

Minetruck MT431B

Underground articulated truck with
28.1-metric tonne load capacity



Reliable underground haulage

Minetruck MT431B is a high speed, articulated underground truck, featuring state-of-the-art levels of safety, serviceability and operator comfort which results in unmatched performance in underground mining and construction operation.

+ Main benefits

Safety first Minetruck MT431B has many built-in safety features to increase the safety in the operation

Maximum productivity thanks to the well tested, reliable system and components that have been continually refined through years for real work experience

Ergonomically designed for fast and efficient preventive maintenance and service and a cabin which allows the operator to work safe and comfortable



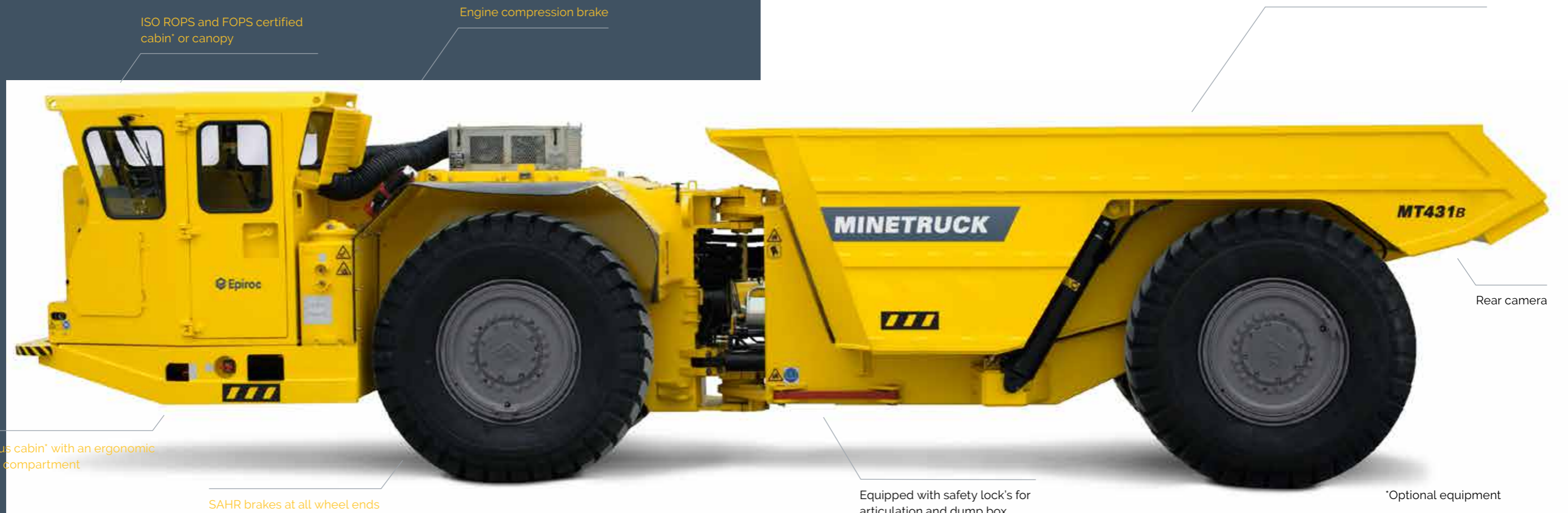
The optional cabin places the truck driver in a comfortable, spring suspended forward seated seat within a pressure-controlled work environment.



The optional air conditioning system available for the cabin provides cool air when desired and the system is contained within a sturdy, easily accessible box for trouble-free maintenance.



Minetruck MT431B can be equipped with a Teletram dump box, which pushes material off horizontally so it can be released in lowered areas with a low back height.



ISO ROPS and FOPS certified cabin* or canopy

Engine compression brake

Dump box, specially adapted to mining operations for greater longevity

Rear camera

Spacious cabin* with an ergonomic driver's compartment

SAHR brakes at all wheel ends

Equipped with safety lock's for articulation and dump box

*Optional equipment

Features

Safety

- ISO ROPS and FOPS certified canopy with back protection
- SAHR brake system with durable components for reliability and cost efficiency
- Rear camera and monitor for driver assistance and increased safety
- Box up stand and articulation lock for safe work on the machine

Comfort

- Ergonomically designed operators compartment with focus on safety and reduced operator fatigue
- Minetruck MT431B is available in both forward seated and side seated configuration to suit your needs

Sustainability

- Engine compression brake to reduce braking heat and extend brake longevity
- Electric transmission shift control for convenient shifting
- Converter lockup for more efficient energy transfer, less heat and longer component life
- Durable articulated hinge that adjusts automatically with heavy-duty, tapered roller bearings to absorb stress
- High-intensity LED lights for great visibility and long life

Productivity

- 28.1 metric tonne capacity
- Small envelope and high capacity
- Articulated steering results in great maneuverability
- Proven power train components for reliable productivity, low running cost and a longer life

Serviceability

- Filters and service points are easy to reach
- Centralized manual lubrication for easier maintenance

Specifications

Capacities	
Tramming capacity	28 125 kg
Motion times	
Dumping	14 sec
Weights (Standard equipped vehicle, empty weight)	
Approximate weight	28 000 kg
Axle load, front end	19 900 kg
Axle load, rear end	8 100 kg

Engine

Standard	
Brand/model	Cummins QSM11 EPA Tier 3
Power rating	298 kW/400 hp @ 2 100 rpm
Maximum torque	1 898 Nm @ 1 350 rpm
MSHA Part 7 ventilation rate	396 m ³ /min
MSHA Part 7 particulate index	311 m ³ /min
Optional	
Brand/model	Cummins X12 Tier 4 final /EU Stage V
Power rating	298kW 400hp @ 2100
Maximum torque	1898 @ 1400 rpm

Tier III/EU Stage IIIA: Dry type air filter, catalytic purifier and silencer, exhaust heat protection, cooling package with tube type radiator, remote engine oil and cooling fuel drain.

Tier 4 final/EU Stage V: Different engine, different after-treatment systems, SCR, DPF, Diesel emission fluid system with separate tank/fill point including dosing pump and hoses/cables.

Please note! Requires ultra-low sulfur diesel and low ash engine oil.

Fuel

Fuel tank capacity: 439 litres	●
Fuel filtration, primary, including water trap: 8 µm	●
Fuel filtration, secondary: 3 µm	●

Axles

Brand/model: Okubo rock tough 508	●
Degree of front axle oscillation: 18° (9° on each side)	●
Differentials: front open	●
Differentials: rear open	●

Tires

Tubeless tire design for underground mine service*	●
Tire size front and rear 18.00R33	●

*As applications and conditions vary; Epiroc recommends that the user consults with tire suppliers to obtain the optimum tire selection.

Electrical system

System voltage: start and accessories 24 V	●
Mine duty high output alternator: 140 Amps	●
Isolation switch lockout	●
24/12 V converter	●
Driving lights LED: 9x40 W	●
Tail and brake lights	●
Load lights	●
Side light – opposite operator	●
Front and rear red lights	○
Detachable service light (required for CE approved vehicles)	○
Amber strobe light – power on	○



Operator's compartment

Side seated canopy for bi-directional operation (ISO ROPS and FOPS)	●
Front seated cabin with steering wheel (ISO ROPS and FOPS)	○
Side seated canopy for bi-directional operation with steering wheel (ISO ROPS and FOPS)	○
Side seated cabin for bi-directional operation (ISO ROPS and FOPS)	○
Open door retainer	●
Spring suspension seat with 2-point retractable seat belt	●
Sliding window on door	●
Air condition system	○
Heater	○
Sound level in cabin according to ISO 6396 Lpa 85dB (A)	
External sound level according to ISO 6395 LwA 123 dB(A)	
Sound level in canopy according to ISO 6396 LpA 104 dB(A)	
Whole body vibration value A(8)w in range of 0.5 to 2 m/s ² (typical value for similar machines)	

Hydraulic system

System pressure: 15.8 MPa	●
Hydraulic tank capacity 238 litres	●
Filtration, return line: 4 µm	●
Electric pump for hydraulic tank fill, 24 V	○
Manual pump for hydraulic tank fill	●
Chrome plated stems on cylinders	●

Transmission

Full power shift, 4 speed forward/reverse	●
Brand/model: Dana 6000 series	●

Converter

Converter: single stage with lock-up functionality	●
Brand/model: Dana CL-8000 series	●

Brakes

Fully enclosed, force-cooled, multiple wet discs at each wheel end	●
Service/parking/emergency brakes: SAHR	●
Engine compression brake	●
Brake apply after 4 sec in neutral	○
Electric brake release pump	○

Control system

Rear camera and monitor	●
Audio-visual reverse alarm	●
Speedometer	○
Blockout 3rd and/or 4th gears	○
Joystick controls for steering and dump control for side seated bi directional operation	●
Telematics (Certiq)	●

System

Ansul manually activated fire suppression system with engine shut down	○
Hand held fire extinguishes	○
Emergency steering	○
Load weighing	○
Wiggins fast fuel fill	○
Wiggins fast fill for engine oil	○

Main frame

Lock on articulation and raised dump box	●
Optional box sizes and tailgate configuration	○
Teletram dump box*	○
Wheel chocks and brackets	○
Knockdown construction	○
Central manual lubrication system	●
Central automatic lubrication system	○

*Teletram box has reduced capacity, different functionality, different dimensions affecting turning radius etc. More sizes can be available, please consult Epiroc for more information.

Power unit

Arctic oil	○
Block heater (240 V)	○
Corrosion resistant radiator	○

Parts and Service solutions

Preventive maintenance kits	○
Parts & Repair kits	○
Upgrade kits	○
Midlife kits	○
Shop mechanics tool set	○

Technical specifications

Grade performance*

Standard configuration, box empty

%	Grade	0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0
Ratio	Grade	-	-	-	-	1:12	1:10	1:8	1:7	-	-	1:5

Km/h	1st gear	6.0	6.0	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.8	5.8
	2nd gear	10.7	10.6	10.6	10.5	10.5	10.4	10.4	10.3	10.3	10.2	10.2
3rd gear	18.8	18.7	18.5	18.4	18.2	18.1	17.0	15.5	14.0	12.2	-	
4th gear	33.4	32.9	32.4	28.9	24.0	-	-	-	-	-	-	

Standard configuration, box loaded

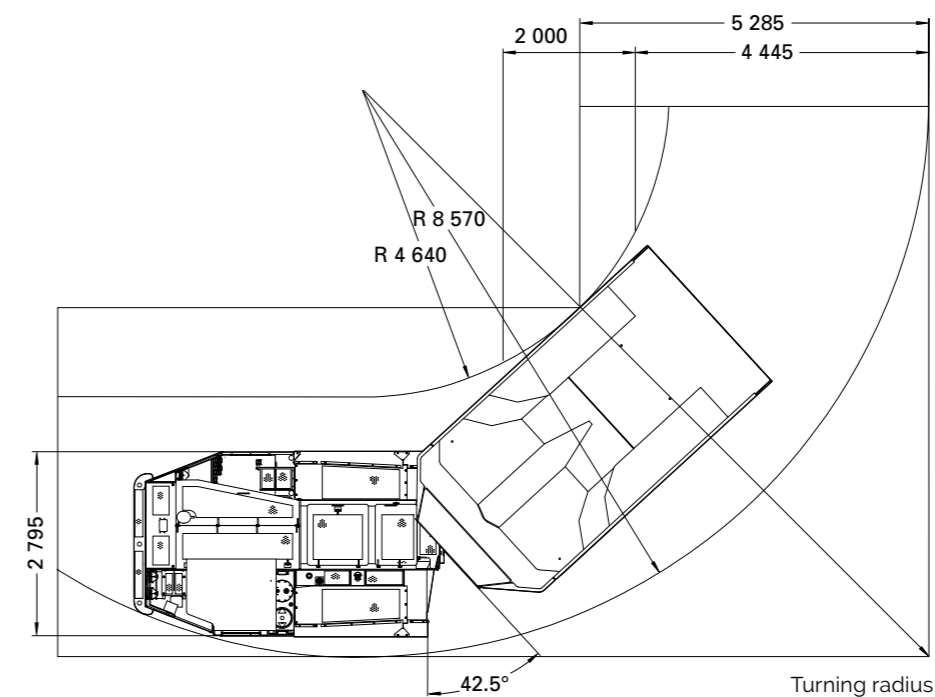
%	Grade	0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0
Km/h	1st gear	6.0	5.9	5.9	5.9	5.8	5.8	5.8	5.7	5.7	5.7	5.5
	2nd gear	10.6	10.5	10.4	10.3	10.2	9.8	8.9	8.0	6.9	-	-
	3rd gear	18.6	18.3	17.9	15.0	-	-	-	-	-	-	-
	4th gear	32.7	27.0	-	-	-	-	-	-	-	-	-

*These are theoretical calculations and should be seen as a reference only. 3% rolling resistance assumed. Actual performance may vary depending on the application. Continuous operation is recommended on maximum 1:7 grade.

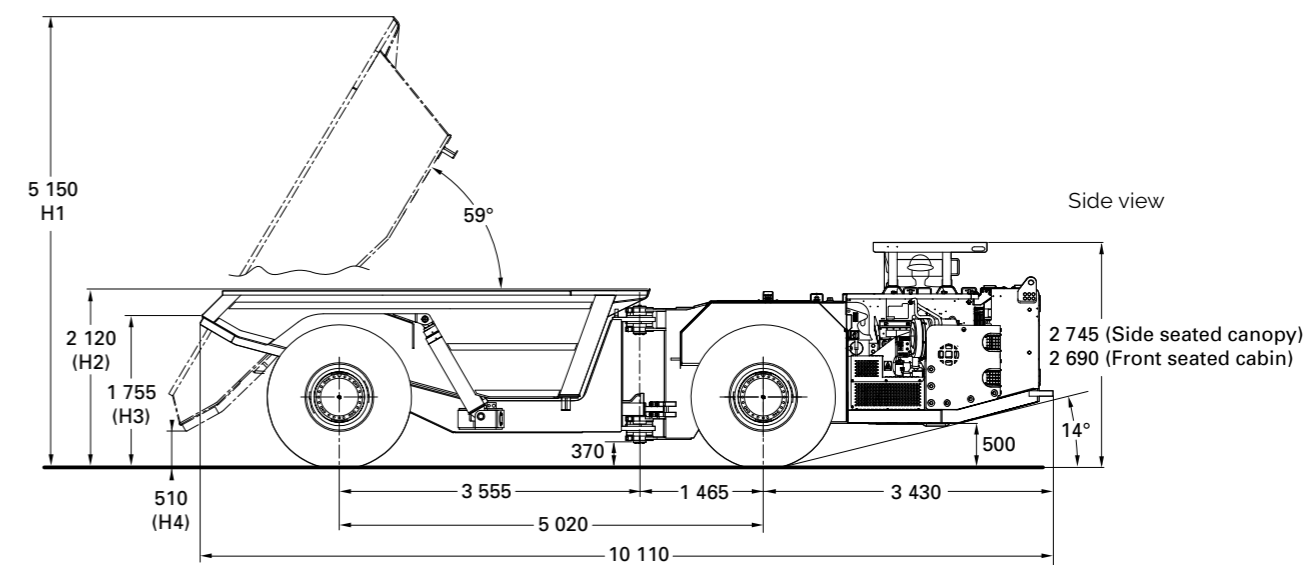


Technical specifications

Measurements and weights



- Dimensions**
- Turning angle +/- 42.5°
 - Turning radius left and right are symmetrical
 - Dimensions shown are based on standard vehicle configuration, with a loaded box with 25 mm tire deflection
 - All dimensions are shown in millimetres



Dump boxes

	Dump boxes		STD	Teletram boxes*	
Volume, SAE heaped (m ³)	16.0	15.5	13	11.5	14.5
Volume, semi-heaped (m ³)	15.0	14.0	11.5	10.2	12.5
Volume, SEA struck (m ³)	16.5	12.5	9.8	8.6	10.5
Maximum material density (t/m³)	1.7	1.8	2.1	2.4	1.6
Dump position: box height, max / (TT push plate) (mm)	H1	5 375	5 315	5 150	5 150
Load position: height side board (mm)	H2	2 415	2 325	2 120	2 120
Load position: height rear end / (TT tailgate) (mm)	H3	1 950	1 880	1 755	1 830
Dump position: c learance (mm)	H4	250	325	242	370
Box width		2 795	2 795	2 795	3 206

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