

Minetruck MT42 S

Underground mine truck with 42-tonne load capacity



Superior underground haulage

Minetruck MT42 S is a high speed, automation-ready, 42-metric tonne articulated underground mine truck. It features state-of-the-art levels of safety, productivity, serviceability and operator comfort which results in unmatched performance in underground mining and construction operations.

Comfortable ROPS and FOPS certified operator's cabin with low noise level and status light

Automation kit can be fitted during machine assembly as well as retrofitted in the field

Cabin electrics, air filters, jump start connector and batteries easy to reach



Fleet monitoring and data solutions

Front axle suspension

SAHR brakes at all wheel ends



Minetruck MT42 S is ready for automation. When automated, this mine truck increases productivity by consistent and predictable tramming cycles. These can be extended into the time between the shifts.



In applications with a high degree of downhill tramming, the retarder, integrated in the control system, provides wear free braking and retardation via electromagnetic induction.



One of the best serviceability in the segment with easily accessible service points and features to ease operation.

⊕ Main benefits

Safety - Minetruck MT42 S is equipped with many features such as hill descent assist or door open brake apply, always prioritizing workers' wellbeing and the safety of the entire operation.

Productivity - Thanks to the automation capabilities, high capacity in a small envelope, front axle suspension and Epiroc's Rig Control System, (RCS), you will experience new levels of productivity with the Minetruck MT42 S.

Operator comfort - The Minetruck MT42 S provides an ergonomic design of the operator's cabin combined with front axle suspension system which stabilizes the truck on the road and absorbs shock from uneven ground.

Our Minetruck MT42 S is part of the Smart series (S). Equipped with Epiroc's Rig Control System (RCS), this underground mining truck features smart functionality such as automation and remote control.

Ramp up productivity with Minetruck MT42 S

Minetruck MT42 S is designed for fast productive haulage in medium mining and construction operations. With a smart system, and robust components, the Minetruck MT42 S ensures increased productivity, reliability, operator safety, and comfort along with ease of maintenance.



+ Comfortable in the long run

Minetruck MT42 S is comfortable and easy to operate. Thanks to the front-axle suspension, one pedal drive, steer-by-wire, brake-by-wire, speed limiter and ergonomic operator environment with low noise levels, this mining truck is pleasant to operate for long periods.



+ Automate your Minetruck MT42 S

Unlock valuable machine working time with a direct impact on production output by combining Epiroc Deep Automation with the Minetruck MT42 S. This enables fleets of underground mine trucks to continuously operate on autonomous hauling loops, even when blasting and while venting out blast fumes. Operators control these from a safe control center without being exposed to hazardous environments.



+ High ramp speed

The optimized drivetrain and built-in smart technologies enable superior haulage speed, enhancing overall efficiency. The smooth and precise shifting, with automatic lock-up, ensures optimal energy distribution during operation. Additionally, the integration of the exhaust brake and retarder in the control system provides wear-free retardation, particularly useful in downhill hauling scenarios.



A comprehensive service offering

Even the best equipment needs to be serviced regularly to make sure it sustains peak performance. An Epiroc service solution offers peace of mind, maximizing availability and performance throughout the lifetime of your equipment. We focus on safety, productivity and reliability.

By combining genuine parts and an Epiroc service from our certified technicians, we safeguard your productivity – wherever you are.



Technical specifications

Features

Minetruck MT42 S is an underground mining truck with safety in absolute focus. It is equipped with many smart features, such as automatic brake test, door open brake apply (DOBA), and 3 point contact for entry and exit that provide increased safety to the operation and the operator.

Without compromising on safety, Minetruck MT42 S is a high productivity 42-tonne articulated truck with front axle suspension, torque converter with automatic lock-up and a box design with high strength steel. Through Epiroc's telematics solutions offering you live data and the machine's smart control system, known as Epiroc's Rig Control System (RCS), you will be able to utilize the machine's full potential at all times.

Besides, Minetruck MT42 S is built with the operator's comfort in mind. Having a spacious ergonomically designed cabin, and a front axle suspension system for superior operator comfort, the machine minimizes operator fatigue, making it easy and enjoyable to work underground.

Furthermore, the tiltable cabin for easy access to the engine, together with the new color setting in the engine compartment, filter monitoring system, and onboard diagnostics continuously showing the operator key data and machine status, provide an easy and safe service of the Minetruck MT42 S.



Specifications

Capacities		
Tramming capacity	42 000 kg	
Standard box volume (SAE heaped)	19.0 m ³	
Motion times		
Dumping	Eject	11 seconds
	Retract	7 seconds
Weights (standard equipped vehicle, empty weight)		
Approximate weight	34 500 kg	
Front axle load	25 740 kg	
Rear axle load	8 760 kg	

Engine

Brand/model: Cummins X15	Tier 3/EU Stage IIIA	EPA Tier 4 final /EU Stage V
Power rating at 2100 rpm	399 kW/535hp	399 kW/535hp
Maximum torque at 1400 rpm	2 644 Nm	2 644 Nm
MSHA Part 7 ventilation rate	509.7 m ³ /min	538 m ³ /min
MSHA Part 7 particulate index	396.4 m ³ /min	14 m ³ /min

Tier 3/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.

EPA Tier 4 final /EU Stage V: Different engine, coolers, different after treatment system (dry type air filter, SCR, DPF, Diesel emission fluid system with separate tank/fill point including dosing pump and hoses/cables). **Please note!** Requires ultra low Sulphur diesel and low ash engine oil.

Fuel

Fuel tank capacity	580 liters
Fuel filtration, primary, including water trap	7 µm
Anti-siphon fuel supply	3 µm
Epiroc underground trucks are compatible with HVO100 fuel	

Axles

Brand/model	Kessler D102
Differentials: front	Open
Differentials: rear	Open

Transmission

Brand/model	Dana 8000 series
Planetary, automatic 8 speeds forward/2 reverse speeds with integral single stage converter with automatic lock-up	
Upbox, power transmitted through a gear box	
Dropbox, power transmitted through a gear box	

Tires

Tire size front and rear	29/5R25
Tubeless tires design for underground mine service*	

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

Technical specifications

Operator's compartment

Forward seated cabin with steering wheel (ISO ROPS and FOPS)	
Automatic climate control, pressurized with filtered air	
Trainer seat with seat belt	
Door open brake apply (at low speeds)	
Air suspended seat with 3-point retractable seat belt	
Window wiper on the front window	
Sliding window on door	
Horn	
Tilt/telescopic steering wheel	
External sound level according to ISO 6393 LwA 118 dB(A)	
Sound level in cabin according to ISO 6394 LpA 80 dB(A)	
Whole body vibration value according to EN 14253 A(8)w maximum 0.55 +/- 0.2m/s ²	
Interactive display module	

Electrical system

System voltage: start and accessories	24 V
Mine duty high output alternator	140 Amps
Converter	24/12 V
Driving lights LED	16x22 W, 1400 lm
Battery	2x12 V, 235 ah, 1300 CCA
Lockable battery disconnect switch	
Lockable starter disconnect switch	
SAE J1283 jump start terminal connector	
Main switch isolator	
Tail and brake lights	
Load lights, mounted on back of cabin/canopy	
Side light - opposite operator	
Front and rear turn signals	
Front and rear position lights	
Machine status indicator light mounted on cabin	
3x emergency stop buttons with fuel shut off valve	
Start up alarm	

Grade performance

Grade (%)	0.0	2.0	4.0	6.0	8.3	10.0	12.5	14.3	16.0	18.0	20.0
Grade (ratio)	-	1.50	1.25	1.16.7	1.12	1.10	1.8	1.7	1.6.3	1.5.6	1.5

Standard configuration, box empty (km/h)

1st gear	5.8	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.6	5.6
2nd gear	7.6	7.5	7.5	7.5	7.5	7.5	7.5	7.4	7.4	7.4	7.4
3rd gear	10.3	10.3	10.3	10.2	10.2	10.2	10.1	10.0	10.0	10.0	9.9
4th gear	13.6	13.5	13.5	13.4	13.3	13.3	13.2	13.1	13.0	13.0	12.7
5th gear	18.1	18.0	17.9	17.8	17.7	17.6	17.4	17.0	16.2	15.3	13.6
6th gear	23.8	23.6	23.5	23.3	23.1	22.4	20.9	18.7	-	-	-
7th gear	32.3	31.9	31.6	31.2	28.4	23.6	-	-	-	-	-
8th gear	42.4	41.8	40.7	35.9	-	-	-	-	-	-	-

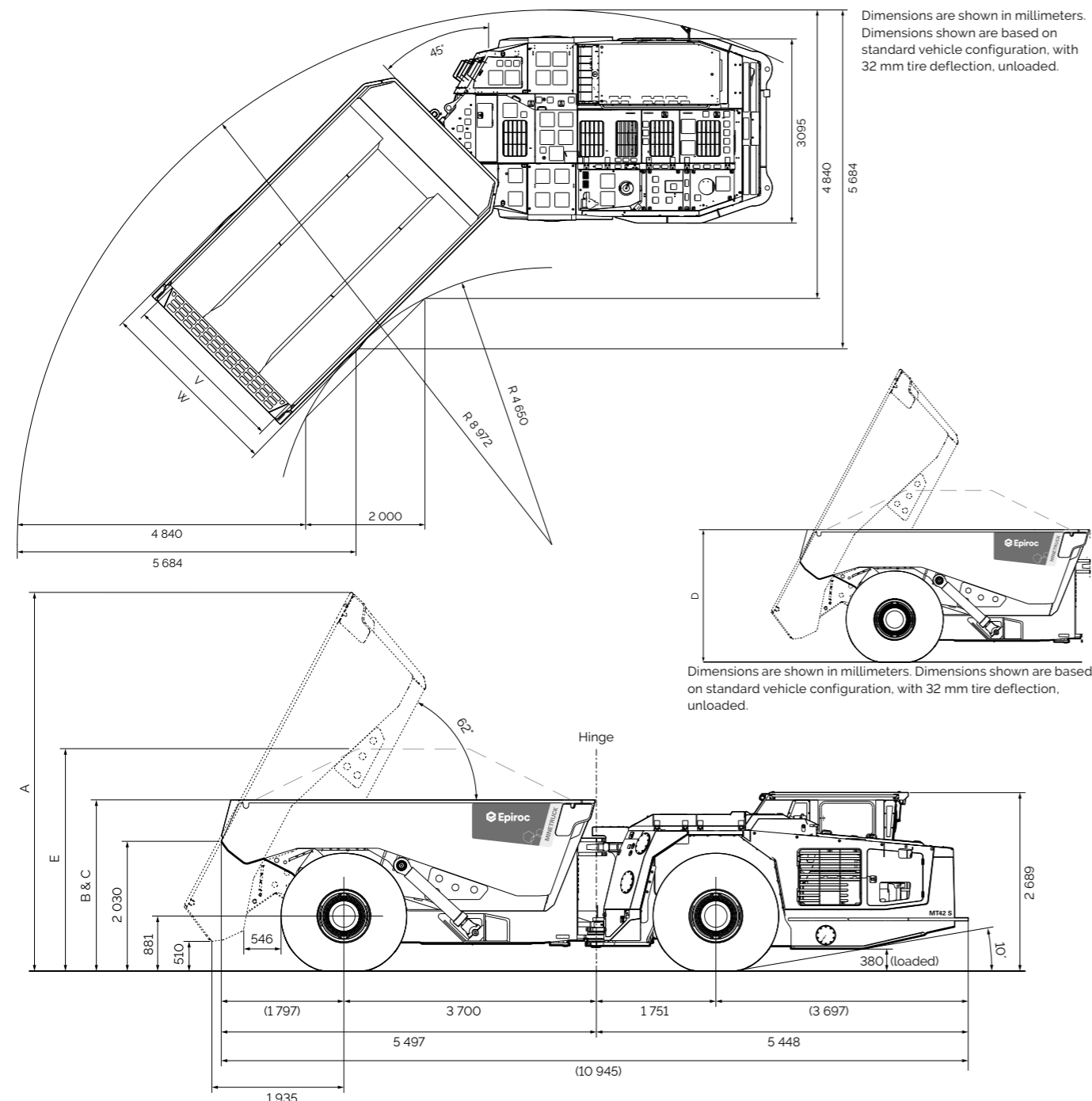
Standard configuration, box loaded (km/h)

1st gear	5.7	5.7	5.7	5.7	5.6	5.6	5.5	5.5	5.5	5.5	5.5
2nd gear	7.5	7.5	7.4	7.4	7.4	7.3	7.3	7.2	7.0	6.7	6.4
3rd gear	10.3	10.2	10.1	10.0	9.9	9.9	9.1	8.6	6.8	-	-
4th gear	13.5	13.3	13.2	13.1	12.3	11.3	-	-	-	-	-
5th gear	17.9	17.7	17.4	15.8	-	-	-	-	-	-	-
6th gear	23.5	23.1	20.6	-	-	-	-	-	-	-	-
7th gear	31.6	28.4	-	-	-	-	-	-	-	-	-
8th gear	41.3	-	-	-	-	-	-	-	-	-	-

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

1. Measurements



Dimensions are shown in millimeters. Dimensions shown are based on standard vehicle configuration, with 32 mm tire deflection, unloaded.

Dump boxes

		Standard			Ejector box style*			
Volume, SAE heaped 2:1 (m ³)		23	21	19	17.5	16	21.5	18.5
Volume, semi-heaped (m ³)		21.2	19	17	15.3	13.9	19.5	16.5
Volume SAE struck (m ³)		19.3	17.1	15	13.1	11.8	17.5	14.5
Material density (t/m³)		1.8	2.0	2.2	2.4	2.6	1.8	2.0
Dump height (mm)	A	5 835	5 730	5 625	5 625	5 625	-	-
Spill guard height (mm)/push plate height	B	2 885	2 735	2 585	2 585	2 585	3 035	2 815
Load height (mm)	C	2 885	2 735	2 585	2 460	2 460	2 902	2 685
Tailgate height (mm)	D	2 575	2 575	2 575	2 455	2 455	2 175	2 175
Height loaded, heaped, (mm)	E	3 560	3 410	3 260	3 135	3 135	3 523	3 305
Width inside box (mm)		2 860	2 860	2 860	2 860	2 860	2 840	2 840

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

Technical specifications



Options

Automation features

- Simulations to virtually evaluate the productivity levels that can be achieved
- Single-level autonomous haulage loops underground
- Multi-level autonomous haulage, including spiral ramp
- Multi-level autonomous and transition to surface haulage
- Two way autonomous traffic, meet and pass at wide meeting points
- Tele-remote operation for recording autonomous routes or other situations
- Driver Assist for tele-remote, to avoid wall collisions

Operator's compartment

- Media player

Control system

- Ansul checkfire automatic fire suppression
- Ansul dual bottle fire suppression with engine shut down
- Forrex fire suppression
- Handheld fire extinguisher, 2x6 kg
- Wiggins central service points - engine, transmission, hydraulics, radiator
- Wiggins fast fuel fill
- Emergency steering (required for CE)
- Low ambient temperature package
- Load weighing production data, weight per box, number of boxes and accumulated payload)
- CAS interface
- Tire monitoring system

Electrical system

- Loading camera and load lights
- Detachable service light
- Amber strobe light - power on

Hydraulic system

- Automatic lubrication system with timer (Lincoln pump)

Main frame

- Teletram dump box* (ejector style), fit same load frame as std dump box
- Box wear part kit
- Foldable guard rails
- Corrosion-resistant radiator
- Retarder, Telma, integrated into control system
- Wheel chocks and brackets
- Machine protection system
- *Teletram dump box changes dumping method and vehicle dimensions (consult with your local customer center).

Parts and services

- Preventive maintenance kits
- Parts & Repair kits
- Upgrade kits
- Midlife kits
- Service agreements
- Reman components
- RigScan audits

Digital products

- Fleet monitoring with Fleet+ on My Epiroc
- Machine and fleet data via APIs

Automate your operation

Minetruck MT42 S can be provided with industry leading automation capabilities. Unlocking value when taking your material handling to the next level.

+ Limit exposure to challenges at depths

By operating the machine autonomously from a control room, operator exposure to high temperatures, radon and silica dust are limited.

+ Turn idle time into working time

Don't park your Minetruck while blasting and waiting for blast fumes to vent. Automation allows your Minetruck to keep working relentlessly. Adding valuable hours of work every day.

+ Autonomous haulage at large scale

Deep Automation can seamlessly orchestrate up to 35 autonomous machines within a single system instance. It ensures safe access control, efficient dispatch of haulage assignments, and precise traffic coordination for your material handling operations.

Designed for 24/7 haulage, it excels on dedicated ramps, haulage levels, or loops connecting ore sites with critical infrastructure.



Read more about how you can automate your operation

Perfect match - Scooptram ST14 S

The Scooptram ST14 S is equipped with features that makes it powerful and yet fuel efficient. The thorough improvements in safety, comfort, sustainability, and serviceability bring new levels of productivity to your mining operations.



Specifications

Capacities	
Tramming capacity*	14 000 kg
Breakout force, hydraulic	22 300 kg
Breakout force, mechanical	22 300 kg
*Tramming capacity with EOD bucket 12 000 kg	
Motion times	
Boom raising	7.6 sec
Boom lowering	4.0 sec
Dumping	3.0 sec
Weights (standard empty machine)	
Approximate weight	39 100 kg
Axle load, front	18 900 kg
Axle load, rear	20 200 kg

Engine

Brand, Model	Cummins, QSM11
Emissions standard	EPA Tier 3 / EU Stage IIIA
Power rating	250 kW @ 2 100 rpm
Maximum torque	1 674 Nm @ 1 400 rpm
Cooling	Liquid cooled, pump controlled fan
Ventilation rate	CANMET 736 m ³ /min (26 000 CFM)
	MSHA 326 m ³ /min (11 500 CFM)
Particulate index	MSHA 354 m ³ /min (12 500 CFM)

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.

United in performance. Inspired by innovation.

Performance unites us, innovation inspires us, and commitment drives us to keep moving forward. Count on Epiroc to deliver the solutions you need to succeed today and the technology to lead tomorrow.
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