



XCMG FOR YOUR SUCCESS

# XDA45U

## ARTICULATED DUMP TRUCK

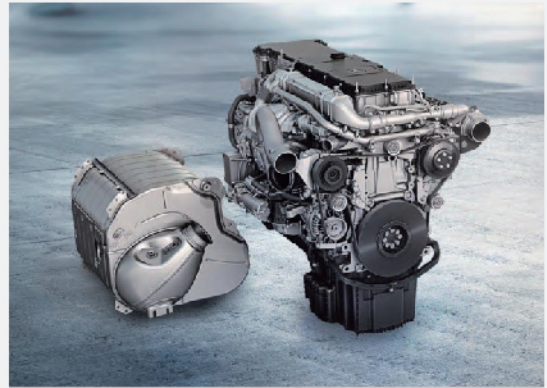


- Payload (kg) : 41000
- Rated Power (kW/rpm) : 390/1600
- Max Grade ability (%) : 45

XUZHOU XCMG MINING MACHINERY CO.,LTD

## 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  $-25^{\circ}\text{C}$  to  $40^{\circ}\text{C}$  and meets Euro V emission standard.



## EQUIPMENT HIGHLIGHTS AND FEATURES

### ● Energy Saving and Environmentally Friendly

Powered by an MTU engine that has high power, low emissions and low noise, which minimizes the environmental footprint. Compared with products of the same size class, it has more powerful traction force, higher working efficiency and enhanced roading ability; in addition, it's durable, robust and excels in multiple operating environments. Extensively tested systems and components as well as precise manufacturing techniques contribute to higher reliability and higher productivity value for this class of equipment.

## ● 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



### ● 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.



## ● 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



## ● 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.





## XDA45U ARTICULATED DUMP TRUCK

### ● 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

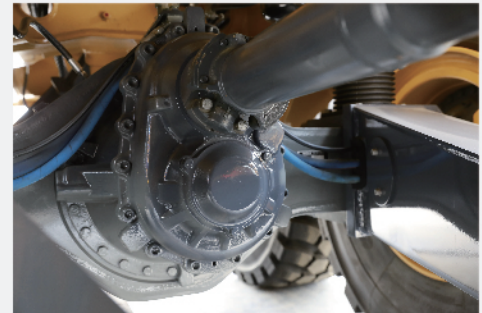
XDA45U Series dump truck adopts full hydraulic oil-cooled wet disc brake system, which guarantees excellent braking performance and a long service life; even on muddy roads, it still shows good braking performance. The strong engine retarder consistently provides high retarding power to maintain a stable 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

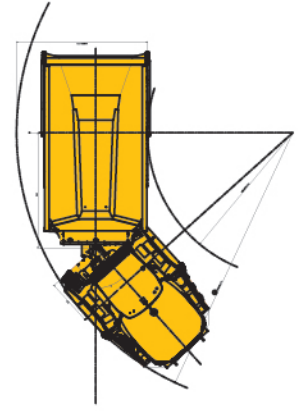
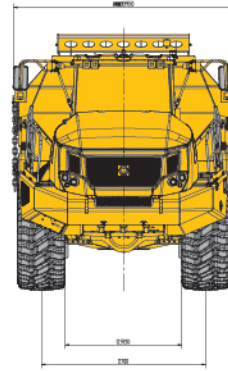
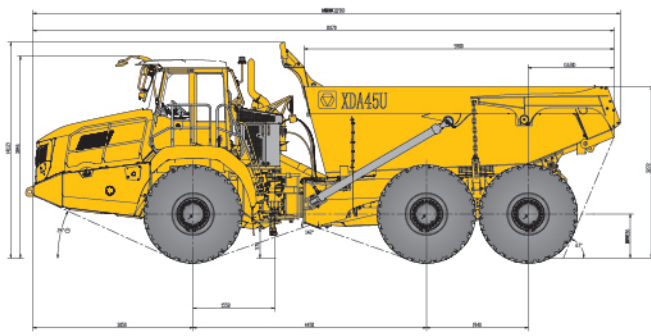
Tyre: 29.5R25 tubeless all-steel radial tyre

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.





## Main Specifications

Item	Unit	Parameter
<b>Dimension</b>		
Overall Length	mm	11070
Overall Width	mm	3950
Overall Height	mm	3846
Wheelbase front-mid	mm	4450
Wheelbase mid-rear	mm	1940
Tire center distance	Front	mm 2700
	Rear	mm 2700
<b>Weight</b>		
Total Weight	kg	75000
Payload	kg	41000
Curb Weight	kg	34000
<b>Weight Distribution</b>		
Unload	Front	kg 17000 (50%)
	Mid & Rear	kg 17000(50%)
Loaded	Front	kg 22500(30 %)
	Mid & Rear	kg 52500 (70%)
<b>Power Train</b>		
Engine	/	Benz OM471
Rated Power	kW/rpm	390/1600
Max Torque	N.m/rpm	2600/1300
Drive	/	6 × 6
Tires	/	29.5R25
<b>Driving Performance</b>		
Max speed	km/h	51
Min Turning Clearance	mm	9275
Max Grade ability	%	45
Max Steering Angle	°	± 42
Minimum Ground Clearance	mm	530

Item	Unit	Parameter
<b>Working Parameter</b>		
Loading Height	mm	3272
Hoist Time	s	12
Hoist Angle	°	70
<b>Service Capacities</b>		
Fuel	L	500
Brake oil tank	L	200
Hydraulic Oil	L	300
Engine Oil	L	40
Cooling system	L	100
Transfer box	L	11
Axles-differential	L	165
<b>Body</b>		
Struck	m <sup>3</sup>	19.5/20.5
2:1Heaped	m <sup>3</sup>	25/26

Materials and specifications may be changed at any time without prior notice



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