

# Scooptram ST18 S

Underground loader with 17.5-tonne capacity



# High productivity material handling

The Scooptram ST18 S is an 18-metric-tonne, automation-ready loader designed to deliver high productivity in large-scale underground mining and construction operations. Engineered with a robust configuration, superior digging capability, and a high-lifting design, this loader ensures consistent material handling. Its advanced features make it a reliable and valuable addition to your fleet operating in challenging underground environments.

## + Main benefits

**Safety at its core** – Scooptram ST18 S has been designed with safety in focus, with many standard, smart features to secure your operation, such as emergency stops, steering and door interlock, and neutral brake applies.

**Maximum productivity** – thanks to the powerful engine, efficient drivetrain, heavy-duty axles and transmission which allows for smooth gear shifting, leading to a seamless operation.

**Operator's choice** – Scooptram ST18 S offers operators optimal working conditions, with ergonomically positioned controls and instruments, as well as spacious cabin, boom suspension and soft stop for steering and boom movements.



The comfortable and safe cabin is ISO FOPS and ROPS certified and it features a footbox to maximize leg room.



The Scooptram ST18 S is equipped with smart features, including traction control and overspeed protection, and can be used in combination with Deep Automation - Epiroc's cutting-edge set of automation systems and applications.



The bucket of the Scooptram ST18 S can be equipped with Wearpact. This high-quality, bolt-on GET delivers exceptional reliability, cost of ownership, and productivity results.



## Part of the Smart series

Scooptram ST18 S underground loader is a part of the Smart series (S), equipped with Rig Control System (RCS) and ready for smart functionality such as automation and remote control.

# A well-balanced and productive underground loader

Scooptram ST18 S offers your operation high productivity levels without compromising on safety. By integrating a well-balanced design with an efficient drivetrain and numerous smart features, it ensures both efficiency and safety.



## + Built for high-productivity operations

The efficient drivetrain on the Scooptram ST18 S is shaped by the heavy-duty axles as well as the powerful engine. The high-power engine delivers exceptional breakout force and facilitates easy bucket filling, resulting in a smooth and balanced machine with an excellent power-to-weight ratio. At the same time, the transmission allows for smooth gear shifting for a seamless operation.



## + Enjoy a smart operation

Scooptram ST18 S is equipped with smart features optimizing load cycles for maximum efficiency. You can benefit from automation and digital tools like Fleet+ on MyEpiroc, thanks to Epiroc's Rig Control System (RCS), taking your underground operations to the next level.



## + Automate your Scooptram ST18 S

Stoping and caving operations can benefit from Epiroc's 18-tonne loaders combined with Deep Automation solutions. Epiroc's integration capabilities and system interoperability empowers you to scale up the use of Scooptram ST18 S loaders in a mixed fleet of battery-electric loaders, conventional loaders, and utility vehicles.



## 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.

# Wearpact for improved bucket life

Enhance your loader bucket with Wearpact - a safe, high-quality, bolt-on Ground Engagement Tool (GET). Its low-profile, self-sharpening edge guarantees optimal penetration and clean engagement with each pass. Expertly engineered for peak performance, Wearpact ensures maximum longevity for your GET.

Additionally, its design minimizes material build-up above the lip, preventing extra carryback.



Reduced bucket repair costs



Up to 40% increased wearlife



Increased machine availability



Continuous operation with fast and easy service

## Technical specifications

### Features

The Scooptram ST18 S provides high safety standards, thanks to, among others, its ISO ROPS and FOPS-certified cabin, dedicated dual cameras, speed limiter, safe disconnecter logic, and readiness for integration with a collision avoidance system (CAS) Level 9. With its robust construction, this underground loader is engineered to thrive in demanding mining environments, prioritizing the safety of both operators and operations.

At the same time, operators benefit from a comfortable cabin thanks to a spacious leg-room with the Epiroc footbox, air

suspended seat as well as steering soft stop.

Moreover, the smart features and digital tools, such as ride control or Epiroc's fleet monitoring system, offer your operation new levels of productivity.

Keeping up a productive operation requires a high utilization rate of the machine. That is why, we have made the service of the Scooptram ST18 S as safe, fast and accessible as possible.

### Specifications

Capacities	
Tramming capacity*	17 500 kg
Breakout force, hydraulic	28 500 kg
Breakout force, mechanical	26 000 kg
Standard bucket	7.9 m <sup>3</sup>
*Tramming capacity with EOD bucket 15 200 kg	
Motion times	
Boom raising	7.2 sec
Boom lowering	4.0 sec
Dumping	2.2 sec
Weights (standard empty machine)	
Approximate weight	51 500 kg
Axle load, front	25 000 kg
Axle load, rear	26 500 kg

### Sound and vibration

Closed cabin	
A-weighted sound pressure level, LpA according to ISO 6396:2008	80 +/-6 Db
Weighted whole body vibration level, A(8)h according to ISO 2631-1	0.8 +/-0.4 m/s <sup>2</sup>
External	
A-weighted sound power level, LwA according to ISO 6395:2008	118 +/-6 dB

### Requirements and compliances

Machinery directive - 2006/42/EC
Low voltage directive - 2014/35/EC
Electromagnetic compatibility directive - 2014/30/EC

### Engine

Brand/Model	Cummins/X15
Emissions standard	EPA Tier 3 / EU Stage IIIA
Power rating	352 kW @ 2 000 rpm
Maximum torque	2 305 Nm @ 1 400 rpm
Cooling	Liquid cooled, pump controlled fan
Ventilation rate	CANMET 736 m <sup>3</sup> /min (26 000 CFM) MSHA 496 m <sup>3</sup> /min (17 500 CFM)
Particulate index	MSHA 340 m <sup>3</sup> /min (12 000 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.

### Fuel

Fuel tank capacity	626 liters
Fuel filtration, primary, including water trap	7 µm
Fuel filtration, secondary	3 µm

Epiroc Scooptram loaders are compatible with HVO100

### Axles

Brand/model	Kessler/ D111
Front and rear differential	Limited slip
Oscillation	16° (+/-8°)

### Transmission

Brand/model	Dana / TE32
Type	Automatic power shift with fully modulated 4 speed shifting, automatic lock-up and de-clutch functions

### Tires

Front and rear size	29.5 R29 (slicks/treaded)
As applications and conditions vary, Epiroc recommends that the user consults with tire suppliers to obtain the optimum tire selection.	

### Operator's compartment

Cabin
Closed cabin
Door interlock to apply brake and prohibit hydraulics
Isolated sound barriers
Sealed door and windows
Emergency exit in large window, all windows possible to open from outside and inside
Heating, Ventilation and Air Conditioning (HVAC)
Ergonomic adjustable joysticks
Safe, three point access into and out of cabin
Oilfree environment
5V USB outlet
Diagnosis outlets
Physical dimensions of operators and minimum operator space envelope - ISO 3411:2007
Zones of comfort and reach for controls - ISO 6682:1986
Operator's control - ISO 10968:2020
Falling-object protective structures (FOPS) - ISO 3449:2005
Roll-over protective structures (ROPS) - ISO 3471:2008
Operator's seat
Air suspended
Adjustable height, depth, lumbar support
Soft padded with water resistant material
Two point safety belt
Side seated for bi-directional control
Epiroc footbox

## Technical specifications



### Control system

Epiroc rig control system, RCS
Load weighing system
Operator display with intuitive interface
Logging of production- and machine data
Automatic brake test
Traction control
Bucket float
Fleet+ telematics hardware for wifi and LTE
Joystick controls for dump/hoist and steering
Forward-Neutral-Reverse toggle switch
Machine status indicator light mounted on canopy
Wiper and washer control in joystick
Machine warmup function
Audio-visual reverse alarm

### Electrical system

Batteries	2 x 12V, 235 Ah (2S configuration)
System voltages	24V
Front working lights	1 400 lumen
Rear working lights	1 400 lumen
Emergency stops, 3 positions	
Position and brake lights	

### Hydraulic system

System pressure	27 Mpa
Main valve	Open circuit, LS controlled
Steering pump	Piston type, LS controlled
Bucket hydraulics pump	Piston type, LS controlled
Hydraulic tank capacity	290 litres
Filtration, return line	12 µm
Lift cylinders	2x 200 mm
Tilt cylinder	1x 260 mm
Steer cylinder	2x 125 mm
Steering cylinder soft stop	
Automatic Brake Activation, ABA	
Steering requirements - ISO 5010:2019	

### Brakes

Type	Fully enclosed, force-cooled, multiple wet discs at each wheel end
Service / park / emergency brakes	SAHR
Performance requirements and test procedures for brake systems - ISO 3450:2011	

### Buckets

Type	Volume (m <sup>3</sup> )	Material density (t/m <sup>3</sup> )		Width (mm)
		Straight blade	Wearpact (GET)*	
Straight blade and Wearpact (GET)*	10.3	1.6	1.6	3 480
	9.7	1.8	1.7	3 330
	8.8	2.0	2.0	3 330
	7.9	2.2	2.2	3 330
	7.3	2.4	2.4	3 330
	6.7	2.6	2.6	3 330
EOD straight blade	6.3	2.8	2.8	3 330
	7.4	2.0	-	3 330
	7.1	2.2	-	3 330

\* Wearpact (GET) is optional

### Main frame

Center hinge and boom lockup pins
Central manual lubrication system
Manual hydraulic fill pump
Battery jumpstart receptacle
Lockable machine disconnecter

### Documentation

Safety-, operator-, service- and spare parts manual in english and other languages

Read more about environmental product information here:





Options

Automation

- Radio Remote Control (RRC)
- Video assist
- Tele Remote Control
- Automation solutions

Engine

Brand/Model	Cummins/X15	Cummins/X15 CSIV
Emissions standard	EPA Tier 4 Final / EU Stage V	China MEP CS IV
Power rating	352 kW @ 2 000 rpm	352 kW @ 2 000 rpm
Maximum torque	2 305 Nm @ 1 400 rpm	2 305 Nm @ 1 400 rpm
Cooling	Liquid cooled, pump controlled fan	Liquid cooled, pump controlled fan
Ventilation rate (Ultra low sulphur fuel, Adblue)	CANMET 510 m <sup>3</sup> /min (18 000 CFM) MSHA 482 m <sup>3</sup> /min (17 000 CFM)	NA
Particulate index (Ultra low sulphur fuel, Adblue)	MSHA 14 m <sup>3</sup> /min (500 CFM)	MSHA 14 m <sup>3</sup> /min (500 CFM)

**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.

**China MEP CS IV:** Same hardware setup as for StageV, but with a different calibration.  
**Please note!** Requires ultra-low sulfur diesel and low ash engine oil.

Operator's compartment

- Camera monitoring, front and rear with dedicated displays
- Media player

Control system

- Machine protection
- Speed limiter
- Collision Avoidance System Interface (CAS)
- Tire pressure monitoring system, TPMS
- Engine pre-start warning
- Delayed engine off, turbo cool down
- One pedal drive

Electrical system

- Detachable service light (CE requirement)
- Always on strobe

Hydraulic system

- Arctic oils
- Secondary steering (CE requirement)
- Redundant steering (CE requirement)

Brake

- Neutral brake apply, NBA (Park brake on neutral)
- Hydraulic brake release tow hook

Main frame

- Ansul Foray (powder) fire suppression manual release
- Ansul Foray (powder) with Checkfire 210 fire suppression automatic release
- Ansul LVS (liquid) with Checkfire 210 fire suppression automatic release
- Forrex (liquid) fire suppression system with automatic release
- Handheld fire extinguisher
- Central automatic lubrication system
- Electric pump for hydraulic tank fill, 24V
- Wheel chocks and brackets
- Ground engagement tools, GET
- Wiggins fast fill for fuel
- Wiggins fast fill for engine oil, transmission, hydraulic and radiator
- EOD ejector bucket
- Corrosion resistance radiator
- Knock down construction
- Guard rails

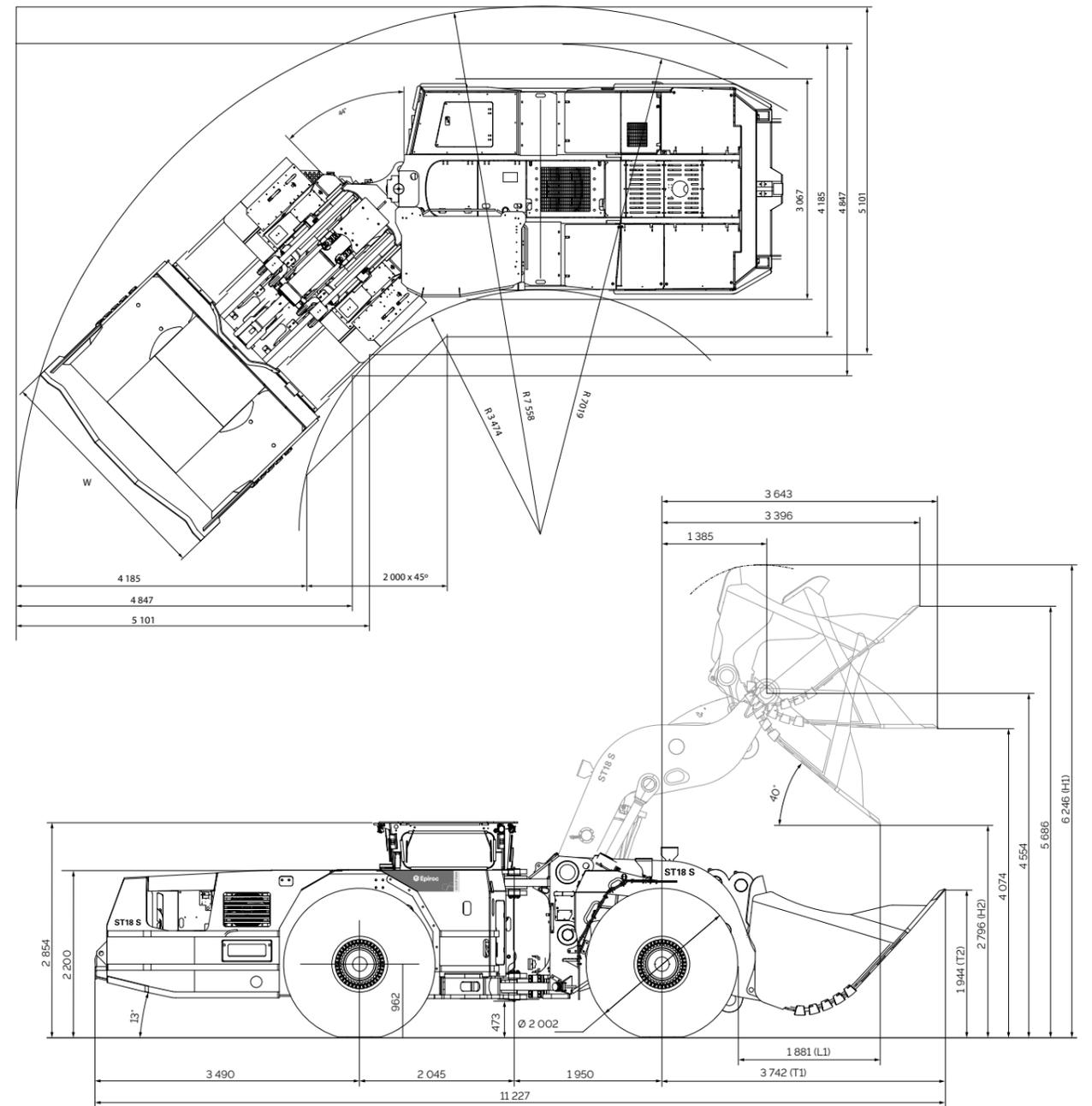
Parts and Services

- Preventive maintenance kits
- Repair and rebuild kits
- Upgrade kits
- Face mechanics tool set
- Shop mechanics tool set
- Service tool box for RCS
- Operators training in simulator

Digital products

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

Turning radius and dimensions (2.2 t/m<sup>3</sup> bucket)



All dimensions are shown in millimeters (mm). Dimensions and calculations shown are based on standard vehicle configuration with 27 mm tire deflection, unloaded.

Grade performance

Grade %	0	2	4	6	8	10	12.5	14.3	16	18	20
Grade	-	1:50	1:25	1:16.7	1:12.5	1:10	1:8	1:7	1:6.3	1:5.6	1:5
<b>Empty bucket (km/h)</b>											
1st gear	4.2	4.1	4.0	4.0	3.9	3.9	3.8	3.8	3.8	3.7	3.7
2nd gear	9.2	9.1	9.1	9.0	9.0	8.9	8.9	8.8	8.8	8.7	8.5
3rd gear	15.3	15.2	15.1	14.9	14.8	14.6	13.3	11.7	10.3	-	-
4th gear	27.7	27.4	26.8	22.9	-	-	-	-	-	-	-
<b>Loaded bucket (km/h)</b>											
1st gear	4.1	4.0	3.9	3.9	3.8	3.8	3.7	3.7	3.6	3.5	3.4
2nd gear	9.2	9.1	9.0	9.0	8.9	8.8	8.7	8.4	8.0	7.4	6.6
3rd gear	15.3	15.1	14.9	14.7	13.6	11.6	-	-	-	-	-
4th gear	27.4	26.9	21.6	-	-	-	-	-	-	-	-

3% rolling resistance assumed, actual performance may vary depending on the application, Tier 4 final, Stage V engine with lock up engaged. Continuous operation is recommended on max. 1.7 grade.

# Automate your operation

Your Scooptram loader can be provided with well proven teleremote and automation capabilities, matching the needs of your operation – from small stoping to large block caving.

## + Increase safety

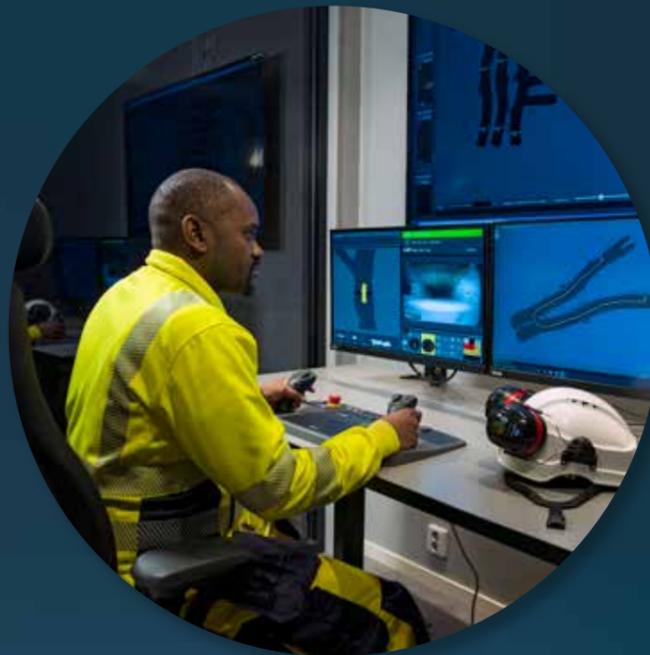
By operating the machine from a control room located in a safe environment, the operator will not be exposed to hazardous areas within the mine.

## + Boost productivity

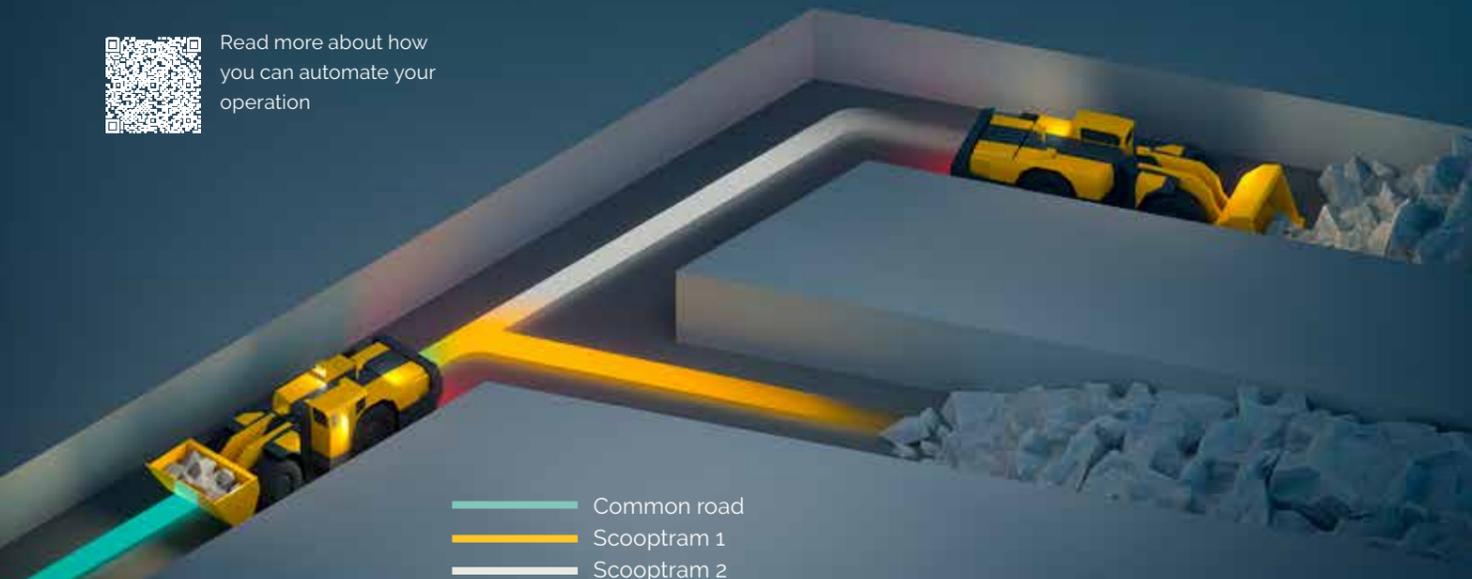
Automation enables you to utilize your loader even when people are not allowed in the mine due to blasting and shift changes, which increases uptime and produced tonnes. Thanks to hauling on repeatable routes, your machine will have fewer wall hits and spend less time in the repair shop.

## + Optimize your operation

Adding automation to your fleet means reaching the full potential of your operation by controlling production assignments, fleet traffic, and work area access. This eliminates the risk of collisions in common drifts and enables a continuous operation.



Read more about how you can automate your operation



# 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 can dramatically increase productivity, and reduce overall running costs and fuel consumption by up to 27 000 liters/year compared to other OEMs.



## 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 m <sup>3</sup> /min	708 m <sup>3</sup> /min
MSHA Part 7 particulate index	467 m <sup>3</sup> /min	85 m <sup>3</sup> /min

**Standard:** Dry type air cleaner, catalytic exhaust purifier and silencer, remote 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

## 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 configured vehicle (e.g. standard equipment, 2.2 t/m<sup>3</sup> dump box etc.)

# 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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