

Minetruck MT54 S

Underground mine truck with 54-tonne load capacity



Efficient haulage

Minetruck MT54 S is a high-capacity underground truck, engineered with smart features to ensure productivity, safety, and reliability in larger underground mining and construction operations. Combining high ramp speeds with improved energy efficiency, this mining truck leads to dramatically increased productivity, reducing overall running costs and fuel consumption by up to 27 000 liters/year compared to other OEMs.

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

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

Grill door opens wide for easier cleaning

+ Main benefits

Productivity - Having an increased speed, thanks to the optimized drivetrain, and a 54-tonne haulage capacity, Minetruck MT54 S offers high productivity, while lowering fuel consumption

Safety - Minetruck MT54 S is the benchmark in safety for underground mining trucks. Engineered with safety in mind, it includes smart features such as automatic brake test, open-door brake-apply function, and neutral brake apply

Reliability - thanks to extended life of the main components, a completely new electrical system and a more protected component location. Additionally, as a result of the newly developed software, the operator is able to utilize the machine's full potential



An additional load weighing display is available as option. Thanks to the additional display, the loader operator is enabled to optimize the fill factor of the dump box. This also minimizes the risk of overloading.



The robust dump box has a load capacity of 54 metric tonnes and the load-weighting system monitors the loading process.



Best serviceability in the segment with easily accessible service points and features to ease operation.

Fleet monitoring and data solutions*

Integrated load weighing system*



Front axle suspension

SAHR brakes at all wheel ends

* Optional equipment

Minetruck MT54 S is designed to ramp up productivity

Minetruck MT54 S is designed for fast productive haulage in large mining and construction operations. With a smart system and robust components, the Minetruck MT54 S ensures productivity, reliability, operator safety, and comfort along with ease of maintenance.



+ Comfortable in the long run

Minetruck MT54 S is comfortable and easy to operate. Thanks to the great steering feel, front-axle suspension, ergonomic operator environment with low noise levels, this truck is pleasant to operate for long periods.



+ Optimize performance and safety

Minetruck MT54 S offers integrated functions and is automation-ready. Monitor your fleet and track key metrics using Fleet+ on My Epiroc, or seamlessly integrate fleet data into your systems via APIs for enhanced operational efficiency.



+ Increased speed

Minetruck MT54 S comes with an increased speed of up to 6.5% going up the ramp, depending on your application. This is a result of the updated, transmission, and optimized gear selection, making sure the gear shifting will take place at the right time, both during upshifting and downshifting.



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 MT54 S is a safe underground mine truck. It is equipped with many smart features, such as automatic brake test, neutral break apply, and hill decend assist that provides increased safety to the operation and the operator.

Without compromising on safety, Minetruck MT54 S has a high payload capacity, increasing productivity, while lowering fuel consumption. Thanks to the updated drivetrain, the machine enjoys new speeds going up the ramp, increasing the number of cycles per shift. 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.



Engine

	Standard	Alternative*
Brand/model	Cummins QSK19 EPA Tier 2	Cummins QSK19 Tier 4 F/ Stage V
Power rating	567 kW/760 hp @ 2 100 rpm	567 kW/760 hp @ 2 000 rpm
Maximum torque	3 084 @ 1 500 rpm	3 084 @ 1 500 rpm
MSHA Part 7 ventilation rate	1 359 m3/min	708 m3/min
MSHA Part 7 particulate index	467 m3/min	85 m3/min

Standard: Dry type air cleaner, catalytic exhaust purifier and silencer, remote engine engine oil and cooling fluid drain, cooling package with tube type radiator.
Alternative: Different after treatment system (dry type air filter, SCR, Diesel emission fluid system with separate tank/filling point including dosing pump and hoses/ cables.)
* Please note! Require ultra low sulphur diesel and low ash engine oil

*MSHA - Mine Safety and Health Administration, USA. Ventilation rate = quantity of additional ventilation air required to dilute raw exhaust emission to a respective level per engine.
**Particulate Index = Calculated air flow for minimum diesel particulate matter (DPM) dilution to a safe level per engine.

Axles

Brand/model	Kessler D111
Differentials: front	Open
Differentials: rear	Open

Fuel

Fuel tank capacity	843 liters
Fuel filtration, primary, including water trap	7 µm
Anti-siphon fuel supply	3 µm

Epiroc underground trucks are compatible with HVO100 fuel

Besides, Minetruck MT54 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.

What is more, 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 MT54 S.

Specifications

Capacities	
Payload capacity	54 000 kg
Motion times	
Dumping	13 sec
Weights (standard equipped vehicle empty weight)	
Approximate weight	46 300 kg
Axle load, front end	33 600 kg
Axle load, rear end	12 700 kg

*Weights are approximate and given with filled fluids and standard configurated vehicle (e.g. standard equipment, 2.2 t/m3 dump box etc.)

Electrical system

System voltage: start and accessories	24 V
Mine duty high output alternator	140 Amps
Converter	24/12 V
Driving lights LED	9x40 W, 2x80 W
Isolation switch lockout	
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	

Technical specifications

Control system

Operator display with intuitive interface
Logging of production data, number of dump boxes, fuel consumption and distance, engine and transmission diagnostics etc
Automatic brake test function with logging
Save machine logged data on USB memory stick
Right hand side camera
Rear camera and monitor
Audio-visual reverse alarm
Filter supervision
Gear lockout with tray up
Upbox/dropbox oil contamination supervision
Hill decend assist
Machine speed limit

Main frame

Lock or support stand on articulation, raised dump box and tilted cabin
Central manual lubrication system
Lifting lugs
Towing points
Removable belly guards
Engine oil pre lube
Front-axle oscillating suspension solution with hydraulic suspension cylinders and accumulator cushioning. Maximum travel, 140 mm
Steering soft stop

Brakes

Seperate brake cooling tank, capacity	85 liters
Service/parking/emergency brakes	SAHR
Fully enclosed, force-cooled, multiple wet discs at each wheel end	
Brake apply after 3 sec in neutral	
Electric brake release pump	
Retarder, hydraulic retarder, with separate pedal	

Tires

Tire size front and rear	35/65R33
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.

Hydraulic system

System pressure	23 MPa
Hydraulic tank capacity	292 liters
Filtration, return line	12 µm
Electric pump for hydraulic tank fill	24 V
Heavy duty load sensing piston pumps	

Transmission

Brand/model	Allison 6625
Planetary, automatic 6 speeds forward/2 speeds reverse with integral single stage converter with automatic lock up	
Upbox, power transmitted through a gear box	
Dropbox, power transmitted through a gear box	

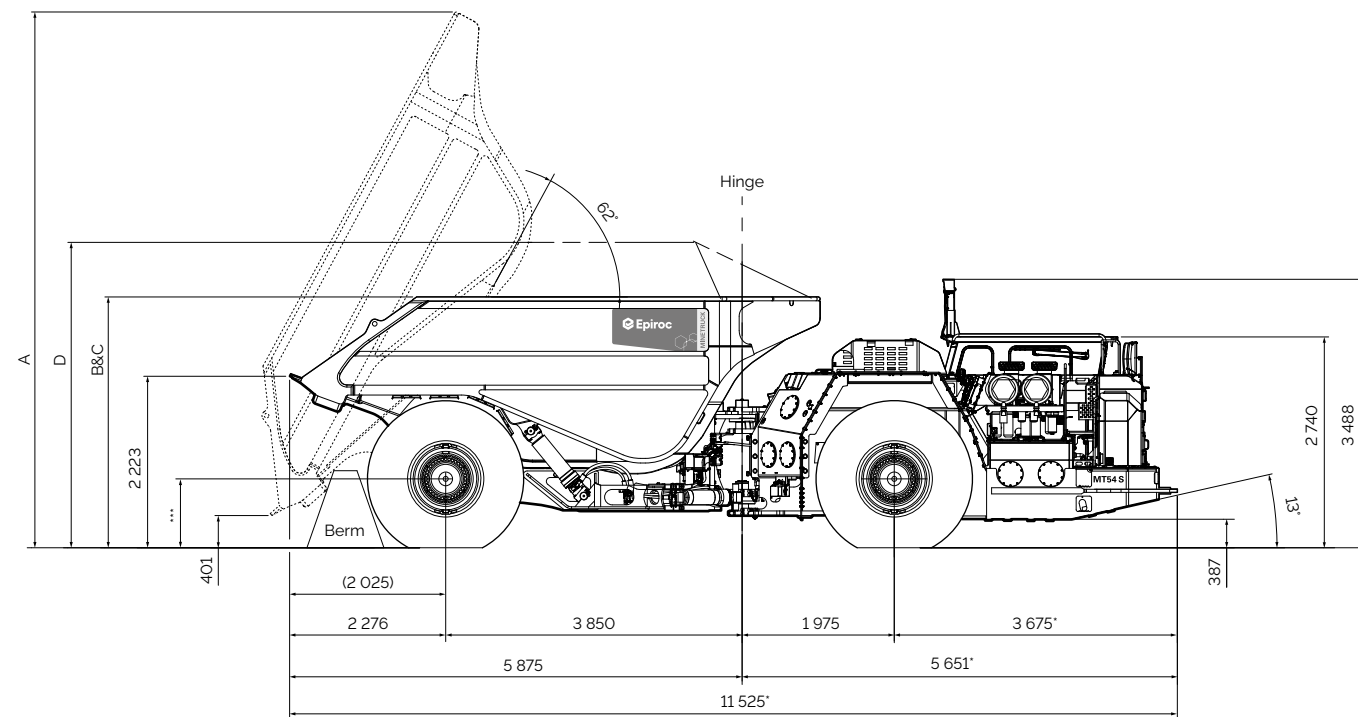
Operator's compartment

Forward seated cabin with steering wheel (ISO ROPS and FOPS)
Automatic climate control, pressurized with filtrered air
Trainer seat with seat belt
Door open brake apply (at low speeds)
Open door retainer
Air suspended seat with 3-point retractable seat belt
Emergency exit (and rescue mission)
Window wipers on front and window facing towards engine
Sliding window on door
Horn
Tilt/telescopic steering wheel
Heated rear view mirrors
External sound level according to ISO 6395 LwA 117 dB(A)
Sound level in cabin according to ISO 6396 LpA 80 dB(A)
Whole body vibration value according to EN 14253 A(8)w maximum 0.65 +/- 0.2m/s²

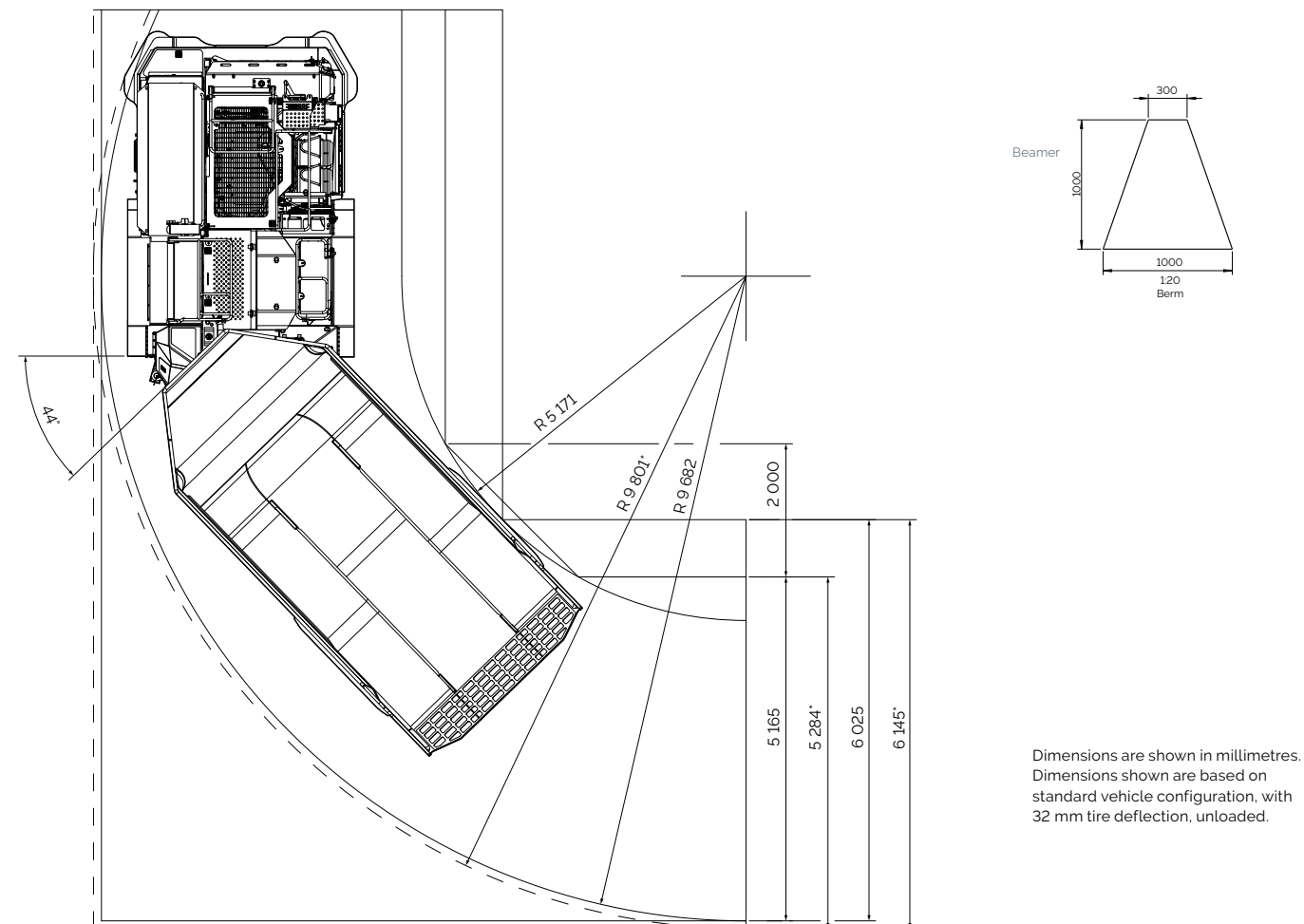


Technical specifications

1. Measurements



Note:
* Refers to demension when batwings are included.



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

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	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.3	5.3	5.3	5.3
	2nd gear	8.1	8.0	8.0	8.0	8.0	8.0	7.9	7.9	7.9	7.9	7.9
	3rd gear	10.7	10.7	10.7	10.6	10.6	10.6	10.5	10.5	10.5	10.4	10.4
	4th gear	15.9	15.9	15.8	15.7	15.7	15.6	15.5	15.4	15.4	15.3	15.2
	5th gear	21.4	21.3	21.2	21.1	20.9	20.8	20.7	20.6	19.2	16.7	-
	6th gear	31.7	31.6	31.3	31.0	30.7	27.9	-	-	-	-	-

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
Ratio	Grade	-	-	-	-	112	110	1.8	1.7	-	-	1.5
Km/h	1st gear	5.4	5.4	5.4	5.3	5.3	5.3	5.3	5.3	5.2	5.2	5.2
	2nd gear	8.0	8.0	79	79	79	78	78	77	77	77	74
	3rd gear	10.7	10.6	10.5	10.5	10.4	10.3	10.3	9.9	8.8	-	-
	4th gear	15.8	15.7	15.5	15.3	15.1	12.1	-	-	-	-	-
	5th gear	21.2	20.9	20.7	18.5	-	-	-	-	-	-	-
	6th gear	31.2	30.7	-	-	-	-	-	-	-	-	-

*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.

Dump boxes

					STD	Ejector style dump box
Volume, SAE heaped (m³)		33.8	30	27	24.6	30.4
Volume, semi-heaped (m³)		31	27.2	24.1	21.4	27.4
Volume, SAE struck (m³)		28.2	24.4	21.2	18.2	24.4
Maximum material density (t/m³)		1.6	1.8	2.0	2.2	1.6
Dump height (mm)	A	7 048	6 682	6 472	6 472	N/A
Front spill guard height (mm)	B	3 343	3 133	2 995	2 995	3 344
Load height (mm)	C	3 343	3 133	2 955	2 786	3 344
Height heaped load (mm)	D	4 037	3 827	3 646	3 480	4 028
Width over dum box (mm)		3 200	3 200	3 200	3 200	3 200
Widht within dumpox (mm)		3 006	3 006	3 006	3 006	3 000

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

Technical specifications



Options

Main frame
Optional box sizes
Wheel chocks and brackets
Central automatic lubrication system (with low level warning)
Guard rails
Corrosion resistant radiator
Ansul manually activated fire suppression system with engine shut down
Ansul checkfire automatically activated fire suppression system
Hand held fire extinguishes
Cold weather package 120 V or 240 V: Block heater, battery charger, fuel heater, hydraulic oil heater, transmission oil heater, arctic oil
Wiggins fast fuel fill
Wiggins fast fill for engine oil, transmission, hydraulic and radiator

Electrical system

Engine starter isolator
Detachable service light (required for CE approved vehicles)
Battery jump start receptacle
Amber strobe light - power on

Digital products

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

Parts and Service solutions

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

Control system
Load camera and load lights
Collision avoidance system (CAS) interface
Emergency steering
Load weighing
Tire monitoring system
Machine protection system (engine, transmisison, hydraulic, lubrication)*
Overspeed protection system*
Machine warm up*
Configurable setting at dump box up*
Operational ID: manage operator, material, haulage points, delay codes etc.*
Turbo timer *
* Local adaptations - explain more

Operator's compartment

Air suspended seat with 4-point retractable seat belt
Seat cover
Media player
Sun visor

Hydraulic system

Arctic oil

Fuel

Diesel filter with heater element

Perfect match - Scooptram ST18 S

Combining strenght and agility, the Scooptram ST18 S is built for high productivity in large-size underground mines. It offers unbeatable safety feature to secure your operation. At the same time, thanks to the integrated converter lock-up, load sensing hydraulic, traction control and the intelligent Epiroc Rig Control System (RCS), you will enjoy new levels of productivity. With the Scooptram ST18 S the operator can count on a spacious cabin, ergonomic controls, dual ride control and soft stop for steering and boom movements.



Engine

Cummins X15 turbo charged diesel engine		
Emmissions standard	EPA Tier 3/ EU Stage IIIA	EPA Tier 4 Final/ EU Stage 5
Power rating at 2 000 rpm	336 kW/450 hp	352 kW/472 hp
Maximum torque at 1 000-1 400 rpm	2 100 Nm	2 350 Nm
MSHA Part 7 ventilation rate	495 m³/min	481 m³/min
MSHA Part 7 particulate index	481 m³/min	14 m³/min

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, coolers, different after-treatment systems (dry type air filter with cyclone functionality, 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.

Specifications

Capacities	
Tramming	17 500 kg
Breakout force, hydraulic	28 500 kg
Breakout force, mechanical	26 000 kg
Weights (Standard empty vehicle)	
Approximate weight	51 500 kg
Axle load, front end	25 000 kg
Axle load, rear end	26 500 kg
Motion times	
Boom raising	7.2 sec
Boom lowering	4.0 sec
Dumping	2.2 sec

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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