



DT721 TUNNELING DRILL

TECHNICAL SPECIFICATION

Sandvik DT721 is a two boom electro-hydraulic jumbo for fast and accurate drilling in drifting and tunneling of 8 - 60 m² cross sections.

The improved hydraulic control system with new features enables accurate drilling performance with and efficient control.

The Sandvik RD520 rock drill has proven to be an efficient drill with smooth penetration and powerful drilling performance.

Optimal coverage is achieved with the proven Sandvik SB60 booms. The drilling performance can be improved with optional instrumentation.

KEY FEATURES

Coverage area	60 m ²
Hydraulic rock drills	2 x RD520, 20 kW
Drill feeds	2 x TF512, 12 - 16 ft
Booms	2 x SB60
Control system	THC561, hydraulic
Hole length	Up to 4 660 mm
Drift size class (H x W)	4 500 mm x 4 500 mm
Turning width (T-section)	3 770 mm
Transport width	2 310 mm
Transport height	3 420 mm / 2 680 mm
Transport length	13 050 mm
Total weight	24 500 kg depending on options



With cabin option shown

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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	SB60 (TS2-264)
Parallel coverage	54 m ²
Parallelism	Automatic hydraulic
Boom extension	1 200 mm
Feed extension	1 350 mm
Boom weight, net	2 250 kg
Roll-over angle	358°
Bolt hole drilling	Yes

HYDRAULIC SYSTEM

Powerpack	2 x HPP555 (55 kW)
Filtration (pressure / return)	20 µ / 10 µ
Oil tank volume	270 liters
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 (180 kW, with RD525)
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	TCR4E + spooling (in. 135 kW) TCR4EHD + spooling (in. 180 kW)
Cable reel control	Operator station and remote control at rear machine
Auxiliary outlet	1 x 110 V or 1 x 230 V, 16 A
Battery jump start	Standard
Cable plug holder	Hook type holder and cable pull sock
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	Water flushing flow and pressure control. Air-mist flushing , option
Water booster pump	WBP2HP
Water pump capacity	185 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, 1.0 m ³ /min (7 bar)
Compressed air outlet	Quick coupling

OPERATOR'S SAFETY CANOPY

Canopy certification	FOPS (ISO 3449)
Unit height in tramming	3 420 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	NC7W (frame-steered)
Carrier articulation	± 40°
Rear axle oscillation	± 8°
Ground clearance	420 mm
Diesel engine	MB OM904LA, 110 kW, Tier 3, Stage IIIA
Exhaust catalyzer	Standard
Transmission	Hydrodynamic, Spicer T20000
Axles	Spicer
Tires	14.00-24 PR28
Service brakes	SAHR type, fail safe wet disc brakes
Parking and emergency brakes	SAHR type, fail safe 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) 2 x Toolman CD

OPTIONAL FEATURES AND PACKAGES**Rock drill**

*Type of rock drill	HLX5 instead of RD520 RD525 instead of RD520
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Feed

*Feed length	14', 16'
*Telescopic feed	TFX6/12, TFX8/14, TFX10/16
Rod retainer	TRR1 incl. safety wire, add 35 mm length of the feed
Two rods system	TRS included TRR1 with safety wire.

Hydraulic system

*Powerpack	HPP555 (55 kW) with HLX5 or HPP575 (75 kW) with RD525
*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 cable	Specification TS2-121
Ground fault and overcurrent protection	VYK
Auxiliary outlet	1 x 110 V or 1 x 230 V, 16 A
Battery jump start	Option
Dewatering pump outlet	Site voltage 380 - 690 V (Max. 8 kW)
Amber flashing light	LED (24 V)

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 1/2"), 65 m

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	Lincoln (complete)

Operator's safety cabin / canopy

*Safety cabin	FOPS / ROPS (ISO 3449), incl. air conditioning
*Stainless steel cabin	FOPS (ISO 3449)
Cabin heating	During tramming and drilling
Cabin audio system	CD player / radio / MP3 and loud-speakers
Boot washer	At each access
Front screen protection grill	For cabin or canopy

Fire suppression system

Spare hand held extinguisher	1 x 7.7 or 9 kg (type ABC)
Manual system	Ansul, 6 nozzles
Automatic system	Ansul, 6 nozzles

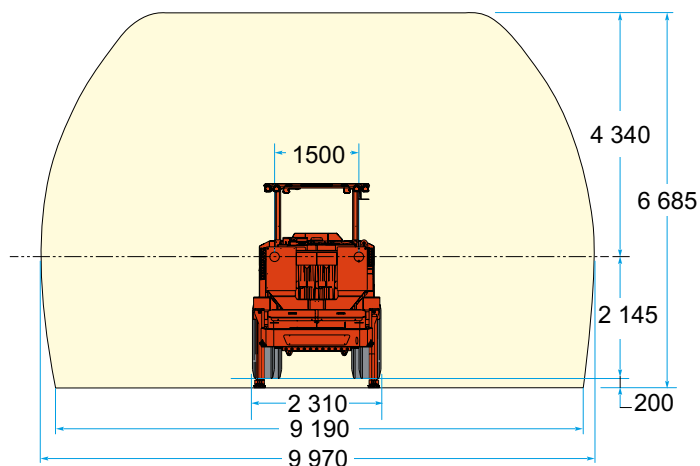
Carrier

Reduced tramming speed	3rd 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

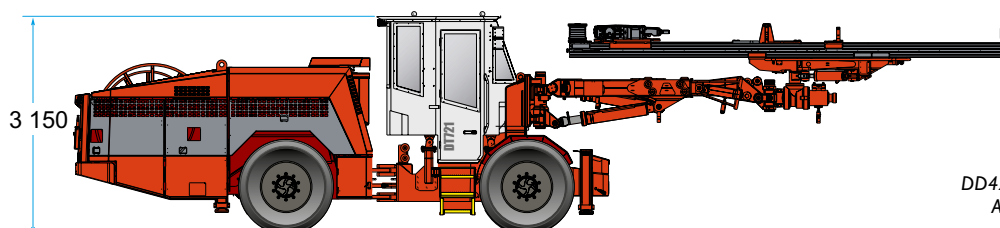
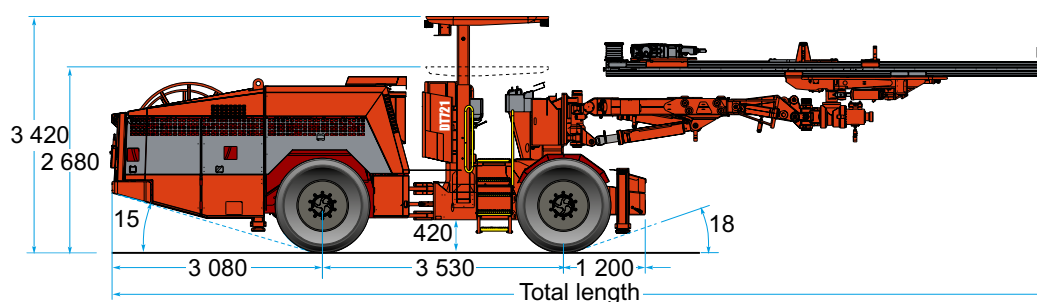
Spare rock drill	RD520, HLX5 or RD525
Spare wheel assembly	14.00-24 PR28 or foam filled tire
Special tools for rock drill	
Documentation	Extra, CAT base, Link one manuals
Package: Country specific options	LAM, USC, EUR, Turkey
*Package: Harsh water	Basic or advanced (TS2-049)
*Package: Arctic	To operate in extremely temperature
Package: Anti-freezing	Block heater for engine, heater for hydraulic oil, water circuit flushing with air, antifreeze adding in water circuit.

*) replaces standard feature



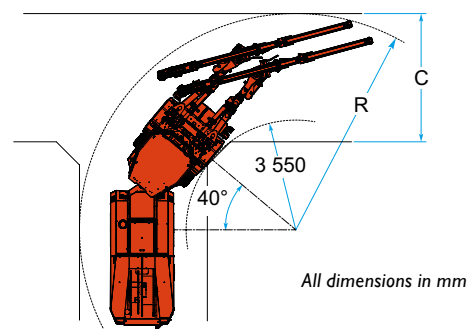
All dimensions in mm

		TF512	TF514	TF516	TFX6/12	TFX8/14	TFX10/16
Total length	mm	13 050	13 250	13 700	12 800	12 900	13 500



DD421 with cabin option
All dimensions in mm

FEED	Radius (R)	T-cross (C)
TF500-12'	6 800mm	3 920 mm
TF500-14'	6 950 mm	4 070 mm
TF500-16'	7 100 mm	4 250 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.

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