interactive panel and control box are integrated and modular, leading to reduced external wire connection and improved reliability.	Industry security protection generally used	Safe and reliable
	Intelligent	1. Intelligent boom technology 2. Fault diagnosis 3. Measurement of outrigger pressure, and real-time feedback of outrigger stress 4. Infinite regulation of operating speed	—	It is convenient to manipulate, high control precision

IV. Conversation skills

1. How about the price of XCT90?

XCT90 is mounted on a four-axle truck crane chassis, which is absolute beyond its value compared to the traditional five-axle hundred-tonnage products. And the higher the price, the better the quality. XCT90 adopts XCMG new G1 generation technical platform. Significant improvements are realized in terms of performance, economy, intelligence and ergonomics, which will greatly improve your working efficiency, and enable you to get more jobs, higher income, at the same time, the operation and maintenance cost will be reduced. It's certainly worth it.

2. Is there any significant change in XCT90 compared to QY90KA?

The biggest change is four-axle single engine rather than five-axle dual-engine. Compact structure, overall length is not more than 14 m, height is not more than 4 m, width is 2.78 m. With all-wheel steering system equipped, turning radius is 10 m.

GVW of the crane in travel configuration is 48 t, with jib and medium hook block on the crane. The convenience for job site transfer is fully taken into consideration during design, 6.5 t counterweight may be taken on the crane during job site transfer for short distance, which maximizes the convenience of use for users.

3. XCT 90 has a maximum lifting capacity of 90 t. Does it have competitive advantage compared with Sany STC1000A (four-axle 100 t model)?

Based on the planning of our company's overall product lines, the crane is defined as 90 t class truck crane.

XCT90 takes the lead in terms of maximum load moment, lifting performance and driving performance, compared with STC1000A, which has been done in part III.

4. XCT90 is equipped with an all-wheel steering system. What competitive advantage does it have compared with the domestic competitive cranes?

XCT90 is equipped with a cylinder-controlled steering system, which enables three steering modes of rear wheel locked, all-wheel steering and crab walk, contributing to reliable driving stability at high speeds and manoeuver ability at low speeds; at the same time, steering angle error caused by accumulation of hinge point gap and linking system deformation is avoided, fuel consumption and tire wear are reduced.

5. XCT90 has a very high intelligent level. How to ensure the reliability?

The intelligent technologies applied to XCT90 have been tested and approved in the manufacturing factory, and are certified by Chinese professional testing department, and the reliability can completely satisfy the requirements for normal use. Application of intelligent technologies will greatly reduce operating strength and difficulty, and the rate of wrong operation, meanwhile, will improve operating safety and bring new experience for the users.

Truck crane

Model: XCT90

Technical specifications

Lifting capacity	
Max. lifting load	90 t
Dimension	
Overall length	13985 mm
Overall width	2780 mm
Overall height	3990 mm
In travel configuration	
Total weight	48000 kg
Axle load: 1st Axle	12000 kg
2nd Axle	12000 kg
3rd Axle	12000 kg
4th Axle	12000 kg
Performance	
Max. travel speed	90 km/h
Max. grade ability	45%
Boom	Six-section, 12.4 m～58 m
Length of boom + jib (with an optional insert)	76.3 m (83.3 m)
Max. lifting height of boom	58 m
Max. lifting height of boom +jib (with an optional insert)	75 m (82 m)

Xuzhou Heavy Machinery Co., Ltd.

Features and advantages of XCT90

XCT90 Truck crane is designed to mainly aim at domestic market, and to take international market requirements into consideration. It is mounted on a self-made special chassis, which is suitable for driving on a wide range of roads. It has high lifting height, powerful lifting capacity and high working efficiency. It is widely used for the lifting operations in general engineering projects, such as construction site, urban renewal, communication and transportation, ports, bridge, oilfields and mine, and complex working environments.

XCT90 truck crane is mounted on a four-axle truck crane chassis, which has an all-wheel steering system and China V engine. Six-section boom with oval cross-section, new single-cylinder pinning telescoping system, two-section lattice jib, built-in double independent winches, low speed large torque power system, combined counterweight, K-type outriggers and new energy-saving hydraulic system are available. Jib inserts and independent jib head are optional. Intelligent crane boom technology contributes to safety and reliable operation. Newly designed appearance and man-machine interactive system are designed to meet personalized demands from users. Its performance takes the lead in the industry. It is safer, more reliable and energy-saving to operate.

(1) High performance

The latest optimized matching technology for complete machine is used. The six-section boom with oval profile is made of high strength steel. The boom cross-section is optimized to reduce the boom torsion and side bending during lifting operations. New single-cylinder pinning telescoping system contributes to faster telescoping speed and higher reliability. Plug-in sliders are used to effectively increase the overlapping length of adjacent boom sections, resulting in improved lifting capacity; compact boom tail structure is designed to enhance the telescoping rate of each boom section, leading to enlarged boom length. The boom can be fully extended up to 58 m, which is 2 m longer than the competitive products in the same class in the industry. Double-stage K-type outriggers have span of 7.9 m×7.95 m, significantly improving crane's stability; the lifting capacity of the crane is 5%~15% higher than the highest level in the industry.

The new power system consists of a low speed large torque engine and a transmission with

high speed ratio and over drive contributes to strong driving performance, high load-bearing capacity and better stability, resulting in max. grade ability of 45% and max. travel speed of 90 km/h, which are take the lead in the industry.

(2) Energy-saving

A multiple-unit control hydraulic system with electric proportional variable pump and electrical proportional directional valve can detect the speed and load of hydraulic actuators by digital feedback function. The innovative low pressure loss hydraulic system with piston pumps contributes to 15% reduction in average fuel consumption. The pioneering technology to control the double electric-controlled pump confluence makes significant improvement in the working efficiency and meets the demand of simultaneous movements. The external-controlled boom gravity fall combined with power lowering boom leads to improved lowering speed, which leads to 30% increase in the working efficiency. The new generation intelligently controlled hydraulic system is designed for the cooling system. The real-time control of opening and closing of the radiator, and the rotating speed of the radiator is available. In addition, the radiator core fins are optimized, resulting in 10% improvement in cooling performance and 25% reduction in energy consumption for cooling.

With the power system of low speed large torque matched, high power performance and low fuel consumption are perfectly combined, i.e. 45 L fuel consumption per 100 km, which is 10% lower than the competitive products in the same class in the industry.

The pioneering energy recovery technology (optional) is adopted to recycle and reuse the potential energy from the movements of lowering hook and boom, resulting in 15% average oil-saving rate, and to recycle and reuse the kinetic energy from the braking motion during travel, resulting in increased speed up to 30 km/h after starting to move for 5.3 sec and 5% improvement in grade ability.

(3) Intelligent

The latest control technology platform is adopted to perform intelligent crane operations and travel control. The in-house designed intelligent crane boom technology, such as automatic planning of working conditions, winch rope servo control, automatic elevating compensation function greatly improves the automation of boom system control and lifting safety.

(4) Controllability

A high precision electrical proportional pump and an electric-controlled multi-way valve are used to regulate the operating speed and prevent pressure shock during lifting operations, greatly improving the reliability of lifting operations. During heavy-load winch working condition, the min. stable speed is 2.5 m/min. An oil-refilling circuit specially designed for the winch and precise brake control contribute to the response speed in millisecond and protection

against winch speed out of control and prevent the load from sliding down while starting second lift.

Due to the independent low-speed large torque closed system and innovatively designed electrical proportional pressure-adjusted slewing buffer valve, the fine control for slewing movements is up to 0.1°/s, which takes the lead in the industry.

(5) Layout

Four-axle specialized truck crane chassis, with all-wheel steering system equipped, has an overall length of 14 m, width of 2.78 m and min. turning radius of 20 m, compact and manoeuvrable.

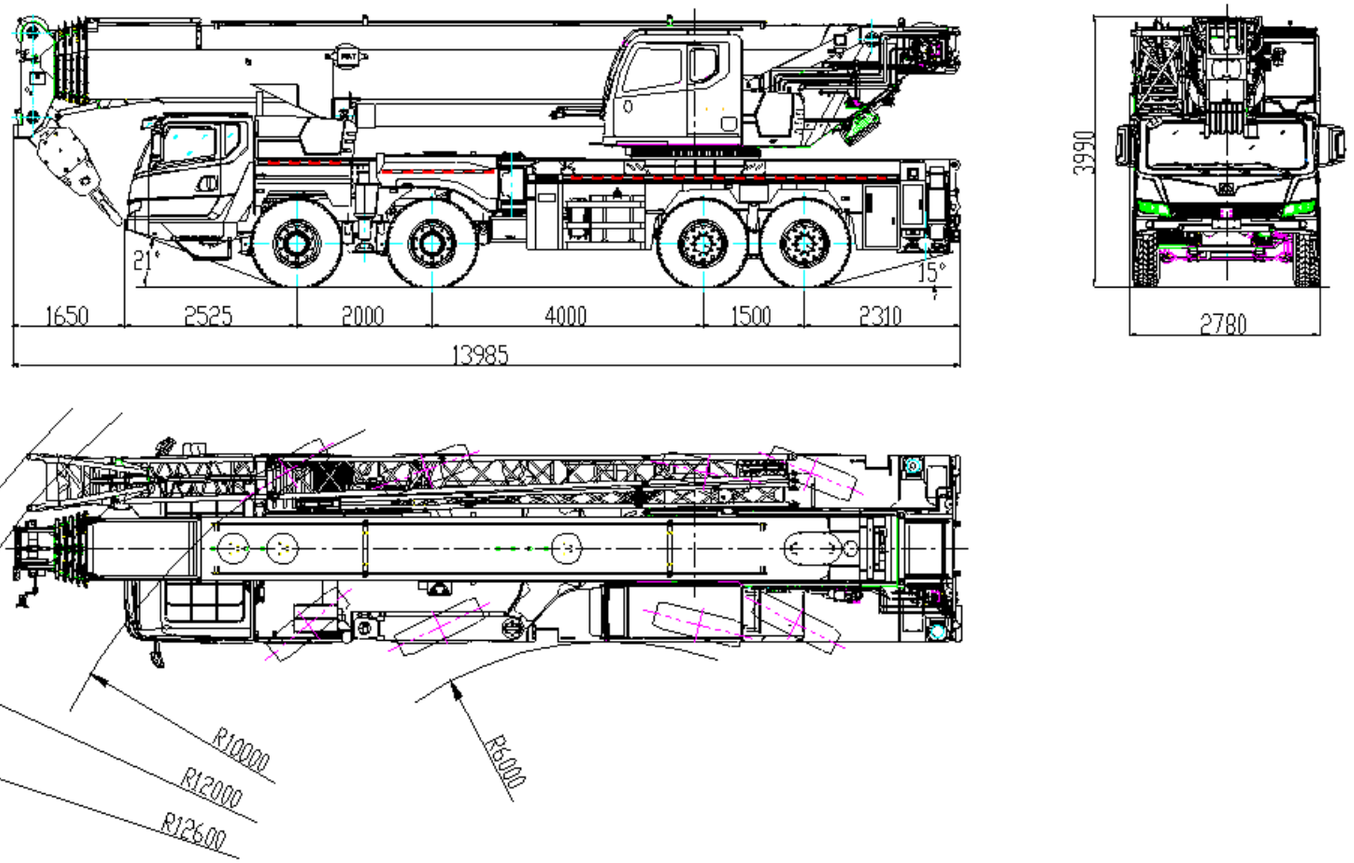
Total weight of the crane in travel configuration is 48 t, with jib and hook block of 60 t on board. The counterweight of 6.5 t may be taken on the crane during short-distance job site transfer.

(6) Appearance and ergonomics

The crane has newly designed XCMG G1 appearance of Truck 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's comfort. New designed aluminium deck presents aesthetic.

XCMG man-machine interactive system with the level of a car, i.e. ergonomically designed work space, 13 intelligent and informative interactive techniques and user friendly man-machine interaction are available. Newly designed chassis virtual instrument screen gives support to monitor chassis running state.

Outline & Turning track of crane in travel configuration



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Technical specifications of superstructure

Model	XCT90
Hydraulic system	Hydraulic pump: it is a electric proportional variable piston pump driven by an engine and it is used for lifting, elevating and telescoping operations. A closed pump is used to drive slewing operation. Control valve: switched solenoid change valve Oil circuit—— there is an air cooled hydraulic oil cooler equipped to effectively reduces the oil temperature. Oil tank capacity……about 840 L
Boom	Six-section U-type telescopic boom, made of high-strength structural steel, with single-plate boom head and compact boom tail. Single-cylinder pinning telescoping system enables a variety of boom combination. Boom length……12.4 m～58 m Fully-extending speed: 450 s is needed for fully extending the boom to 58 m.
Jib	The jib consists of a connecting bracket, a rotating bracket and two lattice sections. Three offset angles of 0°, 15° and 30° are available. It is stowed along the side of the boom. An insert of 7 m and an independent jib head of 2.9 m are optional. Jib length: 10.8 m/18.3 m/25.3 m
Single top Boom auxiliary pulley	Fitted at boom head, used for single line operation. Its lifting performance is the same as that for boom, but the maximum lifting load does not exceed 7,000 kg.
Elevating system	A single cylinder is used for front supporting elevation. A balance valve with load compensation function is used to prevent the speed of boom elevating down too fast, resulting in smooth motion. The newly designed way, which combines

external oil pressure-controlled free-fall with the rod chamber pressure-controlled balance valve, is used for boom elevating down, leading to decreased fuel consumption and shortened lowering speed.

Elevating speed……the time for elevating the boom from -0.5° to +81° is approx. 40 s.

Main winch system

Hydraulic control is used for speed regulation. The system is driven by a hydraulic motor through a planetary gear reducer, with a normally closed brake, a balanced valve and a grooved drum equipped.

The main and auxiliary winches can be operated separately.

It has features of high speed with a light load and low speed with a heavy load.

Single line pull: 82 kN

Single line speed (no load): 135 m/min

Diameter × length: φ20 mm×260 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, a balanced valve and a grooved drum equipped.

The main and auxiliary winches can be operated separately.

It has features of high speed with a light load and low speed with a heavy load.

Single line pull: 71.5 kN

Single line speed (no load): 105 m/min

Diameter × length: φ20 mm×180 m

Hook block

No.	Hook type	Lifting capacity (t)	Sheave block	Parts of line	Weight (kg)	Qty	Remark
1	Main hook block	90 t	6	12	1010	1	
2	Medium hook block	60 t	4	8	540	1	
3	Auxiliary hook block	7 t	—	1	256	1	

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, and may continuously slew 360° °. Power control or free slewing function is available, and the slewing speed may be infinitely regulated. Slewing speed……0～1.8 r/min
Operating way	Pilot electric proportional control is used for controlling the superstructure. Also employed are PLC integrated intelligent control technology and CANBus control network. Besides of normal control function, real-time monitoring, fault diagnostic and fuzzy inquiry of working conditions are available.
Operator's cab	New fully-enclosed steel cab has better sealing and anti-corrosive properties. It is equipped with a full-view front window. Safety glass and sun shield are used for windows. The cab features a new ergonomic seat design with backrest adjustment and armrests with joysticks fitted. A sliding door and a pull-out step are available to make it easy and safe as access and egress the cab. Wipers are fitted for the windshield and roof window. Controllers and indicators are ergonomically arranged for safe and comfortable operation.
Safety devices	Hydraulic balance valve; Hydraulic relief valve; Double-way hydraulic valve; Load moment limiter; Lowering limiter prevents wire rope from over releasing; Anti-two block at boom head prevents wire rope from over-winding;
LMI	Hirschmann LMI, a safety protective unit located in the operator's cab. When the actual load moment is approaching overloading value, audible warning will be sent out, and the dangerous operation will be automatically stopped ahead of overloading. Overload memory function (black box) and fault self-diagnosis function are available.

What can be shown continuously is as follows:

Load moment percentage
Actual lifting capacity
Rated lifting load
Radius
Boom length
Boom angle
Max. lifting height
OM code
Parts of line
Limit angle
Information code

Combined counterweight

Total weight is 29 t.

Counterweight configurations: 6.5 t, 15.5 t, 21.6 t and 29 t

Counterweight combinations:

Working condition	Total weight (t)	Combination sequence
1	29	①+②+③+④+⑤
2	21.6	①+②+③
3	15.5	①+②
4	6.5	①

List of counterweight slabs is as follows:

Name	Counterweight slab A	Counterweight slab B	Counterweight slab C	Counterweight slab D	Counterweight slab E
Dead weight (t)	6.5	9	6.1	3.7	3.7
Qty	1	1	1	1	1

Color

Chassis, wheel rim: grey

Driver's cab and superstructure: engineering yellow.

Technical specifications of chassis

Model — Left-hand drive steering wheel, drive/steering type is 8×4×8, axles 3 and 4 for driving, all-wheel steering.

Frame — Designed and manufactured by XCMG, it is made of high strength steel with fully covered walking surface, optimized load-bearing structure design and anti-torsion box-typed structure.

Engine

Model	MC11.40-50	WP12.375E50
Type	In line, six-cylinder, water cooled, supercharging intercooler, high pressure common rail, compression ignition engine	
Manufacturer	CHINA NATIONAL HEAVY DUTY TRUCK GROUP CO., LTD.	WEICHAI POWER
Power/kw/rpm	297/1900	276/1900
Torque/N.m/rpm	1900/1000～1400	1800/1000～1400
Total displacement/L	10.518	11.596
Fuel tank capacity	Approx. 300 L	
Emission standard	China V	China V
Remark		

Chassis hydraulic system — Constant displacement open system. The variable piston pump is connected to the transmission through PTO, and constant displacement is controlled by an solenoid valve.

Main parameters of chassis hydraulic system:

Transmission — Mechanical transmission 10JSD180TB, made by Shaanxi Fast Gear Co., Ltd., manual flexible shaft control, 10-forward speed and 2-reverse speed with a synchronizer.

Clutch — Dry, pull-type, diaphragm spring clutch.

Steering — All-wheel steering, axles 1 and 2 are mechanically steered + hydraulic power assistance, axles 3 and 4 are steered through cylinder control.

Axle	Four-axle chassis, axles 1 and 2 are high strength load-bearing axles for steering, axles 3 and 4 are steering and driving, made by famous makers through adoption of foreign advanced technology, with reliable performance. 1st axle: single tire, for steering; 2nd axle: single tire, for steering; 3rd axle: single tire, for steering and driving 4th axle: single tire, for steering and driving
Propeller shaft	Cross serrated flange is adopted for connection of propeller shaft, enlarged transmission torque. The transmit of the propeller shaft is stable and reliable due to optimized power transmission.
Suspension	Leaf spring balanced suspensions are adopted for front axle, and dual longitudinal arm leaf spring balanced suspensions are adopted for rear axle, increasing the bounce amount of axles, leading to improved pass ability and optimized constraint of axles.
Braking system	Service braking: foot pedal operated double-circuit air pressure brake. The first circuit acts on the wheels of axles 1 and 2; the second circuit acts on the wheels of axles 3 and 4. Parking brake: air-release brake, acting on the 3rd and 4th axles, it works through the spring-loaded air chamber on each axle. Auxiliary brake: engine exhaust brake and engine retarder brake.
Hydraulic system	The hydraulic system of outriggers is a constant displacement open-circuit system. The variable piston pump is connected to the transmission through PTO. Extension cylinders, jack cylinders and swinging cylinders are controlled by solenoid valves: Front outrigger beams are deployed by swinging control and rear outrigger beams are deployed by extending control.
Outriggers	Front outrigger beams are swung, rear outrigger beams are extended, with 4-point supported and fully hydraulic controlled. There is an outrigger control panel installed at each side of chassis, with level gauge to level crane. The ball joint device of outrigger float is stowed

under outrigger jack. The design of outriggers is used to lift the whole body of crane to let the crane work better under different conditions.

Outrigger span:

Longitudinal × lateral: 7.95 m×7.9 m
Float dimension: φ450 mm
Reaction force of outrigger at max. lifting load……820000N

Electric system — 24V DC, negative ground, 2 batteries. There is a perfect illuminating system complying with Chinese road traffic standard, including head lamps, front and rear 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, electrical adjustable 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.

Tool box — A set of maintenance tools is supplied.

List of parts transported by a trailer

No.	Name		Weight kg	Total weight t	Outline dimension m	Remark
1	Hook block	90 t	1010	32.5	855×610×1754	
		7 t	256		426×426×731	
2	Auxiliary winch system (wire rope included)		975		733×777×1174	
4	Jib insert		450		640×1005×7100	Optional
5	Independent jib head		420		870×1723×3150	Optional
	Spare tire		300		1364×1364×390	
6	Single top		95		480×752×860	
7	Counterweight	Counterweight slab A	6500		1070×1275×2750	
		Counterweight slab B	9000		1070×1275×2750	
		Counterweight slab C	6100		1070×1275×2750	
		Counterweight slab D	3700		875×900×1070	
		Counterweight slab E	3700		875×900×1070	

Main parts list

(Take real parts as standard)

No.	Name	Manufacturer
1	Chassis engine	CHINA NATIONAL HEAVY DUTY TRUCK GROUP CO., LTD. WEICHAI POWER
3	Transmission	SHAANXI FAST GEAR Co., Ltd.
4	Steering gear	Jiangmen Xingjiang Steering Gear Co., Ltd. Nantong Huanqiu Steering Gear Co., Ltd.
5	Axle	Chongqing Dajiang Xinda Vehicle Company Limited Meritor Axle Co., Ltd.
6	Tire	Shanghai Double Coin Holding Ltd.
7	Chassis hydraulic pump	Bosch Rexroth (China) Xuzhou Keyuan Hydraulic Co., Ltd.
8	Extension cylinder	Xuzhou Hydraulic Parts Co., Ltd. XCMG Zhangjiakou Changyu Construction Machinery Hydraulic Cylinder Co., Ltd.
9	Swing cylinder	Xuzhou Hydraulic Parts Co., Ltd. XCMG Zhangjiakou Changyu Construction Machinery Hydraulic Cylinder Co., Ltd.
10	Jack cylinder	Xuzhou Hydraulic Parts Co., Ltd. XCMG Zhangjiakou Changyu Construction Machinery Hydraulic Cylinder Co., Ltd.
11	Rear jack cylinder	Xuzhou Hydraulic Parts Co., Ltd. XCMG Zhangjiakou Changyu Construction Machinery Hydraulic Cylinder Co., Ltd.
12	Superstructure multi-way valve	Zhejiang Shengbang Science & Technology Co., Ltd. Xuzhou Hydraulic Parts Co., Ltd. XCMG
13	Slewing ring	Xuzhou Rothe Erde Slewing Bearing Co., Ltd. MAANSHAN FY SLEWING RING
14	Slewing motor	Zhonghang Liyuan Hydraulic Co., Ltd. Xuzhou Shengbang Machinery Co., Ltd. Beijing Huade Hydraulic Industry Group Co., Ltd.
15	Slewing reducer	DHHI General purpose reducer factory
16	Main winch motor	Bosch Rexroth
17	Main winch reducer	DHHI General purpose reducer factory
18	Main/auxiliary winch rope	Cootet Outan
19	Main winch motor	Bosch Rexroth
20	Auxiliary winch reducer	DHHI General purpose reducer factory
21	Elevating cylinder	Xuzhou Hydraulic Parts Co., Ltd. XCMG Chengdu Hydraulic Cylinder Co., Ltd.
22	Telescoping cylinder	Xuzhou Hydraulic Parts Co., Ltd. XCMG Chengdu Hydraulic Cylinder Co., Ltd.
23	LMI	Xuzhou Hirschmann Electronics Co., Ltd.

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24	Steel plate for boom	BAOSTEEL, SSAB
25	Hydraulic connector	Jianhu Tejia Hydraulic parts Co., Ltd. XCMG Xuzhou Hydraulic parts factory
26	Electric proportional lever	Xuzhou Hirschmann Electronics Co., Ltd.

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Technical Specifications

Main Technical Data Table of XCT90 in Travel configuration

(Subject to technical improvement)

Category	Item		Unit	Parameter	
Dimension	Overall length		mm	13985	
	Overall width		mm	2780	
	Overall height		mm	3990	
	Wheel base		mm	2000+4000+1500	
	Track		mm	2354×2354/2291×2291	
	Front overhang		mm	2525	
	Rear overhang		mm	2310	
Weight	Total mass in travel configuration		kg	48000	
	Axle load	Axle 1	kg	12000	
		Axle 2	kg	12000	
		Axle 3	kg	12000	
		Axle 4	kg	12000	
Power	Chassis engine model			MC11.40-50	WP12.375E50
	Engine rated power		kW/(r/min)	297/1900	276/1900
	Engine rated torque		N.m/(r/min)	1900/1000～1400	1800/1000～1400
Travel	Travel speed	Max. travel speed	km/h	90	
		Min. travel speed	km/h	1.7~3	
	Turning diameter	Min. turning diameter	m	20	
		Min. turning diameter at boom tip	m	25.2	
	Min. ground clearance		mm	367	
	Approach angle		°	21	
	Departure angle		°	15	
	Braking distance (at 30 km/h)		m	≤10	
	Max. grade ability		%	45	
	Fuel consumption per 100 km		L	45	

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Main Technical Data Table for Lifting Operation

(Subject to technical improvement)

Category	Item			Unit	Parameter
Main performance	Maximum rated lifting capacity			t	90
	Min. rated working radius			m	3
	Turning radius at turntable tail	(at counterweight)		mm	4400
		(at auxiliary winch)		mm	4580
	Max. load moment	Base boom		kN.m	3528
		Fully-extended boom		kN.m	2038
		Fully extended boom + jib		kN.m	1358
	Outrigger span (Fully extended)	Longitudinal		m	7950
		Lateral		m	7900
	Lifting height	Base boom		m	12.8
		Fully-extended boom		m	58
		Fully extended boom + jib		m	75
		Length of boom + jib (with optional insert)		m	82
	Boom length	Base boom		m	12.4
		Fully-extended boom		m	58
		Fully extended boom + jib		m	76.3
		Length of boom + jib (with optional insert)		m	83.3
	Jib offset angle			°	0, 15, 30
Working speed	Boom elevating time	Boom raising		s	≤50
	Time for telescoping the boom	Fully extended		s	≤450
	Max. slewing speed			r/min	≥1.8
	Outrigger extending and retracting time	Outrigger beam	Simultaneously extending	s	≤40
			Simultaneously retracting	s	≤30
		Outrigger jack	Simultaneously extending	s	≤40
			Simultaneously retracting	s	≤30
	Hoisting speed (single line, no load, 4th layer)	Main winch system		m/min	135
		Auxiliary winch system		m/min	105

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Rated Load Charts

(In the table, lifting load in t, boom length and working radius in m)

Rated Lifting Load Table for Boom of XCT90 Truck Crane

On fully-extended outriggers of 7.9 m, with counterweight of 29 t																		
Boom length (m)/ Radius (m)	12.4	16.6	16.6	16.6	20.8	20.8	20.8	25	25	25	29.2	29.2	29.2	29.2	33.4	33.4	33.4	33.4
3	90.0	78.0	78.0	80.0														
3.5	90.0	76.0	76.0	80.0														
4	88.0	72.0	74.0	78.0	50.3	70.0	71.0	52.7	55.8	65.0								
4.5	79.0	68.0	72.0	74.0	48.1	67.0	68.0	50.7	52.5	65.0								
5	70.0	64.0	65.0	68.0	46.4	65.0	66.0	48.7	49.3	62.0	50.3	55.0	54.1	34.1				
6	61.0	57.0	58.0	59.0	42.7	58.0	59.0	45.5	44.3	56.0	47.3	55.0	47.7	31.0	34.5	46.0	40.0	32.3
7	50.0	50.0	50.0	51.0	39.0	49.0	50.0	42.5	40.0	50.0	44.5	50.0	42.9	28.6	30.2	43.0	38.0	30.0
8	44.0	43.0	43.5	44.0	35.6	43.0	44.0	39.4	36.6	44.0	41.0	45.0	38.9	26.3	27.4	40.0	36.0	28.0
9	37.0	38.0	39.0	40.0	32.9	39.0	40.0	36.6	33.4	39.0	38.0	40.0	35.5	24.5	25.1	36.0	33.3	25.9
10		34.0	34.0	35.0	30.0	35.0	36.0	33.9	30.5	35.0	34.0	35.0	32.5	22.7	23.4	33.0	29.7	24.2
12		29.2	28.6	27.9	26.5	29.0	27.6	30.0	26.2	28.4	30.0	29.3	27.3	20.1	20.3	30.0	25.5	21.5
14					24.0	22.1	21.1	24.8	22.1	21.8	24.0	22.6	21.4	17.9	17.7	23.5	22.2	19.3
16					19.5	17.6	16.6	19.6	17.6	17.3	19.6	18.1	16.9	16.1	15.8	18.9	17.6	17.6
18								16.5	14.3	14.0	16.2	14.8	13.7	14.7	14.2	15.6	14.4	16.1
20								13.9	11.9	11.6	13.7	12.3	11.2	13.4	12.8	13.0	11.9	14.1
22											11.5	10.3	9.2	12.3	11.3	11.1	9.9	12.1
24											9.9	8.8	7.7	10.7	9.7	9.5	8.1	10.5
26															8.4	8.2	7.1	9.2
28															7.3	7.1	6.0	8.0
Telescoping code of boom sections	00000	00010	00100	01000	00011	01100	11000	00111	02100	11100	01111	11110	21100	00112	02111	11111	21110	01112
Parts of line	12			11			10			8			7			6		

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On fully-extended outriggers of 7.9 m, with counterweight of 29 t																
Boom length (m)/ Radius (m)	37.6	37.6	37.6	37.6	41.8	41.8	41.8	41.8	46	46	46	46	50.2	50.2	54.4	58
7	27.4	31.5	36.4	24.6												
8	25.6	27.9	33.0	22.8	20.5	23.9	27.4	22.0								
9	24.1	26.0	29.2	21.3	19.3	22.3	25.7	20.8	19.5	20.6	23.0	19.8				
10	22.6	24.2	27.1	20.0	18.2	20.9	24.0	19.5	18.5	19.4	21.8	18.6	17.1	19.4		
12	20.2	21.4	23.9	17.7	16.3	18.5	21.2	17.4	16.7	17.3	19.6	16.6	15.5	17.5	15.0	13.5
14	18.3	19.0	21.6	15.8	14.7	16.5	18.9	15.2	15.1	15.6	17.8	14.7	14.1	15.7	13.9	12.8
16	16.5	16.9	18.7	14.2	13.4	14.8	16.9	13.6	13.8	14.1	16.1	13.0	12.9	14.5	13.1	12.0
18	15.2	15.8	15.1	13.0	12.3	13.4	15.2	12.1	12.6	12.8	14.6	11.5	11.7	13.2	12.2	11.2
20	13.6	13.0	12.6	11.9	11.2	12.1	12.6	10.9	11.8	11.6	12.8	10.6	10.7	12.1	11.3	10.4
22	11.6	11.0	10.6	11.0	10.4	11.0	10.6	10.0	11.2	10.6	10.8	9.6	9.8	11.2	10.2	9.3
24	10.0	9.4	9.0	10.2	9.7	9.6	9.0	9.2	10.1	9.9	9.2	8.6	9.1	9.6	9.3	8.4
26	8.7	8.1	7.7	9.4	9.1	8.3	7.7	8.5	9.1	8.6	7.9	8.0	8.7	8.2	8.5	7.8
28	7.6	7.0	6.6	8.3	8.0	7.2	6.6	7.7	7.9	7.5	6.8	7.3	8.1	7.1	7.6	7.2
30	6.6	6.1	5.7	7.4	6.9	6.2	5.7	7.3	7.0	6.5	5.9	6.7	7.0	6.2	6.7	6.6
32	5.8	5.3	4.9	6.5	6.1	5.4	4.9	6.6	6.2	5.7	5.1	6.3	6.1	5.4	5.9	5.9
34					5.4	4.7	4.2	5.9	5.5	5.0	4.4	5.6	5.4	4.7	5.2	5.2
36					4.8	4.1	3.6	5.2	4.9	4.4	3.8	5.0	4.8	4.1	4.5	4.5
38									4.3	3.9	3.2	4.6	4.2	3.5	4.0	4.0
40									3.8	3.4	2.7	4.1	3.8	3.0	3.5	3.5
42													3.3	2.6	3.0	3.0
44													2.9	2.2	2.7	2.7
46															2.3	2.3
48															2.0	2.1
50																1.8
Telescoping code of boom sections	11112	12111	21111	01122	11122	12211	22111	01222	11222	12221	22211	02222	12222	22221	22222	33333
Parts of line	5				4				3						2	

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

First edition, July 2016

Rated Lifting Load Table for Jib of XCT90 Truck Crane

On fully-extended outriggers of 7.9 m, with counterweight of 29 t																										
Boom length	50200			54400			58000			50200			54400			58000			50200			54400			58000		
Jib length	10.8 m									18.3 m									25.3 m (optional)								
Offset angle/Radius	0	15	30	0	15	30	0	15	30	0	15	30	0	15	30	0	15	30	0	15	30	0	15	30	0	15	30
12	7																										
14	7			7						4.3																	
16	7	6.2		6.9	6.1		6.6			4			3.8			3.8			3.7								
18	6.8	5.8	4.5	6.6	5.8	4.5	6.6	5.8		3.8	3.3		3.7			3.7			3.6			3.5			3.4		
20	6.5	5.7	4.3	6.5	5.7	4.3	6.5	5.7	4.3	3.7	3.2		3.5	3.2		3.5			3.5			3.4			3.3		
22	6.3	5.5	4.2	6.3	5.5	4.2	6.3	5.5	4.2	3.5	3.1	2.6	3.4	3.1		3.3	3.1		3.4	3.1		3.3			3.3		
24	6	5.3	4.1	6.1	5.3	4.1	5.7	4.9	4.1	3.4	3.1	2.6	3.3	3.1	2.6	3.3	3	2.5	3.3	3.0		3.3	3.0		3.1	2.9	
26	5.8	5.1	4	5.8	5.1	4	5	4.5	4	3.2	2.9	2.5	3.1	2.9	2.5	3	2.8	2.4	3.2	2.9		3.1	2.9		3.0	2.8	
28	5.6	5	3.9	4.6	5	3.9	4.2	4.5	3.9	3.1	2.8	2.4	3	2.8	2.4	2.8	2.7	2.3	3.1	2.8	2.4	3.0	2.8	2.4	2.8	2.7	
30	5	4.5	3.9	4.5	4.4	3.9	3.8	3.6	3.9	3	2.7	2.3	2.8	2.7	2.3	2.6	2.5	2.2	3.0	2.7	2.3	2.8	2.7	2.3	2.6	2.5	2.2
32	4.4	4.3	3.8	4.5	4.4	3.6	3.8	3.4	3.1	2.8	2.6	2.2	2.6	2.5	2.2	2.5	2.4	2.2	2.8	2.6	2.2	2.6	2.5	2.2	2.5	2.4	2.2
34	4.4	4	3.8	3.4	3.3	3.6	3.8	3.4	3.1	2.6	2.5	2.2	2.5	2.4	2.2	2.4	2.4	2.1	2.6	2.5	2.1	2.5	2.4	2.1	2.4	2.3	2.1
36	4.4	4	3.7	3.4	3.3	3.6	3.1	3.4	3.1	2.5	2.4	2.1	2.4	2.4	2.1	2.3	2.3	2.1	2.5	2.4	2.0	2.3	2.3	2.1	2.3	2.3	2.1
38	4	3.5	3.6	3.4	3.3	3.6	2.8	2.6	3.1	2.4	2.3	2.1	2.3	2.3	2.1	2.1	2	2.1	2.4	2.3	2.0	2.3	2.3	2.0	2.0	1.9	2.0
40	3.3	3.2	3.5	3.4	3.3	3.5	2.8	2.5	3.1	2.3	2.3	2.1	2.2	2.2	2.1	1.8	1.8	2	2.3	2.2	2.0	2.2	2.2	2.0	1.7	1.7	1.9
42	3.3	3	3.4	2.5	2.5	2.7	2.2	2.5	2.3	2.2	2.2	2	2.1	1.9	2	1.8	1.8	1.9	2.2	2.1	1.9	2.1	1.8	2.0	1.7	1.7	1.8
44	3.3	3	3.2	2.5	2.5	2.7	2.1	2.5	2.3	2.1	2.1	2	1.7	1.9	2	1.8	1.8	1.5	2.1	2.0	1.9	1.6	1.8	1.9	1.7	1.7	1.4
46	2.8	2.8	2.8	2.5	2.5	2.7	2.1	1.9	2.3	2	2	2	1.6	1.8	1.9	1.5	1.8	1.5	2.0	1.9	1.9	1.6	1.7	1.8	1.4	1.7	1.4
48	2.5	2.5	2.8	2.3	2.4	2.5	2.1	1.9	2.3	2	1.9	1.9	1.6	1.7	1.8	1.4	1.5	1.5	2.0	1.8	1.8	1.6	1.6	1.7	1.3	1.4	1.4
50	2.3	2.3	2.4	2	2.1	2.2	1.6	1.9	1.7	1.9	1.8	1.8	1.5	1.6	1.5	1.4	1.4	1.5	1.9	1.7	1.7	1.4	1.5	1.4	1.3	1.3	1.4
52				1.7	1.8	1.9	1.6	1.8	1.7	1.8	1.7	1.7	1.5	1.4	1.5	1.4	1.4	1.5	1.8	1.6	1.6	1.4	1.3	1.4	1.3	1.3	1.4
54						1.6	1.4	1.4	1.6	1.5	1.6	1.5	1.3	1.4	1.5	1.1	1.4	1.2	1.5	1.5	1.4	1.2	1.3	1.4	1.0	1.3	1.1
56							1.2	1.3	1.3										1.5	1.5	1.4	1.2	1.3	1.4			
Telescoping code of boom sections	12222			22222			33333			12222			22222			33333			12222			22222			33333		

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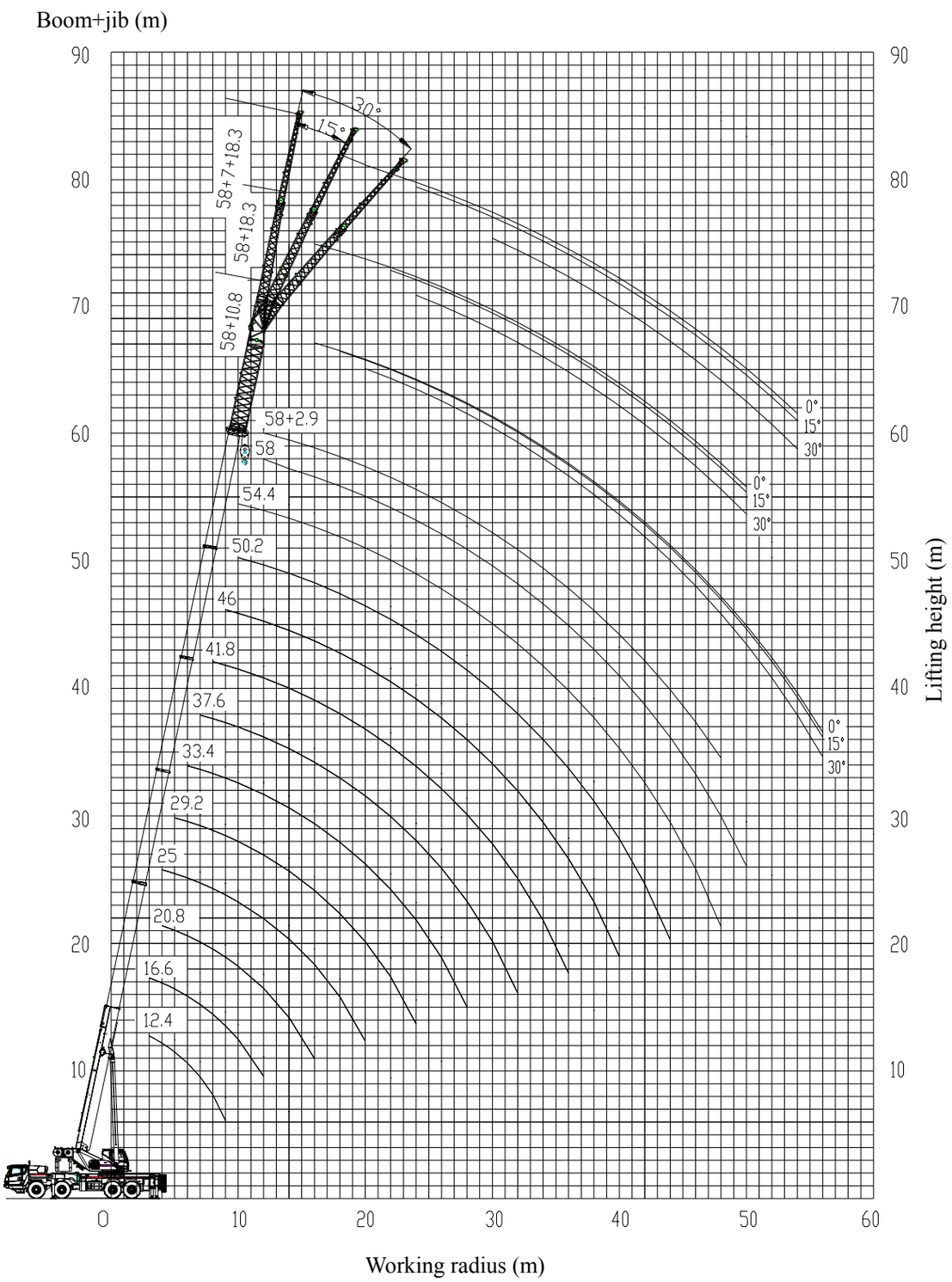
First edition, July 2016

Rated Load Table for boom + independent jib head of XCT90 (optional)

On fully-extended outriggers of 7.9 m, with counterweight of 29 t and independent jib head of 2.9 m			
Boom length/Radius	50.2	54.4	58
10	13.2		
12	12.0	11.6	
14	10.7	10.4	10.3
16	9.4	9.1	8.9
18	8.8	8.1	7.5
20	8.2	8.0	6.3
22	7.5	6.9	6.3
24	6.9	6.7	5.0
26	6.3	5.6	5.0
28	5.5	5.3	5.0
30	5.0	4.4	3.8
32	4.9	4.4	3.8
34	4.5	4.4	3.8
36	4.1	3.9	3.7
38	3.8	3.3	2.8
40	3.5	3.3	2.8
42	3.4	3.3	2.8
44		2.7	2.6
46			2.1
48			2.1
Telescoping code of boom sections	12222	22222	33333
Parts of line	2		

First edition, July 2016

Lifting Height Chart



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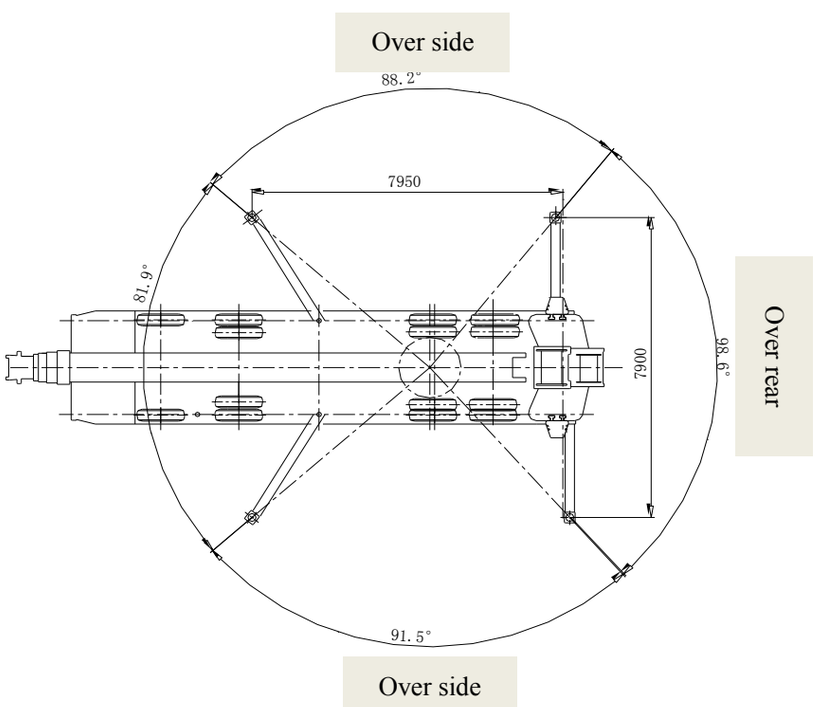
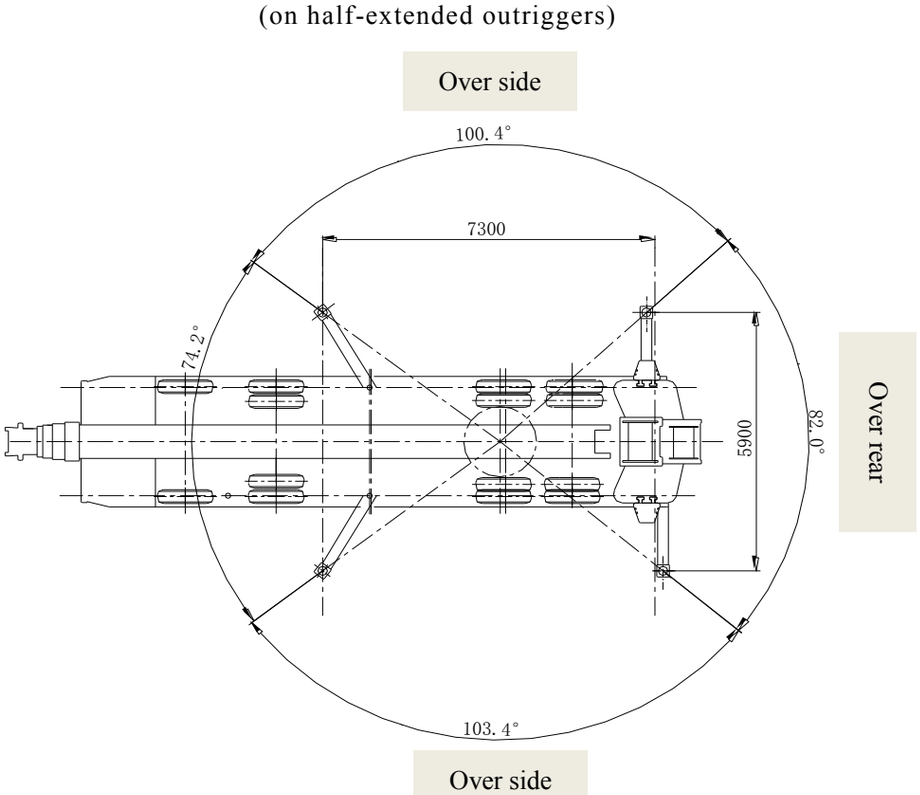
Working Areas of Crane

(on fully-extended outriggers)



(on half-extended outriggers)



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