

# UKA-30 Low Profile Mining Truck

UKA-30 is an articulated underground mining truck with 30 tons capacity. It has innovative features that can easily cope with harsh conditions and provide great power, strength and reliability to help you maximize your productivity.

Designed to withstand harsh underground environments, the heavy-duty front and rear frames provide superior quality, reliability and durability to meet user requirements, making transportation simpler and more efficient.

The central articulated swing reduces the large center of gravity offset of the vehicle and ensures that the front and rear frames can swing freely, ensuring that the tires form good contact with the ground under severe conditions. The fully sealed slewing bearing unit can effectively cope with the harsh working environment, prolong the service life and reduce operating costs.





#### MAIN SPECIFICATIONS

Dimensions(mm)	10093×3500×2000
Rated capacity	30000 kg
Maximum traction force	325kN
Standard bucket	15.0m³

#### SPEEDS FORWARD & REVERSE WITH BENZ OM460LA)

1st gear	5.3km/h
2nd gear	9.4km/h
3rd gear	16.6km/h
4th gear	26.3km/h

#### **BUCKET UNLOADING ANGLE & APPROACHING ANGLE**

Bucket unloading angle	60°
Approaching angle	15°

#### EMPTY LOAD\*

Total operation weight	30440 kg
Front axle	20270 kg
Rear axle	10170 kg

#### LOADED WEIGHTS\*

Total loaded weight	60440 kg
Front axle	28540 kg
Rear axle	31900kg

<sup>\*</sup> Equipment weight is dependent on the selected options



#### **OPERATIONAL CONDITIONS AND LIMITS**

Environmental temperature	-15°C∼+45°C
Standard operating altitude	With engine BENZ OM460LA No power loss below 4000 meters above sea level

#### REQUIREMENTS AND COMPLIANCE

JB/T8436 Underground mining truck with tire	
JB/T5501 Underground loader testing method	
GB21500 Safety requirements for railless tire-type underground mining trucks	
XY12.1-2011 Underground mining truck	

#### **POWER TRAIN**

ENGINE	
Diesel engine	Mercedes Benz OM460LA
Output	315 kW @ 1800rpm
Max torque	2000Nm @ 1300rpm
Number of cylinders	In-line 6
Displacement	12.8 L
Cooling system	Liquid cooled Silicone clutch fan
Combustion system	Integrated hand pump, fuel filter
Intake system	Turbocharger pre-filtration +Two stage filtration, dry type
Control System	Fuel electronically controlled injection system
Starting system	24V starting motor
Emissions	EuroIII
Exhaust system	DOC+POC+Silencer
Average fuel consumption at 50% load	30.0 L/h
Fuel tank capacity	430 L

#### CONVERTER

Dana CL8000 series	With lock-up	
TRANSMISSION		
Dana 6000 series	Electronically controlled shift Forward 4 gears & reverse 4	

#### **AXLE**

Front axle SAHR Fixed axle	KESSLER D91 Standard differential
Rear axle SAHR Fixed axle	KESSLER D91 Lengthened and enhanced Standard differential

#### **TIRE**

#### **HYDRAULICS**

The equipment will brake and cannot move when the cabin door	Standard
is not locked	
Hydraulic oil radiator	Capability up to 45°C
Transmission oil radiator	ambienttemperature
Fittings	JIC
Hoses	GB3683
Hydraulic oil tank capacity	306L

#### STEERING HYDRAULICS

Full hydraulic, centre- pointarticulation, power steering with two double acting cylinders.	Steering wheel operation		
Steering main valve	Open circuit type		
Steering hydraulic cylinders	2 pcs		
Steering pump	Gear pump		

#### **BUCKET HYDRAULICS**

The oil flow from Steering hydraulic pump is directed to Bucket hydraulics when steering is not used.	Joystick controlled		
Lifting cylinder	2 pcs		
Main valve	Open circuit type		
Working pump	Gear pump		

#### **Brake system**

Service brakes are SAHR multidisc wet brakes on all wheels.; Integrate service brake, park brake and emergency brake in a whole system.

Brake system performance complies with requirements of

Brake system performance complies with requirements of GB/T33921 和 JB/T13003.

Automatic brake activation system, ABA	Standard
Manual emergency brake release pump	Standard

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#### **OPERATOR'S COMPARTMENT**

The UKA-30 cab provides a spacious and ergonomic operating space, equipped with temperature control and ventilation systems, a spacious front windshield and large rear-view mirrors with all-round visibility, and an ergonomic operator station layout to improve Comfort and productivity.

UKA-30 cab has passed ROPS/FOPS certification to protect operator safety. The side of the cab near the engine is pasted with thermal insulation cotton, which can effectively heat insulation and reduce noise. Laminated glass windows are installed with four-port sealing strips, and the glass can be disassembled inside and outside for emergency escape in case of danger.

#### CABIN

ROPS certification according to ISO 3471
FOPS certification according to ISO 3449
Enclosed Cabin with Air Conditioner
Insulation cotton
Laminated glass windows
Air conditioning is installed inside the cab
Emergency escape exit
Washable cab floor to reduce dust
Three-point access to the cab

### DASHBOARD AND

Equipped with an IFM 7-inch color display that displays all required informational alerts on one large display, giving the operator more time to keep his eyes on the road. To reduce eye strain, new dark background graphics with clear symbols have been designed

Standard Intelligent Control System		
warnings and alarms	Displayed with sound and light	
dashboard	IFM 7" Color display Full- featured rocker switch control	



#### **OPERATOR'S SEAT**

UKA-30 driver seat with adjustable mechanical suspension seat, equipped with three-point seat belt. The seat is adjustable up and down, forward and backward.

Mechanical suspension

Height adjustment

Adjustment according to the operator's weight

Adjustable arm rest

Adjustable back support

Three-point seat belt

#### **FRAME**

#### REAR AND FRONT FRAME

The rear frame adds a heavy-duty design that better stabilizes the equipment when transporting and loading ore. The heavy-duty front frame and cab minimize the damage to the impact and collision to the roadway wall

High-strength alloy steel plate(Q460C) is used to optimize material thickness, reduce self-weight, and improve overall transportation capacity, high structural reliability and long service life.

Box structure enhances the overall strength of the vehicle and it is optimized to reduce damage and collisions from the impact of the roadway walls.

Central hinge	Rotary connection	
Tanks	Welded to the frame	
Automatic centralized lubrication system	Standard	



#### **ELECTRICAL SYSTEM**

MAIN COMPONENTS			
Alternator	28 V,80A		
Batteries	2×12 V,165Ah		
Starter	24V/ 7 kW		
Driving and working lights	2 pcs on the front frame 2pcs on the rear frame		
Sensor	Diesel, hydraulic oil level sensor; working, steering, braking system pressure sensor		
Alarm	Low oil level alarm / oil pressure alarm Rotating warning light		
Control system	Controller Built-in diagnostic and alarm system		
Dual horn	Standard		
Buzzer	Standard		
Reverse camera system	Standard		
Right front view camera system	Standard		
Right rear view camera system	Standard		

#### **SAFETY FEATURES INCLUDED**

FIRE PREVENTION			
Portable fire extinguisher	8kg 1pc		
Fire protection heat source isolation cover	Standard		
Exhaust pipe insulation cotton protection	Standard		
Turbocharger Cover	Standard		
Automatic fire extinguishing system	Standard		
ENERGY ISOLATION			
Main power switch can be locked	Standard		
Emergency brake button	1 pc on front frame/ 1 pc in cabin		
Engine water tank manual pressure release box cover	Standard		
Accumulator manual pressure relief device	Standard		
Front and rear frame locking device	Standard		
Carriage maintenance support device	Standard		

### **DOCUMENTATION**

STANDARD MANUALS	
Operator's Manual	English
Maintenance Manual	English
Parts Manual	English
Service and Repair Manual	English
Decals	English

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PERFORMANCE					
Mercedes Benz OM460LA, Euro III engine (3 % rolling resistance)					
With converter lock-up					
OPERATING SPEE	D AT NO LOAD	AND FULL LOAD			
NO LOAD					
Grade (%)	0	5	10	15	20
1st gear (km/h)	5.3	5.3	5.2	5.2	5.1
2nd gear (km/h)	9.5	9.4	9.2	9.0	8.8
3th gear (km/h)	16.7	16.2	15.0	11.9	
4th gear (km/h)	27.5	25.0			
FULL LOAD					
Grade (%)	0	5	10	15	20
1st gear (km/h)	5.3	5.2	5.1	5.1	5.0
2nd gear (km/h)	9.4	9.3	9.0	7.4	5.7
3th gear (km/h)	16.6	15.9			
4th gear (km/h)	26.3				



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