Scooptram ST2G

Underground diesel loader with 4 tonne load capacity

Epiroc

Popular underground loader

The scooptram ST2G is a popular choice for applications varying from mine development, production in small and narrow vein mines and also in utility jobs. The scooptram ST2G has benefits focusing on safety, flexibility and serviceability.

Main benefits

High safety level thanks to features such as ISO ROPS/FOPS approved operator's canopy, boom up lock device, wheel chocks, audio-visual reverse alarm, spring applied hydraulic released brake system, neutral brake, 3-point contact and anti-skid protection for safe access of operators & service personnel.

Flexible operation thanks to a parallel boom design matched to an aggressive bucket configuration which provides quick and efficient mucking.

Serviceability thanks to the easily serviced machine – easy access to all daily service points, saving time, reducing cost of operation and improving the service life.

RRC system gives operator a safer control and more comfortable environment.

Individual hydraulic cooler serves for long service intervals and longer life of hydraulic components.

Automatic lubrication increases the MTBM(mean time between maintenance).

Improvement to be better

We actively look for your feedback and take actions on improvement. The tight cooperation with customer centers to get close to you to ensure we can meet your value with the scooptram ST2G product application.

+ Safety

Scooptram ST2G is equipped with SAHR (spring applied hydraulic released) break system which is the safest break system in the mining industry.

This machine can be installed with safe components and devices such as detachable service light, emergency steering, Ansul fire suppression system and Radio remote control system.

+ Durablity

Continuous improvement makes Scooptram ST2G more versatile.
Installed with improved boom and load frame structure, Scooptram ST2G gets durable frame and efficient mucking.
LED lights improves operators' visibility in underground mine.
New instrument panel gauge cluster makes operator easily understand the status of machine.

+ Low emission

The Scooptram ST2G is installed with Cummins Tier 3 engine, Tier3 technology reduces the emissions further, providing cleaner air and better working environment in the mine.

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

● = Standard ○ = Option

Specifications

Capacities	
Tamming capacity*	4 000 kg
Breakout force, hydraulic	9 060 kg
Breakout force, mechanical	6 710 kg
*Tramming capacity with EOD bucket 3 200 kg.	
Motion times	
Boom raising	3.3 sec
Boom lowering	2.4 sec
Dumping	4.1 sec
Weights (Standard empty vehicle)	
Approximate weight	13 650 kg
Axle load, front end	5 650 kg
Axle load, rear end	7 800 kg

Engine

Brand/model	Cummins QSB 4.5, EPA Tier 3/EU Stage IIIA/CHINA III
Power rating at 2 000 rpm	81 kW / 109 hp
MSHA Part 7 ventilation rate	128 m³/min
MSHA Part 7 particulate index	170 m³/min
Standard: Water cooling, Catalytic purifier plus exhaust silencer	

Fuel

Fuel tank capacity: 132 litres	●
Fuel filtration, primary, including heater and water trap: 7 µm	●
Fuel filtration, secondary: 3 µm	●

Transmission

Modulated power shift, with 4 speeds forward and reverse	●
Brand/model: Dana, R32000 Series	●

Axles

Brand/model: Dana, 14D	●
Degree of rear axle oscillation: 16° (8° on each side)	●
Differentials: Front, No spin	●
Differentials: Rear, standard	●

Brakes

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

Tyers

Tube tyres design for underground mine service*	●
Tyre size front and rear: 12.00 R24 (slicks)	○
Tyre size front and rear: 12.00 R24 (treaded)	○

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

Operator's compartment

Canopy (ISO ROPS and FOPS approved)	●
Side seated operator for bi-directional operation and maximum visibility	●
Ergonomic operator seat with seat belt	●
External sound level according to ISO 6393 LwA 121 dB(A)	
Sound level in canopy according to ISO 6394 LpA 102 dB(A)	
Whole body vibration value 0.5-2.0 m/s² according to EN 14253 and ISO 2631-1	

Hydraulic system

Heavy duty gear type pumps	●
System pressure: 12.4 MPa	●
Hydraulic tank capacity: 144 litres	●
Filtration, suction line: 11.6 µm	●
Manual hydraulic tank fill pump	○
Steer cylinder: chrome plated stem, 1 × 125 mm diameter	
Hoist cylinder: chrome plated stem, 1 × 180 mm diameter	
Dump cylinder: chrome plated stem, 1 × 180 mm diameter	

Control system

Engine data display	●
Audio-visual reverse alarm	●
Blue strobe light - power on	○
Monostick steering control	●
Single lever dump and hoist control	●
Emergency Steering	○
Blockout 3rd and 4th gears	○
Blockout 4th Gear	○

Electric system

System voltage: start & accessories, 24 V	●
Mine duty high output alternator: 140 Amps	●
Isolating switch lockout	●
Driving lights LED: 5 × 1 800 lumen, 22 W	●
Detachable service light (required for CE Approved Vehicles)	○

Main frame

KA requirement	○
Center hinge and boom up lock device	●
EOD bucket	○
Wheel chocks and chocks brackets	○
Knockdown construction	○
Central manual lubrication	●
Automatic lubrication system with timer	○
Manual hydraulic tank fill pump	○
Handheld fire extinguisher	○
Ansul manually activated fire suppression system with engine shut down	○
Ansul checkfire automatically activated fire suppression system	○
Dump cylinder rod protector	●
Straight linked dump cylinder and bucket	○
Tool box	○

Automation

Scooptram radio remote control	○
Scooptram radio remote Interface	○

Parts and services

Preventive maintenance kits	○
Repair and rebuild kits	○
Upgrade kits	○
Operator training	○

Documentation

Operator, service and spare parts manual on CD and hard copy	●
Parts manual - Plasticized	○
Service manual - Plasticized	○

Grade performance

Standard configuration, empty bucket													
%	Grade	0.0	2.0	4.0	6.0	8.3	10.0	12.5	14.3	16.0	18.0	20.0	25.0
Ratio	Grade					1:12	1:10	1:8	1:7			1:5	1:4
km/h	1st gear	3.9	3.9	3.9	3.9	3.9	3.8	3.8	3.7	3.7	3.6	3.5	3.2
	2nd gear	8.0	8.0	7.9	7.6	7.1	6.6	5.9	5.3	4.8	4.2	3.6	-
	3rd gear	13.3	12.6	11.0	9.1	7.1	-	-	-	-	-	-	-
	4th gear	22.1	13.2	-	-	-	-	-	-	-	-	-	-

3% rolling resistance assumed. Actual performance may vary depending on the application.

Grade performance

Standard configuration, loaded bucket													
%	Grade	0.0	2.0	4.0	6.0	8.3	10.0	12.5	14.3	16.0	18.0	20.0	25.0
Ratio	Grade					1:12	1:10	1:8	1:7			1:5	1:4
km/h	1st gear	3.9	3.9	3.8	3.8	3.8	3.7	3.7	3.6	3.5	3.4	3.2	2.8
	2nd gear	8.0	7.9	7.5	7.0	6.2	5.5	4.6	4.0	-	-	-	-
	3rd gear	13.3	11.2	8.9	-	-	-	-	-	-	-	-	-
	4th gear	16.2	-	-	-	-	-	-	-	-	-	-	-

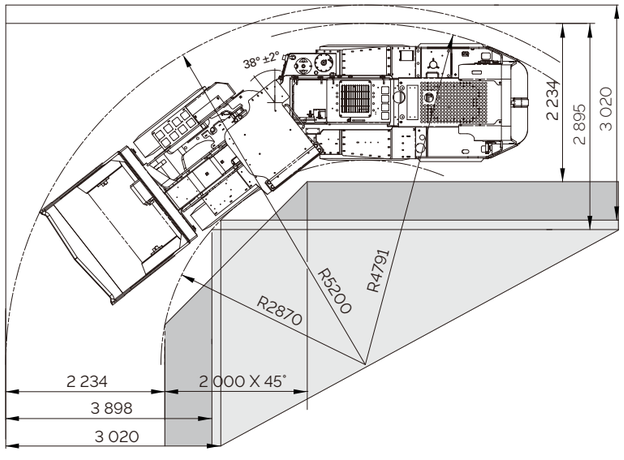
3% rolling resistance assumed. Actual performance may vary depending on the application.

Measurements

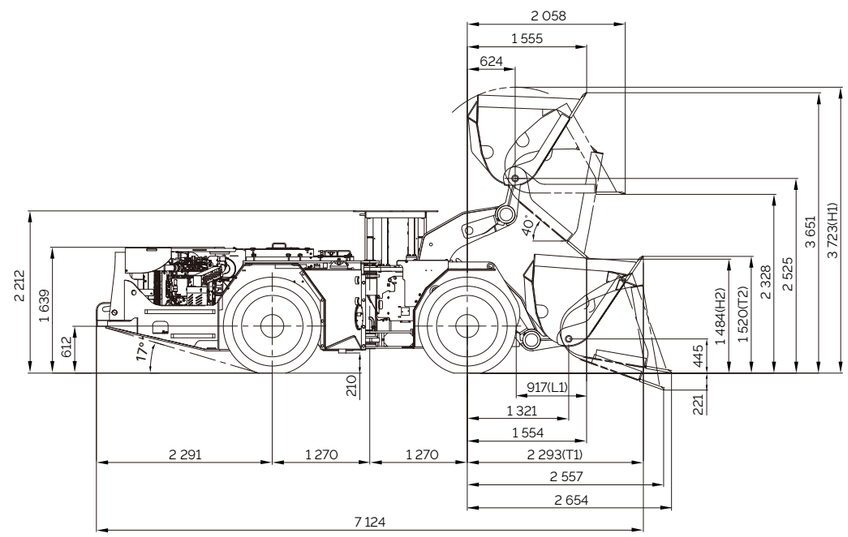
Turning radius

Dimensions

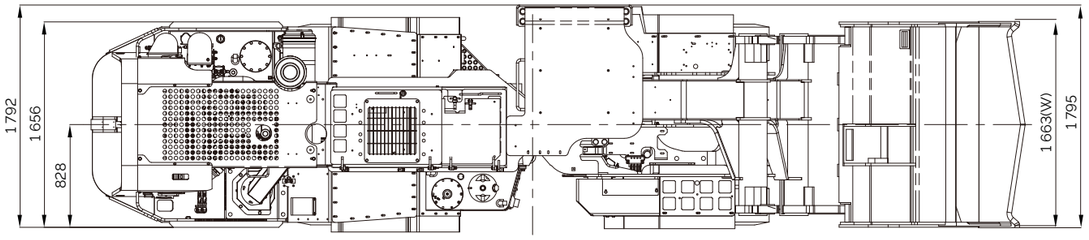
- All dimensions are shown in millimetres
- All dimensions and calculations shown are based on standard vehicle configuration with 25 mm tyre deflection, unloaded
- Machine displayed with Cummins engine and 1.9m³ bucket



Side view



Top view



Bucket data

		STANDARD						EOD			
				STD							
Volume, nominal heaped (m³)		1.5	1.7	1.9	2.1	2.3	2.5	1.2	1.5	1.7	1.9
Maximum material density (t/m³)		2.7	2.4	2.1	1.8	1.6	1.4	3.1	2.3	2.0	1.6
Width, bucket (mm)	W	1 663	1 663	1 663	1 663	1 663	1 663	1 666	1 549	1 662	1 662
Tramming position: Axle centerline to bucket lip (mm)	T1	2 229	2 254	2 293	2 414	2 415	2 442	2 301	2 279	2 370	2 420
Tramming position: Ground to bucket lip (mm)	T2	1 315	1 368	1 520	1 372	1 515	1 580	1 532	1 531	1 534	1 534
Reach dimension (mm)	L1	751	802	917	900	1 042	1 024	1 041	1 070	1 088	1 151
Raised position: Back height, max. (mm)	H1	3 586	3 669	3 723	3 816	3 838	3 885	3 635	37 43	3 775	3 902
Raised position: Bucket tip, height (mm)	H2	1 546	1 518	1 484	1 386	1 372	1 275	1 465	1 518	1 446	1 461

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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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