

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 and the thorough improvements on safety, comfort, sustainability and serviceability bring 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





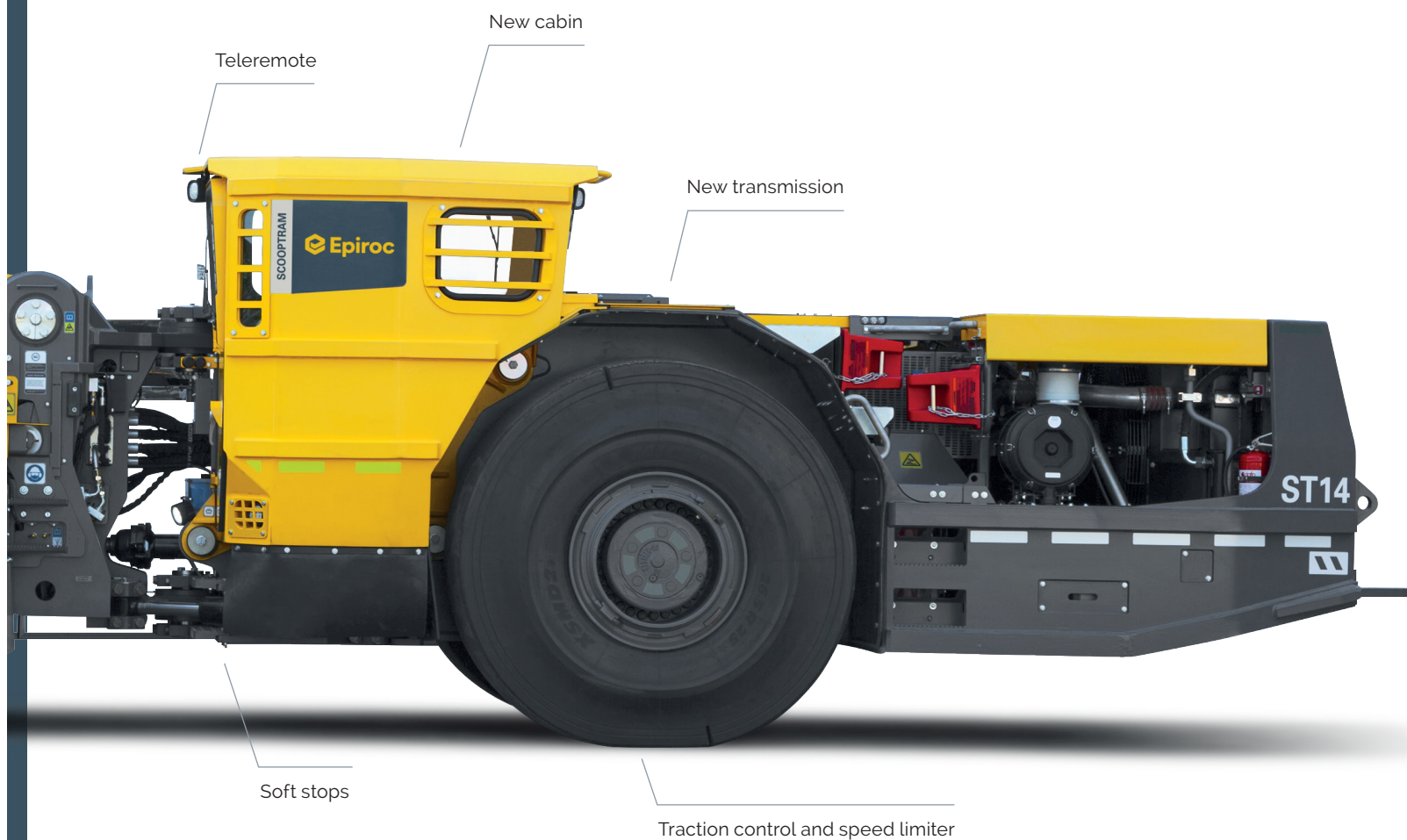
The comfortable and spacious cabin is ISO ROPS and FOPS certified and it features a footbox to maximize leg room.



Scooptram ST14 has an intelligent control system featuring traction control, speed limiter, over speed 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/bloom movement when door opens)
- 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
- Sustainability
- 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

Productivity

- Load sensing variable displacement hydraulic pump for increased tractive effort and reduced fuel consumption
- Load weighing system
- Dual ride control 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

Specifications

Capacities	
Tramming capacity*	14 000 kg
Breakout force, hydraulic	22 300 kg
Breakout force, mechanical	18 240 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	
Approximate weight	39 100 kg
Axle load, front end	18 900 kg
Axle load, rear end	20 200 kg

Engine

	Standard	Alternative*
Brand/model	Cummins QSM11	Cummins QSX11.9
Emmissions standard	EPA Tier 3/EU Stage IIIA	EPA Tier 4i/Stage IIIB
Power rating at 2 100 rpm	250 kW/335 hp	250 kW/335 hp
Maximum torque at 1 350 rpm	1 674 Nm	1 695 Nm
MSHA Part 7 ventilation rate	538 m³/min	235 m³/min
MSHA Part 7 particulate index	595 m³/min	28 m³/min

Standard: Dry type air filter, catalytic purifier and silencer, exhaust heat protection, cooling package with tube type radiator, remote engine oil and cooling fuel drain.

Alternative: Different engine, coolers, different aftertreatment system (dry type air filter with cyclone functionality).

*Please note! Requires ultra low sulphur 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	●

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	●

Axles

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

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	○

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.

Technical specifications

● = Standard ○ = Option ⓘ = Local adaption

Operator's compartment

Canopy (ISO ROPS and FOPS)	●
Cabin with automatic 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	●
Side seated operator for bi-directional operation	●
Air seat suspension seat with 2-point retractable seat belt	●
External sound level according to ISO 6393 LwA 126 dB(A)	
Sound level in canopy acc. to ISO 6394 LpA 103 dB(A)	
Sound level in cabin according to ISO 6394 LpA 82 dB(A)	
Whole body vibration value A(8)w maximum 0.8 +/-0.4 m/s² EN 14253 A(8)w maximum 0.55 +/-0.2 m/s²	

Hydraulic system

Heavy duty load sensing piston pumps	●
System pressure 29.6 MPa	●
Hydraulic tank capacity 218 litres	●
Filtration, return line: 12 µm	●
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

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	●
Steering and boom soft stop reduces vibrations	●
Bucket float	●
Automatic ride control (boom suspension)	○
Traction control	●
Speed limiter	ⓘ
Machine protection	ⓘ
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	●
Isolation switch lockout	●
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, battery warmer, fuel heater, hydraulic oil heater, transmission oil heater, arctic oil	○

Main frame

Center hinge and boom lock up pins	●
EOD ejector bucket	○
Wheel chocks and brackets	○
Ground engagement tool	○
Knockdown construction	○
Central manual lubrication system	●
Central automatic lubrication system	○
Wiggins fast fuel fill	○
Wiggins fast fill for engine oil, transmission, hydraulic and radiator	○
Hand held fire extinguisher	○
Ansul manually activated fire suppression system with engine shut down	○
Ansul checkfire automatically activated fire suppression system	○
3x machine stop buttons with fuel shut off valve	●
Corrosion resistant radiator	○

Automation

Scooptram Radio Remote Control interface	●
Scooptram Radio Remote Control	○
Scooptram automation	○
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

Grade performance

Standard configuration, empty bucket

%	Grade	0	2	4	6	8	10	12.5	14.3	16	18	20	25
	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	1:4
Km/h	1st gear	4.9	4.9	4.9	4.9	4.9	4.9	4.8	4.8	4.8	4.8	4.9	4.8
	2nd gear	10.1	10.0	10.0	9.9	9.9	9.8	9.8	9.7	9.3	8.7	8.1	-
	3rd gear	17.1	17.0	16.8	16.7	15.9	14.4	11.0	-	-	-	-	-
	4th gear	29.7	29.5	26.2	-	-	-	-	-	-	-	-	-

3% rolling resistance assumed. Actual performance may vary depending on the application, lock up engaged. Continuous operation is recommended on maximum 1:7 grade.

Grade performance

Standard configuration, loaded bucket

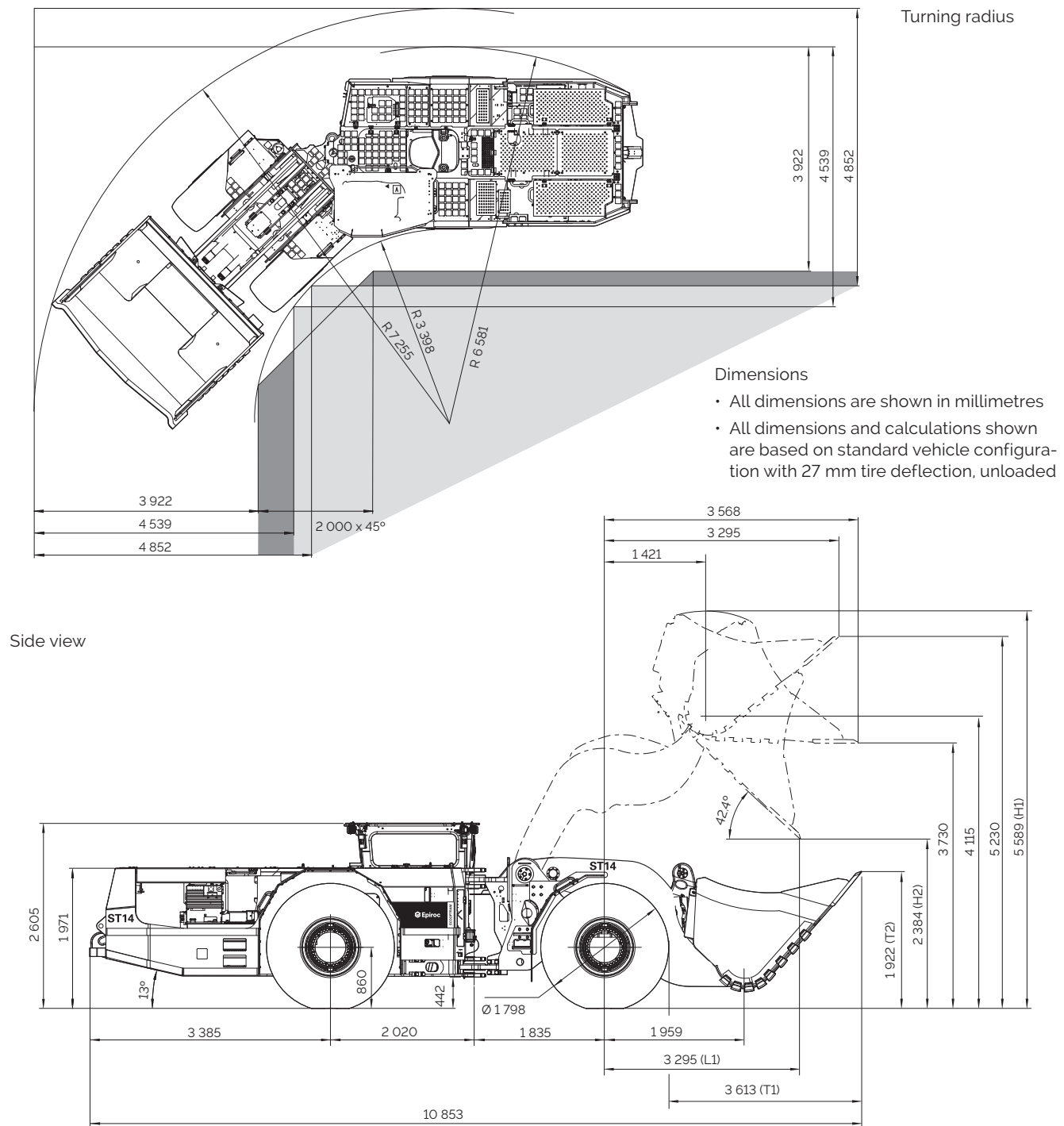
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Km/h	1st gear	4.9	4.9	4.9	4.9	4.8	4.8	4.8	4.8	4.8	4.8	4.7	4.6
	2nd gear	10.1	10.0	9.9	9.9	9.8	9.7	8.7	7.8	6.8	-	-	-
	3rd gear	17.0	16.8	16.7	15.0	11.8	-	-	-	-	-	-	-
	4th gear	29.5	29.2	-	-	-	-	-	-	-	-	-	-

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Technical specifications

Measurements and weights



Bucket data*

		Standard							EOD
					STD				
Volume, nominal heaped (m³)		7.8	7.0	6.4	5.8	5.4	5.0	4.7	6.0
Maximum material density (t/m³)		1.8	2.0	2.2	2.4	2.6	2.8	3.0	2.0
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

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