

# Scooptram EST2D

Underground electric loader with 3.6 tonne load capacity



# Reliable loader for small and narrow vein mines

The Scooptram EST2D is designed for smaller sized operations that range from narrow vein mines to construction sites. It is attractive for operations that have existing infrastructure for electric loaders or those that have insufficient ventilation for diesel loaders.

## + Main benefits

**High safety** The Scooptram EST2D offers high safety, such as MSHA approved operator's canopy, boom up lock device, wheel chocks, audio-visual reverse alarm, ground fault / ground check systems and 3-point contact and anti-skid protection for safe access of operators & service personnel.

**Zero emission** Electric driven entirely without diesel emissions makes Scooptram EST2D minimize the need for ventilation.

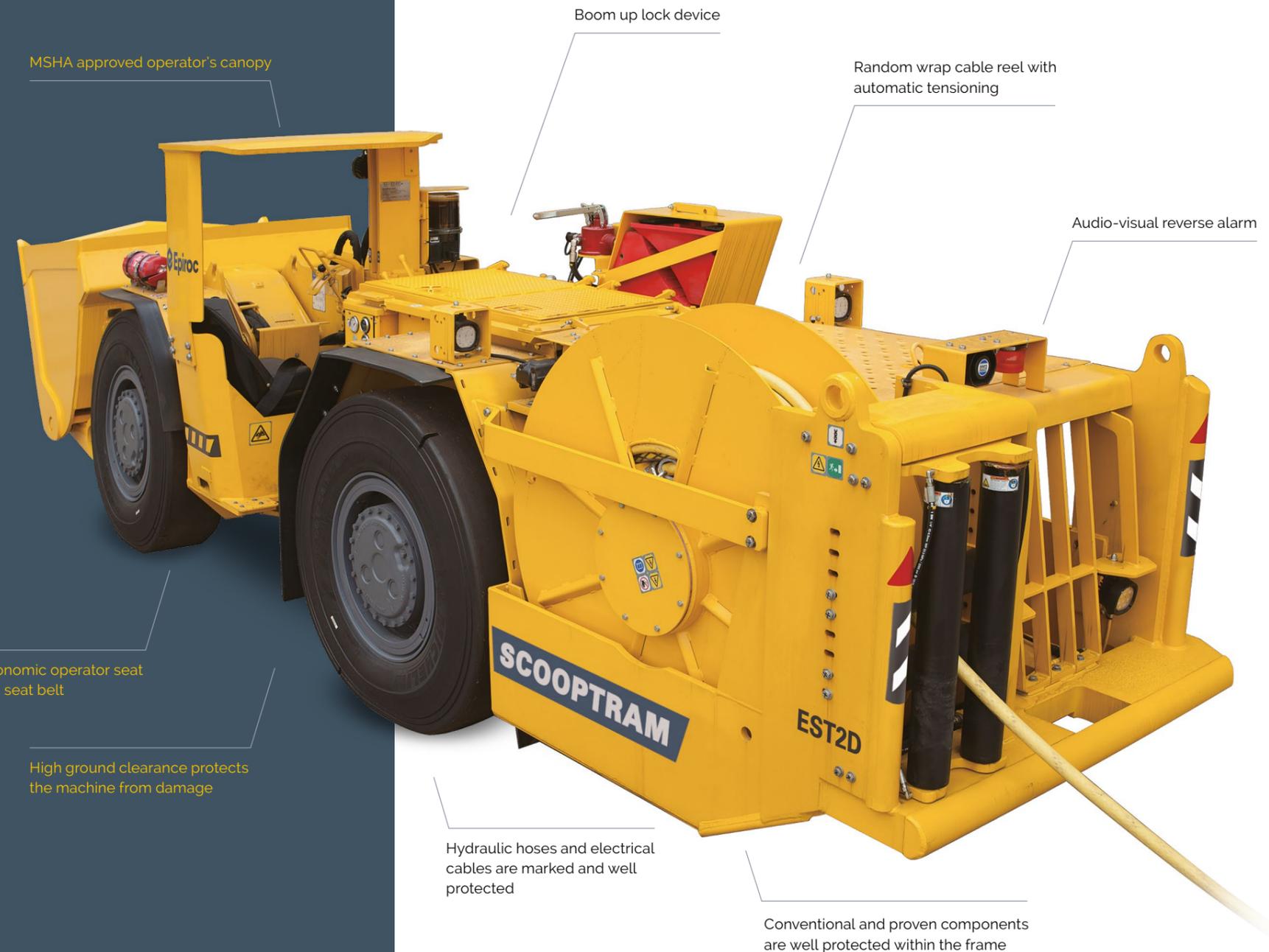
**Serviceability** The Scooptram EST2D is a service saver – it reduces maintenance time, operation cost and extends service life with easy access to all daily service points.



New strengthened cable with automatic tensioning cable reel is more wearable with extended service life.

Ground fault and ground check systems are installed to protect personnel safety.

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



MSHA approved operator's canopy

Boom up lock device

Random wrap cable reel with automatic tensioning

Audio-visual reverse alarm

Ergonomic operator seat with seat belt

High ground clearance protects the machine from damage

Hydraulic hoses and electrical cables are marked and well protected

Conventional and proven components are well protected within the frame

# Various voltages for Individual design

The Scooptram EST2D has a variety of voltages and frequencies for your selection, and Epiroc also provides various cables to meet your needs of power supply system in different applications.

## + Safety

The Scooptram EST2D is designed for high level of safety, such as the ground fault and ground check systems installed to protect personal safety in the mine.

## + Comfort

Side seated operator position for efficient bi-directional operation ensures wide visibility. Ergonomic operator seat with safety belt provides comfort during a full work shift.

## + Convenience

ABB electric motor with overload protection and onboard start applies to various voltages and electrical frequencies; Random wrap cable reel with automatic tensioning is also available for various cable and matches to the mine electric systems.

## 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*	3 629 kg
Breakout force, hydraulic	9 316 kg
Breakout force, mechanical	6 000 kg
*Tramming capacity with EOD bucket 3 200 kg.	
Motion times	
Boom raising	4.3 sec
Boom lowering	3.5 sec
Dumping	77 sec
Weights (Standard empty vehicle)	
Approximate weight	13 000 kg
Axle load, front end	5 960 kg
Axle load, rear end	7 040 kg

### Engine

ABB Electric Motor	3 phase, 50 Hz and 60 Hz
Power rating	56 kW / 75 hp
Motor overload protection	
On board start system	
Ground fault and ground check system	

### Transmission

Full power shift, 3 speeds forward and reverse, integral converter, single stage	●
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

Hydraulically applied spring released; fully enclosed wet discs at each wheel end	●
Parking and emergency: spring applied, hydraulically released, multiple wet discs, built into transmission	●
Service brake: LCB	●
Service/ parking/emergency brakes: SAHR	○

### Tyres

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 MSHA approved	●
Side seated operator for bi-directional operation and maximum visibility	●
Ergonomic operator seat with seat belt	●

### Hydraulic system

Heavy duty gear type pumps	●
System pressure: 11.4 MPa	●
Hydraulic tank capacity: 144 litres	●
Filtration, suction line: 25 µm	●
Manual hydraulic tank fill pump	○
Steer cylinder: chrome plated stem, 1 × 125 mm diameter	
Hoist cylinder: chrome plated stems, 1 × 180 mm diameter	
Dump cylinder: chrome plated stems, 1 × 180 mm diameter	

### Control system

Audio-visual reverse alarm	●
Monostick steering control	●
Steering wheel	○
Daul lever dump and hoist control	●
Low hydraulic oil level warning	○
Blockout 3rd gear	○

### Electrical system

System voltage: start & accessories, 24 V	●
Isolating switch lockout	●
Electrical hydraulic tank fill pump	○
Flash lights	○
Driving lights Halogen: 6 × 70W	●
Shielded trailing cable	○
Driving lights LED: 6 × 1 800 lumen, 22 W	○

### Cable reel

Random wrap with automatic tensioning	●
Automatic brake application near end of cable	●

### 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	○
Handheld fire extinguisher	○
Ansul manually activated fire suppression system with engine shut down	○
Dump cylinder rod protector	○
Tool box	○

### 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	○

## Technical Specifications

### 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	30.0
Ratio	Grade					1:12	1:10	1:8	1:7				1:5	1:4
km/h	1st gear	2.6	2.5	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.4	2.4	2.3	2.2
	2nd gear	5.3	5.2	5.1	5.0	4.9	4.8	4.7	4.6	4.4	4.2	4.1	3.5	2.3
	3rd gear	8.9	8.8	8.5	8.1	7.6	7.1	6.3	5.5					

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	30.0
Ratio	Grade					1:12	1:10	1:8	1:7				1:5	1:4
km/h	1st gear	2.6	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.4	2.3	2.3	2.2	2.1
	2nd gear	5.2	5.1	5.0	4.9	4.8	4.6	4.3	4.1	3.9	3.6	3.2		
	3rd gear	8.9	8.5	8.1	7.5	6.6	5.7							

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

### Cable specification

Cable and reel		Maximum cable length (m) based on voltage											
Cable size/dia. mm	Reel dia. mm(ft)	380V, 50Hz	400V, 50Hz	415V, 50Hz	440V, 50Hz	440V, 60Hz	460V, 60Hz	480V, 60Hz	550V, 50Hz	575V, 60Hz	660V, 50Hz	1000, 50Hz	
35 mm <sup>2</sup> / 26.4	1291(48)	79	79	79	110	110	130	130	130	130	130	130	
	1371(54)	79	79	79	110	110	130	130	175	175	175	175	
50 mm <sup>2</sup> / 30.5	1291(48)	100	100	100	100	100	100	100	100	100	100	100	
	1371(54)	100	100	100	130	130	130	130	130	130	130	130	

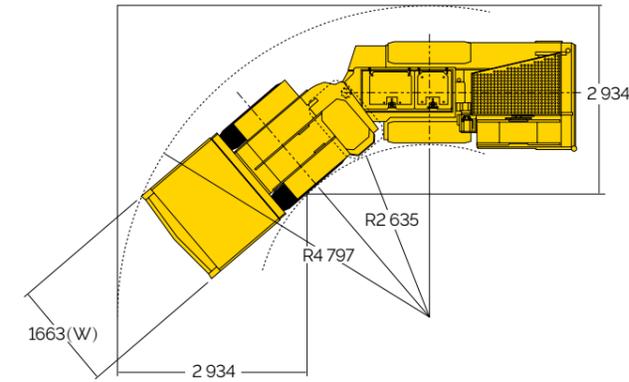
## Measurements

### Dimensions

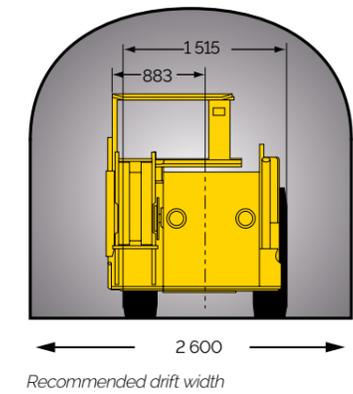
- Turning angle +/-40.5°
- All dimensions shown are based on standard vehicle configuration with 27 mm tyre deflection, unloaded
- All dimensions are shown in millimetres

## Technical Specifications

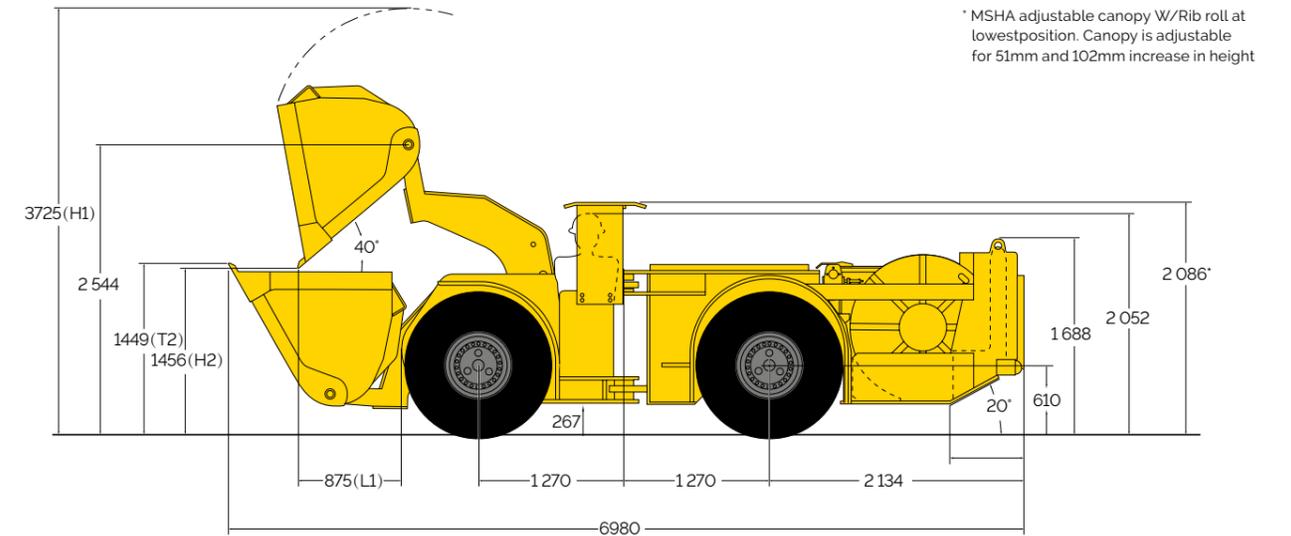
### Turning radius



### Rear view



### Side view



### Bucket Data

	STANDARD								EOD			
		1.3	1.5	1.7	1.9	2.1	2.3	2.5	1.1	1.5	1.8	1.9
Volume, nominal heaped (m <sup>3</sup> )		1.3	1.5	1.7	1.9	2.1	2.3	2.5	1.1	1.5	1.8	1.9
Maximum material density (t/m <sup>3</sup> )		2.8	2.4	2.1	2.0	1.7	1.6	1.5	3.3	2.4	2.1	2.0
Width, bucket (mm)	W	1663	1663	1663	1663	1663	1663	1663	1666	1549	1662	1662
Tramming position: Axle centerline to bucket lip (mm)	T1	2106	2229	2254	2306	2414	2415	2442	2301	2279	2370	2420
Tramming position: Ground to bucket lip (mm)	T2	1274	1315	1368	1449	1372	1515	1580	1532	1531	1534	1534
Reach dimension (mm)	L1	726	751	802	875	900	1042	1042	1041	1070	1088	1151
Raised position: Back height, max. (mm)	H1	3470	3586	3669	3725	3816	3838	3885	3635	3743	3775	3902
Raised position: Bucket tip, height (mm)	H2	1615	1546	1518	1456	1386	1372	1275	1465	1518	1446	1461

# 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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