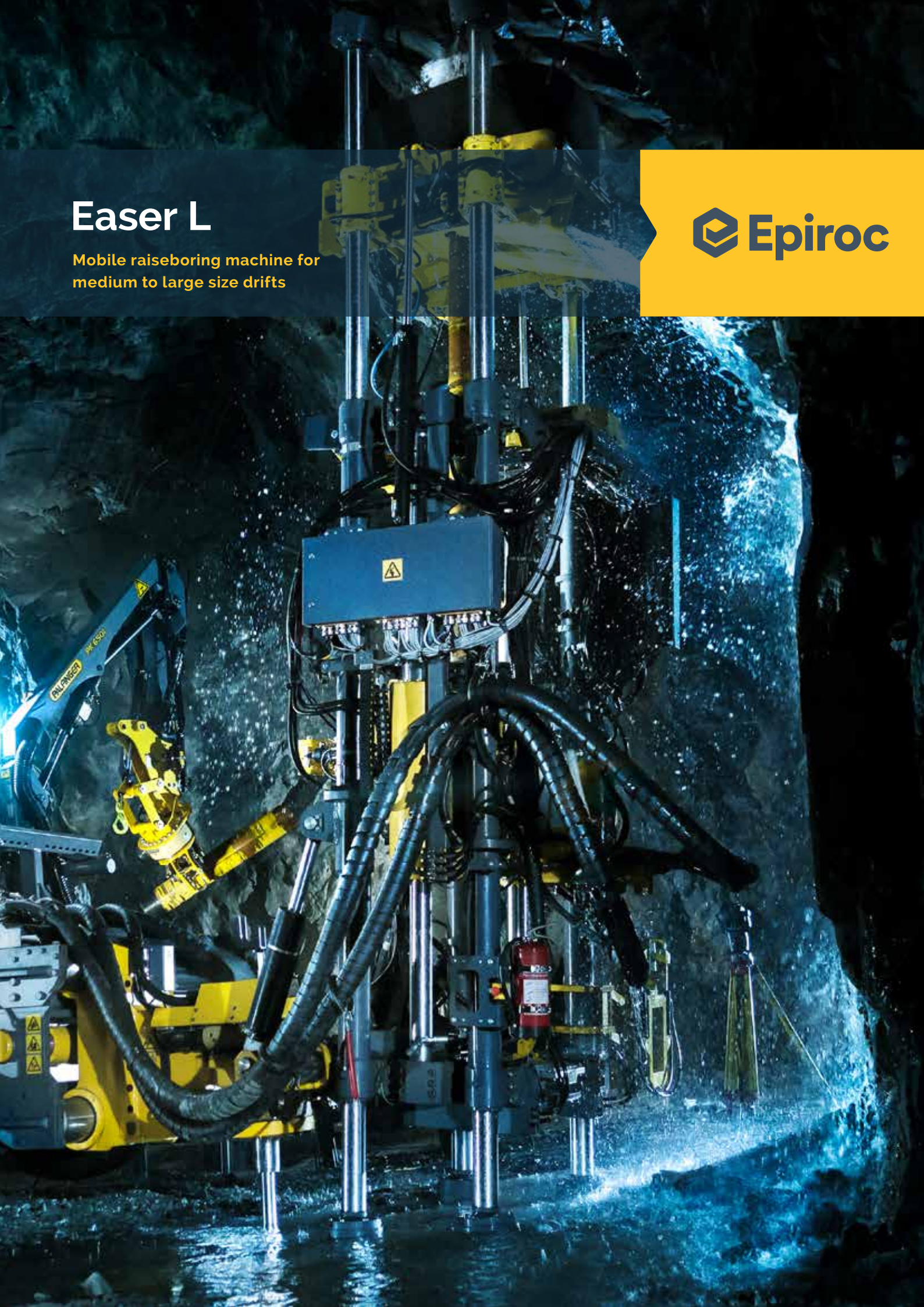


# Easer L

Mobile raiseboring machine for  
medium to large size drifts



# Versatile raiseboring rig

Designed to drill opening holes in block cave, sub level caving and sub level stoping mines, this versatile raiseboring rig can also be used for precondition holes, pastefill tube holes and media holes. The rig works in drifts from 5.0x5.0 to 6.0x6.0 m. When drilling with a 750 mm diameter reamer, the Easer L can drill conventional holes up to 200 m and box holes and down reaming holes up to 60 m. The Easer L has the capability to drill angled holes in any direction with a minimum range of 90°-60° from horizontal.

## ⊕ Main benefits

- High versatility** with both upwards and downwards drilling, but without the need of a concrete platform
- High productivity** with significantly less risk of "freezing" the ground thanks to the large diameter of the drill hole
- High accuracy** with less than 1% hole deviation thanks to the mechanical rock excavation method



Integrated muck chute

Remote controlled crane for easy pipe handling

Mine adapted carrier with articulated steering, four wheel drive and low emission turbo charged diesel engine

Hydraulic wrenching system

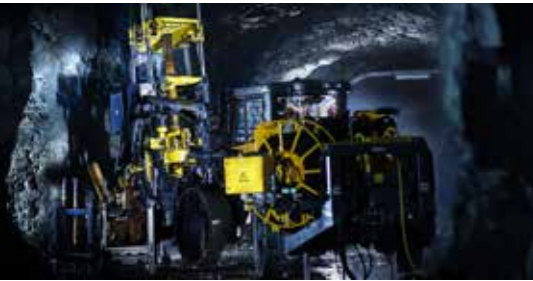
# As easy as that

The name Easer is derived from the expression "ease off", meaning to take off or release pressure, which is used in reference to the blast hole into which rock expands during blasting.



## + Safety

The Easer is designed to keep a high level of safety, one example of that is the radio remote crane installed to handle drill pipes. No manual labor is required with the drill pipes, stabilizers or the reamer. All moving and lifting is done with the crane within an area of 4 meters radius.



## + Versatility

No site preparation is necessary, and all equipment except the drill rods, are part of the carrier. In addition, and most importantly, Easer is wheel-bound, making it exceptionally easy to move to wherever it is needed in the mine.



## + Epiroc RCS

As early as 1998, Epiroc introduced its Rig Control System (RCS) – a computerized control system for drilling rigs that stunned the market. More than 3 000 RCS rigs are currently in operation the world over. Long experience and an ongoing dialogue with customers have resulted in increasingly sophisticated functions – with expertise that makes Epiroc uniquely qualified to drive development in the industry.



## 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

### Features

#### Rotation system

- Radial piston motor
- Hydrostatic drive system
- Gear box ratio 3.75:1

#### Drive head

- Floating drive box with DI22 thread
- Position sensor and gauge

#### Gearbox lubrication

- Standalone lubrication system 30 l
- Filtration 16 microns
- Oil cooled via hydraulic system

#### Pipeloader

- Swing in/out

#### Crane

- Lifting capacity 1 300 kg
- Gripper arm
- Radio remote control
- Built in overload protection

#### Wrench system

- Drive head
  - Semi automatic
- Work table
  - Sliding work table doors

#### Stingers

- 4x roof stingers 1 400 mm stroke
- 4x floor stingers 1 300 mm stroke

#### Muck chute

- Extension 800 mm
- Water nozzles

### Control system

Epiroc RCS (Rig Control System)	●
Angle reading	●
Auto make up log	●
Net force control	●
Bailing pressure supervision	●
MWD (Measure While Drilling)	○
RRA (Rig Remote Access)	○
Remote controlled camera on tripod with monitor in cabin	○
Certiq professional	○

### Water system

Cooling water 60 L/min at 25°C	
Minimum water inlet pressure 2 bar	
Water booster pump on board	●
Water pressure gauge	●
Water hose reel, including water hose	○

### Electrical system

Total installed power 173 kW	●
Main motors <ul style="list-style-type: none"> <li>- Rotation 110 kW</li> <li>- Aux circuit 55 kW</li> </ul>	●
Voltage 400-1 000 V	●
Frequency 50 or 60 Hz	●
Power requirement 227 kVA	
Starting method <ul style="list-style-type: none"> <li>- Rotation motor Star Delta (Y/D) start</li> <li>- Aux motor Direct Online (DOL) start</li> </ul>	●
Transformer 8kVA	●
Extra transformer 3-phase -15kVA (230/400V outlet)	○
Electronic overload protection for electric motors	●
Digital volt/ampere meter in electrical cabinet	●
Stainless steel electrical enclosure (A-cabinet)	○
Phase fault indicator	●
Earth fault relay	●
Battery charger	●
Cable reel with limiting switch	●
Electrical cable (Buflex)	○
Plug	○
Connector	○
Socket	○
Switch gear	○

### Carrier

Deutz engine TCD2012LO6 2V (155kW)	●
Deutz engine TCD6.1 L06 4V (180kW)	○
Engine heater	○
Hot climate tramping kit	○
Articulated ±38° steering angle	●
Heater for hydraulic oil tank, electrical motors and diesel engine	○
Four wheel drive	●
Electrical system 24 V	●
Batteries 2x125 Ah	●
Automatic differential lock on front axle, limited slip	●
Tyres, 14.00 R24	●
Tramping light 10x22W	●
Working light 4x150 W + 2x70 W spotlights + 1x22 W on crane	●
Fuel tank volume 175 l	●
Central lubrication system	●
Fire extinguisher	○
Fire suppression system ANSUL - manual release	○
Fire suppression system ANSUL - automatic release (checkfire)	○
Fire suppression system ANSUL - automatic release (CO <sub>2</sub> )	○
Fire suppression system FORREX - automatic release (CO <sub>2</sub> )	○
Rig washing kit	○
Rig alignment laser	●
Brake lights	●

# Technical specifications

● - Standard ○ - Option

## Weight

Gross weight	37 500 kg
Operating weight	37 100 kg
Drilling unit side	27 140 kg
Engine side	9 820 kg

## Recommended cable sizes and lengths

340-400 V	185 mm <sup>2</sup>	90 m
660-690 V	95 mm <sup>2</sup>	150 m
1 000 V	50 mm <sup>2</sup>	200 m

Recommendations are given for surrounding temperature of 40°C.

## Performance

Raise diameter	Boxhole	750 mm
	Down reaming	750 mm
Raise length	Boxhole	60 m
	Down reaming	60 m
Maximum torque	Reaming	40 kNm
	Break out	50 kNm
	Pilot	20 kNm
Traverse rate	Fast traverse	2 m/min
	Feed rate	2 m/min
Stroke	1 724 mm	
Reaming thrust at 330 bar	740 kN	
Bailing water	400 l/min at 25 bar	
	750 mm • 200m	
Conventional drilling	11 m • 120 m	
	14 m • 30 m	

## Cabin options

Cabin body made of stainless steel	○
Cabin lift and tilt system	○
Front window 22 mm	○
Heating function for air condition (water transferred)	○
Spot light: 70 W left side	○
Spot light: 70 W right side	○
Reversing camera with monitor	○
Protection bars, front window	○

## Miscellaneous options

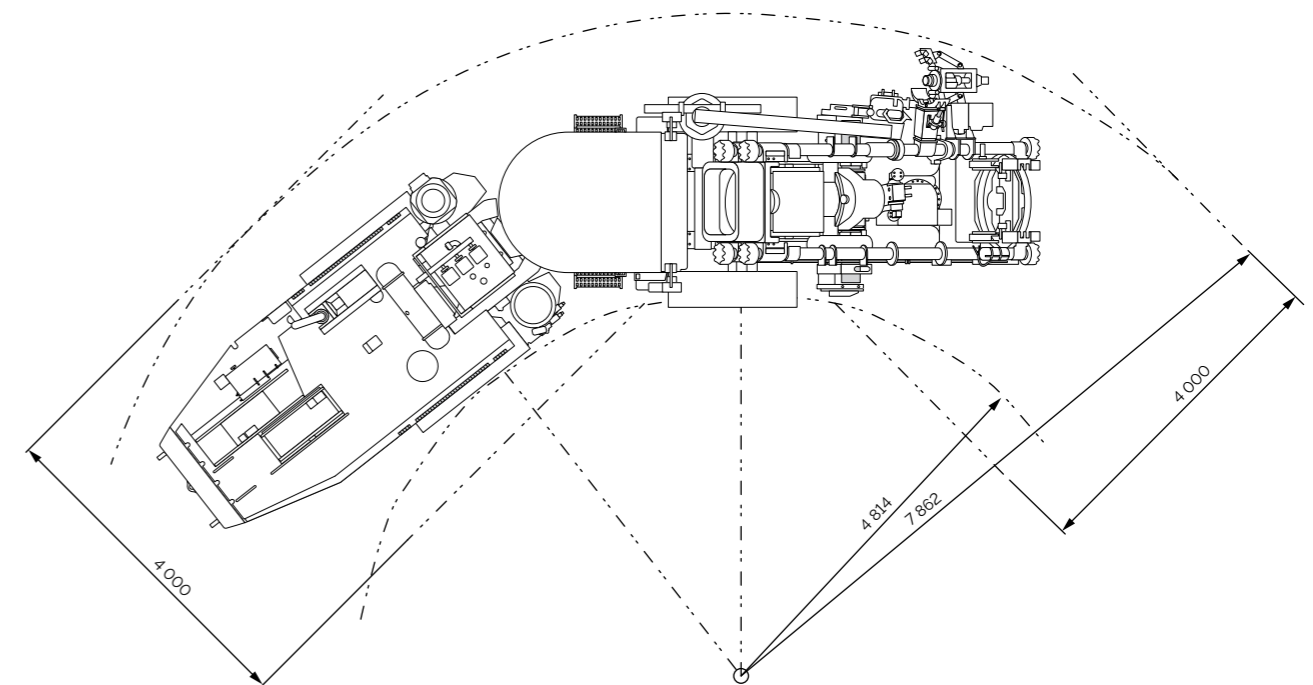
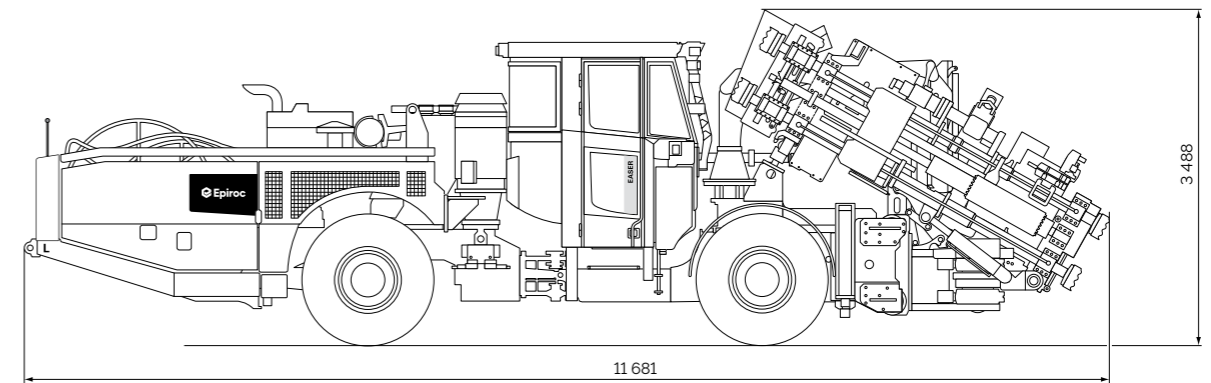
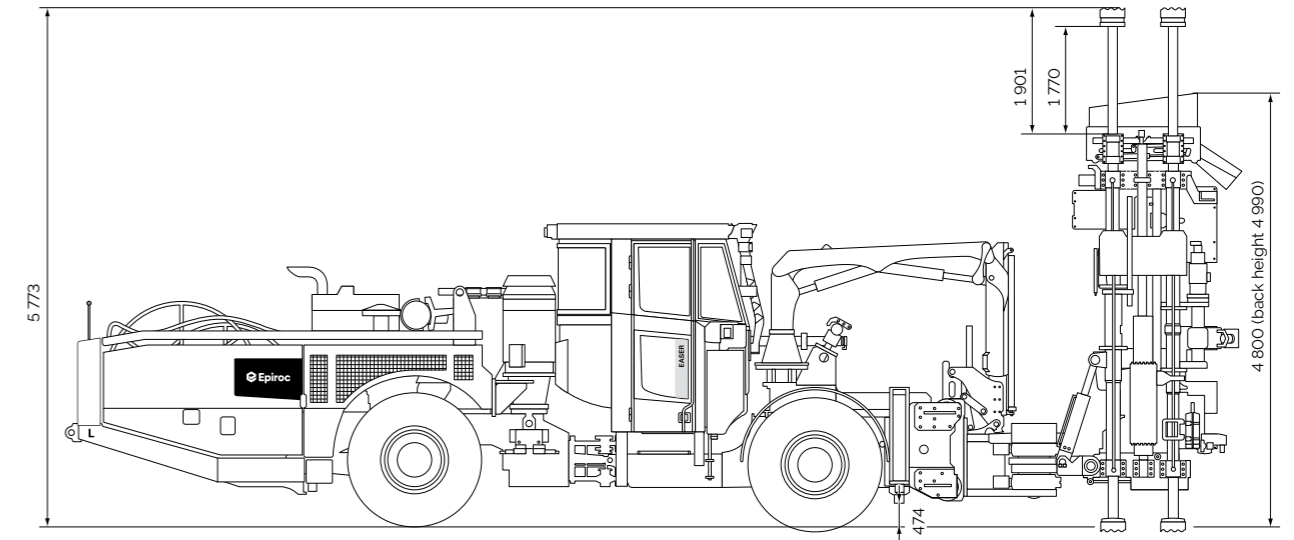
Bit breaker box 9°	○
Starter bushing	○
Automatic lubrication for drilling and positioning unit	○
Nr-Cr plated pistons rods (limited selection on request)	○

## Dimensions

Width	2 526 mm	
Height tramming	3 467 mm	
Length tramming	11 681 mm	
Ground clearance	250 mm	
Turning radius outer/inner	4 814/7 862 mm	
Drill pipe	Diameter	203 mm
	Length	1 219 mm
	Thread	6-3/4" DI22
Pilot hole diameter	229 mm	

# Technical specifications

Dimensions in millimeters.



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