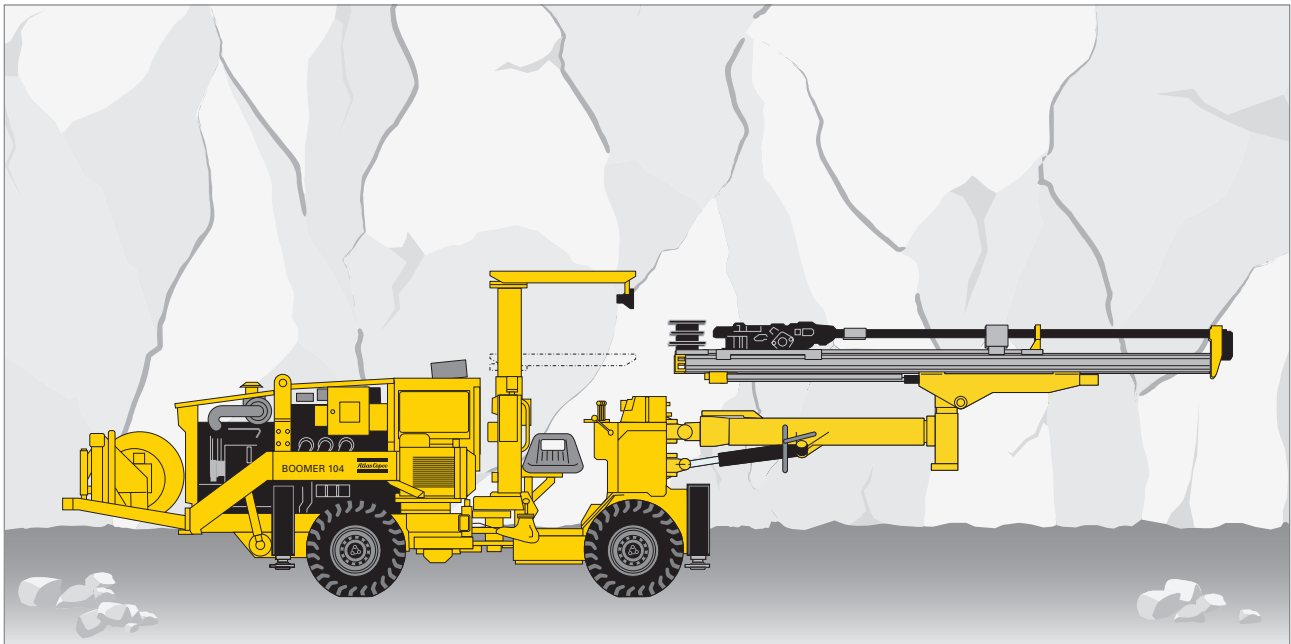


Boomer 104

Equipped with a COP 1638 or COP 1838ME rock drill



Direct controlled hydraulic tunnelling and mining rig with one BUT 4B boom and either a COP 1638 or a COP 1838ME rock drill for drilling narrow tunnel cross sections.

Standard features

» Rock drill

- COP 1638 or COP 1838ME rock drill with dual-damping system for optimal drill consumable life
- Pressurized housing and mating surfaces to reduce internal contamination of the rock drill

» Hydraulic boom

- BUT 4B heavy-duty boom for fast and flexible positioning between holes

» Hydraulic feed

- BMH 2800 heavy-duty aluminium feed with high bending and torsional resistance for maximum durability
- Snap-on stainless steel sleeves and polymer contacts

» Control system

- Hydraulically controlled drilling system which incorporates the anti-jamming function RPCF (Rotation Pressure Controlled Feed force)

» Carrier

- Sturdy, articulated carrier with four-wheel drive
- Powered by a 4-cylinder diesel engine
- Four jacks for stable set-up

» General

- FOPS-approved telescopic protective roof
- Cable reel
- Electrically driven compressor
- Hydraulically driven water booster pump
- Working lights

Specifications

ROCK DRILL

	COP 1638	COP 1838ME
Shank adapter	R32/R38/T38	R32/R38/T38
Height over drill centre	88 mm	88 mm
Length without shank	1 008 mm	1 008 mm
Impact power	16 kW	18 kW
Impact rate	60 Hz	60 Hz
Hydraulic pressure	200 bar	230 bar
Rotation system	Separate rotation	Separate rotation
Rotation speed	0–340 rpm	0–340 rpm
Rotation torque, max	640 Nm	640 Nm
Lub. air consump. at 2 bar	6 l/s	6 l/s
Water consumption	1.1 l/s	1.1 l/s
Weight	170 kg	170 kg
Sound level	<106 dB(A)	<106 dB(A)

FEED

BMH 2000-series	BMH 2825	BMH 2831	BMH 2837
Total length	4 087 mm	4 677 mm	5 287 mm
Drill rod length	2 500 mm	3 090 mm	3 700 mm
Hole depth	2 225 mm	2 814 mm	3 405 mm
Weight incl. rock drill	455 kg	470 kg	490 kg
Feed force	15 kN	15 kN	15 kN

» Boom

- Boom BUT 4B
- Feed extension 1 500 mm
- Boom extension 900 mm
- Feed roll-over 360°
- Feed rotation ±114°
- Feed dump cylinder +18°/-79°
- Max. swinging angle ±30°
- Weight, boom only 1 042 kg

» Air System

- Compressor Atlas Copco LE3
- Capacity, max at 7 bar 4.4 l/s
- Air pressure gauge

» Water System

- Hydraulic driven water booster pump CR5-13
- Water booster pump max capacity at 7 bar 80 l/min
- Min. water inlet pressure, bar 2 bar
- Water flow guard

» Control system

- Direct hydraulic Control System, DCS
- Basic functions such as anti-jamming included

» Electrical system

- Total installed power 59 kW
- Main motors 1 x 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 operator display
- Digital voltmeter/amperage meter in electric cabinet
- Phase sequence indicator
- Earth fault indicator
- Battery charger
- Transformer 1.8 kVA
- Cable reel, inner/outer diameter, mm 500/750

» Hydraulic system

- Hydraulic pumps 1 unit
- Pumps unloaded at start
- System pressure, max 150–230 bar
- Hydraulic oil tank, volume max/min 124 l
- Low oil level indicator
- Electric oil filling pump
- Oil filter indicator
- Water cooled oil
- Filtration 16 µm
- Mineral hydraulic oil
- Rock drill lubrication warning kit

» Carrier

- Deutz 4-cylinder, F4L 912W, 4 stroke prechamber diesel engine
- Power rating at 2 300 rpm 42 kW (57 hp)
- Torque at 1 550 rpm 198 Nm
- Articulated steering ±40° steering angle
- Catalyser
- Silencer
- Fixed seat for tramping with safety belt
- Four-wheel drive
- Hydrostatic power steering system
- Hydrostatic transmission
- Front axle Dana 171
- Rear axle Dana 171, ±7° oscillation
- Tyres 8.25 x R15
- 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 60 l
- Electric system 24 V
- Batteries 2 x 70 Ah
- Tramping lights 4 x 70 W
- Working lights 2 x 200 W, 24 V
- Central lubrication system
- Spirit level
- Fire extinguisher
- Gradeability at max. load on drive wheels 1:4
- Horn, beacon and reverse alarm

DRIFTER RODS

Dimension		Min. hole diameter
mm	R32-H35-R38	45
	R32-H35-T38	45
	R32-H35-T38 Speedrod	45
	SR35-H35-R38 Speedrod	45
	SR35-H35-T38 Speedrod	45
	SR35-H35-T38	45
	SR35-R39-T38	45
	R32-R39-T38	45
	SR35-R39-T38	45
	SR35-R39-T38 Speedrod	45

SHANK ADAPTERS

Thread		Diameter	Length
mm	R38	38	435
	T38	38	435
	R32	38	525
	T38*	38	525

*Intended for RAS and extension drilling with BSH 110

COUPLINGS

Thread		Diameter	Length
mm	R38	55	170
	T38	55	190

EXTENSION RODS FOR INJECTION DRILLING/RAS

Dimension		Min. hole diameter
mm	Rnd 32 Speedrod	51
	Rnd 38 Speedrod	64

Optional equipment

» Rock drill/Drilling system

- Big hole drilling system
- Hole blowing kit with external air supply
- Water mist flushing with external water and air supply

» Feed

- BMHT 2800-series, with wider 1 510 mm front axle, max 3 700 mm drill rod

» Boom

- Feed Angle Measurement system (FAM 1)

» Protective roof

- Working lights halogen, 2 x 500 W, 230 V
- Spot light left and/or right side, 70 W
- Outlet for communication radio, 12 V

» Hydraulic system

- Hydraulic oil thermostat
- Heater kit for oil tank

» Carrier

- Fire suppression system ANSUL manual or checkfire
- Solid tyres

» Cabin

- FOPS-approved cabin, noise level <85 dB(A), including:
 - Air conditioning unit
 - Fixed seat

» Electrical system

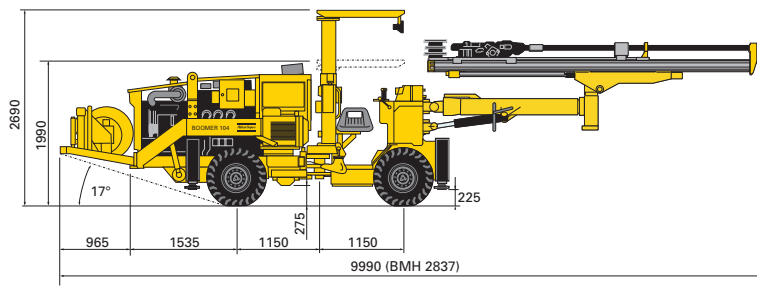
- Electric cable type H07RN-F or Buxflex
- Plug for cable
- Switch gear

» Miscellaneous

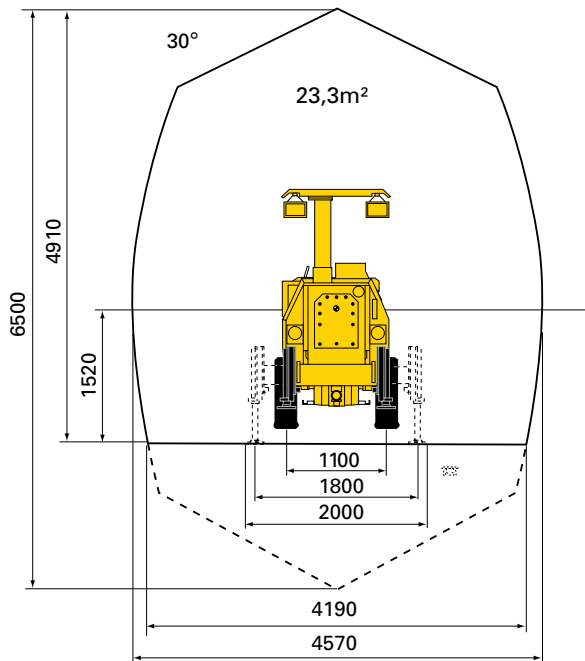
- Rod holder for extra drill rods
- Ni-Cr plated piston rods

Measurements

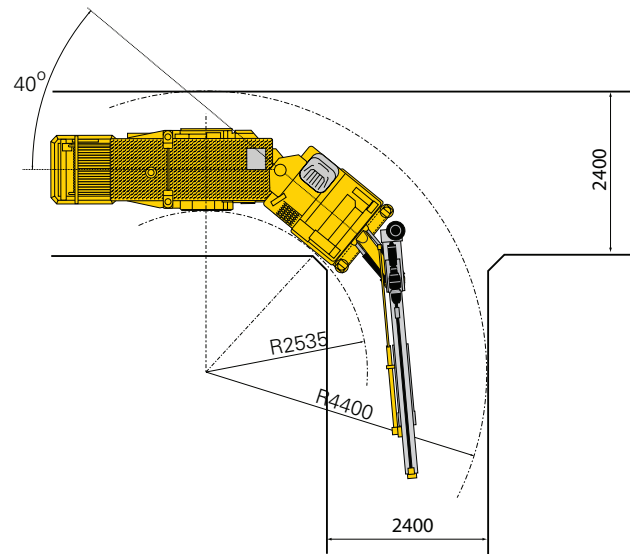
SIDE VIEW



COVERAGE AREA



TURNING RADIUS



DIMENSIONS

mm		
	Width	1 220
	Height, roof down	1 990
	Height, roof up	2 690
	Height, optional cabin	2 572
	Length with BMH 2837 feeds	9 990
	Ground clearance	275

TRAMMING SPEED

km/h	On flat ground (rolling resistance 0.05)	>8
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RECOMMENDED CABLE SIZE AND LENGTH

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

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

WEIGHT

gross weight, depending on configuration		
kg	Total	9 000