

Articulated Dump Truck

XDA45U



- Payload (lb) : 90390
- Rated Power (HP/rpm) : 523/1600
- Max Grade ability (%) : 45

XCMG NORTH AMERICA CORPORATION
Add: 5145 Schirlls St. Las Vegas, Nevada 89118
Tel: +1 725 605 2777
Fax: +1 725 605 2888
E-Mail: bin@xcmg.com

XUZHOU CONSTRUCTION MACHINERY GROUP IMP. & EXP. CO., LTD
Add: NO.1, Tuolanshan Road, Xuzhou Economic Developing Zone,
Jiangsu, China 221004
Tel: +(86) 516 8773 9285
E-Mail: bin@xcmg.com



www.xcmg.com





INTRODUCTION OF XCMG

Founded in 1943, XCMG is the largest enterprise in the Chinese construction machinery industry. We offer the most diverse product line and the highest technological standards. We provide a comprehensive set of construction solutions, and we are the most internationally competitive firm in the industry. On KHL Yellow Table, we rank No. 1 in China and No.3 globally.

Across our offices in China, the US, Germany, India, and Brazil, XCMG has established a global collaborative research platform including national-level R&D facilities focused on advanced smart manufacturing technology. Our R&D team consists of top talents from around the globe. They are researching cutting-edge technologies such as new energy, unmanned driving and high-end parts. Our work has earned us numerous international patents and awards.

XCMG has the most comprehensive product line, meaning we can offer fully comprehensive solutions in 9 areas: hoisting, earthwork, road building & maintenance, mining, concrete & paving, tunnel-building & underground construction, high-altitude firefighting equipment & special-purpose vehicles, railway & bridge construction, sanitation engineering. All these solutions can be customized to suit our customers' needs.

At XCMG, our five-continent sales network gives our products worldwide visibility. We have 300 overseas distributors, over 10 overseas manufacturing bases and KD (Knockdown) factories, and products in more than 180 countries and regions. We supply our global customers with pre-sales, mid-sales and after-sales service, and a convenient, efficient one-stop financing and leasing service. XCMG's total annual exports and overseas income consistently come top of the industry in China.

We care deeply for the welfare of the people. We support numerous charitable causes, and are quick to the scene during disaster relief efforts.

XCMG is all set to become an eternal brand with our feet on the ground and eyes on the horizon. XCMG's ambition leads us forever forwards. XCMG is scaling its Everest, and is determined to reach the top.

General Description

XDA45U Articulated Dump Truck is designed for use in mining, quarry, water conservation, harbour, brown field and construction sites. It has a powerful drivetrain, superior hauling performance, excellent manoeuvrability and efficiency making it suitable for the wide range of applications. The product is designed to run continuously in an operating environment from -45°C to 45°C and meets Euro V emission standard.



Energy Saving and Environmentally Friendly

XDA45U is equipped with Mercedes-Benz engine, powerful, low emission, low noise, greatly reducing the harm to the environment. The new generation of Mercedes-Benz engine maintains excellent low fuel consumption performance under various working conditions, reduces vehicle operation costs, and is environmentally friendly, meeting the emission requirements of Tier 4 final and Stage V.





Energy Saving and Environmentally Friendly

Highly Efficient Returns

Utilises a hydraulic system from a globally established OEM and high-quality hydraulic elements. Advanced hydraulic system controls with variable displacement pumps and load sensing steering system ensure independent operation of each system, which not only improves system stability but also makes it convenient for trouble shooting, ensuring highly efficient equipment operation.

Key Core Technology

XDA45U Articulated Dump Truck has many major breakthrough technologies as follows:

1. Whole vehicle all-terrain suspension and adaptive traction control technology;
2. Highly responsive retarding and braking controls;
3. High hoist capacity with cushioning technology;
4. Intelligent man-machine interface and diagnostic technology;
5. Enhanced fatigue life optimisation of critical structural parts.

Reliable and Durable

Utilising simulation technology of welding stress and deformation, we can precisely predict distortion and residual stresses that may occur during the welding process of complicated structural components and parts, allowing optimised welding techniques. Fatigue life analysis and prediction technology with XCMG exclusive methodology for structural components and parts, maximises the life span of crucial structural parts. Post-manufacturing residual stress elimination technology and methods greatly improves service life of products.



Intelligent Management and Control

GPS data transmission and positioning technology enables remote data monitoring capacity for analysis of the operating machine and worksite. Intelligent systems monitor the overall machine, real time recording its running state and related data, applying speed and gear limiting technologies to help prevent damaging or unsafe conditions. Integration with engine and transmission software enables control logic to automatically stop the machine under certain operating conditions with the appropriate machine options installed and activated.



Safety and Comfortable

The operator's cab is designed according to ergonomic engineering guidelines. ROPS & FOPS are in accordance with ISO safety operation standards. The cab has a large interior space and a wide angle of view as well as a safe, comfortable and adjustable air-suspending seat. Both the cab and the engine hood can be tilted to provide access for convenient for maintenance.

Key Configurations



Power System

Engine
Manufacturer: Germany Benz
Model: OM471
Rated power: 390 kW/1600rpm
Max. Torque: 2600 Nm/1300 rpm
Pattern: 6-cylinder water cooling, turbo charging with inter-cooling, multi-point electronic injection diesel engine



Transmission System

Transmission
Model: Allison 4800
Gear: 7 forward gears and 1 reverse gear
Max. output torque: 20,000Nm
Transfer box: Kessler W4408
Axle: heavy duty, Kessler; Planet hub reduction gear and inter-axle differential lock control



Machine Structures

The structures consist of the articulating hitch, front frame and rear frame. The articulated hitch allows the rear frame to make free swing and rotary movements in relation to the front frame, ensuring that all drive wheels are in full contact with ground, which generates outstanding mobility and stable high-speed hauling capacity. The articulated hitch, front frames and rear frames are made of high-quality low-alloy high-strength steel, manufactured with advanced welding technology. Crucial welding seams have 100% ultrasonic weld inspection. The frames are developed using computer assistant design and finite element analysis.



Dump Body

The dump body is a fully welded structure, made of high-strength HB400 anti-wear steel plate for rigidity and durability. A large angle when fully raised, significant ground clearance and low loading height are favourable traits for quick loading and dumping.

It has flat bottom with an angled departure plane to the rear for better payload retention and smoother payload flow during dumping. The body is mounted on multiple rubber cushioning blocks for optimum weight distribution.



Suspension System

Hydro-pneumatic suspension with A-frame support ensures vehicle stability and off-road performance; the suspension structure absorbs the impact on the vehicle caused by harsh road conditions, allowing it to run smoothly and stably.



Key Configurations

Steering



The Hydraulic Metering Unit sourced from a globally renowned supplier, offers amplified oil flow for steering movement. It provides good steering feel, with precise steering response and smooth steering movement.

Brake

Service brake

XDA45U Series dump truck adopts full hydraulic oil-cooled wet disc brake system, which guarantees excellent braking performance and a long service life; even on muddy roads, it still shows good braking performance. The strong engine retarder consistently provides high retarding power to maintain a stable speed through corners, before a crossing or on a downward slope, reducing the application of service brakes, lowering operating costs and guarantees operator and site safety.

Parking brake: spring loaded and pressure released.



Hoist

Truck body is lifted through two single-stage cylinders controlled by one valve group.



Tyre

Tyre: 29.5R25 tubeless all-steel radial tyre
Rim: 25-25.00/3.5



Cab

The cab has the following features: ROPS & FOPS according to the ISO protection standard, driver seat with a high backrest and adjustable air suspension with vibration reduction functions, a front passenger seat, radio, instrument display cluster and machine controls, telescopic steering wheel, electric windscreen washer/wiper, pigmented glass, Heating, Ventilation and Air-Conditioning unit with associated controls. Vehicle running data and fault alarm information are shown on a controllable combined colour display with the camera view.



Technical Specifications

Dimension

XDA45U

Overall Length		11070 mm	436 in
Overall Width		3950 mm	156 in
Overall Height		3846 mm	151 in
Wheelbase front-mid		4450 mm	175 in
Wheelbase mid-rear		1940 mm	76 in
Tire center distance	Front	2700 mm	106 in
	Rear	2700 mm	106 in

Weight

XDA45U

Total Weight	75000 kg	165347 lb
Payload	41000 kg	90390 lb
Curb Weight	34000 kg	74957 lb

Weight Distribution

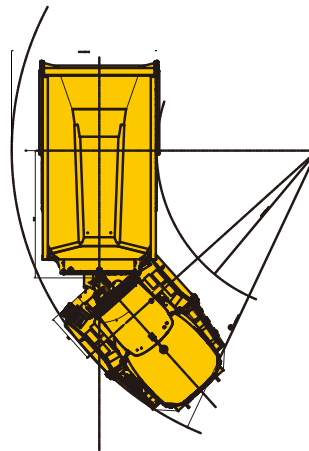
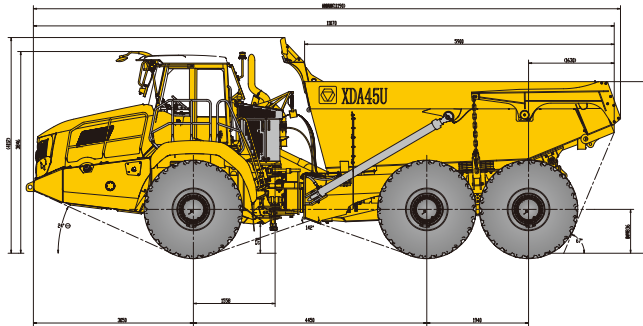
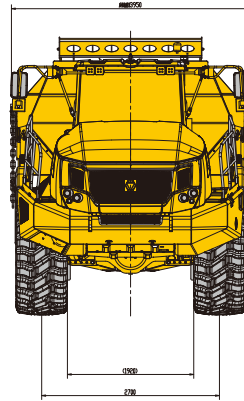
XDA45U

Unload	Front	17000 (50%) kg	37479 lb
	Mid & Rear	17000(50%) kg	37479 lb
Loaded	Front	22500(30 %) kg	49604 lb
	Mid & Rear	52500 (70%) kg	115743 lb

Power Train

XDA45U

Engine	Benz OM471	Benz OM471
Rated Power	390/1600 kW/rpm	523/1600 HP/rpm
Max Torque	2600/1300 N.m/rpm	2600/1300 N.m/rpm
Drive	6×6	6×6
Tires	29.5R25	29.5R25



Driving Performance

XDA45U

Max speed	51 km/h	31.69 mile/h
Min Turning Clearance	9275 mm	365 in
Max Grade ability	45 %	45 %
Max Steering Angle	±42 °	±42 °
Minimum Ground Clearance	530 mm	21 in

Working Parameter

XDA45U

Loading Height	3272 mm	129 in
Hoist Time	12 s	12 s
Hoist Angle	70 °	70 °

Service Capacities

XDA45U

Fuel	500 L	109.985 gal
Brake oil tank	200 L	43.994 gal
Hydraulic Oil	300 L	65.991 gal
Engine Oil	40 L	8.799 gal
Cooling system	100 L	21.997 gal
Transfer box	11 L	2.42 gal
Axles-differential	165 L	36.295 gal

Body

XDA45U

Struck	19.5/20.5 m³	689/724 ft³
2:1Heaped	25/26 m³	883/918 ft³

› Sales Model

Safety

Non-slip step and platform	●
Steering limit lock	●
Cargo compartment safety limit lock	●
Handrail	●
Cab rear window protective screen	●
Rearview mirror	●
Electric heating rearview mirror	○
FOPS&ROPS cab	●
Wiper	●
Emergency steering	●
Handheld fire extinguisher	●
Automatic fire extinguishing system	○

Power transmission system

Off-road Euro III/National III emission	
Off-road Euro 5/US T4f emission	●
Cold start system	○
Delayed engine shutdown	●
Maneuverable engine oil drain valve	●
Decompression brake	●
Axle differential lock	
Axle limited slip differential lock	●
Fully automatic transmission case	●
Transmission case hydraulic retarder	
Hydraulic torque converter with self-locking	●
Transfer case with longitudinal differential lock	●

Electric system

Battery disconnecting switch	●
Two-stage disconnecting switch	○
Start jumper	●
24V power socket	●
12V power socket	○
Halogen headlights	●
LED headlights	○
LED reversing light	●
LED working light	●
LED signal light	●
Alarm light	●
Key backlight	●
Cab lighting lamp	●
Electric tweeter	●
Reversing alarm	●

Brake system

Loading and dumping brake	●
Pneumatic parking brake	●
Full axle wet brake	●
Full axle dry brake	

Comfort

Air suspension lap belt seat	●
Air suspension three-point safety belt seat	○
Coach seat with safety belt	●
Cigarette lighter	●
Ashtray	●
Sliding window	●
Radio and audio system with USB interface	●
Sun visor	●
Telescopic and tilting steering wheel	●
Full LCD instrument	●
Air conditioning system providing fresh air	●
Cab turbocharging system	○
Automatic opening of hood	●

Cargo compartment

High strength wear-resistant cargo compartment	●
Cargo compartment heating kit	●
Front falling object guard	○
Rear baffle assembly of cargo compartment	○

Tyre

750/65R25	
29.5R25 ★★ ★	●

Maintenance

Manual centralized lubrication system	●
Automatic centralized lubrication system	○
Rapid fuel filling system	○
Centralized oil filling and sampling system	○
Ultra-low temperature kit	○
Tyre inflation tool	○
Nitrogen charging tool for suspension cylinder	○
Random toolbox	●

● Standard ○ Optional

Optimum Services , XCMG Guaranteed



XCMG approved attachments



Genuine parts



Extension of warranty



Financial solutions



Maintenance contract



Telematics



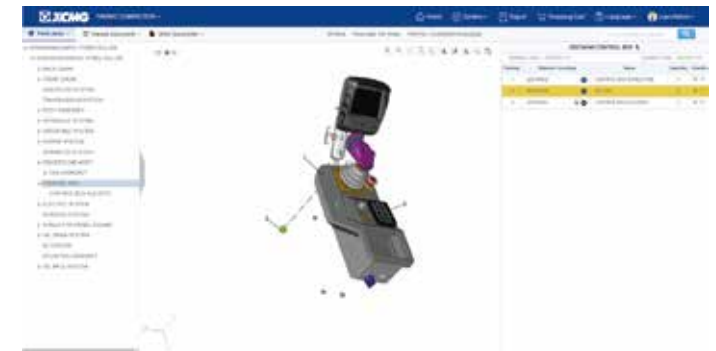
Professional Integrated Complete Solutions

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



Mobile cranes



Excavators



Aerial work platforms



Wheel loaders



Road machinery

