

Scooptram ST7 Battery

Power Unleashed – the new Scooptram ST7 Battery is a fully electric powered and automation ready underground loader



Cutting costs and boosting productivity with smart solutions

The Scooptram ST7 Battery is a robust lhd built for demanding underground applications. Small in size, high performance, battery power and automated functions.

+ Main benefits

It's clean thanks to the electric drive which eliminates diesel emissions and minimizes the need for ventilation

It's flexible when eliminating the power cable the Scooptram ST7 Battery gets all the maneuverability as of a diesel

Its productive when the large battery capacity and powerful motor provide the capacity to outperform the diesel machines in most applications

Alternative bucket sizes for different ore weights

High lifting front end makes truck loading easy





+4 h operational time on a full charge in most applications – just a quick charge during lunchtime can extend the running time to a full shift.



Quick battery change enable a 24/7 operation with just two batteries and the charger ensures that a full charged battery is always available.



The ST7 Battery shares many features and most of the components with its diesel predecessor which makes maintenance and service hassle-free.



Ergonomic operators compartment with suspended seat and multi function joysticks

Quick change, high capacity battery allow for maximized operation

Currently availability is limited to Canada and the US

Features

Safety

- Improved underground environment with zero emission technology
- Spring-applied, hydraulic release (SAHR) brakes
- Automatic brake-test with diagnostics and logging
- ISO ROPS and FOPS certified canopy, oil-free operator's compartment and door interlock (applies brakes, blocks steering and bucket/boom movement when door opens)
- The best operator visibility in its class due to the low back end

Ergonomics

- Increased leg-room with Epiroc footbox
- Rubber mounted canopy for reduced vibration level
- Ergonomic multifunction control joysticks
- Simple and clear, multifunction display with intuitive operator interface
- Comfortable air suspended seat (optional)
- Steering and boom soft stop reduces vibration for the operator

Productivity

- Load sensing variable displacement hydraulic pump for reduced energy consumption
- Traction control improves loading performance, reduces tire slip and improves tire life
- Certiq telematics give online access to production and machine data

Durability

- On board diagnostics give the operator a clear indication of the machine status
- Machine status indication lights, displays the machine status for personnel working around the machine
- Load weighing system (optional)

Sustainability

- Zero emission drive
- 80% lower energy consumption compared to diesel machines
- Fossil fuel free operation when powered with renewable electricity

Serviceability

- Easy access to service points, filters and valve blocks
- Epiroc Rig Control System (RCS) provides service information in clear text on the monitor
- Daily lube points quick and easy to service
- Automatic lubrication system with low level warning and lube fault detection for all daily lube points
- All daily maintenance from ground level

Specifications

Capacities	
Tramming capacity	6 800 kg
Breakout force, hydraulic	11 750 kg
Breakout force, mechanical	11 750 kg
Motion times	
Boom raising	5.3 sec
Boom lowering	3.5 sec
Dumping	2.1 sec
Weights (standard empty vehicle)	
Approximate weight	21 500 kg
Axle load, front end	8 000 kg
Axle load, rear end	13 500 kg

Traction drive

Brand/model: Artisan 1200 series traction motor - 630 VAC/108 kW, 149 kW peak single power inverter	●
---	---

Hydraulic drive

Brand/model: Artisan 200 series traction motor - 630 VAC/76 kW, 113 kW peak single power inverter	●
---	---

Battery drive

Brand/model: Artisan, 165 kWh, LiFePO4, 630 VDC	○
---	---

Battery - charger

Brand/model: Artisan 65 kW master service, input 575 VAC	○
--	---

Axles

Brand/model: Okubo rock tough 406	●
Degree of rear axle oscillation: 14° (7° on each side)	●
Differentials: front no spin	●
Differentials: rear open	●

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*	●
Inverted rims - tire lock on inside	○
Tire size front and rear: 17.5R25 (slicks)	○
Tire size front and rear: 17.5R25 (treaded)	○

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

Electrical system

System voltage: start and accessories 24V	●
Isolation switch lockout	●
24/12 V converter	●
Driving lights LED: 12x40 W	●
Detachable service light (Required for CE approved vehicles)	○
Machine status indicator light mounted on canopy	●

Operator's compartment

Canopy (ISO ROPS/FOPS/RSPS)	●
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 124.5 dB(A)	
Sound level in canopy according to ISO 6394 IO5 dB(A)	
Whole body vibration value according to below EN 14253 A(8) w maximum 0.55+/-0.2 m/s ²	

Hydraulic system

Heavy duty load sensing piston pump	●
System pressure: 24.0 MPa	●
Hydraulic tank capacity: 111 litres	●
Filtration, return line: 12 µm	●
Electric pump for hydraulic tank fill, 24 V	●
Cylinders; chrome plated stems, diameter: steer cylinders (2), 80 mm	
Cylinders; chrome plated stems, diameter: hoist cylinders (2), 125 mm	
Cylinders; chrome plated stems, diameter: stabilizer cylinder (1), 150 mm	

Transmission

Fully modulated 4 speed shifting, forward/reverse	●
Brand/model: Funk DF150	●

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	○

Power unit

Arctic oil	○
------------	---

Control system

Operator display with intuitive interface	●
Logging of production data, number of buckets, fuel consumption and traming distance etc.	●
Brake test function with logging	●
Engine and transmission diagnostics and logging	●
Save machine logged data on USB memory stick	●
Front and rear cameras	○
Audio-visual reverse alarm	●
Joystick controls for dump, hoist and steering	●
Steering and boom soft stop reduces vibrations	●
Bucket float	●
Automatic ride control (boom suspension)	○
Traction control	●
Speed limiter	○
Machine protection	○
Certiq telematics solution professional	○
Scooptram Radio Remote Control interface	●
Scooptram Radio Remote Control	○
Scooptram Tele Remote Control	○
Scooptram autonomous operation for traming and dumping including rout manager software	○

System

Wiggins fast hydraulic oil fill	●
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 motor stop system	●

Main frame

Boom up lock	●
EOD ejector bucket	○
Ground engagement tools	○
Wheel chocks and brackets	○
Knockdown construction	○
Inverted rims	○
Central automatic lubrication system	●

Technical specifications

Grade performance

Standard configuration, empty bucket

%	Grade	0.0	2.0	4.0	6.0	8.0	10.0	12.5	14.3	16.0	18.0	20.0	25.0
Ratio	Grade	-	-	-	-	-	1:10	1:8	1:7	-	-	1:5	1:4
Km/h	1st gear	4.5	4.4	4.3	4.3	4.2	4.2	4.1	4.1	4.0	4.0	3.9	3.8
	2nd gear	7.4	7.3	7.1	7.0	6.8	6.7	6.5	6.3	6.1	5.4	5.7	5.2
	3rd gear	14.3	13.7	13.1	12.4	11.6	10.8	9.6	8.3	7.1	-	-	-
	4th gear	23.1	21.4	19.1	16.5	12.7	-	-	-	-	-	-	-

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

Grade performance

Standard configuration, loaded bucket

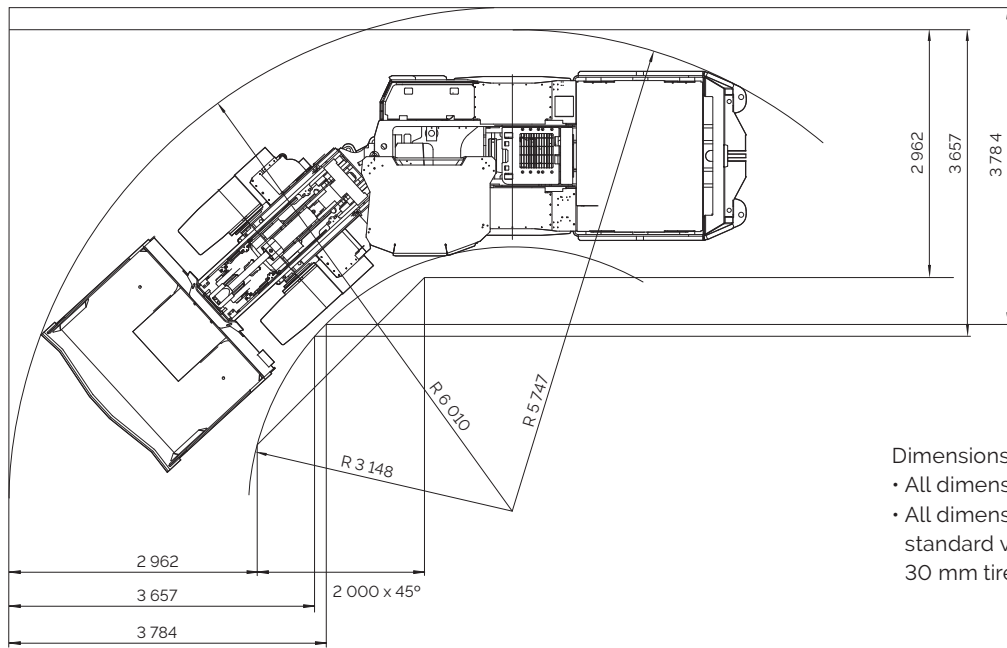
%	Grade	0.0	2.0	4.0	6.0	8.0	10.0	12.5	14.3	16.0	18.0	20.0	25.0
Ratio	Grade	-	-	-	-	-	1:10	1:8	1:7	-	-	1:5	1:4
Km/h	1st gear	4.4	4.4	4.3	4.2	4.1	4.1	4.0	3.9	3.8	3.8	3.7	3.4
	2nd gear	7.3	7.1	6.9	6.7	6.5	6.3	5.9	5.6	5.4	5.1	4.7	3.5
	3rd gear	14.0	13.2	12.2	11.1	9.8	8.1	-	-	-	-	-	-
	4th gear	22.2	19.3	15.5	-	-	-	-	-	-	-	-	-

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



Technical specifications

Measurements and weights

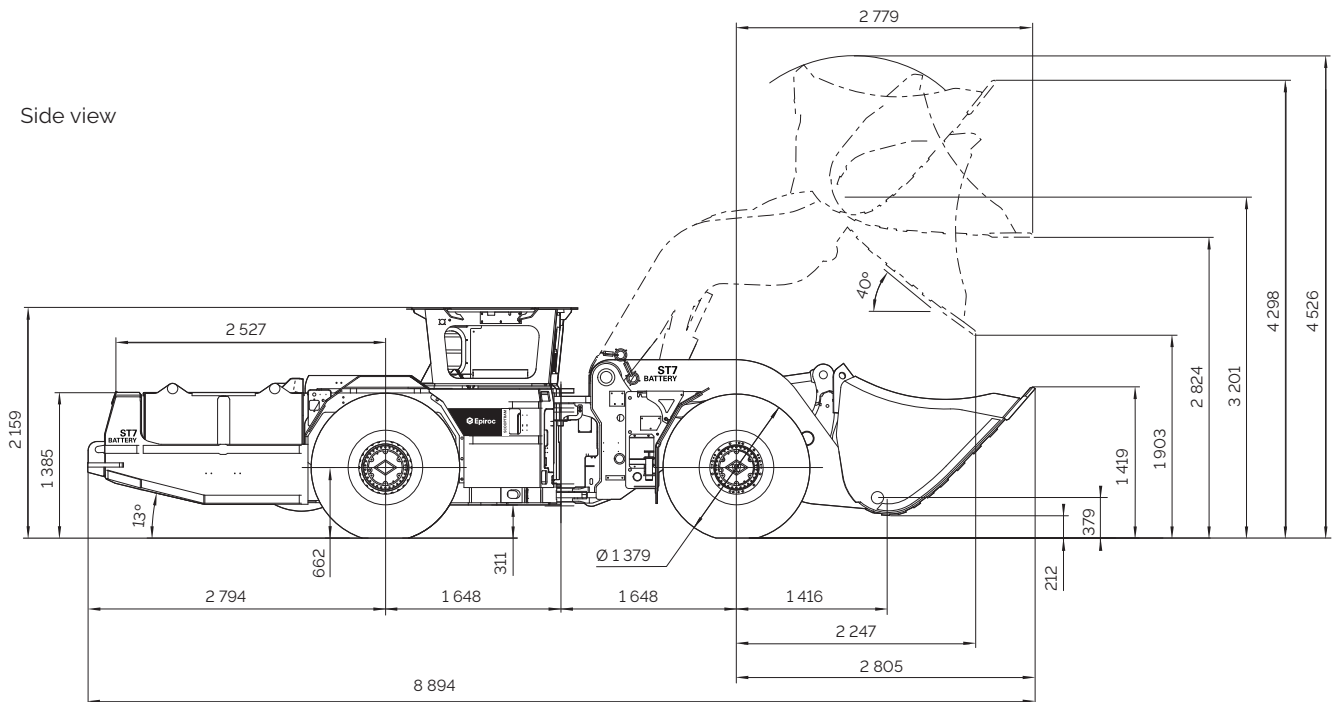


Turning radius

Dimensions

- All dimensions are shown in millimetres
- All dimensions shown are based on standard vehicle configuration with 30 mm tire deflection, unloaded

Side view



Bucket data

	Standard						EOD						
				STD									
Volume, nominal heaped (m3)		3.8	3.4	3.1	2.8	2.6	2.3	3.2	2.9	2.7	2.5	2.4	2.2
Maximum material density (t/m3)		18	2.0	2.2	2.4	2.6	3.0	18	2.0	2.2	2.4	2.6	2.8
Width, bucket (mm)	W	2280	2280	2280	2280	2280	2280	2280	2280	2280	2280	2280	2280
Tramming position: axle centre line to bucket lip (mm)	T1	2970	2900	2800	2770	2650	2600	3020	2970	2920	2870	2830	2780
Tramming position: axle centre line to bucket lip (mm)	T2	1540	1450	1400	1330	1200	1190	1650	1580	1530	1480	1430	1370
Reach (mm)	L1	2380	2280	2220	2160	2010	2000	2500	2420	2370	2310	2270	2200
Raised position: max height (mm)	H1	4760	4660	4570	4540	4540	4490	4650	4600	4530	4510	4490	4490
Raised position: bucket tip, height (mm)	H2	1750	1850	1890	1940	2050	2070	1700	1740	1800	1840	1880	1940

98690.05601.2018-05. Orebro, Sweden. Legal Notice © Copyright, 2014, Epiroc Rock Drills AB, Orebro, Sweden. Any unauthorized use or copying of the contents or any part thereof is prohibited. Illustrations and photos may show equipment with optional extras. No warranty is made regarding specifications or otherwise. Specifications and equipment are subject to change without notice. Consult your Epiroc Customer Center for specific information.

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.
epiroc.com

