

# Sandvik DT1231-SC

## Underground Drill Rig



The Sandvik DT1231-SC is a 3-boom electro hydraulic jumbo for fast and accurate drilling in tunneling and cavern excavation. The advanced, electronic controlled drilling system with added automatic functions and optional instrumentation level enable productive and high quality tunneling.

The RD525 high frequency rock drills deliver superior performance with high consumable life. The 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.

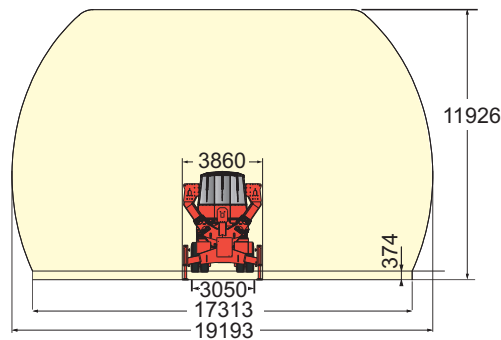
An optional utility boom for bolting and utility works is available. The powerful 4- wheel-drive wheel steered carrier ensures rapid and safe tramming with good balance. Noise and vibration insulated cabin provides ergonomic and extremely comfortable working place with excellent visibility during tramming and drilling.

Coverage	211 m <sup>2</sup>
Boom	SB150
Elevating boom support	Yes
Feed	TF500, 18ft
Rock drill	RD525
Hole diameter	45 - 64 mm
Hole length	Up to 6 180 mm
Control system	TPC561, Electric control system
#Utility boom	SUB5iA/B
Cornering	1 1860 mm - 6040 mm
Length (with default feed)	17 780 mm
Width (drilling)	3 860 mm
Width (tramming)	3 050 mm
Width (transportation)	3 050 mm
Height (drilling)	4 670 mm
Height (tramming)	3 670 mm
Weight	42 000 kg (depending on options)
Weight with Utility boom	48 000 kg (depending on options)

\* Alternative options features/components

# Additional options features/components

## Coverage area



All dimensions in mm

## Hydraulic rock drill

Technical Specification 2-1952

Rock drill	RD525
*Optional rock drill	RD520 with 55kW power pack
Percussion power	25 kW
Percussion pressure	Max. 235 bar
Percussion rate	93 Hz
Stabilizer	Hydraulic
Rotation speed	Max. 280 rpm (with OMS125)
Rotation torque	625 Nm (with OMS125)
Hole size (drifting)	45 - 64 mm
Hole size (cut hole)	76 - 127 mm
Recommended rod	T38-H35-R32 T38-R39-R35
Shank adapter	T38
Weight	225 kg
Length	1 010 mm
Profile height	90 mm
Shank lubrication device	Air/oil mist, SLU
Shank lubrication compressor	CT28, 2,8m <sup>3</sup> /min (7 bar)
Air consumption	250-350 l/min
Oil consumption	180-250 g/h
#Power extractor	PE-45

## Boom

Technical Specification 4-3405

Boom	SB150
Parallel coverage	159 m <sup>2</sup>
Parallelism	Automatic hydraulic
Boom extension	3 200 mm
Boom weight, net	3 300 kg
Roll-over angle	358°

## \*Utility boom and options

Technical Specification 4-3450

Boom type	SUB5iA/B
Boom extension	2 x 3 000 mm
Boom weight, net	2 635 / 2895 kg
Basket swing	± 45° in B - model
Max allowed load	510 kg
Max allowed load with safety canopy	400 kg
#Safety canopy for utility boom	FOPS approved
#Spot lights for utility boom	2 x 35W HID
#Rod racks for utility boom	For 4 pcs of 10 or 12 ft rods
#RX expansion bolt installation kit for utility boom	Ø38mm (1,5") (std) Ø41mm (1,61") (midi/super)

## Feed

Technical Specification 3-1400

Feed	TF500-18
Feed force	Max. 25 kN
Feed extension	1 650 mm
*TF feed lengths	12', 14', 16', 18', 20', 21'
*Telescopic feed	TFX6/12, 8/14, 10/16

Feed TF500	Total length (mm)	Hole length (mm)	Rod length (mm)	Net weight (kg)
12'	5 270	3 440	3 700	500
14'	5 880	4 050	4 305	530
16'	6 490	4 660	4 915	560
18'	7 100	5 270	5 525	590
20'	7 710	5 880	6 135	620
21'	8 015	6 180	6 440	640

## \*Drilling options

#Rod retainer	TRR1 or SCR (with TFX only TRR1) Including safety wire
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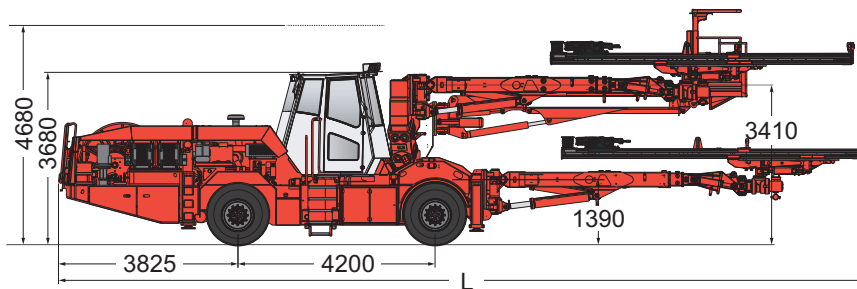
## \*Instrumentation options

#Drill position & angle instrument	TCAD + TLOG Including iSURE design software
#Data logging unit	TLOG, Including iSURE II Report office software (only with TCAD option)
#Additional Analysis Software	iSURE III Analysis office software (only with TCAD & TLOG option)

# Additional options features/components

\* Alternative options features/components

## Dimensions machine



Feed	L
TF500-12'	15 850
TF500-14'	16 740
TF500-16'	17 340
TF500-18'	17 780
TF500-20'	18 540
TF500-21'	18 740

All dimensions in mm

## Hydraulic system

Powerpack	HPP 575 (75kW)
Percussion, feed and boom pump	110cc (variable)
Rotation pump	60cc (variable)
Utility boom pump	26 cc (gear pump)
Filtration size	20 micron (pressure) 10 micron (return)
#Additional fine filtration for hydr. oil	
Oil tank volume	470 l
Tank filling	Electric pump
*Tank filling	Manual pump
Oil cooler	Cooling capacity 30 kW OW30 water cooler
*Biodegradable oils	Shell Naturelle HFE46/69
#Vacuum pump for hydraulic oil	Option

## Control system

Technical Specification 5-1020

Type	TPC 561, Electric control system
Control panel	TPC563-ME (multi/single operators)
*Operator seat	*for TPC563-ME panel
*Control panel	*Control panel: TPC563-S (single operator; includes operator's seat)
Manual boom control	Direct control Fully proportional Hydraulic parallelism
Drilling control	Feed/percussion control Feed/percussion manual control
Automatic cycle	One hole automatics

## Cleaning system

#Pressure cleaning system with reel	5-15 bar
#High pressure cleaning system with reel	Max. 180 bar

## Greasing systems and options

Centralized greasing points	Carrier
#Greasing unit with pump, reel and nozzle	Manual
#Automatic greasing system	Carrier and booms

## Electric system and \*options

Total input power	255 kW
Main switch	MSE30
Standard voltages	380-690 VAC 50/60Hz
*Optional voltage	1000 VAC 50Hz
Voltage fluctuation	± 10%
Star delta starter	380VAC - 690VAC
Automatic cable reel	TCR6EHD
Cable reel control (in & out)	Operator station
Remote control for reel(s)	Machine Rear
#Electric cable rubber or PUR	Depending on voltage (see spec 5-4100)
#Spooling device for cable reel	For voltages 380 - 690 VAC
#Ground fault and overcurrent unit	VYK
#Electricity outlet in front carrier	1x400VAC or 1xMainvoltage, Define pump power in order!

## Flushing system and \*options

Flushing	Water
Water pump type	WBP 3 HP
Water pump capacity	375 l/min (15 bar)
Water pump inlet pressure	2-7 bar (while drilling)
Air cleaning of hole in addition to Water flushing	Standard
#Additional air capacity for hole cleaning with air	2 x 80l Air receiver (incl. IP5 air cleaner)
#External air connection	IP5 air cleaner
#Flushing flow supervision	Option
#Water hose reel	THR 5E including water hose 44,5 mm (1 3/4"), 60 m
#Air mist flushing	External air supply, (incl. IP5 air cleaner and flushing flow supervision)

## Fire suppression system and \*options

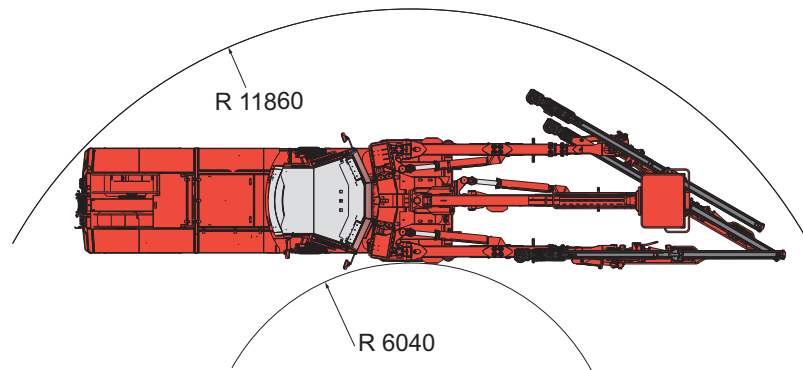
Tech. Spec. 5-9800

Hand held fire extinguisher	On the operator station
#Manual fire suppression system	8 nozzles
#Automatic fire suppression system	8 nozzles

# Additional options features/components

\* Alternative options features/components

## Tramming dimensions



All dimensions in mm

### Tramming

Tramming speed	Horizontal: 15 km/h 14% = 1:7 = 8° 4,5 km/h
Gradeability / Inclination	Max. 15° / 5°
#Reduced tramming speed	3rd gear lockout

### Operator station

Safety cabin	FOPS (ISO 3449)
Cabin elevation	1 000 mm
Operation	Standing drilling Seated tramming
Sound pressure level according to EN791	Operator station: 80 dB(A) Emitted: 128 dB(A)
Type interior lights	LED
Floor	Water-washable
Air conditioning	Filtering capacity EU 6/7
Cabin heating	During tramming and drilling
Electric outlets	1 x 12VAC
#Reversing camera	On machine rear and side
#Boot washer	At cabin entrance
#Audio system	CD player/radio/MP3

### Lights and \*options

Front lights (combined working and driving)	12 x 35W HID (24V)
Rear working lights	2 x 35W HID (24V)
Rear driving lights	2 x 35W HID (24V)
Rear brake/park lights	2 x Red LED
Stair and service lights	LED
#Remote joystick controlled	2 pcs
#Amber strobe light	Flashing (24V)

### \*Packages

#Antifreezing	Block heater for engine Hydraulic oil tank heater Water circuit flushing
#Regional package	EU, others on request
#TRS Rod handling system	TRS for 10-12ft extension rods - including SCR retainer - only with TF feeds
#Start-up drilling tools	For 45 -51mm holes
#Casing drilling set	For 90mm (3½") or 115mm (4½") pipes

### Carrier

Carrier	TC12
Carrier type	Axle steering in engine end Orbitrol
Rear oscillation	± 8°
Ground clearance	400 mm
Diesel engine	MB OM906LA, 170kW, Tier 3
*Diesel engine	Cummins QSB6.7, 170kW, Tier 4i incl. exhaust catalyser
Transmission	Hydrodynamic, Spicer T32000
Axles	Spicer 43R (front) Spicer 213 (rear)
Tyres	14.00-24 28RL
Service Brakes	Hydraulically operated wet disc brakes
Brakes parking and emergency	SAHR type, fail safe wet disc brakes
Fuel tank	150 liters
Hydraulic jacks	TJ60 (front), TJ75 (rear)
Hand throttle	Standard
#Power supply for MiniSSE	Option
#Exhaust catalyzer	Option with Tier 3 engines
#Rod rack under carrier side	For 12-21 ft rods

### Spare and extra items

#Spare rock drill	
#Spare wheel assembly	
#Special tools for rock drill	
#Tunnel laser set	
#Extra Documentation	Paper/Toolman, one set

# Additional options features/components

\* Alternative options features/components