

# Simba 1354 Long-hole drilling rig

Hydraulic production drill rig for long-hole mining, medium-to-large hole diameter 76-178 mm.



# Giant, bearable, intelligent and operation friendly

The Simba 1354 is popular in medium-drift mining for long-hole production drilling application. The sturdy carrier supports heavy-duty drill tools for the hole ranging from 76-178 mm. The intelligent drilling system EDS 18 and the angle reading system offer easy operation on versatile positioning unit to adapt to various drilling methods.

## + Main benefits

**Bearable frame** The prestigious frame of the carrier has been successfully applied on many Epiroc rigs, and has established the fame of simple and safe operation.

**Versatility** The Simba 1354 with versatile positioning unit and water-mist offers 360° ring drilling and parallel drilling within the width of 3 m. The powerful COP2550UX+ series rock drill with back hammer function improves your productivity in big hole drilling.

**Easy operation and maintenance** The operation panel and control system are widely applied on Epiroc rigs, which bring much convenience for the operator. The design concept of visible components offers easy trouble shooting, regular maintenance and monitoring.

**ITH option** In-The-Hole hammer, is particularly for deep and straight production drilling, for the hole diameter up to 110-178 mm.



A precise drilling begins at stable carrier, which provides strong guarantee for long hole drilling.



Digitized angle reading system helps operators to fulfill more accurate hole angle and depth.



Maintenance-friendly design makes the service work safe and easy. All service points are reachable from ground level



The canopy is FOPS approved for safety

360° rotary device

The rod handling system increases efficiency and relieves heavy lifting work

Angle reading system for accurate control

Mobile control panel keeps the operator at a safe distance from the drilling area

# Support your further requirements in production drilling

The Simba 1354 with various of rock drill options of COP 1838+, 2550UX+ and ITH kit offers various ranges of hole diameters to meet your further requirements either in different applications, or for deep hole drillings.

## + Powerful COP 2550UX+ rock drill with back hammer

The COP 2550UX+ rock drill has a built-in hydraulic extractor unit for use in the event of jamming in particularly bad rock conditions. A separate flushing head in front of the extractor unit reduces the risk of water working its way into the percussion mechanism.

## + 360° Drilling

The Simba 1354 equipped with water-mist system is capable of both upward and downward drilling, bringing versatile drilling patterns for your needs.

## + Rod handling system

The mechanized rod handling system relieves the operator from heavy lifting work and is therefore an essential feature for maintaining high productivity.

## 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 A - Simba 1354 B - Simba 1354-ITH

Drilling system	A	B
COP 1838+ (Max impact power 18 kW)	○	
COP 1838MUX+ (Max impact power 18 kW)	○	
COP 1838HE+ (Max impact power 19 kW)	○	
COP 2550UX+ (Max impact power 25 kW)	○	
COP 44 Gold		○
COP 54 Gold		○
COP 64 Gold		○
DHR 6HU 56-3 (Max. torque 3 900 Nm)		○
DHR 6HU 68-3 (Max. torque 5 100 Nm)		○
Water mist flushing, external water and air supply (hydraulic oil cooled by water cooler)	○	○
Water mist flushing, external water and air supply (hydraulic oil cooled by air fan)	○	○
External air supply connection for hole blowing kit	●	●
Rock drill lubrication warning kit	●	●
Thread lubrication kit	○	○

Positioning system	A	B
Feed extension 900 mm (with 4' drill steel)	○	
Feed extension 1 200mm (with 5' or 6' drill steel)	○	●
Rotary Actuator BHR 60-2 for 360° ring drilling	●	●
Sliding table BHT 150 gives 1.5 m feed parallel positioning	●	●
Pendulum arm, BHP 150 gives 1.5 m feed parallel positioning in the side walls. Adds additional 1.5 m feed parallel positioning upwards/downwards.	●	●
1 rear and 1 front stinger	●	●
2 rear and 1 front stinger	○	○
Rig Alignment Laser RAL650	●	●
Automatic lubrication for positioning unit	○	○
Central lubrication for drilling and positioning unit	●	●

Feed	A	B
BMH 200-series (BMH 2_4, BMH 2_5, BMH 2_6): 3 160 mm, 3 465 mm, 3 770 mm	○	
BMH 200-series (BMH 2_5, BMH 2_6): 3 620 mm, 3 926 mm		○
BMH 200-series (BMH 2_4X, BMH 2_5X, BMH 2_6X): 3 365 mm, 3 670 mm, 3 975 mm	○	

Water system	A	B
Min water inlet pressure 2 bar	●	●
Electric water booster pump, Lowara, FLYGT 5SV, capacity max 100 L/min at 10 bar	●	
Water injection pump, HASKEL, ATV-4, capacity 50 L/min		●
Hydraulic drive, axial piston motor, 10 cc		●
Water pressure gauge	●	●
Water flow guard	●	●
Rig washing kit with water hose and reel	○	○
Water hose reel including hose	○	○

Hydraulic system	A	B
Hydraulic pump for percussion, positioning and feed	●	●
Hydraulic pump for rotation	●	●
Pumps unloaded at start	●	●
System pressure, max 230 bar	●	●
Hydraulic oil tank volume, 215 L	●	●
Low oil level indicator including shut down	●	●
Oil temperature gauge	●	●
Hydraulic oil thermostat	●	
Water/oil cooler in stainless steel	●	●
Filtration 10 µm	●	●
Oil filter indicator	●	●
Mineral hydraulic oil	●	●
Electrical hydraulic oil filling pump	●	●
Ni-Cr plated piston rods (limitations exist)	●	●

Electrical system	A	B
Total installed drilling power 70 kW (main motor 55 kW)	●	
Total installed drilling power 59 kW (main motor 55 kW)		●
Voltage 380-1 000 V	●	●
Frequency 50-60 Hz	●	●
Starting method: star/delta (380-690 V), direct (1 000 V)	●	●
Thermal overload protection for electric motors	●	●
Percussion hour meter on panel of electric cabinet	●	●
Digital voltmeter/amperage meter in electric cabinet	●	●
Phase sequence and earth fault indicator	●	●
Battery charger	●	●
Transformer 4 kVA	●	●
Cable reel diameter (inner/outer): 660/1 395 mm	●	●
Limit switch for cable reel with signal lamp and brake connection	●	●
Dual controls for cable reel	●	●
Cable	○	○
Plug	○	○
Socket	○	○
Connector	○	○
Switch gear	○	○
Full color 4.3-inch LCD display	●	●

Control system	A	B
Electrical Direct System, EDS 18	●	●
Basic functions such as semi-automatic drilling and antijamming included	●	●
ARI 6C angle reading system	●	●
ARI 6C angle reading system, with hole depth measurement	○	○

Air system	A	B
Lubricated air for the rock drill	●	
Compressor: Atlas Copco LE7, capacity 12 L/s at 5 400 rpm and 7 bar	●	
Air pressure gauge	●	●
Adjustable flow/pressure	●	●
Air flow guard	●	●
High and low percussion		●
HECL lubrication system with electric filling pump		●
Manual lubrication kit	○	○

# Technical specifications

● - Standard ○ - Option A - Simba 1354 B - Simba 1354-ITH

Carrier	A	B
Deutz BF4L 914, Stage II/Tier 2, 72 kW (2 400 rpm), 355 Nm (1 700 rpm)	○	○
Deutz D914 L04, Stage IIIA/Tier 3, 55 kW (2 300 rpm), 263 Nm (1 500 rpm)	○	○
Deutz TCD3.6L4, China IV, 60 kW (2 300 rpm), 358 Nm (1 600 rpm), engine after-treatment, EGR+DOC+DPF	○	○
Fixed seat for tramping, including safety belt	●	●
Articulated steering ±41°	●	●
Four-wheel drive	●	●
FOPS certified protective canopy	●	●
Hydraulic power steering system	●	●
Hydrodynamic transmission, Clark 12 000	●	●
Front axle, Dana 123	●	●
Rear axle, Dana 123, ±6° oscillation	●	●
Automatic differential lock on front and rear axles, limited slip	●	●
Tires 12.00R20	●	●
15° clearance outside axles	●	●
Front and rear hydraulic jacks	●	●
Service brakes: 2 separate circuits hydraulically applied, fully enclosed wet disc brakes	●	●
Emergency and parking brakes, SAHR	●	●
Fuel tank, volume 60 L	●	●
Electric system 24 V DC	●	●
24 V batteries 2x70 Ah	●	●
Tramming lights LED, 8x24W, 24 V	●	●
Working light on tripod, LED, 2x50W, 24 V	○	○
Joystick-controlled spotlight right, LED, 1x35 W, 24 V DC	●	●
Joystick-controlled spotlight left, LED, 1x35 W, 24 V DC	○	○
Illuminated stairs for platform LED	●	●
Brake lights	●	●
Turning lights, Speedometer, Engine tachometer	○	○
Horn, beacon and reverse alarm	●	●
12 V DC outlet for communication radio	●	●
Central lubrication system	●	●
Handheld fire extinguisher	○	○
Fire suppression system ANSUL-Manual release	○	○
Fire suppression system ANSUL-Automatic release (Checkfire)	○	○
Spirit level for longitudinal and sideway	●	●
Gradeability at max load on drive wheels, 1.4	●	●

Documentation	A	B
Operator and service manual hard copy	●	●
Parts Book-hard copy	○	○

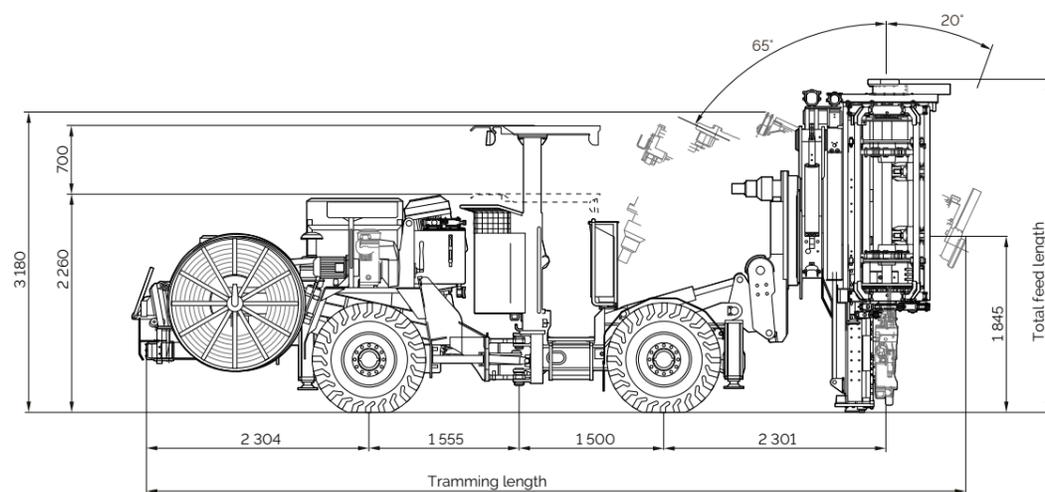
Miscellaneous	A	B
KA certificate	○	○

## Drifter rods/pipes

Rock drill	Rod/pipe	Guide tubes	Hole diameter (mm)	Rod/pipe length (mm)
COP 1838*	T38 Speedrod	N/A	64-76	1 220/1 525/1 830
	T45 Speedrod	TDS 76	76-89	1 220/1 525/1 830
	T45 Speedrod	TDS 76	76-89	1 220/1 525/1 830
COP2550UX*	T51 Speedrod	TDS 76	89-102	1 525
	TDS 76	N/A	89-102 (ST58 shank adapter)	1 830
COP 44 Gold	76	N/A	110-130	1 800
COP 54 Gold	102	N/A	134-152	1 500/1 800
COP 64 Gold	102	N/A	156-178	1 500/1 800

## Measurements

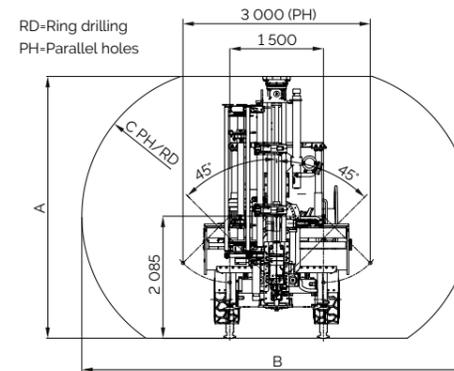
### Side view



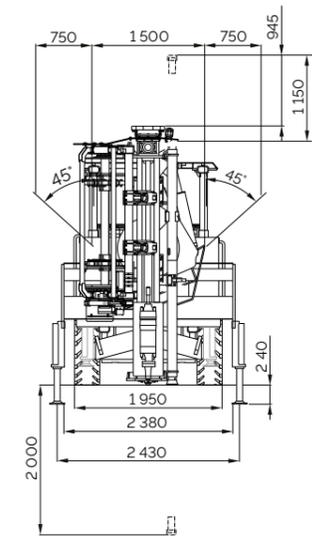
# Technical specifications

## Measurements

### Coverage area



### Front view



	BMH 214	BMH 215	BMH 216	BMH 235	BMH 236
A	3 970	4 275	4 580	4 430	4 736
A (extractor)	4 175	4 480	4 785		
B	5 270	5 880	6 490	6 190	6 802
B (extractor)	5 680	6 290	6 900		
C	1 885	2 190	2 495	2 345	2 651
C (extractor)	2 090	2 395	2 700		

Above figures are minimum dimension.

## Dimensions

Measurement	Simba 1354 (mm)	Simba 1354-ITH (mm)
Width	2 350	2 350
Length, tramping (with BMH 214/215/216)	8 209/8 486/8 763	NA/8 486/8 763
Height, tramping	3 180	3 180
Height roof up/down	2 960/2 260	2 960/2 260
Ground clearance	280	280
Turning radius outer/inner	5 440/2 890	5 440/2 890

## Recommended drift size

Feed	Rod (mm)	Min HxM (mm)
BMH 214/224	1 220	3 600x3 600
BMH 215/225	1 525	3 900x3 900
BMH 216/226	1 830	4 200x4 200

## Tramming speed

km/h	On flat ground (rolling resistance 0.05)	>12
	On incline 1:8	>4.5

## Gross weight (depending on configuration)

Rig type	Total (kg)	Boom side (kg)	Engine side (kg)
Simba 1354	17 000	12 700	4 300
Simba 1354-ITH	17 500	13 000	4 500

## Recommended cable size and length

Voltage (V)	Type	Dimension (mm <sup>2</sup> )	Diameter (mm)	Length (m)	Length ITH (m)
380-400	KA Cable	3*70+3G16	43	80	80
380-400	Rockflex	3*70+3G16	37	95	95
440-575	KA Cable	3*50+3G10	39	100	100
440-575	Rockflex	3*50+3G10	32	140	140
660-1 000	KA Cable	3*35+3G6	34	120	120
660-1 000	Rockflex	3*35+3G6	28	185	185

Recommendations are given for surrounding temperature of 40 °C and up to altitude of 2 000 m.

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