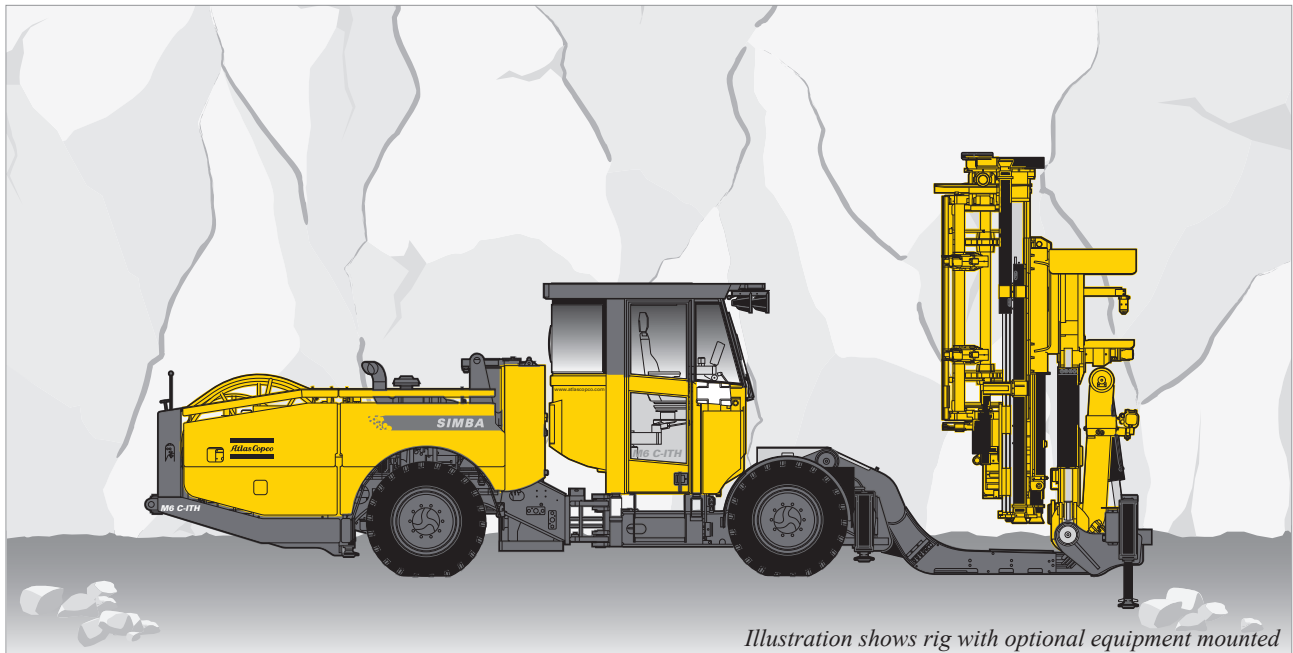


Simba M6 C-ITH

Technical specification



Production drilling rig with pneumatic in the hole hammer, ITH, for deep straight holes. The Rig Control System (RCS) provides efficient and high precision long hole drilling, and also ensures an ergonomic working environment and longer consumable life. Ring drilling with parallel holes upwards/downwards up to 3 m apart. Hole diameter 95–178 mm.

Standard features

» Rock drill

- Pneumatic in the hole hammer, ITH (hammer not supplied with rig)
- Rotation unit DHR 48H

» Drilling unit

- Mechanized rod handling system
- Feed with hydraulic two-stage cylinder
- Front- and rear-mounted stingers
- Breakout table for guidance during collaring and as support during rod handling

» Positioning unit

- Tilt, rotation and pendulum arm
- Accurate, smooth and proportional movements
- Mine-adapted, sturdy components

» Drilling system

- Rig Control System (RCS)
- Automation level: ABC Basic
- Angle reading instrument
- Rotation Pressure Controlled feed (RPCF)
- Pre-set parameters for different drilling conditions
- Hold-back pressure control

» Carrier

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

» General

- Operator panel mounted under canopy
- FOPS-approved protective roof
- Electrical cable reel
- Working lights on protective roof

Specifications

ROTATION UNIT

	DHR 48H56	DHR 48H68
Length with fixed adapter	534 mm	534 mm
Length with floating adapter	888 mm	888 mm
Torque, max.	3,900 Nm	5,100 Nm
Rotation speed	0–107 rpm	0–68 rpm
Adapter floating	API 3" Reg Box	API 3" Reg Box
Weight	164 kg	164 kg

FEED

BMH 200-series	BMH 235	BMH 236
Total length	3,200 mm	3,510 mm
Drill steel length	1,500 mm	1,800 mm
Total length with extractor	3,500 mm	3,810 mm

» Drilling unit

- Rod Handling System, RHS 27.....27+1 pipes
- Adaptable to 5' and 6' pipes
- Adaptable to TDS 76, TDS 89 (and TDS 114) drill pipes
- Mechanized drilling up to 51 m

» Positioning system

- Feed extension (with 4' drill steel) 900 mm
- Feed extension (with 5' and 6' drill steel) 1,200 mm
- Rotary Acuator BHR 60–2 for 360° ring drilling
- I-frame with pendulum arm ±1.5 m
- Stinger backward on feed BSJ 8-200
- Stinger forward on feed BSJ 8-115
- Feed dump, drilling +45° forward and -30° backward

» Control system

- Rig Control System (RCS) – versatile and upgradeable to a higher degree of automation
- Trolley-mounted control panel with colour display
- PC-card for transfer of data and storage of drill parameters
- Integrated diagnostic system
- Angle reading instrument
- Drill settings for up to five different drill bits
- Exposed components are designed and tested acc. to IP 65

» Power pack

- Hydraulic pump for rotation, positioning, feed
- Pumps unloaded at start
- System pressure, max 250 bar
- Hydraulic oil tank, volume max/min 250/200 l
- Low oil level indicator and shut-down
- Oil temperature gauge on oil tank, electronically supervised
- Smart oil leakage shut-down system
- Filtration, absolute 16 µm
- Oil filter indicator
- Water cooled oil cooler in stainless steel
- Mineral hydraulic oil

» Electrical system

- Total installed power 63 kW
- Main motors 55 kW
- Voltage 400–690 V
- Frequency 50–60 Hz
- Starting method star/delta (400–690 V)
- Electronic overload protection for electric motors
- Digital volt/amperage meter in electric cabinet
- Phase sequence indicator
- Earth fault indicator
- Battery charger
- Transformer 8 kVA
- Halogen working lights, mounted on roof 2x1,000 W
- Cable reel

» Air system

- 2-inch system
- High and low percussion
- HECL lubrication system with electric filling pump
- Air pressure gauge
- Air flow gauge

» Water system

- Water injection pump
- Capacity max 50 l/min
- Min water inlet pressure 2 bar
- Hydraulic drive, axial piston motor 10 cc
- Water pressure gauge

» Carrier

- Engine Deutz TCD 2013L04 2V
- Power rating at 2,300 rpm 120 kW (163 hp)
- Torque at 1,400 rpm 572 Nm
- Fixed seat for tramping, incl. safety belt
- Articulated steering ±41° steering angle
- Four-wheel drive
- FOPS-approved protective roof
- Hydrostatic power steering system
- Hydrodynamic transmission Clark 24000
- Front axle DANA Spicer 123/90
- Rear axle DANA Spicer 123/90, ±8° oscillation
- Automatic differential lock on front axle, limited slip
- Tyres Michelin 12.00 R24 XZM
- Clearance outside axles 15°
- Hydraulic jacks, front 2 extendable
- Hydraulic jacks, rear 2
- Service brakes 2 separate circuits (hydraulically applied, fully enclosed wet disc brakes)
- Emergency and parking brakes SAHR
- Fuel tank, volume 100 l
- Electric system 24 V
- Batteries 2 x 125 Ah
- Tramping lights 8 x 7W
- Illuminated stairs for platform
- Central lubrication system
- Silencer
- Catalyser
- Fire extinguisher
- Spirit levels one for longitudinal and one for sideways
- Gradeability at max load on drive wheels 1:4
- Tramping speed on flat ground >15 km/h
- Tramping speed on incline 1:8 >5 km/h
- Horn
- Beacon warning lamp
- Reverse alarm

Specifications

DRILL STEEL			
Rock drill	Hole diameter, mm	Drill pipe	Thread pin/box
COP 34	92–105	TDS 76	2 3/8" API REG
COP 44	110–125	TDS 76/89	2 3/8" API REG
COP 54	134–152	TDS 89 (TDS 114)	2 3/8" API REG
COP 64	156–178	TDS 89 (TDS 114)	2 3/8" API REG

Optional equipment

» Drilling system

- Floating sub

» Positioning system

- Rig alignment laser RAL 650
- Additional stinger forward on feed, BSJ 8-115 (stroke length 1,150 mm)
- Additional stinger backward on feed, BSJ 8-200 (stroke length 2,000 mm)
- Automatic lubrication for positioning system
- Central lubrication for positioning system
- Thread lubrication kit
- Rod handling system RHS 35 (up to 65 m)

» Automation

- Simba ABC Regular
- Simba ABC Total
- Drill Plan Handling
- Full Drill Data Handling
- Rig Remote Access
- Breakthrough Automatic Stop
- Text Message System
- Remote Cradle Control/Remote Feed Control
- Mine Navigation
- Void Detection

» Air system

- On-board booster compressor

» Hydraulic system

- Air-oil cooler
- Heater kit for diesel engine, electric motor and hydraulic oil tank

» Electrical system

- Soft start for 400–700 V
- Electrical cable on reel, H07RN-F
- Electrical cable on reel, Buxflex
- Plug PC4
- Plug PC5
- Socket PC4
- Socket PC5
- Switch gear
- Electrical outlet, 16 A
- Extra transformer, 15 kVA

- Extra transformer, 10 kVA
- Metal halogen working lights, 2 x 400 W
- Extra working lights, 2 x 200 W, 24 V (on tripod)
- Extra working lights, 2 x 500 W, 230 V (on tripod)
- Electrics according to local standards

» Cabin

- FOPS-approved cabin:
 - Fixed seat
 - CD-changer
 - Boot washing kit
 - Air conditioning unit without heating
- Stainless steel cabin
- Air conditioner with heating
- Front window, 24 mm
- Swingable operator seat
- FOPS-approved grizzly bar for front window
- Cabin lift/tilt system, 375 mm/15°
- Reversing camera with monitor
- Joystick controlled spotlight

» Carrier

- Fire suppression system, manual
- Fire suppression system, automatic (check-fire)
- Fire suppression system, full automatic
- Particle filter UNIKAT
- Brake lights
- L-carrier
- Solid tyres
- Deutz TCD 2013 L06 2V, 175 kW (238 hp)

» Miscellaneous

- Manual rig washing kit
- Manual lubrication kit
- Hose and cable guide at water/cable reel
- Link-one parts book
- Remote operating kit
- Special paint
- Additional panel
- Manual spotlight

Measurements

SIDE VIEW

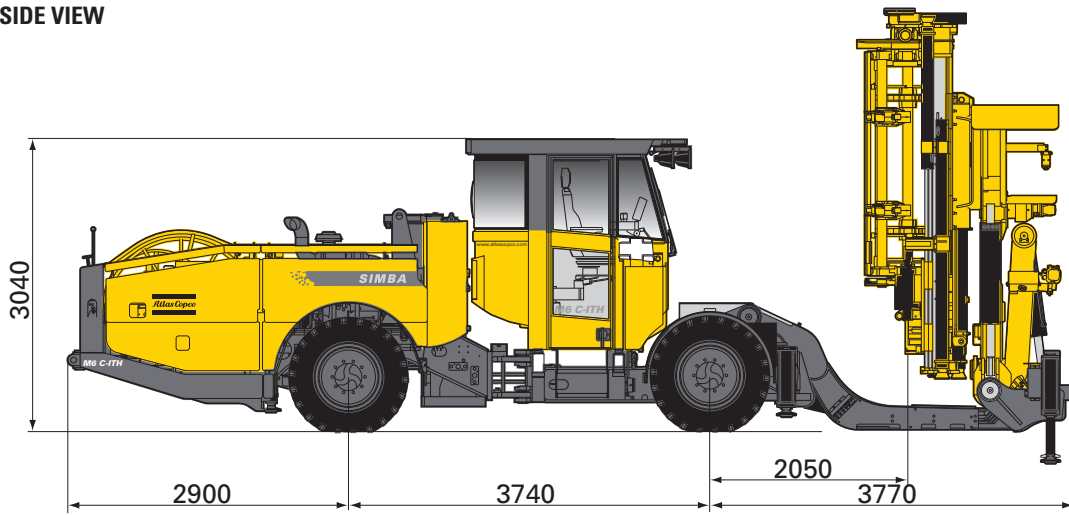
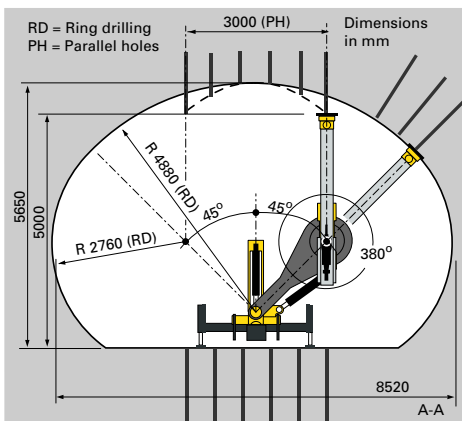
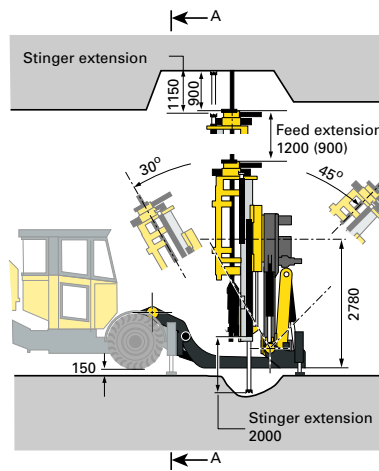


Illustration shows rig with optional equipment mounted

COVERAGE AREA



M6



TURNING RADIUS

depending on surface		
mm	Outer	6,300
	Inner	3,800

DIMENSIONS

mm	Width	2,210
	Height tramping	3,200
	Height roof up	2,945
	Length tramping	10,500
	Ground clearance	205

WEIGHT

gross weight		
kg	Total	20,900
	Boom side	14,500
	Engine side	6,400

RECOMMENDED CABLE SIZE AND LENGTH

Voltage	Type	Dimension, mm ²	Diameter, mm	Length, m
400 V	H07RN-F	4G150	67	60
440 V	H07RN-F	4G120	60	75
440 V	Buflex	3x1150+3G35	52	100
460-500 V	H07RN-F	4G120	60	75
460-500 V	Buflex	3x150+3G25	52	100
500-550 V	H07RN-F	4G95	55	90
500-550 V	Buflex	3x120+3G25	46	135
660-700 V	H07RN-F	4G70	49	110
660-700 V	Buflex	3x95+3G16	42	155
1,000 V	Buflex	3x50+3G10	32	275

G = Protection yellow/green
Recommendations are given for surrounding temperature of 30°C.