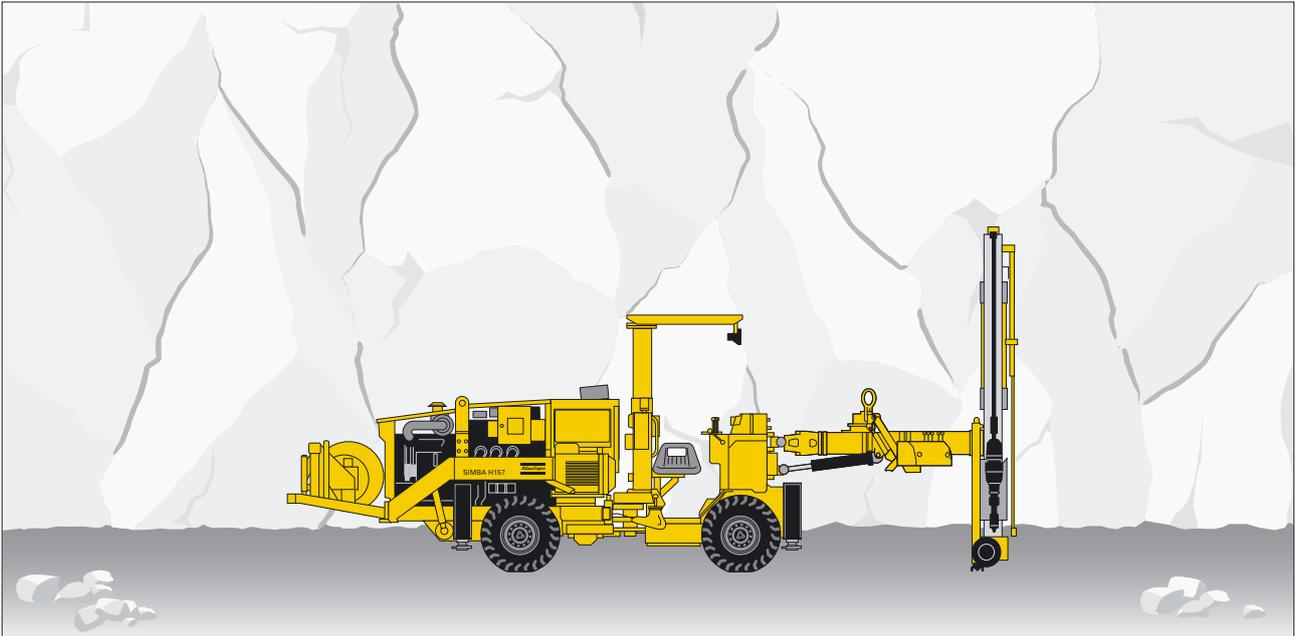


# Simba 157

## Technical specification



Production drilling rig adapted for narrow-vein mining. Production drilling with tophammer rock drill in the hole range 51–76 (89) mm. Boom-mounted drilling unit for optimized reach and flexibility in small drifts.

## Standard features

### » Rock drill

- Atlas Copco COP 1800-series
- Dual-damping system for shock wave absorption and continuous rock contact for high penetration
- Lubricated and pressurized mating surfaces giving long service intervals
- Shank adapters suitable for the given hole range

### » Drilling unit

- BMH 2000-series heavy-duty aluminium hydraulic feed
- Rear-mounted stinger
- Drill steel support for guidance during collaring and as support during manual rod handling

### » Positioning unit

- BUT 4 boom with mine-adapted, sturdy components
- Boom mounted drilling unit
- Accurate and smooth movements

### » Control system

- Direct Control System (DCS)
- Rotation Pressure Controlled feed (RPCF)
- Anti-jamming system
- Angle reading instrument, ARI 157

### » Carrier

- Mine-adapted carrier for narrow drifts with articulated steering and four-wheel drive

### » General

- Operator panel mounted under canopy
- Swingable control panel for manual rod handling
- FOPS-approved protective roof
- Electrical cable reel
- Working lights on protective roof

# Specifications

## ROCK DRILL

COP 1838ME	
Shank adapter	R32, T38, T45
Hole diameter	51–76 (89) mm
Impact power	18 kW
Impact rate	54 Hz
Hydraulic pressure, max.	230 bar
Rotation motors	Separate rotation
Rotation speed	0–210 rpm
Lub. air consump. (at 3 bar)	6 l/s
Water consumption	50 l/min
Weight	171 kg

## FEED

BMH 2800	BMH 2812	BMH 2815	BMH 2818
Total length	3,205 mm	3,529 mm	3,756 mm
Drill rod length	1,220 mm	1,525 mm	1,830 mm
Total length with extractor	3,410 mm	3,730 mm	3,960 mm

## » Positioning system

- Boom extension..... 900 mm
- Feed extension 4', 5', 6' ..... 600/750/1,200 mm
- Stinger extension..... 1,000 mm
- Feed roll-over..... 360°
- Feed rotation..... ±114°
- Feed dump cylinder..... +18/–100°
- Max. swinging angle..... ±30°
- Weight, boom only ..... 1,000 kg

## » Control system

- Direct Control System, DCS

## » Power pack

- Variable pump for percussion, positioning, feed
- Fixed pump for rotation, and water pump drive
- Pumps unloaded at start
- System pressure, max..... 230 bar
- Hydraulic oil tank, volume max/min ..... 124 l
- Low oil level indicator and shut-down
- Oil temperature gauge on oil tank
- Electric oil filling pump
- Filtration, absolute..... 16 µm
- Oil filter indicator
- Water/oil cooler, shell and tube type
- Mineral hydraulic oil

## » Electrical system

- Total installed power ..... 60 kW
- Main motors ..... 1x55 kW
- Voltage..... 380–1,000 V
- Frequency..... 50–60 Hz
- Starting method ..... star/delta (380-690 V)
- Thermal overload protection for electric motors
- Digital volt/amperage meter in electric cabinet
- Phase sequence indicator
- Earth fault indicator
- Battery charger
- Transformer..... 1.8 kVA
- Working lights, mounted on roof ..... 2x200 W, 24 V
- Cable reel

## » Air system

- Compressor ..... Atlas Copco LE3
- Capacity at 1,500 rpm and 7 bar ..... 4.4 l/s
- Hole blowing kit, external air supply

## » Water system

- Hydraulic driven water booster pump
- Capacity at 8 bar boost..... max 66 l/min
- Min water inlet pressure..... 2 bar
- Water pressure gauge
- Water flow guard

## » Carrier

- Engine ..... Deutz 4-cylinder, F4L 912W, 4-stroke prechamber
- Power rating at 2,300 rpm..... 42 kW
- Torque at 1,500 rpm ..... 198 Nm
- Fixed seat for tramming, including safety belt
- Articulated steering ..... ±40° steering angle
- Four-wheel drive
- FOPS-approved protective roof
- Hydrostatic power steering system
- Hydrodynamic transmission
- Front axle ..... DANA 171
- Rear axle..... DANA, ±7° oscillation
- Automatic differential lock on front axle, limited slip
- Tyres ..... 8.25 R<sub>x</sub>15
- Clearance outside axles ..... 15°
- Hydraulic jacks, front..... 2 extendable
- Hydraulic jacks, rear ..... 2
- Service brakes ..... 2 separate circuits
- Emergency and parking brakes ..... SAHR
- Fuel tank, volume..... 40 l
- Electric system ..... 24 V
- Batteries..... 2x12V, 75 Ah
- Tramming lights ..... 4x70 W
- Brake lights
- Central lubrication system
- Silencer
- Fire extinguisher
- Spirit levels
- Gradeability at max load on drive wheels..... 1:4
- Tramming speed on flat ground ..... 8 km/h
- Tramming speed on incline 1:8 ..... 5 km/h
- Shelf for bits and tools
- Horn
- Beacon warning lamp
- Reverse alarm

# Specifications

## DRILL STEEL

Rock drill	Hole diameter, mm	Drill rod	Shank adapter	Guide tube
COP 1838ME	51–64	R32 Speedrod	R32	TDS 45
COP 1838ME	64–76	T38 Speedrod	T38	TDS 56
COP 1838HE	76–89	T45 Speedrod	T45	TDS 64

## Optional equipment

### » Drilling system

- Water mist flushing, water oil cooler, external air supply
- Rock drill lubrication surveillance system
- Big hole drilling kit
- COP 1638, COP 1838MEX, COP 1838HE, COP 1838HEX

### » Positioning system

- Feed BMHS 2000
- Rig alignment laser RAL 650
- Central lubrication, rear part of boom

### » Power pack

- Heater kit

### » Carrier

- Fire suppression system, manual
- Catalyser

### » Electrical system

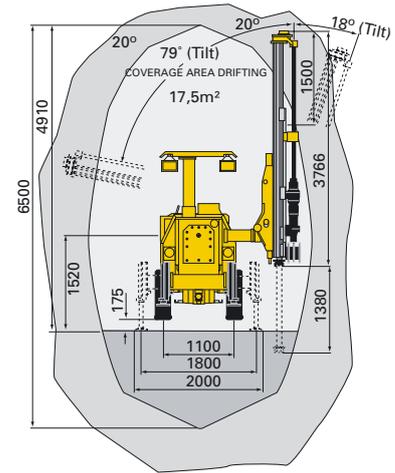
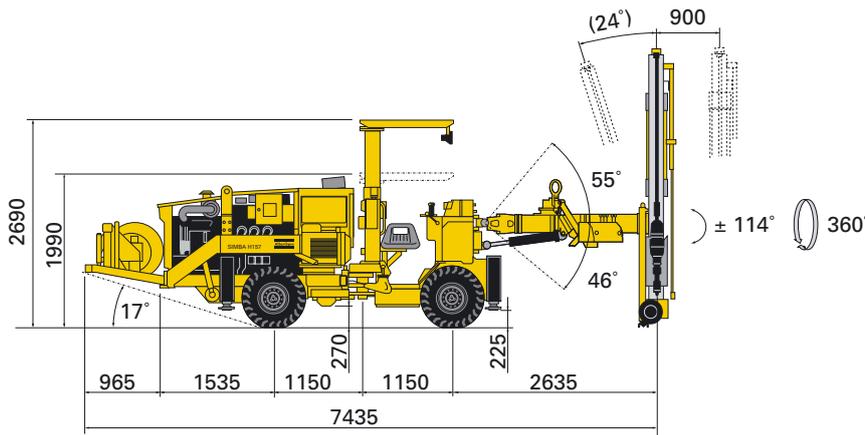
- Soft start for 400–700 V
- Electrical cable on reel, H07RN-F
- Electrical cable on reel, Buxflex
- Plug PC4
- Socket PC4
- Switch gear
- Electrics according to local standards
- CE-approved working lights, 2x500 W, 230 V

### » Miscellaneous

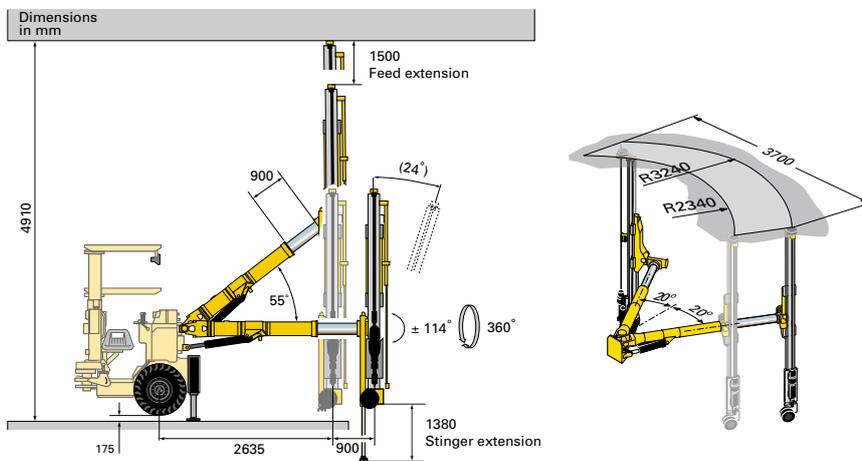
- Rod holder for extra drill rods
- Ni-Cr piston rods
- Manual spotlight

# Measurements

## SIDE VIEW



## COVERAGE AREA



### TURNING RADIUS

depending on surface

mm	Outer	4,400
	Inner	2,485

### DIMENSIONS

mm	Width	1,220
	Height tramming	1,990
	Height roof up	2,875
	Length tramming	9,460
	Ground clearance	270

### WEIGHT

gross weight

kg	Total	9,600
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### RECOMMENDED CABLE SIZE AND LENGTH

Voltage	Type	Dimension, mm <sup>2</sup>	Diameter, mm	Length, m
380–400 V	Bufler	3x50+3x10	33	85
440–700 V	RDOT	4x35	38	85
1,000 V	Bufler	3x25+3x6	26	140

Recommendations are given for surrounding temperature of 40°C.