

XC978



WHEEL LOADER

SOLID TO SUCCEED



**XCMG EARTHMOVING MACHINERY
BUSINESS DIVISION**

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1. Scan the QR code to follow "XCMG Loading Machinery"
2. Click the "Loader King" in the lower left corner to obtain
more product details after registration



About XCMG

As a 100 billion-level leading company renowned for the largest scale, the most advanced technology, the largest export volume, and the highest competitiveness and influence in China's construction machinery industry, Xuzhou Construction Machinery Group Co., Ltd. (XCMG) not only has dominated the Chinese market for decades, but also is committed to expanding its worldwide presence as the third largest supplier in this field and 395th of Global 500.

The product portfolio offered by XCMG covers 16 categories such as hoisting machinery, excavation machinery, concrete machinery, mining machinery, earthmoving machinery, and road construction machinery, as well as three key components, i.e., hydraulic systems, transmission systems and electrical control systems. In these areas, our hoisting machinery ranks first in the world, and our complete solutions for road construction and maintenance machinery, piling machinery and concrete machinery also take the leading position in global rankings.

XCMG has been granted more than 8,000 patents in total, including more than 1,900 invention patents and more than 130 international PCT patents.

We have established our own R&D centers, manufacturing plants or KD factories in more than 10 countries, e.g., Germany, USA, Brazil and India, and have acquired 3 European companies including Schwing from Germany.

The manufacturing factory in Brazilian, which is built on a barren land with an investment of USD 350 million, has become a successful model of China-Brazil economic cooperation. At present, our products are exported to 187 countries and regions, covering 97% of the countries along the "Belt and Road". XCMG takes the largest share of the business exported to 35 countries, with the annual export volume and overseas revenue remaining in first place and outperforming all other competitors in China.



High efficiency and reliability Inheritance of classic and high maturity and stability

OVERVIEW

MODEL CHARACTERISTICS

- ▶ It features high efficiency, energy-saving, and strong power.
- ▶ The three-element torque converter and the fixed shaft power shift transmission feature high maturity and reliability.
- ▶ The 3550mm wheelbase features high mobility and flexibility and is applicable to all kinds of working sites.
- ▶ The bucket is made of high strength material to realize high wear and impact resistance.
- ▶ The diversified configurations and complete attachments adapt to the construction needs in different regions and under different working conditions.
- ▶ The optional A/C and the sound insulation and noise reduction measure build elaborately a comfortable operating environment.

PERFORMANCE HIGHLIGHTS

Outstanding capability, breakout force at $\geq 22t$.
High adaptability, with turning radius at 6,037mm (tire center).

MARKET POSITION

Industry 3t single-model sales champion.
The warranty period for the front and rear frames, boom, and arm is 2 years or 5,000 hours (whichever comes first), which is far beyond the loader industry warranty level to manifest the top quality of XCMG loaders.

The design of super-heavy-duty structural parts optimizes the hinge point of the boom to greatly improve the reliability of the bucket and boom. Based on finite element analysis and optimization, it ensures the structural strength and prolongs the life of the machine.

The cab and the hood adopt an integral skeleton structure, with thick plates and high rigidity, which are more reliable and safer. The whole machine can be used for more severe working conditions. The bucket is enhanced with wear-resistant design, and key parts are made of wear-resistant and impact-resistant high-strength steel plates

XCMG'S EXCLUSIVE TECHNOLOGIC ADVANTAGES

- ▶ The certified safe and comfortable ROPS/FOPS cab with ergonomic internal arrangement provides the driver with firstclass operating environment
- ▶ Power System: The reasonable matching between engine and transmission guarantees faster response of machine and meanwhile reduces the machine fuel consumption by 10%.
- ▶ The full-automatic power shift transmission can automatically adjust the gear of loader to guarantee the running of loader under highest efficiency and most energy-saving status.
- ▶ Z-Linkage System: The traditional Z-linkage system is in-depth optimized by XCMG to incorporate powerful force at all positions.
- ▶ Intelligent Hydraulic System: The load-sensing variable hydraulic system supplies on-demand power to the steering system and various working devices to reduce fuel consumption.
- ▶ Attachments: XCMG offers diversified attachments to meet your personalized needs and promote the productivity.
- ▶ The maintenance-free full-hydraulic wet type brake axle incorporates the automatic limited-slip differential function to sufficiently play the powerful insertion force of the machine.

I SPACIOUS CABIN

- ▶ The luxury cab equivalent to car level features large space, broad visual field, no blind spot, and high driving safety and comfort.
- ▶ The easily accessible operating units and buttons can easily realize all kinds of operation actions. The full-coverage exquisite interior trims, rubber floor, and three-layer composite noise reduction materials build a best operation environment.
- ▶ The panorama rear window, high-mounted rear lamps, and reversing alarm equipped ensure good visual field and reversing safety.

RELIABLE

POWER SYSTEM

- ▶ Hydraulic torque converter: Single-stage, single-phase, and three-element type. Transmission: Full-automatic transmission, with KD function and 4 forward and 3 reverse gears, featuring outstanding performance. It adapts to the operating needs under diversified working conditions of the loader. Drive axle: Wet type axle, limited slip differential for front axle, and fixed front axle and central swing rear axle installation.
- ▶ XC9 series loader incorporates incomparable reliability to ensure long-time continuous working and reduce unnecessary maintenances. The long-tested drive parts and heavyweight structural parts work with more diligent detail design to ensure that the machine is competent for more stringent working conditions.
- ▶ The world's leading design means and intelligent manufacturing technologies ensure that the structural parts, including front and rear frames and attachments, meet the working needs under diversified heavy working conditions. The concise large articulated open-type heavyweight structural parts reduce the stress concentration and meet the working needs under diversified severe working conditions. The heavyweight articulated structure guarantees longer life.
- ▶ This product is powered by Euro-III compliant electronic control turbocharged engine, in which the high pressure common rail fuel supply system is controlled by ECU to achieve accurate fuel injection control, high pressure, low pressure fluctuation, optimal combustion rate, atomization, and ignition timing, high combustion efficiency, high power reserve, and strong power. This engine features the advantages of high reliability, high adaptability, low fuel consumption, and low emission.

Radiator system

The single-layer radiator system with large fin spacing + rotary openable A/C radiator prevent the accumulation of material at radiator openings and meanwhile ease the maintenances. Every radiator can be replaced rapidly and independently.

The transmission and drive axle of industry's renowned brands are installed to guarantee reliable performance and durable life. The rear axle can swing for $\pm 13^\circ$ to maintain four tires on the ground, in order to keep stability on rugged roads and easily play the powerful traction force of the machine.

- ▶ In response to the heavy working conditions, the boom and bucket breakout forces are optimized to promote the digging capacity by 15%. The boom and bucket can realize composite motions to further promote the working efficiency.
- ▶ The selection of bucket depends on the material density and the expected bucket fullness coefficient. Thanks to the bucket design, the excellent rollback angle in all directions, and the outstanding bucket loading performance, the actual bucket capacity is generally higher than the rated capacity.

HANDLING BUCKET

The shape design of the bucket is optimized to fully fill the bucket faster and more efficiently during the digging and meanwhile achieve high fullness coefficient. The guide plates are installed on the top of the bucket to reduce the spilling of material during the lifting and meanwhile effectively protect the cab.

SHORTER WORK CYCLE TIME

The displacement of the hydraulic pump and the travel of the lifting cylinder are optimized to increase the boom lifting speed by 12% and increase the steering speed by 10%. In addition, the steering angle of the machine is increased to 40° to achieve shorter driving route and faster work cycle during the loading operations.



OPTIONAL ATTACHMENTS

- ▶ XC9 series loader is provided with diversified optional attachments so that the customers can choose different attachments depending on own needs, such as gripping of lumbers, side-dumping in tunnels, handling in quarries, earthwork loading, and material lifting. In response to the digging operation, multiple buckets are offered at the customer's choice, such as mine bucket for rocks and light material large bucket for coal or wood bits. In addition, the optional quick change structure can be installed to realize "One machine for multiple applications".

Z-LINKAGE SYSTEM

- ▶ The traditional Z-Linkage System is in-depth optimized by XCMG to achieve powerful bucket breakout force and outstanding boom lifting capability at any position. The redesigned hydraulic system realizes the simultaneous tipping and lifting motion of bucket to achieve more powerful digging capacity and faster material loading of the bucket.
- ▶ Depending on diversified operation needs, various high firmness and durability attachments can be installed to maximize the productivity and achieve more applications. No matter the repeated handling of material, the loading and unloading of cargo, the gripping of lumbers or steel tubes, or other application, these attachments can effectively fulfill diversified tasks and promote the efficiency.
- ▶ The full-automatic power shift transmission can automatically adjust the gear of loader to guarantee the running of loader under highest efficiency and most energy-saving status.
- ▶ The full-automatic power shift transmission matches reasonably with engine system. The transmission can match with the parameters, including the engine speed and machine speed, to automatically adjust the gear of loader and guarantee the running of machine under highest efficiency status. This can speed up the cycle time and reduce the fuel consumption. If the loader requires more power under complicated working condition, the operator can manually downshift to a lower gear to meet the working needs.

HIGH EFFICIENCY POWER

The machine is powered by Cummins Euro-III compliant (Optional Euro-V compliant) electronic control turbo-charged engine, in which the high pressure common rail fuel supply system is controlled by the ECU to achieve the advantages of accurate fuel injection control, high consumption efficiency, and low fuel consumption and emission.

HIGH-EFFICIENCY HYDRAULIC SYSTEM

The full-variable load-sensing hydraulic system supplies on-demand power to the hydraulic devices and steering device to eliminate energy waste and reduce fuel consumption. The powerful hydraulic system can guarantee the quick response within shorter cycle time and more stable operations by excellent control of load and attachment.

OVERVIEW

EXCELLENT POWER MATCHING

The full-automatic power shift transmission matches reasonably with engine system. The transmission can match with the parameters, including the engine speed and machine speed, to automatically adjust the gear of loader and guarantee the running of machine under highest efficiency status. This can speed up the cycle time and reduce the fuel consumption. If the loader requires more power under complicated working condition, the operator can manually downshift to a lower gear to meet the working needs.

LOW-SPEED ENERGY-SAVING RADIATOR SYSTEM

The automatic stepless-regulated low-speed radiator system can remarkably reduce the fuel consumption besides the quiet working characteristic.



We all know that the operator feeling comfortable can relieve the fatigue feeling and promote the working efficiency and operation safety. Therefore, designing an industry leading cab around the operator to provide a spacious, safe, quiet, and comfortable environment can further improve the operation safety and maintain high productivity.

SINGLE-JOYSTICK CONTROL

The optional multifunctional joystick can ease the operator's operations and meanwhile accurately control the hydraulic functions. The forward, reverse, and kick-down functions are provided on the control panel.

DRIVING STABILIZING SYSTEM

While driving on rugged roads, the optional driving stabilizing system can improve the driving stability and load retentivity. The operator can be more confident during the transfer operations at high speed to promote the productivity.



EFFICIENT

CE COMPLIANT CAB ACCESS

The driver can open the cab door by standing on the ground and then access the cab safely and conveniently via the obliquely installed ladder.

The optimally arranged handrails can maintain the safe three-point contact at all times.

CAB AIR FILTER

- ▶ The cab air inlet port is located on the right side of the cab and is installed with easily replaceable air filter. The fresh air is supplied into the cab after its dusts and particles are filtered out by the air filter. In addition, the air filter works with the excellent airtightness of the cab to play a slight pressurization role to further isolate the external dusts. The working environment is clean and comfortable and is comparable with the working efficiency.
- ▶ With a broad vision, the cab boasts the industry's best 316.5 ° effective horizontal visual angle. Cab: This machine is equipped with FOPS/ROPS pressurized cab, with heating and A/C system and diaphragm molded rubber floor. Instruments: The multifunctional combination instrument centrally displays all important information within the operator's visual range. Seats: The adjustable suspension seats are fixed on the cab floor. Certification: The cab has been tested and certified as per ROPS standard (ISO 3471) and FOPS standard (ISO 3449).
- ▶ The large opening hood, easily accessible pressure measurement and lubricating points, centrally arranged electric fuse case, and the machine diagnostic interface ease the daily maintenances and repairs of the machine.
First-class machine repair and maintenance access and reasonable machine layout and structural design.

LUBRICATION SYSTEM

During the running of loader, the optional automatic lubrication system controls the lubrication to provide longer running time and reduces the maintenance cycles. The operator can change the lubrication interval depending on the application.

ENGINE HOOD

The integral large-angle side-opening engine hood + uplifting rear hood ease the maintenances of engine oil filter, diesel filter, transmission and torque converter oil filters, and air filter and meanwhile ease the cleaning of every radiator fin.

RADIATOR SYSTEM

The single-layer radiator system with large fin spacing + rotary openable A/C radiator prevent the accumulation of material at radiator openings and meanwhile ease the maintenances. Every radiator can be replaced rapidly and independently.

CENTRALIZED OIL FILLING AND DRAINAGE

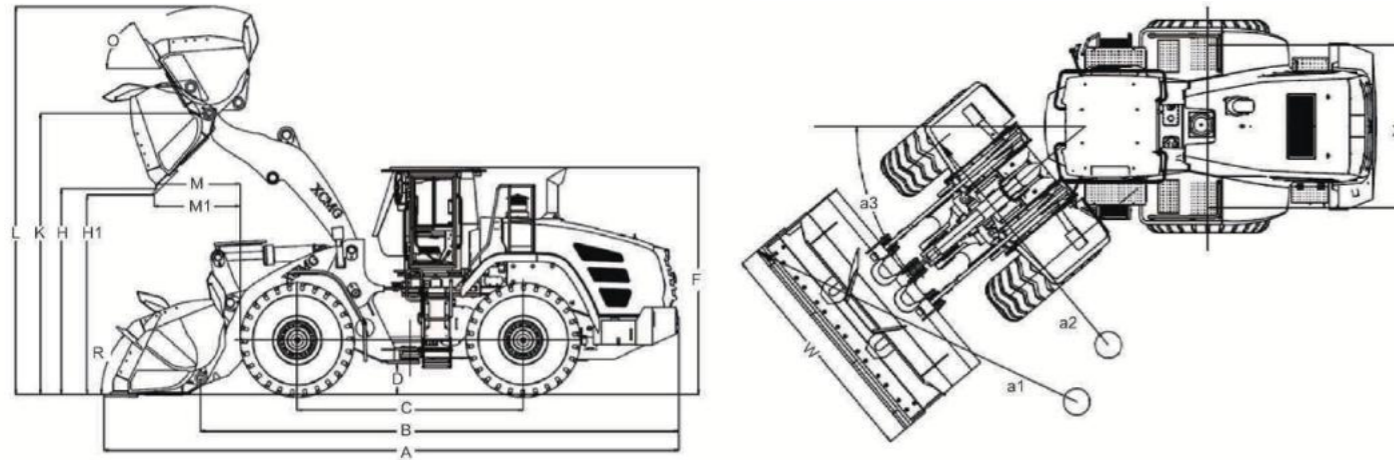
The inaccessible hinge lubricating points and the engine oil/water drainage ports are centrally guided out to ease the maintenances.



MAIN PARAMETERS

Items		
Rated operating load	7800 kg	
Bucket capacity	4.5 m ³	
Machine weight	24500 kg	
Dumping height	3220 mm	
Dumping distance	1214 mm	
Wheel base	3550 mm	
Tread	2320 mm	
Height of hinge at maximum lift height	4395 mm	
Working height(fully lifted)	6060 mm	
Max.breakout force	220 kN	
Ultimate tipping load/kg(straight)	18200 kg	
Ultimate tipping load/kg(full steering)	15600 kg	
Hydraulic cycle time-raise	6.2 s	
Hydraulic cycle time-down	3.3 s	
Hydraulic cycle time-tilt	1.2 s	
Total hydraulic cycle time	10.7 s	
Min. turning radius over tyres(tire center)	6037 mm	
Min. turning radius over tyres(tire outward)	6374 mm	
Min. turning radius over tyres(bucket outward)	7105 mm	
Articulation angle	40 °	
Gradeability	27 °	
Tyre size	26.5-25-20	
Overall machine dimension L×W×H	8850×3230×3620 mm	
Engine Model	Cummins	
Emission standards	EURO V	
Rated Power/Speed	242/2100 kW/rpm	
Peak Torque/Speed	1478/1400 N.m/rpm	
Fuel Tank	400 L	
Hydraulic Tank	160 L	
Coolant/L	62 L	
Engine oil/L	34 L	
Transmission oil/L	50 L	
Front and Rear axle oil/L	60/55 L	
Transmission Pattern	Electric control fixed shaft	
Transmission gear	4 forward 3 reverse	
Travel speed	I-gear(F/R)	7/7 km/h
	II-gear(F/R)	13/13 km/h
	III-gear(F/R)	28/28 km/h
	IV-gear(F/R)	42/- km/h
Front and Rear axle differential pattern	LSD	

OVERALL DIMENSIONS

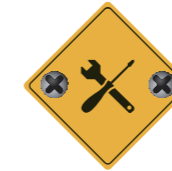


Items	Log clamp I	Interchangeable paired/ staggered clamp
Dump clearance at maximum lift(front dump)	3435 mm	2585 mm
Reach at maximum lift(front dump)	1835mm	1355 mm
Dump clearance/reach at maximum lift (side dump)	/	/
overall height at maximum lift	/	/
Max. dumping angle(work tool)	30 °	56 °
Max.opening	2538 mm	2225 mm
Min. clamping diameter	1000 mm	670 mm
Max.working width(snowplow)	/	/
Slewing angle (horizontal)	/	/
Swing angle (snowplow)	/	/
Rack back angle at ground	20 °	30 °
Length(work tool)	1700mm	1835 mm
Width(work tool)	2680 mm	2680 mm
Height(work tool)	1830 mm	1810 mm
Tine length(pallet fork)	/	/
Overall machine dimensions-length	9130mm	9275 mm
Overall machine dimensions-width	2995 mm	2995 mm
Overall machine dimensions-height	3620 mm	3620 mm

OPTIMUM SERVICES XCMG GUARANTEED



XCMG approved attachments



Genuine parts



Financial solutions



Maintenance contract



Telematics

Professional Integrated Complete Solutions

XCMG 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's 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

