

SOLID TO SUCCEED

XC9108-EV

XCMG
ELECTRIC WHEEL
LOADER



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Main features of the product

The XC9108-EV electric wheel loader is the largest pure electric loader in the industry, equipped with a control system independently developed by XCMG, which significantly enhances control performance. With a unique series dual-motor drive without a gearbox, power matching is optimized, providing the machine with greater torque output and faster response speed, thereby greatly improving work efficiency. It uses lithium iron phosphate batteries and and supports China standard quad-gun super-fast charging.



Power System

Walking Motor: The walking motor utilizes a series dual-motor walking drive technology. The walking system of the entire machine is driven by two motors for the front and rear drive axles, connected by a transmission shaft, with the power of the two motors coupled and transmitted to meet the needs of all working conditions. The whole machine is equipped with an FNR forward and reverse gear shifting function and the shifting is convenient and quick. Based on the throttle opening, real-time motor speed regulation can achieve infinite speed variation of the vehicle.

Drive Axle: The drive axle uses a self-developed reinforced drive axle by XCMG, with an optimized housing design, increasing the cross-sectional area of the housing by 10%, enhancing the load-bearing capacity and bending resistance. The wheel edge adopts five planetary gear structure, which can withstand greater load by distribute load uniformly, more suitable for heavy load conditions. The front axle adopts a 11-ton drive axle, which is more suitable for heavy load conditions. A dowel pin is added to the drive axle to share the impact load borne by the bolt which can improve the reliability of the bolt. Equipped with a three-stage heavy-duty transmission shaft for leading reliability.



Hydraulic System

The hydraulic system uses a dual-Pump compound full-Variable Electro-Hydraulic Positive Flow Control System with electro-hydraulic proportional control for steering and working devices, ensuring precise and easy operation. The flow amplifying steering system makes steering light and flexible. The sealing form adopted is in line with international standards, effectively solving the problem of leakage.



Electrical System

The entire machine is equipped with a 700kWh lithium iron phosphate battery, supporting China standard quad-gun super- fast charging. The battery thermal management system is intelligently controlled by BMS, ensuring safety and reliability. Equipped with LCD touch screen can achieve real-time display of electricity, motor and controller temperature, motor speed, battery temperature, air pressure and other parameters. The electrical system employs fully sealed connectors, significantly improving dust and water resistance. Using a centralized and enclosed fuse box, inspection and maintenance are more convenient and efficient.



Cab and Control System

The cab uses a slight pressure-increasing technology, with a spacious interior and a broad view; high-performance shock-absorbing dual-slideway seats combined with a multi-directional adjustable steering column can meet the requirements of different drivers. The cab is equipped with adjustable control lever, air conditioning for both heating and cooling, radio, storage compartments, cup holders, chargers, with noise reduction, dust prevention, and heat insulation to create a comfortable, healthy, and safe driving environment.



Frame

The front and rear frames are designed for heavy loads with thick steel plates, high strength, and strong load-bearing capacity. Reasonable layout and concise structure reduce extrusion and irregular welding seams, strengthening important load-bearing parts to withstand torque and impact loads under various conditions. Key structural components undergo finite element analysis to reduce stress concentration, eliminate local weaknesses, and ensure compliance with various severe working conditions.

Increased distance between upper and lower pivot center pins, disperses forces at the pivot, reducing stress on the pivot and increasing bearing lifespan. Double taper roller bearings are used at the lower pivot, increasing load-bearing capacity and enhancing driving stability.

The front frame has good rigidity, providing a solid mounting base for the boom and cylinders, capable of absorbing strong torque, impact, and loading forces.



Working Device and Bucket

The working device is optimized in design, using a Z-type reverse six-link structure with a single swing arm, short pull rod, and horizontal boom cylinder, resulting in minimal unloading impact and superior work performance and efficiency.

Major pivot points feature a two-stage dustproof structure to effectively prevent dust and protect lubricating grease from contamination, providing reliable protection for pivot pins and bushings.

Wear-resistant plates are used in the major wear-prone areas of the bucket, ensure its long lifespan.



Braking system

The driving brake uses a dual-circuit full-hydraulic wet braking system, ensuring safe and reliable braking.



Maintainability

The machine uses an electric rear-opening hood, with an opening angle of up to 65° . Once the hood is opened, the multi-controller, battery BMS, water cooling unit, and battery, PDU fuses, etc., are all in convenient maintenance positions.



Versatility

The XC9108-EV electric wheel loader can be equipped with a high-discharge working device and buckets with capacities ranging from 3.8 to 8.0 m³ to meet various working needs.

Main configuration parameters



Specification		Unit	Parameter
Main Parameters	Rated Bucket Capacity	m3	6.2
	Rated Payload	kg	11000
	Overall dimensions (L × W × H)	mm	10200 × 3430 × 3770
Walking Motor	Rated Power	kW	168 × 2
Hydraulic Motor	Rated Power	kW	165
Battery Pack	Total Battery Capacity	kWh	700
	Voltage Platform	V	580
Endurance Time	Light/Medium Load Working Condition	h	≥8/7
	Heavy Load Working Condition	h	5-6
Main Performance	Overall Weight	kg	35000
	Tipping Load (Full Steering)	kg	≥22000
	Unloading Height	mm	≥3330
	Unloading Distance	mm	≥1340
	Wheelbase	mm	4000
	Track Width	mm	2460
	Maximum Tractive Force	kN	268
	Maximum Breakout Force	kN	≥270
	Turning Radius (Center of Tire)	mm	6725
	Boom Lift Time	s	≤6
	Sum of Three	s	≤11.5
	Maximum Gradient	°	24.5 ± 1
	Steering Angle	°	40
Noise Level	Minimum Ground Clearance	mm	480
	Driver's Ear Level	dB(A)	≤75
	Radiated Noise	dB(A)	≤108
Travel Speed	Forward 1st/2nd Gear	km/h	13/33
	Reverse 1st/2nd Gear	km/h	13/33

- Actual endurance time and charging time may vary depending on the product configuration and specific working conditions.
- The technology of XCMG wheel loaders is subject to constant improvement and upgrading. In case the specifications or detailed appearance contained in this brochure differ from actual products, the latter shall prevail.
- XCMG reserves the right of final interpretation for the above. Our products may be modified without prior notice to users.