SOLID TO SUCCEED

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Version: EYBEN900GPro-A25

XCMG OFFICIAL WEBSITE

XCMG SERVICE ACCOUNT

XCMG

# XDE320

## HAUL TRUCK

**290**
Rated Payload
t

**2013/1800**
Power
kW/rpm

**211**
Capacity (Heaped 2:1)
$m^3$

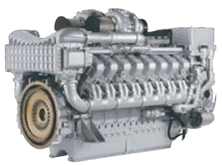

SOLID TO SUCCEED

# 01 HIGH PRODUCTIVITY

XCMG offers more than 400 models of mining equipment, covering multiple technology routes including battery-electric, hybrid, and hydrogen-powered solutions. The product portfolio encompasses the complete range of drilling, excavating, loading, hauling, grading, dozing, watering, crushing and screening operations, as well as auxiliary equipment. It includes a series of drill rigs, mining excavators, wheel loaders, dump trucks, bulldozers, motor graders, water trucks, crushing and screening equipment, and other supporting machinery, meeting the requirements of coal, metal, building materials, water conservancy, port operations, and various other applications.

## HIGH-PERFORMANCE ENGINE

· Equipped with the MTU 16V4000 diesel engine, maintaining full power output at altitudes up to 5,500 meters. The engine complies with China Non-road Stage III and U.S. EPA Tier 2 emission standards, delivering reliable performance and strong power.
· Provides clean, quiet, and efficient power output.
· Features advanced technology, high reliability, convenient fault diagnosis, and ease of maintenance.
*** Optional Cummins QSK60 diesel engine available, maintaining full power output at altitudes up to 1,829 meters.**





## AC ELECTRIC DRIVE SYSTEM

· Equipped with the GE 320AC alternating current drive system, offering high safety, reliability, low failure rate, and reduced maintenance costs. The system enables constant power control, stepless speed regulation, and strong traction capability, ensuring maximum productivity.
· Compared with mechanical drive systems, the electric drive system features a simpler structure, reduced lubricant consumption, shorter maintenance time, and lower operating costs.
· The main generator is a three-phase AC synchronous generator, providing long service life and ease of maintenance.
· The traction motors are three-phase squirrel-cage AC variable frequency induction motors, featuring mature technology, proven reliability, and extended service life.
*** Optional XCMG 320AC alternating current drive system available.**

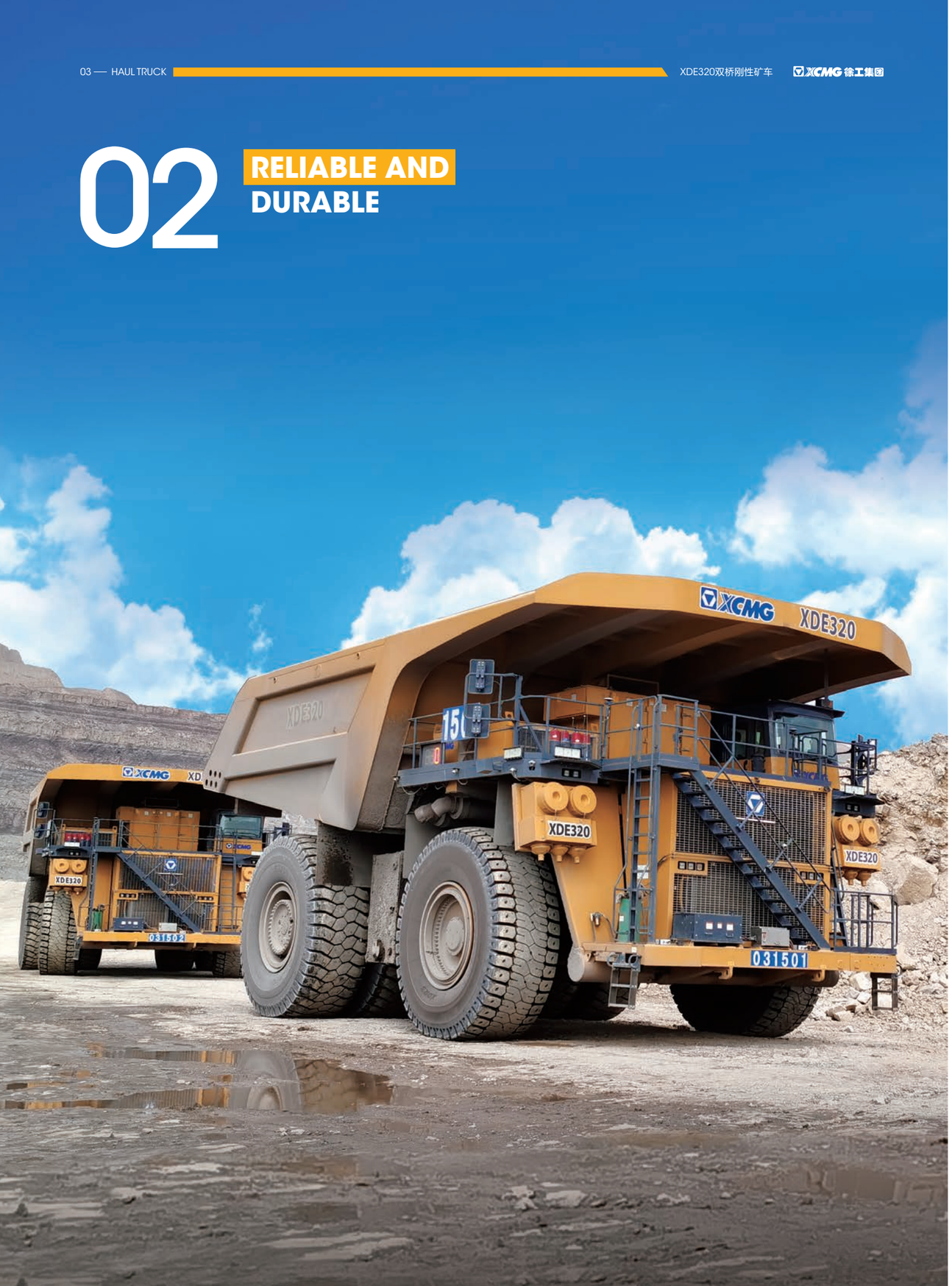
## DYNAMIC BRAKE CONTROL SYSTEM

The XDE320 dynamic brake system delivers a maximum brake power of 5,398 HP (4,027 kW) and a continuous brake power of 3,352 HP (2,500 kW). It meets braking requirements during fully loaded continuous downhill operation, enhancing vehicle safety and operational efficiency.

## ONBOARD WEIGHING SYSTEM

The onboard weighing system monitors and analyzes payload data to optimize effective load capacity, maximize productivity, and minimize the machine's life cycle cost.
The system tracks and records the following key production parameters:
· Effective payload
· Total haul cycles
· Total haul tonnage
· Payload percentage distribution
· Empty and loaded travel time and distance

# 02 RELIABLE AND DURABLE

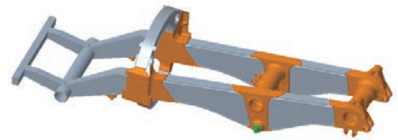





## LONG-LIFE FRAME DESIGN

The XDE320 frame utilizes advanced computer-aided design (CAD), finite element analysis (FEA), and comprehensive dynamic testing to ensure high structural strength and reliability for heavy load-bearing.

The frame adopts a box-section design and is manufactured from high-strength alloy steel plates, providing excellent fatigue resistance, low-temperature impact toughness, and weldability. Cast and forged components are used in critical high-stress areas. The designed service life exceeds 90,000 hours.



## SIMPLE AND RELIABLE HYDRAULIC SYSTEM

The hydraulic system features a simplified and reliable design, utilizing fewer components to achieve steering, braking, and hoisting functions.

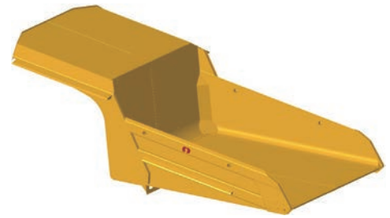
A modular design integrates the hydraulic pump and lifting valve assembly onto a single bracket for quick maintenance and replacement.

The multi-stage hydraulic oil filter design offers high filtration accuracy, large dirt-holding capacity, and extended maintenance intervals.

## ROBUST AND RELIABLE BODY DESIGN

The XDE320 dump body is manufactured from high-strength, low-alloy wear-resistant steel plates. Reinforced structures are applied at the hoist cylinder pivot and frame hinge mounting areas to enhance local stress resistance and improve fatigue life.

CAE software is utilized for structural strength simulation and analysis. Based on the results, optimization and validation are carried out to ensure the strength and rigidity of the dump body, thereby improving reliability and durability.



UNLIMITED INNOVATION

# 03 COMFORT AND SAFETY

## ERGONOMICALLY DESIGNED OPERATOR CAB

The cab is designed to provide a safe and comfortable working environment that meets the demands of modern mining operations.

The cab structure is designed to ROPS and FOPS standards, meeting ISO 3471 and ISO 3449 requirements.

The interior layout is ergonomically designed with a rational arrangement of components, an exceptionally spacious interior, and an integrated touch screen.

The heating and cooling air-conditioning system is designed to meet the requirements of most mining applications.

The cab features laminated double-layer glass, double-sealed cab doors, and a pressurization system, ensuring excellent cab airtightness and reduced noise levels from multiple directions and angles.

## USER-FRIENDLY DISPLAY INTERFACE

The XDE320 is equipped with a comfortable and operationally friendly dashboard that includes a CAN bus LCD integrated instrument panel, display screen, and function switches. This setup allows the driver to conveniently monitor vehicle status parameters and fault information while driving.

The integrated instrument cluster displays the status and fault information of the engine, hydraulic system, drive system, and weighing system, and provides equipment information display, function settings, and access control.




## COMFORTABLE AND DURABLE SUSPENSION SYSTEM

The suspension system is designed with four variable oil-to-gas ratio hydro-pneumatic cylinders, effectively reducing impacts from road conditions and loading operations, providing the operator with a smooth and comfortable ride, and extending frame service life.

The front suspension adopts a variable-stiffness independent suspension with symmetrical left and right configuration, ensuring reliable wheel alignment, stable handling, and improved ride comfort.

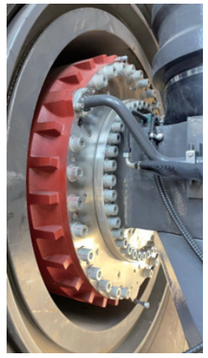
The rear suspension employs a longitudinal A-arm suspension, allowing the rear axle housing to oscillate and effectively absorb bending and torsional stresses generated on rough terrain.

## MULTI-DIRECTIONAL ADJUSTABLE SEAT

Operator comfort is a key factor for safe and productive operation. The XDE320 is equipped with a premium air-suspension seat, which effectively absorbs machine vibrations and reduces operator fatigue.

The seat provides multi-directional adjustment and can be used in combination with a telescopic/tilt-adjustable steering column to accommodate different operator preferences, enhancing comfort.

The seat is equipped with armrests, a safety belt, and a headrest.



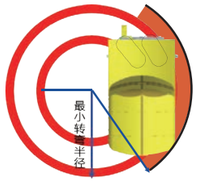
## RELIABLE AND SAFE BRAKING CONTROL

The proven and reliable braking system ensures vehicle safety and efficiency during operation, enhancing operator confidence and focus on productive hauling tasks.

The XDE320 is equipped with service brake, loading parking brake, and emergency brake functions. In combination with the electric drive dynamic retarding system, the machine provides integrated braking control, delivering excellent braking performance at all operating speeds.

The front and rear wheels are equipped with high-performance oil-cooled hydraulic service brakes. Compared with dry disc brakes, the oil-cooled system helps reduce maintenance costs and improve reliability.

The braking system is fitted with a brake accumulator and meets ISO 3450 standards.




## AGILE STEERING CHARACTERISTICS

The XDE320 adopts an integral steering mechanism powered by dual-acting hydraulic steering cylinders, with an accumulator providing emergency steering capability. The steering accumulator meets ISO 5010 requirements.

The minimum turning radius is 14.6 meters, ensuring high maneuverability and safe, efficient operation under mining road conditions with curves.

# 04 EASY MAINTENANCE

## CONVENIENT SERVICE ACCESS

The XDE320 is designed with full consideration for serviceability, ensuring fast and convenient maintenance operations.

Service ladders are provided on both sides of the front longitudinal beam for easy engine inspection and servicing.

An emergency engine stop switch and ladder light switch are located at the front bumper, while quick-fill fuel ports are arranged on both sides of the mid-frame, allowing maintenance personnel to operate from ground level.

## CENTRALIZED FILLING SYSTEM

The centralized filling system consists of receivers, dust caps, flanges, and breathers, providing facilities for filling and draining engine oil, hydraulic oil, fuel, grease, and coolant.

The centralized filling ports are located on the right side of the front frame longitudinal beam, close to ground level for ease of operation.

## MODULAR DESIGN FOR EASY ASSEMBLY AND DISASSEMBLY

The XDE320 adopts a modular design, making disassembly, installation, transportation, and servicing more convenient.

In particular, the frame and rear axle utilize mounted spherical bearings, facilitating easier assembly and disassembly, reducing downtime, and improving machine availability.





# FUNCTION

## AUTOMATIC CENTRALIZED LUBRICATION SYSTEM

The XDE320 is equipped with a fully automatic centralized lubrication system that effectively lubricates critical joints and pivot points, saving maintenance time, improving service quality, and reducing maintenance workload.

The automatic lubrication system features pressure monitoring, fault alarm functions, and programmable lubrication intervals.

## LCD DISPLAY

· Cab-mounted instrument display for installation, maintenance, and troubleshooting.

· Displays critical operating information such as vehicle speed, engine speed, and engine coolant temperature on the main screen, allowing operators to monitor machine status in real time.

· Basic troubleshooting can be performed without opening the control cabinet.

XCMG 徐工集团 XDE320双桥刚性矿车


徐工全心+
XCMG TrueCare

*Promise To You*

## CUSTOMIZED SERVICES TO ACHIEVE A FULL-CYCLE ALL-AROUND EXCLUSIVE SERVICE FOR CLIENTS—MANAGER—DELIVERY—PROJECT OPERATION & MAINTENANCE—SERVICE—BUSINESS.

XCMG forms a management team centered around client managers, solution managers, and delivery managers, working efficiently and collaboratively with deep client interaction to provide full-cycle, comprehensive services for customers.

# XDE320
## HAUL TRUCK

# TECHNICAL SPECIFICATIONS

## Engine

| | |
|---|---|
| Standard Model | MTU16V4000C23R |
| Emission Standard | GB20891-2014 Stage III / U.S. EPA Tier 2 |
| Fuel | Diesel |
| Number of Cylinders | 16 |
| Cycle | Four strokes |
| Gross Power* | 2013kW(2700HP)@1800rpm |
| Net Flywheel Power** | 1913kW(2564HP)@1800rpm |
| Weight (Dry) | 8300kg |
| Optional Model | Cummins QSK60 |
| Emission Standard | GB20891-2014 Stage III / U.S. EPA Tier 2 |
| Fuel | Diesel |
| Number of Cylinders | 16 |
| Cycle | Four strokes |
| Gross Power* | 2013kW(2700HP)@1900rpm |
| Net Flywheel Power** | 1923kW(2578HP)@1900rpm |
| Weight (Dry) | 8470kg |

* Gross power is the rated power output of the engine installed on this machine at the rated speed.Accessory losses include those from the water pump, fuel pump, and oil pump.
** Net flywheel power is the rated power at the engine flywheel, less average accessory losses.Accessories include the fan and alternator.Compliant with SAE J1349 standard.

## Electric Drive System

| | |
|---|---|
| AC Electric Drive System | GE AC Drive System |
| Drive Wheel | AC-DC-AC |
| AC Generator | 5GTA41 |
| Wheel Motor | 5GDY114A |
| Hub Reduction Gear Ratio | 32.62:1 |
| Maximum Speed | 64.5km/h |
| *Optional | XCMG 320AC Drive System |

## Tires and Rims

| | |
|---|---|
| Tubeless, radial tires, standard specification* | 53/80R63 |
| Five-piece rims | 36.00/5.0 |
| Rim rated cold inflation pressure: 758 kPa (110 psi) | |
| Typical tire configuration (6 units), total weight | 25854kg |

* Tires must comply with TKPH/TMPH, tread, compound, inflation pressure, ply rating, or equivalent specifications.

## Cab

ROPS/FOPS cab compliant with ISO 3471 and ISO 3449 (Level II) standards for roll-over and falling-object protection. Spacious cab with wide visibility.
Fully equipped with display instruments, warning indicators, lighting, control switches, and radio.
The operator seat is an adjustable air-suspension high-back seat with vibration damping, equipped with a passenger seat.
It is equipped with an onboard computer, electric windows, a tilt-and-telescopic steering wheel, electric windshield wipers and washers, tinted glass, and air conditioning with heating and cooling functions.
Vehicle operation data and fault alerts are displayed using an LCD screen and controllable gauges.

## Suspension

Variable oil/nitrogen suspension cylinders with integral rebound control.

| | |
|---|---|
| Maximum Stroke (Front Suspension) | 330mm |
| Maximum Stroke (Rear Suspension) | 238mm |
| Maximum Lateral Oscillation of Rear Axle | ±6.5° |

## Frame

Frame consists of left and right longitudinal beams and cross members, forming a closed-section structure.
Longitudinal and transverse members adopt a box-section design to eliminate stress concentrations from bending and cracking.
Fabricated from high-quality, low-alloy, high-strength steel, with castings applied in high-stress areas to enhance strength.
All critical welds are 100% inspected by ultrasonic testing.

| | |
|---|---|
| Drive Axle Installation | Via pin-shaft, spherical bearing, and bushing connections. |
| Lateral Positioning of Drive Axle | Stabilized by transverse stabilizer rods. |

## Standard Dump Body

Fully welded body structure equipped with protective liners, rear wheel rock ejectors, body safety lugs, and damping pads.
Optional extended liners, impact protection liners, and wear-resistant liner kits are available.

| | |
|---|---|
| Floor Plate | Thickness 20mm |
| Front Plate | Thickness 12mm |
| Side Plate | Thickness 10mm |
| Canopy Plate | Thickness 6mm |
| Struck | 171m³ |
| Heaped (SAE2:1) | 211m³ |
| Standard XCMG Body Weight | 39262kg |

*Custom designs available upon request.

## Braking System

Braking system complies with ISO 3450-2011 requirements.
Service Brake: Full hydraulic actuation.

| | |
|---|---|
| Front Brake | Oil-cooled multiple disc brake, friction area 19.7m² |
| Front Brake Pressure | 16.7MPa |
| Rear Brake | Oil-cooled multiple disc brake, friction area23.6m² |
| Rear Brake Pressure | 16.7MPa |
| Auxiliary Braking System | Hydraulic system automatically engages accumulator-provided braking if pressure drops below specified value. |
| Loading Brake | Switch ON to apply the rear service brake. |
| Parking Brake | Spring-applied, hydraulically released. |
| Dynamic Brake | 4027kW (Maximum) |



## Cooling System

Radiator with cushioned tube-and-belt structure, integrated top-mounted expansion tank, suitable for applications at altitudes up to 5,500 m.
Equipped with 14 PSI pressure cap and manual air release valve.

| | |
|---|---|
| Radiator front area | 6.47m² |

## Hydraulic System

| | |
|---|---|
| Steering | A variable plunger pump supplies steering oil. The load-sensing, flow-amplified power steering system provides light steering effort, fast response, high accuracy, and smooth steering. An accumulator provides emergency steering oil supply. |
| Turning Diameter | 29.2m |
| Filter | Suction filter: 250 μm<br>Return filter: 10 μm<br>Hoisting and steering high-pressure filters: 10 μm |
| Brake Assembly Cabinet | Located in the deck area behind the cab for easy diagnostics. |
| Hoisting | |
| Hoisting Time | Two 3-stage, double-acting external cylinders with built-in cushion valves. |
| - Hoisting (Loaded) | 26s |
| - Lowering (High Idle | 18s |
| - Lowering (Low Idle) | 25s |
| Pump | Direct-drive dual pumps |
| - Hoist Pump | Tandem gear pump<br>Flow rate: 966 L/min @ 1800 rpm<br>Maximum working pressure: 18 MPa |
| - Steering Pump | Variable plunger pump<br>Flow rate: 261 L/min @ 1800 rpm<br>Maximum working pressure: 24.5 MPa |
| System Relief Pressure | |
| - Hoist System | 18MPa |
| - Steering System | 28MPa |

Quick-connect interface available for powering a disabled truck and for system diagnostics.

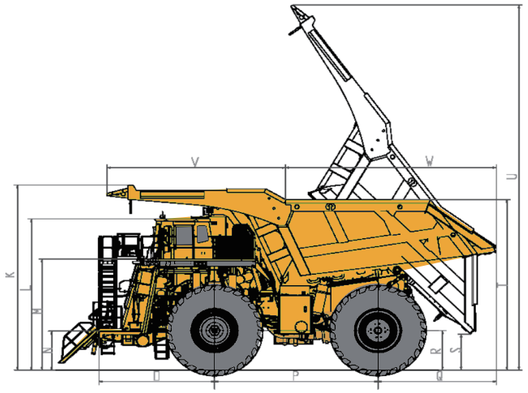
## Electrical System

Six 12 V maintenance-free batteries, 975 CCA each, connected in series/parallel, installed on the bumper, equipped with an isolation switch.

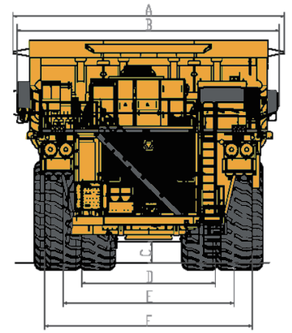
| | |
|---|---|
| AC Generator | 28V/260A |
| Lighting Equipment | 24V |
| Starter Motor | 2个/24V |

## Service Refill Capacities

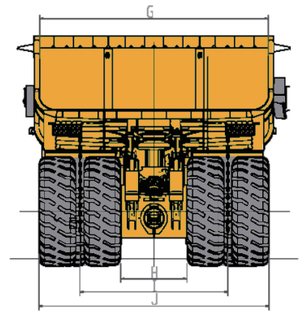
| | |
|---|---|
| Cooling System | MTU 850L /CUM 750L |
| Crankcase* | MTU 280L/ CUM 260L |
| Hydraulic System | 1180L |
| Front Wheel (each) | 40L |
| Wheel Motor (each) | 92L |
| Fuel Tank | 4500L |




K:7675 L:6270 M:4310 N:1610
O:4500 P:6350 Q:4600 R:1635
(Static radius at full load)
S:1500 T:7075 U:15125 V:6930 W:8200



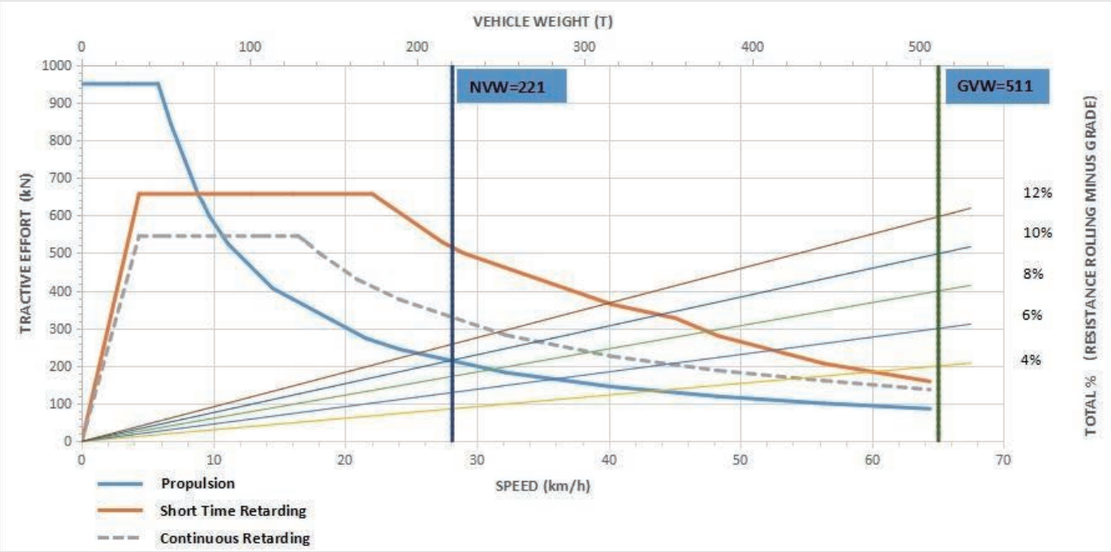

A:9600 B:9535
C:720 D:4870
E:6210 F:7560




G:8265 H:2400
I:5360 J:8325

*Standard Body: Struck Capacity 171 m³/ Heaped (SAE 2:1 ) Capacity 211m³.
*Tires 53/80R63

## Performance Curve




## Payload

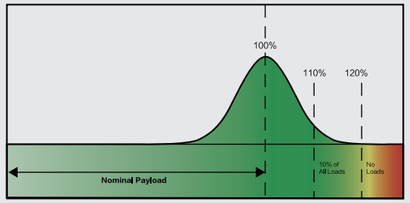
| | | |
|---|---|---|
| Effective Payload | 290000 kg | 639340.6 lbs |

*Rated payload includes all optional attachments.

# USE OF EQUIPMENT AND PRECAUTIONS

## XCMG Mining Truck Loading Specifications

Loading specifications define the guidelines and limitations for XCMG mining trucks.




· Gross Vehicle Weight (GVW) includes chassis, body, tires, attachments, lubricants, fuel, operator, effective payload, and any excess material.
· Empty Vehicle Weight (EVW) includes standard chassis, standard body, tires, attachments, lubricants, fuel, and operator.
· Rated effective payload = GVW – EVW.
· The monthly average effective payload must not exceed the rated effective payload.
· Actual payload ≤ 110% of rated payload, with a proportion of no less than 90%.
· 110% of rated payload ≤ actual payload ≤ 120% of rated payload; the proportion shall be no more than 10%.
· Under no circumstances shall the actual effective payload exceed 120% of the rated effective payload.

**Notes**

1. The graphics and information in this brochure reflect the technical characteristics and standard configurations of certain models at the time of publication. All data and information are based on standard operational tests and are for reference only. Actual specifications may vary.
2. This brochure is for reference only and does not constitute a contractual document. For detailed information, please contact your local XCMG Mining Machinery dealer.
3. No part of this brochure may be reproduced without authorization from Xuzhou XCMG Mining Machinery Co., Ltd.





### Standard Configuration

Self-Cleaning Air Filter
Alternator (24V/260A)
Automatic Lubrication System with Level Indicator
Reverse Alarm
Batteries: Six Units, 975CCA
Body Limit Device
Body Safety Rope
Front Brake: Wet Disc Brake
Rear Brake: Wet Disc Brake
HV Electrical Cabinet
Dynamic Brake Cruise System
Electric Start
High-Pressure Hydraulic Filter
Mirrors:
- LH: Flat, Heated
- RH: Convex, Heated
Mudguards
Muffler (Deck-Mounted)
Power Supply: 24V and 12V DC
Quick Connectors (for Hoist and Diagnostics)
Radiator Level Indicator
Removable Powertrain (Engine and Alternator)
Dynamic Brake
Fan Clutch

### Operation Environment and Controls

Full Hydraulic Service Brake with Automatic Engagement
Power Switch
Brake and Traction Interlock
24V Circuit Breaker
Access Ladder
Dynamic Deceleration
Hoist-Traction Interlock Device
Horn (Electric, Front)
Integrated ROPS/FOPS (Level II) Cab
Parking Brake with Warning Light and Speed-Protection
Power Steering System with Automatic Auxiliary Assist
Deck Safety Handrails
Drive Shaft Protective Cover
Radiator Fan Guard
Seatbelt: Standard Three-Point
Anti-Slip Walkways
Engine Service Platforms (LH /RH)

### Lighting Equipment

Rear Reversing Lights (LED)×2
Deck Reversing Lights (LED) (LH and RH)×2
Cab Roof Brake and Deceleration Lights (LED)
Steering/Clearance Light (LED)×8
Rear Dynamic Deceleration Lights (LED) ×2
Engine Compartment Service Lights (LED)×4
Axle Service Light (LED)
Fog Lights (LED)×2
Headlights (LED)×8
Stair and Platform Lights (LED)
Rear Brake Lights (LED)×2

### Standard Cab

AC Drive Interface Display
Air Conditioning R-134A
AM/FM Radio with USB and MP3 Support
Roof Light
Multi-Function Operator Display Panel
- Light Status
- Engine Hours, Oil Pressure, Coolant Temperature, Oil Temperature, Fuel Level
- Odometer, Vehicle Speed, Load
- Ambient Temperature, Time
- System Voltage

### Standard Cab

Multi-Function Operator Display Panel
- Engine Red and Yellow Warning Lights
- Low System Voltage
- Low Engine Coolant Level
- Gear Position Indicator
- Excitation Indicator
- Parking Brake, Service Brake, Electric Brake, Load Brake Indicators
Dual-Layer Floor Mats
Fuel Gauge
Low Fuel Level Warning Light and Buzzer
Backlit Instruments
Headlight Switch
Heavy-Duty Heater and Defroster
Heater Switch
High Beam Selector and Indicator
Horn (Steering Wheel Center)
Weighing System Display
Operator Seat: Adjustable, with Air Suspension, Lumbar Support, and Armrests
Panel Illumination (Adjustable)
Passenger Seat
Power Windows
Pressurized Cab
Dynamic Brake Pedal
Hydraulic Brake Pedal
Sun Visor (Adjustable)
Tilt-and-Telescopic Adjustable Steering Column
Voltmeter (Battery Output)
Windshield
Dual Electric Windshield Wipers and Washer

### Optional Equipment

Note: Optional equipment may affect the operating weight.
1,000 L/min quick-fill fuel system (fuel tank and hydraulic tank side)
Amber Warning Lights
Power Switch Locks
Antifreeze: Below -40°C
Custom Body
Body Heating
Wear-Resistant Body Liner
Rock Ejector
Hydraulic Lifting Ladder
Low-Temperature Suspension System (Front and Rear)
Electric Heaters (Engine Coolant, Engine Oil, Hydraulic Oil, Fuel)
Fuel Heater (Engine Coolant)
Fire Extinguisher ×2
Automatic Centralized Fire Suppression System
Centralized Filling System – Right Side (Coolant, Engine Oil, Hydraulic Oil, Grease)
Mudguards – Fuel Tank and Hydraulic Tank
Seven-Piece Quick-Mount Rims
XCMG-360 Panoramic Camera System
Weighing Display Screens - Right and Left
Suspension Filling Kit
Tires
Operator Behavior Monitoring System
Tire Temperature and Pressure Monitoring System
Tinted Cab Glass
Hill-Start Assist
Oversized Rear Body Signal Lights
Front-Edge Body Guard Plate
One-Touch Export of Weighing Data
Low-Position Fog Lights
Premium Seats (ISRI)
Rear Axle Door Safety Guard
Brake Testing Function
Engine Emergency Stop Button – Ground
Battery Charging/Jump-Start Connector
Lockable Starter Motor and Main Power Isolation Switch
HEPA-Level Pressurizer
Engine Delayed Shutdown
Engine Emergency Stop Button – Ground
Battery Charging/Jump-Start Connector
Auxiliary Power Outlet
Canvas Seat Covers
Wheel Chocks