



SANDVIK DT1131 TUNNELING DRILLS

TECHNICAL SPECIFICATION

Sandvik DT1131 is a three boom electro hydraulic jumbo for fast and accurate drilling in tunneling and cavern excavation. The hydraulic controlled drilling system with added automatic functions and optional instrumentation level enable productive and high quality excavation.

Sandvik RD520 rock drills deliver superior performance with high consumable life. Sandvik SB150 universal booms have a large optimum shaped coverage and full automatic parallelism. In addition to face drilling the unit can also be used for cross-cutting and bolt hole drilling.

An optional utility boom for bolting and utility works is available. The powerful 4-wheel-drive wheel steered carrier ensures rapid and safe tramming with good balance.

KEY FEATURES

Hydraulic rock drill	Sandvik RD520
Drill feed	Sandvik TF500-18'
Boom	Sandvik SB150
Control system	Sandvik THC561, hydraulic
Coverage area	18,210 x 10,920 mm (183 m ²)
Hole length	Up to 6,180 mm
Turning radius	11,860 mm
Tramming / drilling width	2,950 mm / 3,860 mm (TC11) 3,050 mm / 3,860 mm (TC12)
Tramming / drilling height	3,666mm / 4,336 mm
Tramming length	17,780 mm (with TF500-18')
Total weight	40,000 kg (without utility boom) depending on options
Total weight	44,000 kg (with utility boom) depending on options



HYDRAULIC ROCK DRILL

TECHNICAL SPECIFICATION 2-1950

Rock drill	Sandvik RD520
Percussion power	20 kW
Percussion pressure	Max. 220 bar
Percussion rate	74 Hz
Stabilizer	Hydraulic
Rotation speed	Max. 280 rpm (with OMS125)
Rotation torque	625 Nm (with OMS125)
Hole size (drifting)	43 - 64 mm
Hole size (cut hole)	76 - 127 mm
Recommended rod	T38 - H35 - R32 T38 - R39 - R35
Shank adapter	T38 (male)
Weight	225 kg
Length	1,010 mm
Profile height	90 mm
Shank lubrication device	Air / oil mist, SLU-3
Air consumption	250 - 350 l/min
Oil consumption	180 - 250 g/h

Options

- Sandvik HLX5 instead of Sandvik RD520.
- Power extractor.

BOOM

TECHNICAL SPECIFICATION 3-3405

Boom type	Sandvik SB150
Parallel coverage	159 m²
Parallelism	Hydraulic
Boom extension	3,200 mm
Feed extension	1,650 mm
Boom weight, net	3,300 kg
Roll-over angle	358°

FEED

TECHNICAL SPECIFICATION 3-1400

Feed type	Feed force (Max.)	Total length (mm)	Hole length (mm)	Rod length (mm)	Net weight (kg)
TF500-12'	25 kN	5,330	3,440	3,700	500
TF500-14'	25 kN	5,940	4,050	4,305	530
TF500-16'	25 kN	6,550	4,660	4,915	560
TF500-18'	25 kN	7,160	5,270	5,525	590
TF500-20'	25 kN	7,770	5,880	6,135	620
TF500-21'	25 kN	8,075	6,180	6,440	640

Options

- Feed length 12', 14', 16', 20', 21'.
- Telescopic feed. Sandvik TFX6/12, TFX8/14, TFX10/16.
- Rod retainer. SCR with TF feed (incl. safety wire).
- Rod retainer TRR1 with TFX feed (incl. safety wire).
- Two rods system TRS (incl. SCR for 10-12 ft extension rods).
- Start-up drilling tools. For 45 - 51 mm holes.
- Casing drilling set. For 90 mm (3 ½") or 115 mm (4 ½") pipes.

UTILITY BOOM (OPTIONAL)

TECHNICAL SPECIFICATION 4-3440

Boom type	SUB5A
Boom extension	2 x 3,000 mm
Boom weight, net	2,675 kg
Max allowed load	510 kg
Max allowed load with safety canopy	400 kg

Options

- Safety canopy for utility boom. FOPS approved.
- Spot lights for utility boom. 2 x 17 W LED.
- Rod racks for utility boom. For 4 pcs of 10 or 12 ft rods.
- RX expansion bolt installation kit for utility boom. D30 mm or D41 mm

HYDRAULIC SYSTEM

Powerpack	HPP555 (3 x 55 kW)
Percussion pump	110 cc (variable)
Rotation pump	60 cc (gear)
HVAC pump (Heating, Ventilation and A/C)	26 cc (gear)
Filtration size	20 micron (pressure) 10 micron (return)
Oil tank volume	470 liters
Tank filling	Electric pump
Oil cooler	Water cooled. Cooling capacity 2 x 30 kW

Options

- Manual oil filling pump instead of electric.
- Air oil cooler . Cooling capacity 2 x 30 kW
- Vacuum pump for hydraulic system.
- Biodegradable oils. Shell Naturelle HFE46 / HFE68.

CONTROL SYSTEM

TECHNICAL SPECIFICATION 5-1020

Type	Sandvik THC561, hydraulic
Manual boom control	Direct control Fully proportional Hydraulic parallelism
Drilling control	Feed / percussion control
Automatic cycle	Stop and return automatics

Options

- Constant speed drilling. Replaces feed / percussion control.
- TMS DDSS3 system. Spec. 5-9200.

ELECTRIC SYSTEM

Total input power	200 kW
Main switch	MSE3
IP classification	Spec. sheet TS2-132
Standard voltage	380 - 690 VAC (± 10%)
Starting method	Star-delta starter 380 - 690 VAC
Automatic cable reel	TCR6EHD
Cable reel control (in / out)	Operator station
Front lights (combined working and driving)	12 x 50 W LED (24VDC)
Rear lights (combined working and driving)	4 x 50 W LED (24 VDC)
Rear brake / park lights	2 x Red LED

Options

- Optional voltage. 1,000 VAC, 50 Hz.
- Spooling device for cable reel.
- Electric cable rubber or PUR. Spec sheet TS2-121.
- Electricity outlet in front carrier. 1 x 400 VAC or 1 x Main voltage.
- Remote control for reel(s) at rear machine.
- Amber strobe light. Flashing (24 VDC).

FLUSHING SYSTEM

Flushing	Water
Water pump type	WBP3
Water pump capacity	215 l/min
Water pump inlet pressure	2 - 7 bar (Min.)
Flushing water pressure	10 - 15 bar
Air compressor	CTN10, 1 m³/min (7 bar)

Options

- Flushing flow supervision.
- Air mist flushing. External air/water supply (incl. IP5 air cleaner).
- Air cleaning of hole in addition to water flushing. CT28 air compressor
- Additional air capacity for hole cleaning with air. CT28 compressor, 2 x 80 liters receiver (incl. IP5 air cleaner).
- External air connection. IP5 air cleaner.
- Water hose reel. THR5E incl. water hose 44.5 mm (1 ¾"), 60 m.

TRAMMING AND OPERATOR STATION

Tramming speed	15 km/h (Horizontal) 3.5 km/h (14%=1:7=8°)
Gradeability / inclination	Max. 15° / 5°
Safety canopy	FOPS (ISO 3449)
Operation	Seated tramming Standing drilling
Sound pressure level	According to EN791 Operator station: 103 dB(A) Emitted: 128 dB(A)
Stair and service lights	LED lights

Options

- Reduced tramming speed. 3rd gear lockout.
- Reversing camera the rear and side of the machine.

CARRIER

Carrier	Sandvik TC11
Carrier type	Axle steering in engine end Orbitrol
Rear oscillation	± 8°
Ground clearance	400 mm
Diesel engine	MB OM904LA, 110 kW Tier 3, Stage IIIA
Transmission	Hydrodynamic, Spicer T20 000
Axles	Dana Spicer 37R (front) Dana Spicer 213 (rear)
Tires	14.00-24 28RL
Service brakes	Hydraulically operated wet disc brakes
Parking and emergency brakes	SAHR type, fail safe wet disc brakes
Fuel tank	150 liters
Hydraulic jacks	TJ60 (front), TJ75 (rear)
Hand throttle	Standard
Centralized greasing points	Carrier
Handheld fire extinguisher	1 x 7.7 kg Type ABC

Options

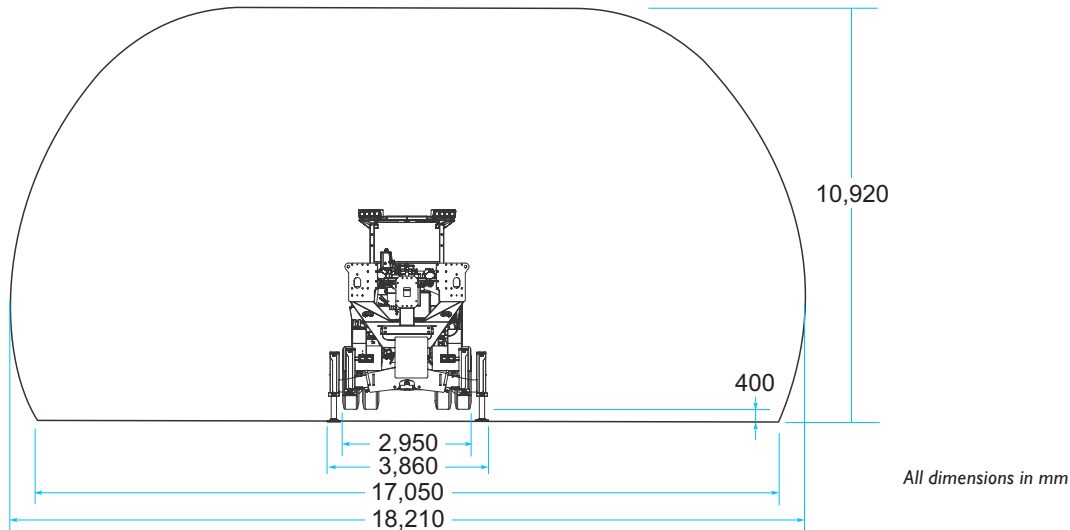
- High speed carrier. TC12, incl. MB OM906LA, 170 kW, Tier 3, Stage IIIA, with Spicer T32 000 transmission.
- High speed carrier. TC12, incl. QSB6.7, 164 kW, Tier 4i, Stage IIIB, with Spicer T32 000 transmission and front axle 43R.
- Exhaust catalyzer. For Tier 3 engines.
- Rod rack under carrier. For 12 - 21 ft rods.
- LP cleaning system with reel. Max. 15 bar.
- HP cleaning system with reel. Max. 180 bar.
- Greasing unit with pump, reel and nozzle. Manual.
- Automatic greasing system. Carrier, booms and utility boom.
- Manual fire suppression system. 8 nozzles (incl. 1 x extinguisher).
- Auto. fire suppression system. 8 nozzles (incl. 1 x extinguisher).

Packages

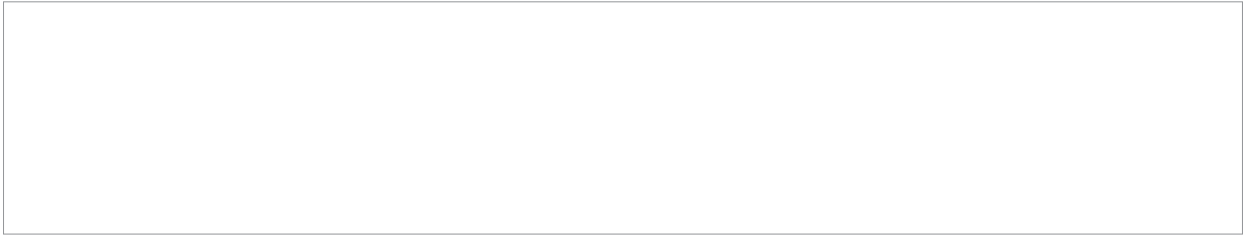
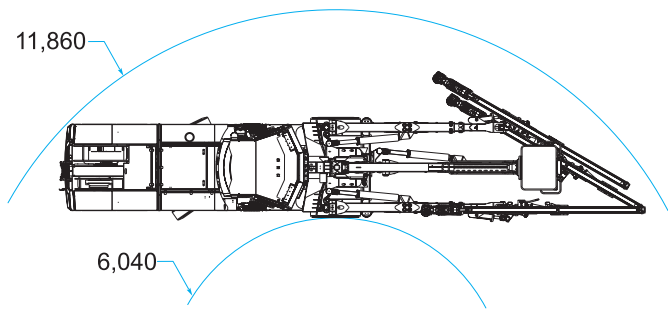
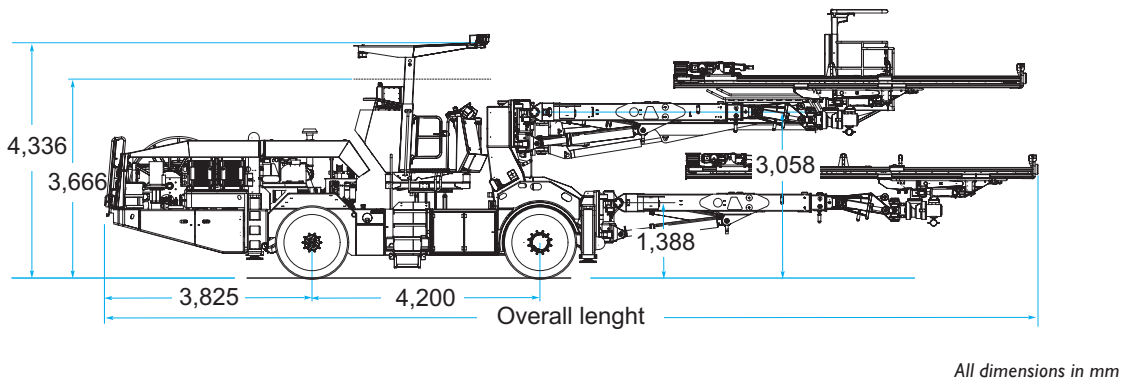
- Anti-freezing package: Block heater for engine, heater for hydraulic oil, Water circuit flushing with air, antifreeze adding in water circuit.

Extra items

- Ground fault and overcurrent protection (VYK).
- Spare rock drill.
- Spare wheel assembly.
- Special tools for rock drill.
- Tunnel laser set.
- Documentation. Extra manuals.



	TF500-12'	TF500-14'	TF500-16'	TF500-18'	TF500-20'	TF500-21'
Feed length	5,330 mm	5,940 mm	6,550 mm	7,160 mm	7,770 mm	8,075 mm
Overall length	15,850 mm	16,740 mm	17,340 mm	17,780 mm	18,540 mm	18,740 mm



Sandvik Construction reserves the right to make changes to the information on this data sheet without prior notification to users. Please contact a Sandvik representative for clarification on specifications and options.

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