



DT621 TUNNELING DRILLS

TECHNICAL SPECIFICATION

Sandvik DT621 is a compact two-boom jumbo for demanding conditions and multiple applications. The jumbo is capable of face drilling, cross-cut drilling and bolt hole drilling.

The drill rig various options make it suitable for a range of conditions and tasks. The proven and robust SB40 boom provides coverage of 49 m². A selection of fixed and telescopic feeds are available for a variety of applications.

The new rock drill RD520 provides smooth and efficient drilling.

Sandvik DT621 offers a best serviceability and usability.

KEY FEATURES

Coverage area	49 m ²
Hydraulic rock drills	2 x RD520, 20 kW
Drilling feeds	2 x TF512, 12 - 16 ft
Booms	2 x SB40
Control system	2 x THC561
Hole length	Up to 4 660 mm
Drift size class (H x W)	4 000 x 4 000 mm
Turning width (T-section)	3 500 mm
Transport width	2 150 mm
Transport height	2 350 mm / 3 200 mm
Transport length	12 350 mm
Total weight	22 000 kg depending on options



1. SANDVIK DT621 - TUNNELING DRILL

HYDRAULIC ROCK DRILL

Type of rock drill	RD520 (TS2-235)
Percussion power	20 kW
Percussion pressure	Max. 220 bar
Percussion rate	74 Hz
Stabilizer	Hydraulic
Rotation speed	Max. 400 rpm (with OMS80)
Rotation torque	400 Nm (with OMS80)
Hole size (drifting)	43 - 64 mm
Hole size (cut hole)	76 - 127 mm
Recommended rod	T38 - R32 - H35 T38 - R35 - R39
Shank adapter (male)	T38
Weight	225 kg
Length	1 010 mm
Profile height	90 mm

DRILLING FEED

Type of feed	TF500-12'	TF500-14'	TF500-16'
Feed force	Max. 25 kN	Max. 25 kN	Max. 25 kN
Total length	5 270 mm	5 880 mm	6 490 mm
Hole length	3 440 mm	4 050 mm	4 660 mm
Rod length	3 700 mm	4 305 mm	4 915 mm
Net weight	500 kg	530 kg	560 kg

BOOM

Type of boom	SB40 (TS2-231)
Parallel coverage	44.5 m ²
Parallelism	Automatic hydraulic
Boom extension	1 050 mm
Feed extension	1 350 mm
Boom weight, net	2 100 kg
Roll-over angle	358°

HYDRAULIC SYSTEM

Powerpack	HPP555 (2 x 55 kW)
Filtration (pressure / return)	20 μ / 10 μ
Oil tank volume	270 liters (drilling)
Oil tank filling pump	Electric
Cooler for hydraulic oil	OW30 oil-to-water (2 x 30 kW)

DRILLING CONTROL SYSTEM

Type of control system	THC561 (5-1020)
Operating principle	Hydraulic control
Manual boom control	Direct control Fully proportional Hydraulic parallelism
Drilling control	Feed / percussion control Flushing control
Automatic cycle	Stop and return automatics

ELECTRIC SYSTEM

Standard voltage	380 - 690 V (± 10%)
Total installed power	135 kW
Main switch gear	MSE 20
IP classification	Specification TS2-132
Starting method	Star delta 380 V - 690 V Soft starter 575 V
Automatic cable reel	TCR3E with spooling system
Cable reel control	Operator station and remote control at rear machine
Batteries	2 x 12 V, 145 Ah
Front lights (combined working and driving)	6 x 50 W LED (4 200 lm, 6 000 K)
Rear lights (combined working and driving)	4 x 50 W LED (4 200 lm, 6 000 K)
Parking rear brake / park lights	2 x Red LED
Stair and service light	LED (24 V)

AIR AND WATER SYSTEM

Flushing of holes	By water
Water booster pump	WBP2
Water pump capacity	100 l/min
Water pump inlet pressure	2 bar (Min.)
Flushing water pressure	10 - 15 bar
Shank lubrication device	SLU2 (air / oil mist)
Rock drill oil consumption	180 - 250 g/h
Rock drill air consumption	250 - 350 l/min
Air compressor	CTN10, 1 m ³ /min (7 bar)

OPERATOR'S SAFETY CANOPY

Canopy certification	FOPS (ISO 3449)
Unit height in tramming	3 200 mm
Operation	Standing drilling, seated tramming
Operator's seat	For tramming Adjustable with seat belt
Sound pressure level EN 791	Operator station: 100 dB(A)

CARRIER

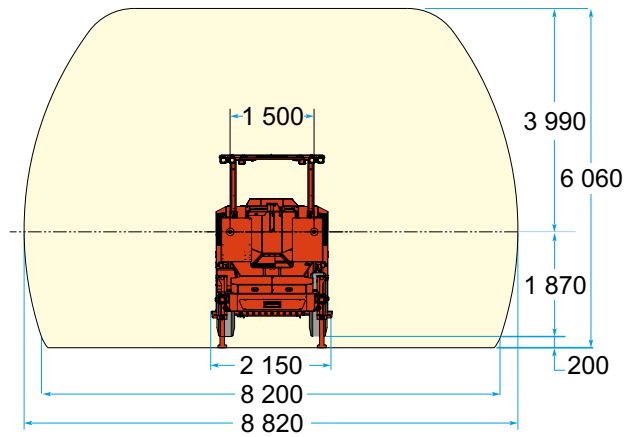
Type of carrier	NC7 (frame-steered)
Carrier articulation	± 40°
Rear axle oscillation	± 10°
Ground clearance	320 mm
Diesel engine	MB OM904LA, 110 kW, Tier 3, Stage IIIA
Exhaust catalyzer	Standard
Transmission	Hydrodynamic, Spicer T20 000
Axles	Spicer
Tires	12.00-20
Service brakes	SAHR type, fail save wet disc brakes
Parking and emergency brakes	SAHR type, fail save wet disc brakes
Tramming speed	16 km/h (Horizontal) 6 km/h (14%=1:7=8°)
Gradeability / sideways tilt	Max. 15° / 5°
Rod rack on carrier side	For 10 - 16 ft rods and two shank adapters
Fuel tank	140 liters
Hydraulic jacks	2 x Vertical (front) 2 x Vertical (rear)
Centralized greasing points	Specification 5-2110
Hand held fire extinguisher	1 x 7.7 or 9 kg (type ABC)
Tramming alarm	Standard
Colour scheme	Sandvik
Documentation	2 x Operator's manual 2 x Maintenance manual 2 x Technical manual (in English only) 2 x Parts manual (in English only) 1 x Toolman CD

OPTIONAL FEATURES AND PACKAGES

Rock drill	
*Type of rock drill	HLX5 instead of RD520
Drilling feed	
*Feed length	14', 16'
*Telescopic feed	TFX6/12, TFX8/14
Rod retainer	TRR1 incl. safety wire, add 35 mm length of the feed
Two rods system	TRS included TRR1 with safety wire.
Boom	
*Type of boom	SB40NV instead of SB40
Hydraulic system	
*Oil tank filling pump	Manual
Cooler for hydraulic oil	OA30 oil-to-air (2 x 30 kW)
Vacuum pump	For hydraulic system
Drilling control system	
Constant speed drilling	Replaces feed / percussion control
Instrumentation	TMS+ D2 for TFX-feed TMS+ DDSS2 for TF-feed TCAD+ with iSURE I-II design and reporting.
Access detector	Mandatory in Europe (TS2-211)

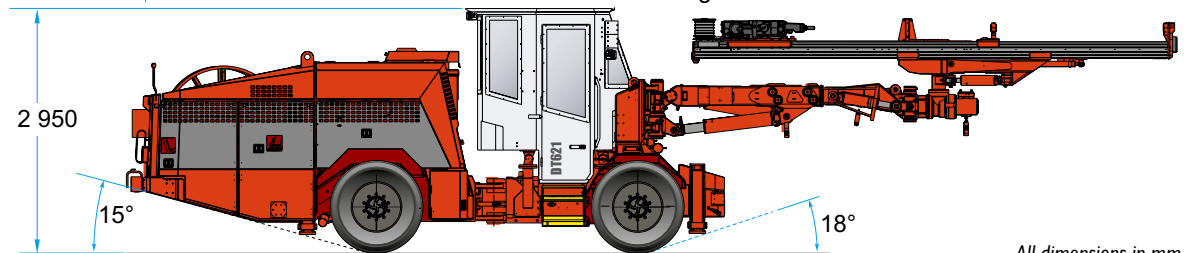
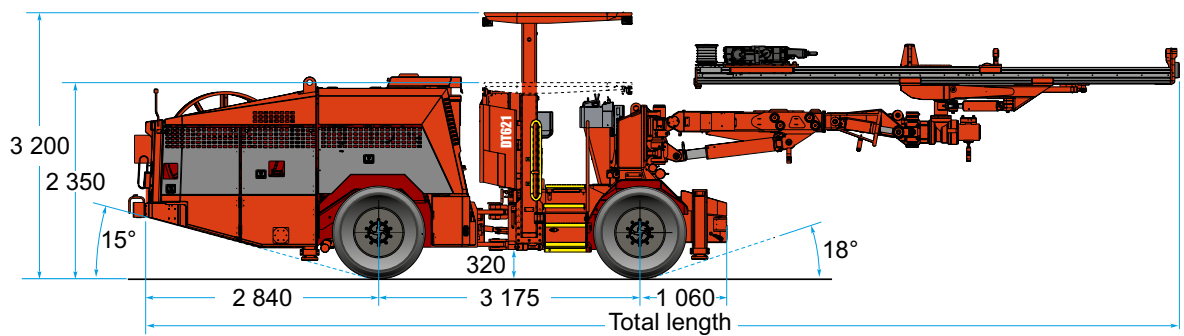
OPTIONAL FEATURES AND PACKAGES

Electric system	
*Optional voltage	1 000 V (50 or 60 Hz) with Direct-On-Line starter
*Electric cables	Specification TS2-121
Ground fault and overcurrent protection	VYK
Auxiliary outlet	1 x 110 V or 1 x 230 V, 16 A
Dewatering pump outlet readiness	Site voltage 380 - 690 V (Max. 8 kW)
Amber flashing light	LED (24 V)
Battery jump start	Option
Air and water system	
Air mist flushing kit	IP5 air cleaner and flow control
Flushing flow control	2 booms
*End of hole air flushing	Including CT28 air compressor
Water hose reel with water hose	THR2.5E with 38 mm (1 ½"), 65 m
Compressed air outlet	Quick coupling
Cleaning system	
LP system with reel	Up to 15 bar
HP system with reel	Up to 180 bar
Greasing systems	
Manual system	Greasing unit with pump, reel and nozzle (5-2110)
Automatic system	Carrier and booms
Operator's safety cabin / canopy	
*Safety cabin	FOPS / ROPS (ISO 3449 / 3471) incl. air conditioning
*Stainless steel cabin	FOPS (ISO 3449)
Cabin heating	During tramming and drilling
Cabin audio system	CD player / radio / MP3 with loud-speakers and 12 V outlet
Boot washer	At each access
Front screen protection grill	For cabin or canopy
Fire suppression system	
Spare hand held extinguisher	1 or 2 x 7.7 or 9 kg (type ABC)
Manual system	Ansul, 6 nozzles
Automatic system	Ansul, 6 nozzles
Carrier	
Reduced tramming speed	3 rd gear lockout
*Diesel engine	QSB4.5, 119 kW, tier 4i, Stage IIIB
*Foam filled tires	4 pcs
Fast filling and evacuation system	Wiggins (complete)
Wheel chocks and holders	2 Sets
Tramming camera	Rear and side
Rod rack	On carrier side
Extra items	
Spare rock drill	RD520 OR HLX5
Spare wheel assembly	12.00-20 or foam filled tire
Special tools for rock drill	
Documentation	Extra paper, CAT-base, Link-one manuals
Package: Country specific options	LAM, USC, EUR, Turkey
*Package: Harsh water	Basic or advanced (Spec. TS2-049)
*) replaces standard feature	



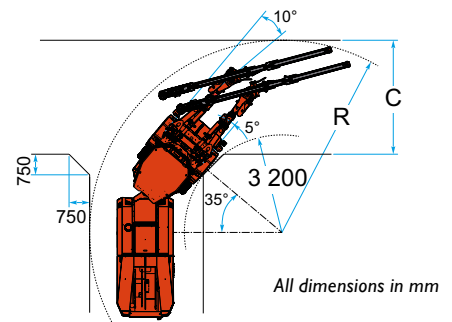
All dimensions in mm

	TF512	TF514	TF516
Overall length	mm 12 350	mm 12 550	mm 13 000

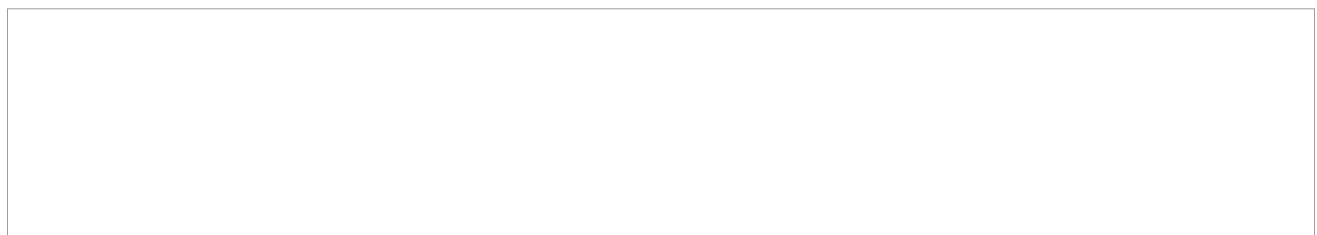


All dimensions in mm

Drilling feed	Radius (R)	T-cross (C)
TF500-12'	6 300 mm	3 700 mm
TF500-14'	6 450 mm	3 850 mm
TF500-16'	6 600 mm	4 000 mm



All dimensions in mm



Sandvik Mining and Rock Technology 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.

SANDVIK.COM

4. SANDVIK DT621 - TUNNELING DRILL