UK-12
Underground Mining Truck

The UK-12 truck is an underground mining truck with a carrying capacity of 12 tons.The truck is built to offer the flexible mobility necessary in narrow-vein mining conditions. Equipped with a European Stage V engine to provide users with cleaner and more efficient vehicle operation.

The truck is equipped with an reliable and powerful Deutz Euro Stage III diesel engine, and it features an excellent power to weight ratio.

Sideways seating in UK-12 operator's compartment offers comfort in applications which require both forward and reverse operation. The equipment has joystick steering and dump box control.

Visibility from the operator's compartment has been improved. Color-coded three-point of contact access system with fold-out ladders and handles offers easy access to the maintenance areas on top of the truck. Efficient and long-life LED lights improve visibility.

The front, front, and fully enclosed air-conditioned cab provides a very comfortable operating environment without affecting the operator's vision. UK-12 is very suitable for the production and transportation of ramps or horizontal roadways in small and medium-sized mines and small tunnel projects.

MAIN SPECIFICATIONS	
Rated capacity	12000 kg
Maximum drawbar pull	150 kN
Standard bucket	6.0m³
Dimensions	7970×1950×2290 (mm)

SPEEDS FORWARD & REVERSE WITH DEUTZ TCD4.1L04	
1st gear	4.0km/h
2nd gear	7.4km/h
3rd gear	13.0 km/h
4th gear	21.1 km/h

BUCKET UNLOADING ANGLE & APPROACHING ANGLE	
Bucket unloading angle	69°
Approaching angle	15°

OPERATION WEIGHT*	
Total operation weight	13900 kg
Front axle	9400 kg
Rear axle	4500kg

LOADED WEIGHTS *	
Total loaded weight	25900 kg
Front axle	12700 kg
Rear axle	13200 kg

* Equipment weight is dependent on the selected options

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OPERATIONAL CONDITIONS AND LIMITS	
Environmental temperature	-15°C～+45°C
Standard operating altitude	With engine DEUTZ TCD4.1L04 No power loss below 2000 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	DEUTZ TCD4.1L04
Output	115kW @ 2000rpm
Acrot orque	609Nm @ 1600rpm
Number of cylinders	In-line 4
Displacement	4.1 L
Cooling system	Water cooled
Combustion system	Integrated hand pump, Remotely located fuel filter
Intake system	Turbocharger Two stage filtration, dry type
Control System	Fuel electronically controlled injection system
Starting system	24Vstarting motor
Emissions	Euro Stage V
Exhaust system	SCR+urea tank
Average fuel consumption at 50% load	11.0L/h
Fuel tank capacity	210 L

CONVERTER
Dana C270

TRANSMISSION	
Dana 32000	Hydraulic shift Forward 4 gear & backward 4 gear

AXLE	
Front axle SAHR Fixed axle	UK-12 Standard differential
Rear axle SAHR Fixed axle	UK-12 Standard differential

TIRE	
Model	14.00-24

HYDRAULICS	
When the cab door is unlocked, the device brakes	standard
Hydraulic oil radiator Transmission oil radiator	Capability up to 50°C ambient temperature
Fittings	JIC
Hoses	GB3683
Hydraulic oil tank capacity	215L

STEERING HYDRAULICS	
Full hydraulic, centre-point articulation, power steering with two double acting cylinders.	Steering controlled by joystick
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

BRAKES
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 EN ISO 3450, AS2958.1 and SABS 1589

OPERATOR'S COMPARTMENT

The UK-12 cab provides a spacious ergonomics operating space, and meets the requirements of ergonomics. The lateral cab uses steering handle to control the steering of the vehicle. Compared with the steering wheel, it is more advantageous for the driver to operate. It improves comfort and production efficiency.

UK-12 cab passed the ROPS/FOPS certification to protect the safety of the operator.Laminated glass windows are installed on all four sides of the cab, and are installed with four-port sealing strips. The glass can be disassembled inside and outside, which is used for emergency escape when a dangerous situation occurs.

CABIN

ROPS certification according to ISO 3471
FOPS certification according to ISO 3449

DASHBOARD AND DISPLAYS

The 4.3-inch color display displays the required engine information on a large display, giving operators more time to watch the road.

Critical warnings and alarms	Displayed with sound and light
Instrument Panel	IFM 4.3” Color display Full-featured rocker switch control

OPERATOR’S SEAT

The UK-12 driver's seat adopts ergonomically comfortable seat equipped with a Three-point safety belt.

FRAME

REAR AND FRONT FRAME

The rear frame is heavy-duty designed to make the equipment more stable when it is transported and loaded and unloaded. Heavy-duty design of the front frame and cab minimizes damage from roadway wall shocks and collisions.
High strength alloy Q460C steel plate is adopted to optimize material thickness, reduce deadweight, improve overall transportation capacity, high structural reliability and long service life.
The box structure is adopted to improve the overall strength of the carriage and to reduce the impact from the tunnel wall, the damage caused by collision and the prolongation of service life.

Central hinge	Slew Bearing
Tanks	Welded to the frame

ELECTRICAL SYSTEM	
MAIN COMPONENTS	
Alternator	28 V,80A
Batteries	2×12 V, 100Ah
Starter	24V/4.0KW
Driving and working lights	2PCS on front frame 2PCS on rear frame
Alarm	Low oil pressure alarm / Rotating warning light
Dual horn	Standard

INCLUDED SAFETY FEATURES	
FIRE PREVENTION	
Portable fire extinguisher	2kg 2PCS
Exhaust pipe insulation cotton protection	Standard
ENERGY ISOLATION	
Main power switch can be locked	Standard
Emergency brake button	2 pcs
Engine water tank manual pressure release box cover	Standard
Front and rear frame locking device	Standard

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

OPTIONS
SAFETY OPTIONS
Automatic centralized lubrication system
Manual Fire suppression system
Emergency steering

Electrical system optional configuration
Reversing video system

OTHER OPTIONS
Customized Bucket Capacity
Open cab
Carriage baffle

PERFORMANCE
Deutz TCD4.1L04, Tier 5 emissions (3 % rolling resistance)

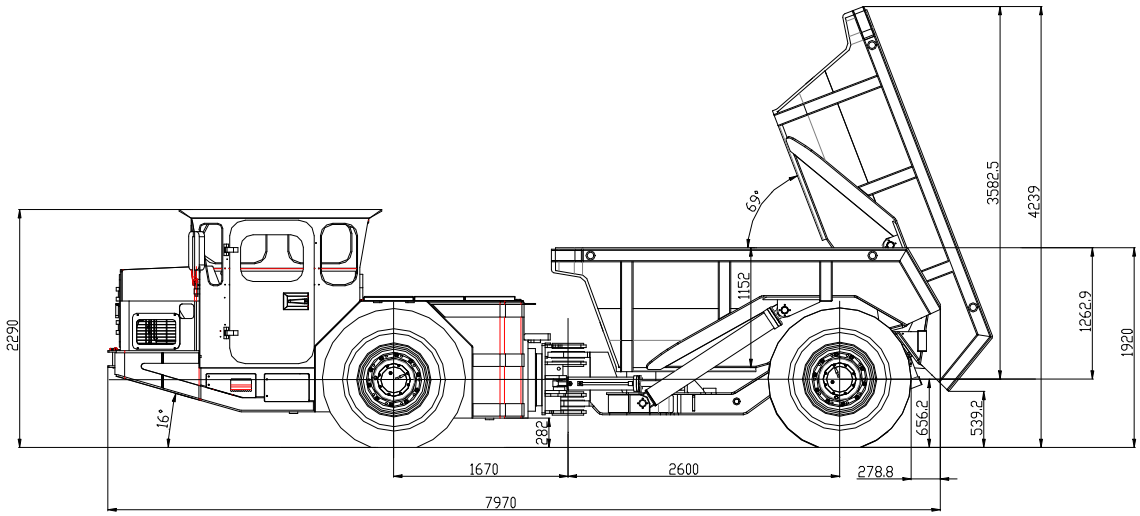
OPERATING SPEED AT NO LOAD AND FULL LOAD

NO LOAD

Grade（%）	0	10	15	20
1st gear（km/h）	4.1	4.1	4.1	4.1
2nd gear（km/h）	7.7	7.7	7.6	7.5
3th gear（km/h）	13.2	13.0	12.9	12.8
4th gear（km/h）	21.5	20.8		

FULL LOAD

Grade（%）	0	10	15	20
1st gear（km/h）	4.0	4.0	4.0	4.0
2nd gear（km/h）	7.4	7.2	7.0	6.8
3th gear（km/h）	13.0	12.1		
4th gear（km/h）	21.1			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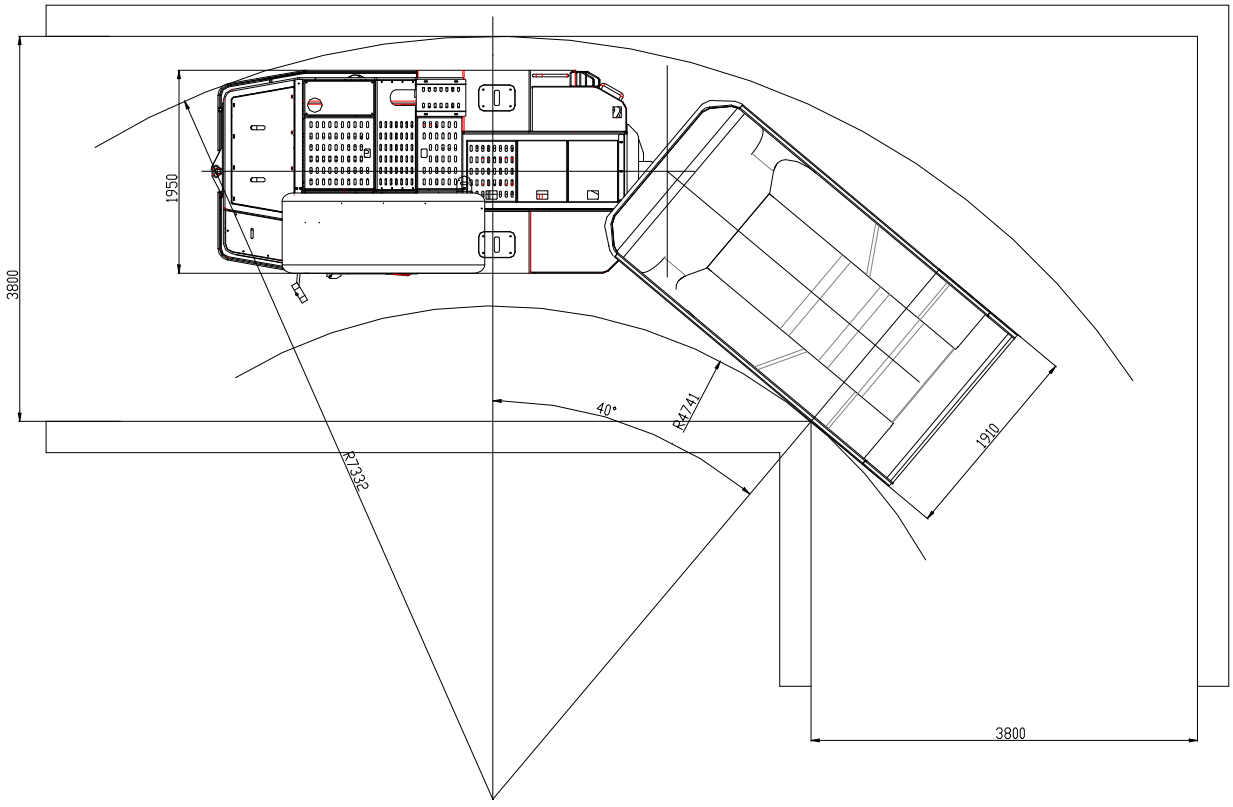
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