

DT1230-SC UNDERGROUND DRILL RIG

TECHNICAL SPECIFICATION



APPLICATION

The DT1230-SC is a 3-boom electro-hydraulic jumbo for fast and accurate drilling in tunneling and cavern excavation of 20 – 203 m² cross sections.

The advanced, electronic controlled drilling system with added automatic functions and different optional instrumentation levels enable productive and high quality tunneling. Built-in diagnostics help to minimize maintenance time.

The HFX5T high frequency rock drills deliver superior performance with high consumable life.

The special elevating boom support with TB 150 booms provides an extra large optimum shaped coverage and electronic parallel holding in manual mode. The booms can also be used for cross-cutting, bolt hole drilling and extension drilling applications. An optional basket boom for bolting and utility works is available.

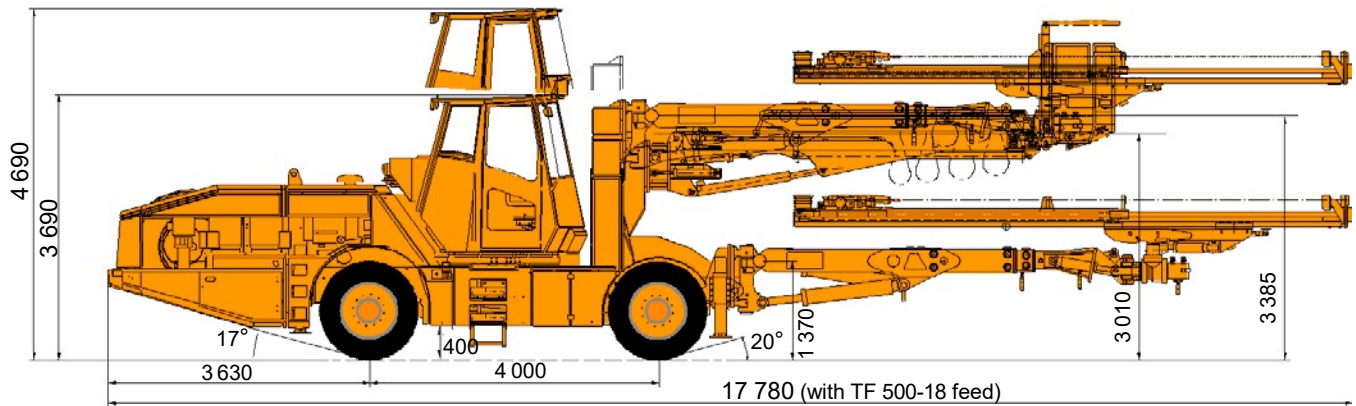
The powerful 4-wheel-drive wheel steered carrier ensures rapid and safe tramming with good balance.

The noise and vibration insulated safety cabin provides an ergonomic workplace with excellent visibility for both tramming and drilling.

MAIN SPECIFICATIONS

Carrier	1 x TC 12
Safety cabin	1 x FOPS (ISO 3449) Elevating (1 000 mm)
Rock drill	3 x HFX5T
Feed	3 x TF 500–18
Boom	3 x TB 150
Elevating boom support	1 x TES (600 mm)
Control system	1 x TPC 563
Powerpack	3 x HP 575 (75,0 kW)
Air compressor	1 x CT 10
Shank lubricating device	1 x SLU 3
Water pump	1 x WBP 3 HP
Main switch	1 x MSE 30
Cable reel	1 x TCR 6E
Length	17 780 mm
Width	2 900 mm
Height	
Cabin down	3 690 mm
Cabin up	4 690 mm
Weight	42 000 kg
Tramming speed	
Horizontal	15,0 km/h
14 % = 1:7 = 8°	4,5 km/h
Gradeability	28 % = 1:3,5 = 15°
Noise level (EN 791, free field condition)	
In cabin	LpA = 80 dB
Emitted	LwA = 128 dB

GENERAL DIMENSIONS



TC 12 CARRIER

Diesel engine	MB OM 906 LA 170 kW (228 hp)
Transmission	Clark 32 000 Hydrodynamic
Axles	Clark-Hurth
Brakes	
Service	Hydraulically operated wet disc brakes
Parking and emergency	SAHR type fail-safe Front: dry disc brakes Rear: wet disc brakes
Tyres	14.00 – 24 PR 28 Double wheels in front
Steering	Axle steering in engine end Orbitrol
Rear oscillation	± 8°
Ground clearance	400 mm
Fuel tank	150 l
Hydraulic jacks	
Front	2 x TJ 60 Telescopic
Rear	2 x TJ 75
Safety cabin	FOPS (ISO 3449) Elevating (1 000 mm) Pressurized Cabin heating (drilling) Operator seat

HFX5T ROCK DRILL

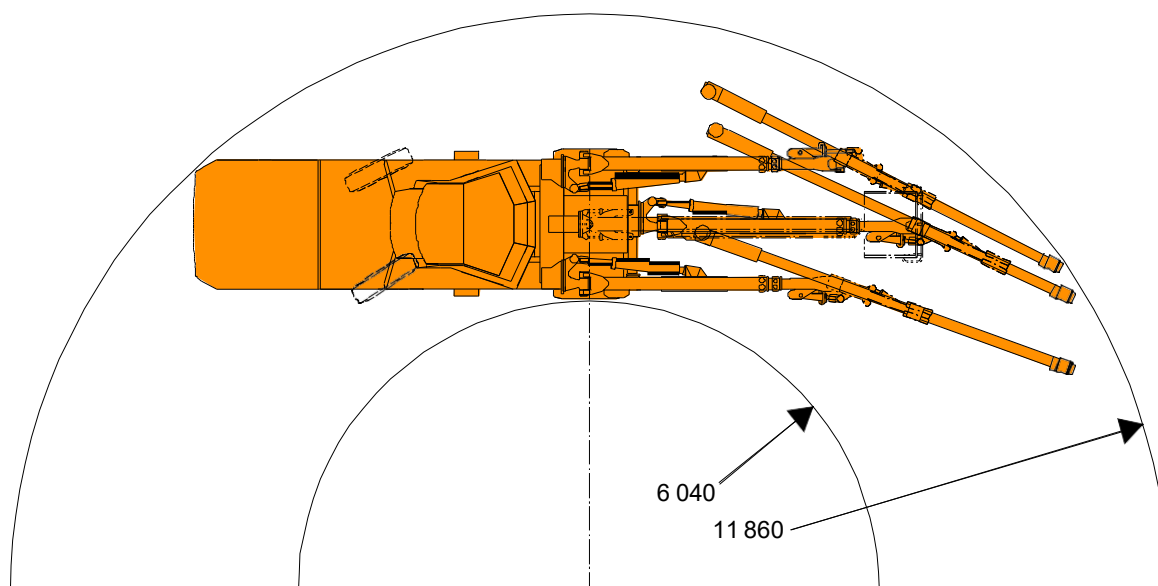
Weight	218 kg
Length	1 020 mm
Profile height	87 mm
Power class	24,5 kW
Max working pressure	
Percussion	245 bar
Rotation	175 bar
Max torque	
125 cm³ motor	625 Nm
Stabilizer	Hydraulic, 2-stage
Hole size	45 – 64 mm
Recommended steel	T38-H35-R32 T38-H35-alpha 330 T38-R39-R35
Shank adapter	7304-7585-01 (T38)
Flushing water pressure	10 – 20 bar

TF 500 FEED

Feed type	Cylinder – wire rope
Feed force	25 kN

FEED TF 500–	Total length (mm)	Hole length (mm)	Rod length (mm)	Machine length (mm)
14'	5 880	4 050	4 305	16 740
16'	6 490	4 660	4 915	17 340
18'	7 100	5 270	5 525	17 780
20'	7 710	5 880	6 135	18 540
21'	8 015	6 180	6 440	18 740

TURNING RADIUS



TB 150 BOOM

Parallel coverage	159 m ²
Boom extension	3 200 mm
Feed extension	
With TF-feed	1 650 mm
Boom weight, net	3 300 kg
Rotation angle	358°

TPC 563 CONTROL SYSTEM

Power control	Adjustable full power Adjustable collaring power
Rotation control	Adjustable rotation speed
Automatic functions	One hole drilling automatics Collaring with – Rock detect feature – Two ramps to full power Feed controlled percussion Adaptive drilling Anti-jamming Flushing Stop and return
Reaming	Separately adjustable settings
Boom controls	Fully proportional

HP 575 POWERPACK

Electric motor	1 x 75 kW 3-phase motor
Pump types	
Percussion, feed and boom	1 x 148 l/min variable displacement axial piston pump
Rotation	1 x 81 l/min variable displacement axial piston pump
Basket boom (option)	1 x 45 l/min gear pump

Filtration	
Pressure	1 x 20 micron
Return	1 x 10 micron
Oil tank volume	Max. 470 l, min. 270 l
Tank filling	1 x electric pump
Oil cooling	1 x OW 30 water cooler

AIR CIRCUIT

Compressor type	1 x CT 10
Capacity	1,0 m ³ /min, 7 bar
Shank lubricating device	1 x SLU 3
Air consumption	250 – 350 l/min / rock drill
Oil consumption	180 – 250 g/h / rock drill

WATER CIRCUIT

Water pump type	1 x WBP 3 HP
Capacity	375 l/min (15 bar)
With 5 bar inlet pressure	
Inlet pressure	2 – 7 bar (while drilling)
Inlet pressure control valve	1 x WP 100

ELECTRICAL SYSTEM

Total input power	250 kW
Main switch	1 x MSE 30
Standard voltages	380 – 690 VAC
Voltage fluctuation	Max. ± 10 %
Star Delta Starting (380 – 690 VAC only)	
Lighting	
Combined working and driving lights (24 VDC)	12 x 35 W (HID) front
Working lights	2 x 35 W (HID) rear
Driving lights	2 x 35 W (HID) rear
Automatic cable reel	1 x TCR 6 E