



KARER

TECHNICAL
BROCHURE

UVS 9480

VIBRATING SCALER

9.4 METER VERTICAL AND 8 METER HORIZONTAL REACH



KARER UVS 9480 is a versatile underground scaler. It is equipped with a **Cummins** engine has high fuel efficiency and provides a long engine life.

Optimized translational working mechanism can perform **all-round prying operations** on the working surface, top plate, side panels and bottom plate, with a large working area. The working device adopts a rotary reducer device, which has a compact structure, smooth movement and a large overturning moment. The whole machine adopts **full hydraulic proportional pilot control**, combined with multicylinder control, which can enable the impact hammer to achieve **three-dimensional strikes** in space.

KARER UVS 9480 underground **scaler** is equipped with an inclined operating position, which is convenient for prying operations and walking in the tunnel. The front push shovel is integrated with the front body stabilizing legs to improve the stability of the prying machine body, and can realize the function of **quickly retracting** and **releasing the legs** to **quickly evacuate dangerous working conditions**.



MAIN PARAMETERS

Hammer Impact Energy	350 J
Hammer Impact Power	3.5 ~ 7 kW
Hammer Strike Frequency	600 ~ 1,100 bpm
Hammer Working Oil Pressure	90 ~ 120bar
Drill Rod Diameter	53 mm

SPEEDS

Speed (1st Gear)	4.6 km/h
Speed (2nd Gear)	10.0 km/h
Speed (3rd Gear)	23.1 km/h



WORKING MECHANISM AND CABIN DATA

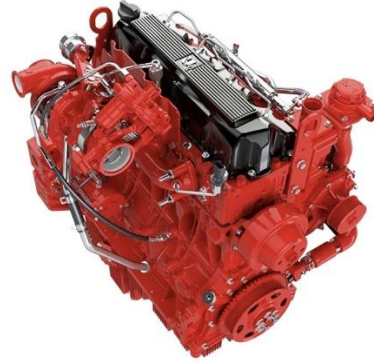
Working Arm Left and Right Swing Angle	±30°
Maximum Working Height of Hammer	9,400 mm
The Longest Working Distance of Hammer	8,820 mm
Cabin Lifting Height	400 mm
Cabin Tilt Angle	25°



MACHINE DATA

Operating Weight*	14,300 kg
Dimensions (LxWxH)	881x180x230 cm
Turning Radius (outer/inner)	620/411 cm
Minimum Ground Clearance	25 cm
Gradeability	14° (25%)

*Machine weight depends on options



ENGINE

Model	CUMMINS F3.8
Power	129kW@2500rpm
Max. Torque	620Nm@1500rpm
Cylinder	In Line 4
Electric	24 V
Control System	Electronic fuel injection
Cooling System	Water-cooled engine, Direct-drive fan
Starter	5.5 kW motor
Emission	Stage V (Euro 5)
Air Intake	Low-profile turbocharger Dry air filtration Prefiltration Two-stage filtration
Exhaust System	DOC + DPF + SCR + Adblue/DEF Doser & Mixing
Average fuel consumption	10.4 L/h



WORKING ENVIRONMENT CONDITIONS	
Operating ambient temperature	-15°C ~ +45°C
Standard Working Altitude Range	-1500m to +2000m no power loss at 25°C

TRANSMISSION	
Integrated Torque Converter and Gearbox	
Brand	DANA
Model	1201FT20321
Gear shift buffer function	
Single-stage three-element with hydraulic pump drive	
Electronically controlled gearbox	
Three gears forward and three gears reverse	

AXLES	
Model	YR14
Front Axle	Spring applied hydraulic release brake (SAHR) Standard differential
Rear Axle	Spring applied hydraulic release brake (SAHR) Standard differential Swing angle $\pm 8^\circ$

EQUIPMENT DESIGN COMPATIBILITY	
JB/T 14265-2021 Underground scaler	
JB/T 5501 Test methods for underground loaders	
JB 8518 Safety requirements for underground loaders	
GB 25518 Safety requirements for underground loaders	
XYQB 004 scaler enterprise standard	



HYDRAULICS	
Maximum heat dissipation can meet $\leq 50^\circ\text{C}$ ambient temperature	
Connector Standard	JIC Standard
Hose Standard	GB3683
Hydraulic oil and transmission oil radiators	

STEERING HYDRAULIC SYSTEM	
Fully hydraulic central articulated steering	
Hydraulic joystick is used for steering	
Hydraulic pilot control	
Steering main valve is middle open center	
Two double-acting steering cylinders	
Steering hydraulic cylinders	2 pcs
Steering pump is gear type metering pump	

BRAKE HYDRAULIC SYSTEM	
Parking adopts spring brake and fully enclosed multi-disc wet brake	
The braking system performance meets the requirements of GB/T33921 and JB/T13003	
Service brake and parking brake are spring applied, hydraulically released (SAHR)	
The brake hydraulic oil tank is integrated with the working hydraulic oil tank	

WORKING HYDRAULIC SYSTEM	
Institutional Control	Hydraulic control handle operation
	Breaking hammer control is electric
	2 pcs
Work Organization Form	Foldable retractable working arm (with translation function)
Rotary Reducer	1 pc
Boom Cylinder	1 pc
Two Arm Cylinder	1 pc
Telescopic Cylinder	1 pc
Three-arm Cylinder	1 pc
Hammer Cylinder	1 pc
Rotary Cylinder	1 pc
Pusher Cylinder	1 pc
Outrigger Cylinder	1 pc
Working Main Valve	Middle open center
Working Pump	Gear type metering pump

WHEELS	
Tire Dimensions	10.00-20NHS-16

TANK CAPASITIES	
Fuel Tank	181 liters
Integrated Working and Brake Hydraulic Oil Tank	276 liters

Cabin



The cabin provides an excellent ergonomic operating environment. The cabin is equipped with a mechanical shock-absorbing suspension seat that can rotate 90° to facilitate the operator's frequent switching between the driving position and the working position. It is equipped with a two-point safety belt and the seat can be adjusted up and down and front and back.

The cabin has passed ROPS/FOPS certification to protect the operator's safety. The cabin is strong enough to prevent falling rocks and rollovers to protect the operator's safety. The cabin is equipped with a high-strength protective grille to prevent flying rocks from hitting the staff.

The cabin can be raised and lowered as a whole (up to) 400mm, and the cab can be pitched as a whole (up to) 25 degrees, and is equipped with a variable-length work light, so that the operator has a wider field of vision during the prying operation.

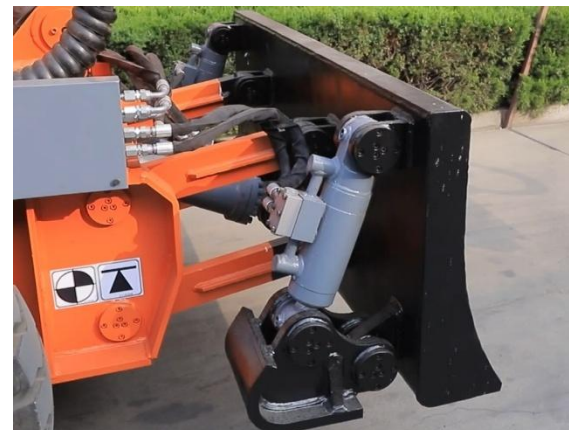
KARER UVS 9480 scaler is equipped with a water spray (spray) system to eliminate dust generated by the impact hammer operation, providing a clearer field of vision and greatly reducing the content of harmful silicon particles in the air.

The cabin and frame are fixed with rubber shock absorbers to reduce the vibration of the cabin.

CABIN
ROPS certified according to ISO 3471
FOPS certified according to ISO 3449
Closed air-conditioned cabin
High strength protective grille
Fully hydraulic pilot proportional control joystick (handle)
Washable cabin floor to reduce dust
Three-point entry system for the cabin
Adjustable spring shock-absorbing seat
Adjustable operating handle and armrest
Seating area with very good two-way visibility and comfortable use during operation

DASHBOARD
Equipped with an icon-based panel and a 4.3-inch color display, it can display engine and vehicle information, allowing operators to more easily identify alarm switch information
Emergency stop button
Fully functional rocker switch and button indicator light

Bulldozer, Outrigger



The front-end bulldozer is integrated with the front vehicle body stabilizing outrigger, which can realize the function of quickly retracting and extending the outriggers in dangerous situations and quickly evacuate the dangerous working conditions.

The bulldozer adopts a parallelogram mechanism, which can keep the bulldozer in a vertical state during the retraction and extension process, thereby realizing the removal of roadblocks at different heights; the bulldozer, left outrigger and right outrigger can be adjusted independently to stabilize the vehicle on uneven roads.

The bulldozer can also play a supporting role together with the outriggers, increasing the supporting surface and improving the stability of the body during the prying operation.

BULLDOZER, OUTRIGGER
Translational mechanism
Integration
Quick retraction
Independent regulation control

Frame (Chassis)



The sturdy chassis has a newly designed high-strength steel frame, which minimizes damage from impact on tunnel walls.

The rear-mounted large-capacity water tank can be used as a movable counterweight to provide stability for equipment operation.

The working mechanism boom adopts a box-type structure, which provides strong resistance to impact loads and is optimized to

reduce stress and extend the service life of the boom;

KARER UVS 9480 are equipped with lubrication points and a multi-door wraparound engine hood. It is well designed, time-saving and labor-saving, easy to maintain and durable.



FRAME (CHASSIS)	
Working Arm	Box structure
Grille Door	Side opening

ELECTRIC	
Battery	2 × 12V, 100 Ah
Starter	4.8 kW / 24 V
Dynamo	28 V, 70 A
Horn/back-up siren is standard	
Flashing warning lights are standard	
Lighting and Work Lights	
Front Chassis	4 pcs LED
Rear Chassis	4 pcs LED
Cabin (on the top)	2 pcs LED

INCLUDED SAFETY FEATURES
Portable fire extinguisher (1 pc 4 kg)
Main power switch can be locked
Emergency stop button is 1 pc in the cabin
Manual pressure relief device for accumulator
Front and rear chassis locking device
Engine belt break protection system
Neutral brake parking protection system
Electrical short circuit and overload protection system

STANDARD FEATURES
Manual centralized lubrication system
Closed cabin
Air conditioning and refrigeration system
Air conditioning and heating system

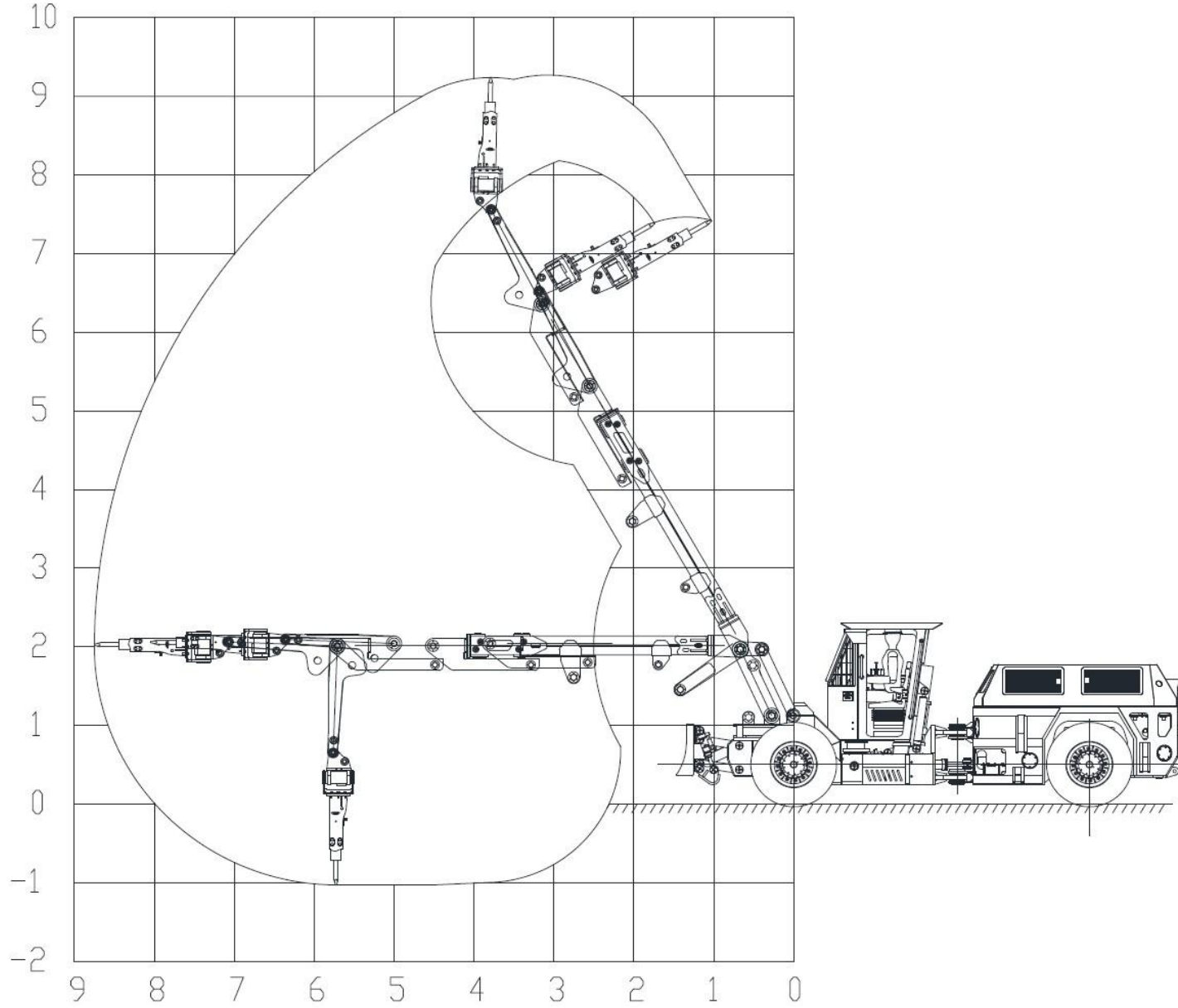
OPTIONS	
Remote control system	
Automatic centralized lubrication system	
Automatic dry powder fire extinguishing	
Manual dry powder fire extinguishing	
Manual emergency brake release pump	
Electric emergency brake release pump	
Automatic trailer mechanism	
Reversing image	
Line-of-sight remote control system	
Driving recorder	
Tire pressure monitoring system	
Changing tires	
Remote control system	
Anti-collision system	
Unmanned driving system	

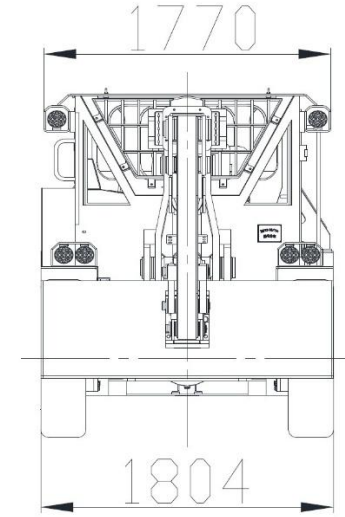
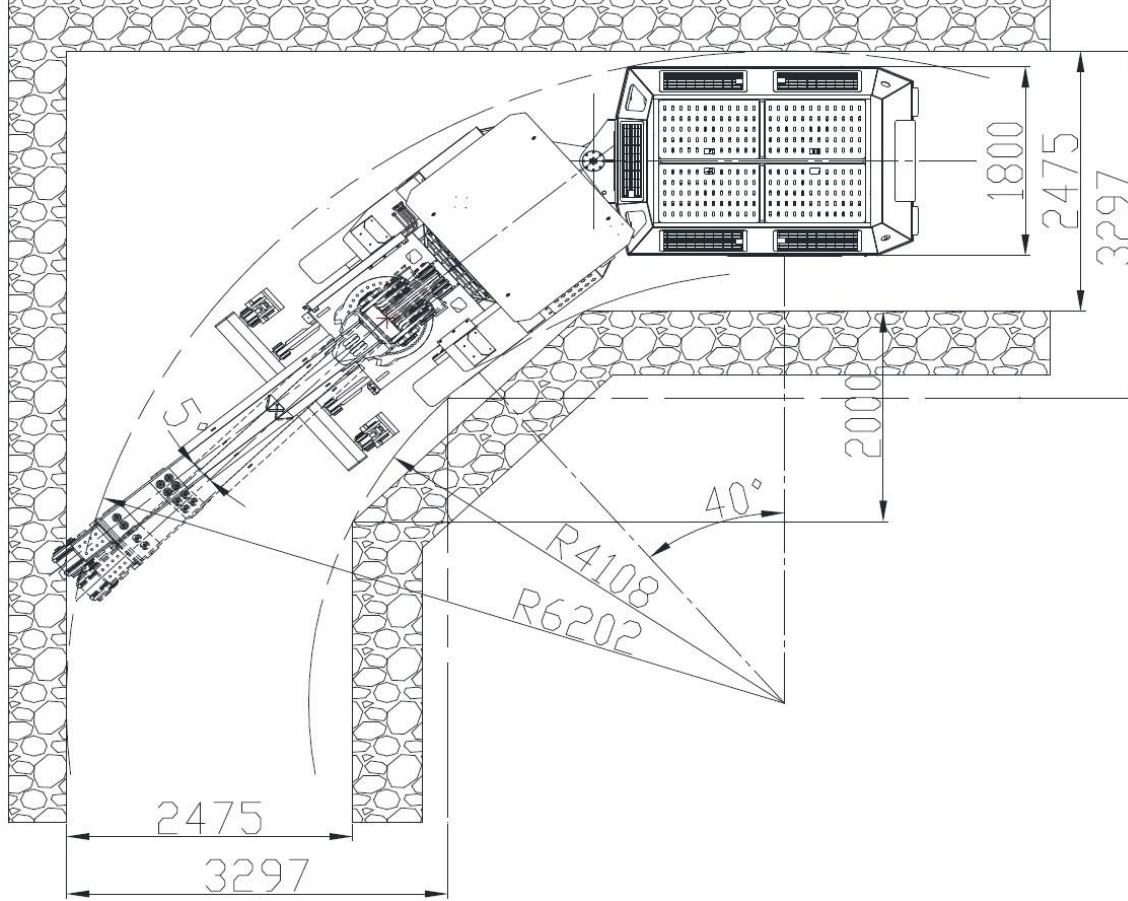
OPTIONAL ENGINE - 1	
Model	CUMMINS QSF3.8-C1 40
Power	104kW@2200rpm
Max. Torque	540 Nm@1200-1800rpm
Cylinder	In Line 4
Electric	24 V
Control System	Electronic fuel injection
Cooling System	Water-cooled engine Direct drive fan
Emission	Euro 3
Air Intake	Dry air filtration Prefiltration Two-stage filtration
Exhaust System	DOC + POC + Silencer

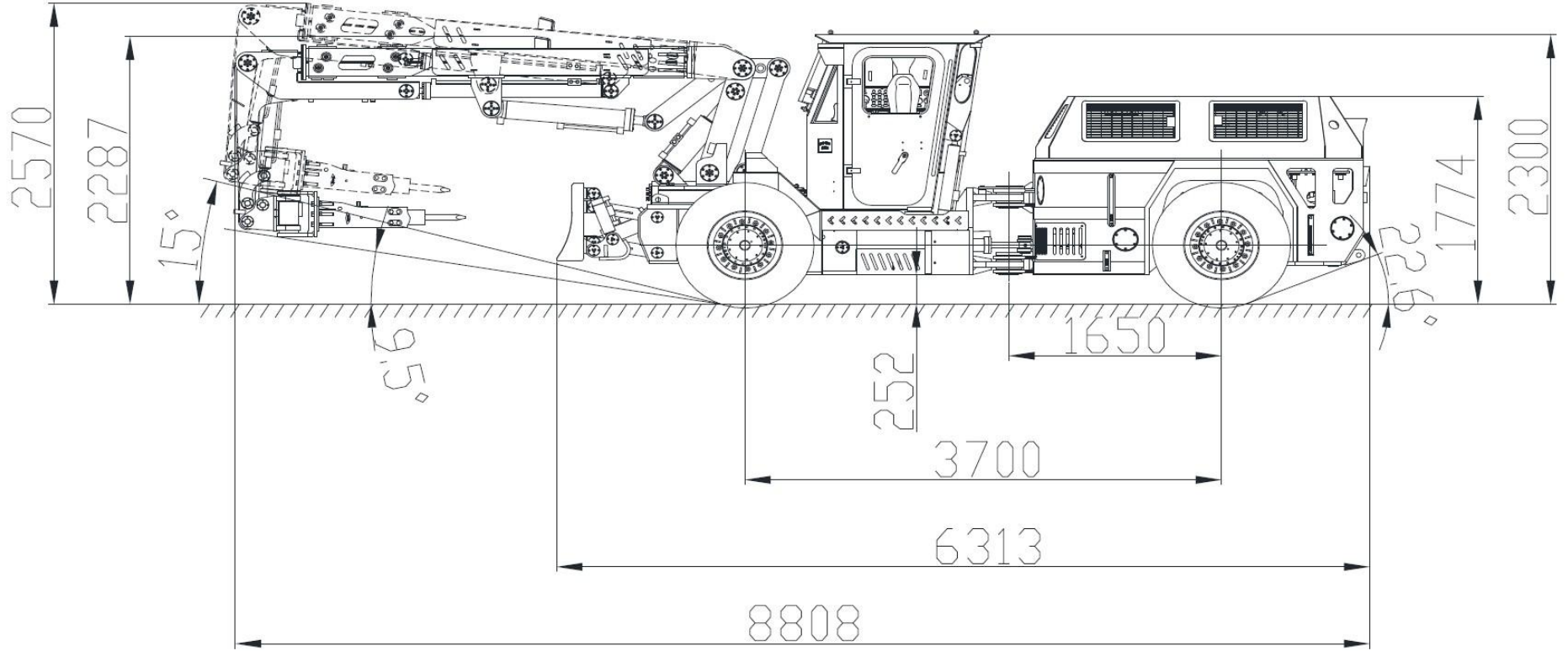
OPTIONAL ENGINE - 2	
Model	CUMMINS F4.5CS4145
Power	108kW@2200rpm
Max. Torque	600 Nm@1200-1700 rpm
Cylinder	In Line 4
Electric	24 V
Control System	Electronic fuel injection
Cooling System	Water-cooled engine
Emission	Euro 4
Air Intake	Dry air filtration Prefiltration Two-stage filtration
Exhaust System	DOC + DPF



DOCUMENTS	
Maintenance manual (Turkish - English)	
Spare parts manual (Turkish -English)	









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