

# Scooptram ST14

Underground loader with 14-tonne capacity



# Superior underground mucking

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

## + Main benefits

**Safety first** Scooptram ST14 has been designed with safety in focus, with many standard features to secure your operation

**First class working environment** when the Scooptram ST14 cabin provides the operator with optimal working conditions from ergonomically positioned controls and instruments up to the improved air condition system

**Maximum productivity** thanks to the new transmission every step of loading operation is optimized



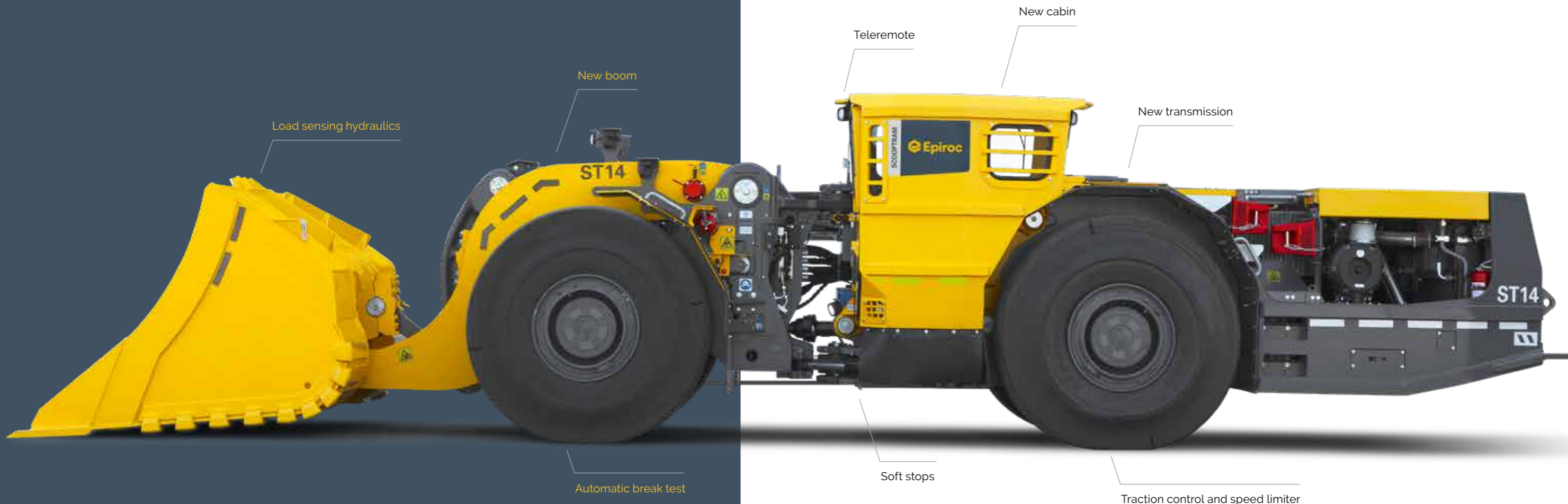
The comfortable and spacious cabin is ISO ROPS and FOPS certified and it features a footbox to maximize leg room.



Scooptram ST14 has an intelligent control system featuring traction control speed limiter, overspeed protection and automatic ride control.



Through the redesign of a lower profile boom system we offer the best operator visibility in its class and Scooptram ST14 is equipped with extra spotlights on fenders making it easier and safer to load trucks.



## Features

### Safety

- Spring-applied, hydraulic release (SAHR) brakes
- Automatic brake-test with diagnostics and logging
- ISO ROPS and FOPS certified cabin, oil-free operator's compartment and door interlock (applies brakes, blocks steering and bucket/boom movement when door opens)
- Separate disconnectors for a safe maintenance. The best operator visibility in its class
- Speed limiter
- Guard rails

### Comfort

- Increased leg-room with Epiroc footbox.
- Rubber mounted cabin or canopy for reduced vibration level.
- Ergonomic multifunction control joysticks.
- Simple and clear, multifunction display with intuitive operator interface, available in 11 languages.

- Comfortable air suspended seat.
- Steering and boom soft stop reduces vibration for the operator.

### Productivity

- Load sensing variable displacement hydraulic pump for increased tractive effort and reduced fuel consumption.
- Load weighing system.
- Boom suspension with dual accumulator to provide a smooth ride, allowing to travel at higher speed and reducing spillage.
- Automation ready.
- Hydraulically driven fans for optimized fuel consumption and improved cooling capacity.

### Serviceability

- Epiroc Rig Control System (RCS) provides service information in clear text on the monitor.
- Easy access to service points, filters and valve blocks.
- Filter sensors with data collection for air, hydraulic and transmission filters.

- Daily lube points quick and easy to service.

### Sustainability

- Fuel efficient, low emission EPA Tier 4 final/EU Stage V engine.
- Traction control, improves loading performance, reduces tire slip, improves tire life.
- Integrated lock-up and de-clutch functions, optimizes performance, saves fuel and improves life of drivetrain components.
- On board diagnostics give the operator a clear indication of the machine status.
- Proven powertrain components.
- L and M V-tube core radiator.
- Machine status indication lights, displays the machine status for personnel working around the machine.

## Engine

Cummins turbo charged diesel engine	Cummins QSM11	Cummins X12
Emmissions standard	EPA Tier III/ EU Stage IIIA	EPA Tier 4 Final/ EU Stage V
Power rating at 2 000 rpm	250 kW/335 hp	250 kW/335 hp
Maximum torque	1 674 Nm at 1 350 rpm	1 695 Nm at 1 400 rpm
MSHA Part 7 ventilation rate	326 m³/min	Pending
MSHA Part 7 particulate index	354 m³/min	Pending

**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.

## Fuel

Fuel tank capacity: 390 litres	●
Fuel filtration, primary, including water trap: 7 µm	●
Fuel filtration, secondary: 3 µm	●

## Axles

Brand/model: Kessler D106	●
Degree of oscillation (total): 16° (8° on each side)	●
Differentials: front, limited slip	●
Differentials: rear, limited slip	●

## Tires

Tubeless tire design for underground mine service*	●
Tire size front and rear: 26.5R25 (slicks)	○
Tire size front and rear: 26.5R25 (treaded)	○

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

## Specifications

Capacities	
Tramming capacity	14 000 kg
Tramming capacity with EOD bucket	12 000 kg
Breakout force, hydraulic	22 300 kg
Breakout force, mechanical	18 240 kg
Weight	
Approximate weight	39 100 kg
Axle load, front end	18 900 kg
Axle load, rear end	20 200 kg
Motion times	
Boom raising	7.6 sec
Boom lowering	4.0 sec
Dumping	3.0 sec

## Transmission

Automatic power shift with integrated converter, fully modulated 4 speed shifting, forward/reverse with automatic lock-up and de-clutch functions	●
Brand/model: Dana TE32	●

## Brakes

Fully enclosed, force-cooled, multiple wet discs at each wheel end	●
Service/parking/emergency brakes: SAHR	●
Brake apply after 3 sec in neutral	○
Brake release retriever tow hook	○

## Cabin

FOPS and ROPS approved	●
Climate control, pressurized with filtered air (ISO ROPS and FOPS)	○
Door interlock (applies brakes, blocks steering and bucket/boom movement when door opens)	●
Open door retainer	●
Operator seat with air suspension and 2-point retractable seat belt	●
Side seated operator for bi-directional operation	●
Audio system	○
Body vibration value according to below EN 14253 A(8)w max. 0.8/-0.4 m/s <sup>2</sup>	
External sound level according to ISO 6393 LwA 126 dB(A)	
Sound level in cabin according to ISO 6394 LpA 103 dB(A)	
Sound level in cabin according to ISO 6394 LpA 82 dB(A)	

## Hydraulic system

Heavy duty load sensing piston pumps	●
System pressure 29.6 MPa	●
Hydraulic tank capacity 218 litres	●
Filtration, return line: 12 µm	●
Manual pump for hydraulic tank fill	●
Electric pump for hydraulic tank fill, 24 V	○
Arctic oil	○
Steer cylinders: chrome plated stems, 2x105 mm diameter	
Hoist cylinders: chrome plated stems, 2x200 mm diameter	
Tilt cylinder: chrome plated stem, 1x230 mm diameter	

## Control system

Epiroc Rig Control System (RCS)	●
Operator display with intuitive interface	●
Logging of production data, number of buckets, fuel consumption etc.	●
Brake test function with logging	●
Engine, transmission and hydraulic system diagnostics and logging	●
Save machine logged data on USB memory stick	●
Front and rear cameras	○
Audio-visual reverse alarm	●
Joystick controls for dump and hoist and steering	●
Forward/neutral/reverse toggle switch integrated in steering joystick	○
Machine status indicator light mounted on canopy cabin	●
Steering and boom soft stop reduces vibrations	●
Bucket float	●
Automatic ride control (boom suspension)	○
Traction control	●
Speed limiter	○
Machine protection	○
Machine warm up	●
Load weighing system	○
Tire pressure monitoring system	○
Delayed engine off, turbo cool down	○
Engine pre-start warning	○
Emergency steering (required for CE approved vehicles)	○
Redundant steering (required for CE approved vehicles)	○

## Electrical system

System voltage: start and accessories 24V, with 24/12 V converter	●
Mine duty high output alternator: 140 Amps	●
Lockable disconnectors (main power, battery and starter)	●
Driving lights LED: 17x1 400 lumen	●
Detachable service light (required for CE approved vehicles)	○
Battery jump start receptacle	●
Cold weather package 120 V or 240 V. Block heater and artic oil	○

## Main frame

Center hinge and boom lock up pins	●
EOD ejector bucket	○
Ground Engagement Tool (GET)	○
Wheel chocks and brackets	○
Knockdown construction	○
Central manual lubrication system	●
Central automatic lubrication system	○
Wiggins fast fill for fuel	○
Wiggins fast fill for engine oil, transmission, hydraulic and radiator	○
Hand held fire extinguisher	○
Ansul manually activated fire suppression	○
Ansul checkfire automatically activated fire suppression system	○
3x emergency stop buttons	●
Corrosion resistant radiator	○
Foldable guard rail (required for CE approved vehicles)	○

## Automation

Scooptram Radio Remote Control (RRC)	○
Video assist	○
Scooptram Automation	○
Scooptram Tele Remote Control	○
Collision Avoidance System Interface (CAS)	○
Certiq telematics hardware for 'Wifi or LTE'	●
Certiq telematics solution professional'	○
*Certain country restrictions may exist	

## Parts and services

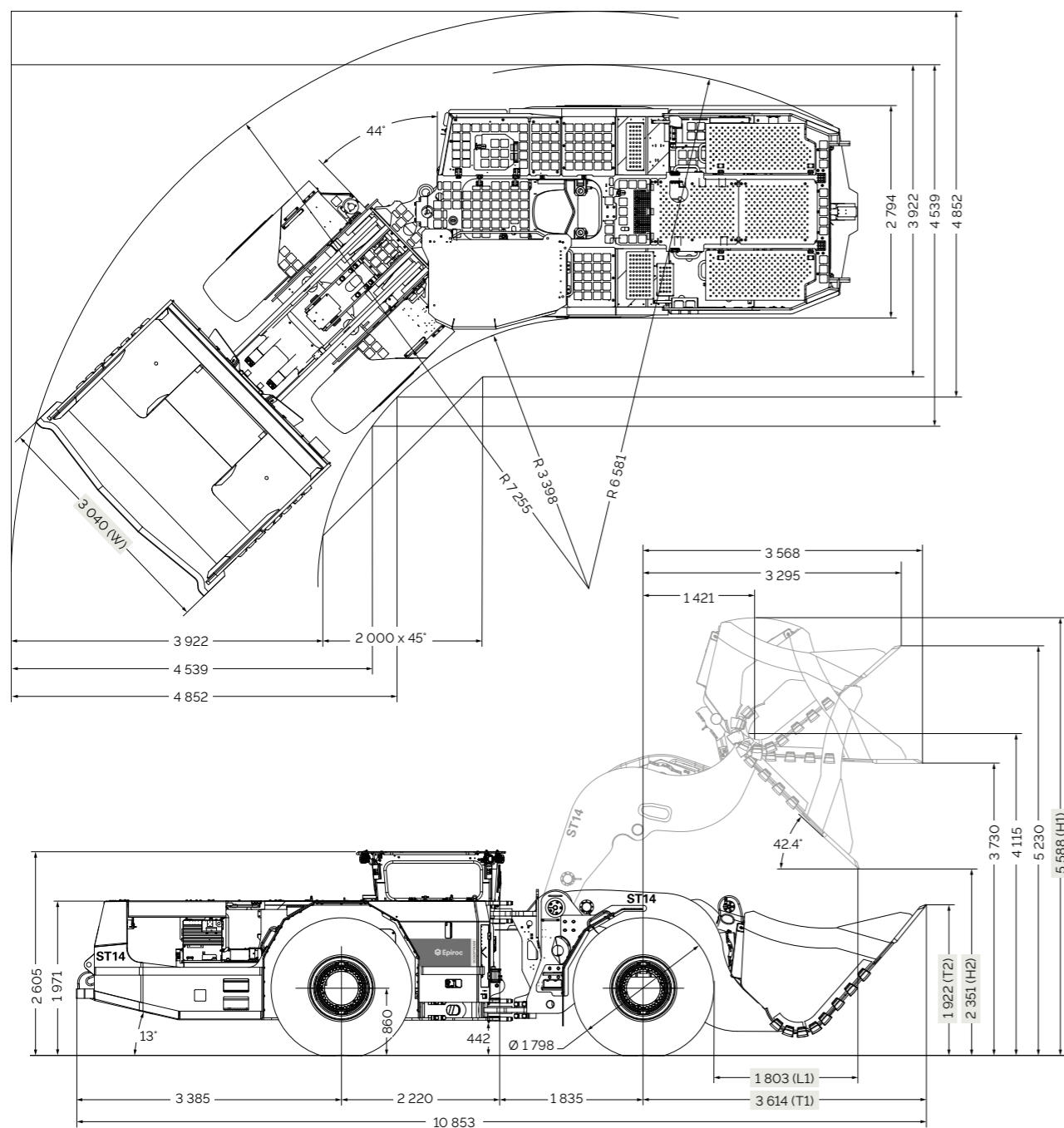
Preventive maintenance kits	○
Repair and rebuild kits	○
Upgrade kits	○
Face mechanics tool set	○
Shop mechanics tool set	○
Service tool box for RCS	○
Operators training in simulator	○

## Documentation

Operator, service and spare parts manual on CD and hard copy	●
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## Technical specifications

### 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.

### Bucket data

		7.8 m <sup>3</sup>	7.0 m <sup>3</sup>	6.4 m <sup>3</sup>	5.8 m <sup>3</sup>	5.4 m <sup>3</sup>	5.0 m <sup>3</sup>	4.7 m <sup>3</sup>	EOD
Volume, nominal heaped		7.8 m <sup>3</sup>	7.0 m <sup>3</sup>	6.4 m <sup>3</sup>	5.8 m <sup>3</sup>	5.4 m <sup>3</sup>	5.0 m <sup>3</sup>	4.7 m <sup>3</sup>	6.0 m <sup>3</sup>
Maximum material density		1.8 t/m <sup>3</sup>	2.0 t/m <sup>3</sup>	2.2 t/m <sup>3</sup>	2.4 t/m <sup>3</sup>	2.6 t/m <sup>3</sup>	2.8 t/m <sup>3</sup>	3.0 t/m <sup>3</sup>	2.0 t/m <sup>3</sup>
Bucket overall width (mm)	W	3 040	3 040	3 040	3 040	3 040	3 040	3 040	2 850
Tramming position: axle centreline to bucket lip (mm)	T1	3 768	3 690	3 614	3 536	3 486	3 447	3 406	3 724
Tramming position: ground to bucket tip (mm)	T2	2 092	2 005	1 922	1 839	1 783	1 738	1 699	2 027
Truck loading reach (mm)	L1	1 952	1 880	1 803	1 727	1 675	1 633	1 598	1 898
Raised position: back height max (mm)	H1	5 777	5 684	5 588	5 695	5 647	5 591	5 530	5 796
Raised position: bucket tip, height (mm)	H2	2 183	2 268	2 351	2 435	2 489	2 532	2 576	2 233

## Technical specifications



### Grade performance

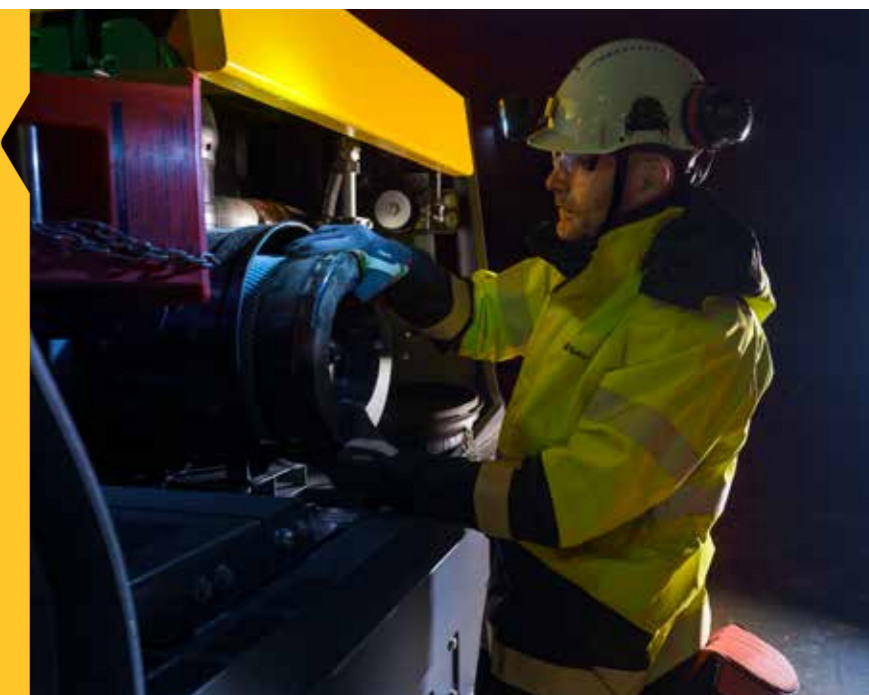
Grade %	0	2	4	6	8	10	12.5	14.3	16	18	20
Grade	-	1.50	1.25	1.16.7	1.12.5	1.10	1.8	1.7	1.6.3	1.5.6	1.5
<b>Standard configuration, empty bucket (km/h)</b>											
1st gear	4.5	4.4	4.3	4.3	4.2	4.2	4.2	4.1	4.1	4.0	4.0
2nd gear	9.9	9.8	9.8	9.7	9.7	9.6	9.6	9.2	8.9	8.5	8.1
3rd gear	16.5	16.4	16.2	16.1	15.1	13.9	11.4	-	-	-	-
4th gear	29.9	29.5	25.6	-	-	-	-	-	-	-	-
<b>Standard configuration, loaded bucket (km/h)</b>											
1st gear	4.5	4.3	4.3	4.2	4.2	4.1	4.0	4.0	4.0	3.9	3.9
2nd gear	9.8	9.8	9.7	9.7	9.6	9.3	8.5	7.9	7.2	-	-
3rd gear	16.4	16.3	16.1	14.5	12.3	-	-	-	-	-	-
4th gear	29.6	26.3	-	-	-	-	-	-	-	-	-

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.

## 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.



# 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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