Technical Specification 6-9577-A 2013-05-28

Sandvik DD411-60

Underground Drill Rig



The Sandvik DD411-60 is a single boom electrohydraulic jumbo for fast and accurate drilling in drifting and tunneling of up to 54m² cross sections.

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

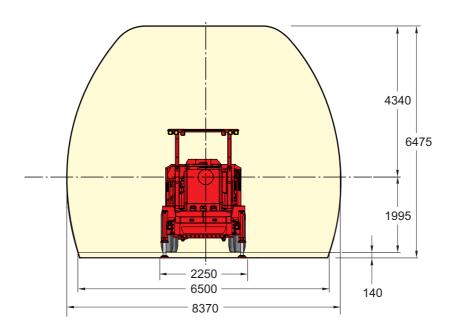
The RD520 rock drill delivers superior performance with high consumable life.

The SB60 universal boom has a large optimum shaped coverage and full automatic parallelism. The boom can also be used for cross-cutting and bolt hole drilling. The powerful 4-wheel-drive center articulated carrier ensures rapid and safe tramming with good balance.

Coverage	54m²
Boom	SB60
Feed	TF500, 10-16ft
Rock drill	RD520
Hole diameter	43-64 mm
Hole length	Up to 4660 mm
Control system	THC561, Hydraulic
Cornering	3950 mm
Weight	18 000 kg Depending on options

Sandvik DD411-60

Coverage area



All dimensions in mm

Hyd			

Technical Specification 2-1950	Technical	Specification	2-1950
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Rock drill	RD520
*Optional rock drill	HLX5
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
Weight	225 kg
Length	I 010 mm
Profile height	90 mm
Shank lubrication device	Air/oil mist, SLU
Shank lubrication compressor	CT10, Im ³ /min (7 bar)
Air consumption	250 - 350 l/min / rock drill
Oil consumption	180 - 250 g/h / rock drill
#Power extractor	PE-45
Boom	Tackwing Specification 4 2105

Boom	Technical Specification 4-3105
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Boom	SB60
Parallel coverage	54 m²
Parallelism	Automatic hydraulic
Boom extension	I 200 mm
Boom weight, net	2 250 kg
Roll-over angle	358°
Bolt hole drilling	Yes

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Feed	Technical Specification 3-1400
Feed	TF500-12
Feed force	Max. 25 kN
Feed extension	I 350 mm
*TF feed lengths	10', 12', 14', 16'
*Telescopic feed	TFX6/12, 8/14

Feed TF500	Total length (mm)	Hole length (mm)	Rod length (mm)	Net weight (kg)
10'	4 660	2830	3090	470
12'	5 270	3440	3700	500
14'	5 880	4050	4305	530
16'	6 490	4660	4915	560

*Drilling options

Technical Specification 3-4010

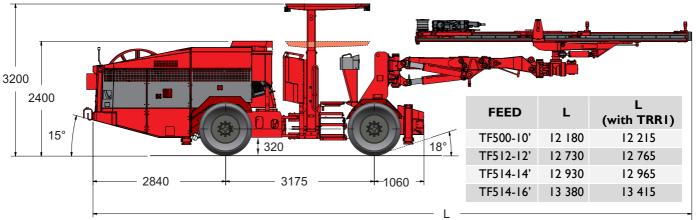
Di illing options	Technical Specification 5-4010
#Rod retainer TRRI	Including safety wire Adds 35mm lenght of the TF-feed.
#Two rod system TRS	For TF Feed. Included TRR1 & Safety wire (not for bolting)

[#] Additional options features/components

^{*} Alternative options features/components

Sandvik DD411-60

Dimensions machine



All dimensions in mm

Hydraulic system

Powerpack	HPP555 (55kW)
Percussion pump	110cc (variable)
Rotation pump	33cc (variable)
Filtration size	20 microns (pressure) 12 microns (return)
Oil tank volume	270 liters
Tank filling	Electric pump
*Tank filling	Manual pump
Oil cooler	Water cooled. Cooling capacity 1x30kW
*Biodegradable oils	Shell Naturelle HFE46/HFE68
#Vacuum pump for hydraulic oil	Option

Control system

Technical Specification 5-1020

Туре	THC561, Hydraulic
Manual boom control	Direct control Fully proportional Hydraulic parallelism
Drilling control	Feed/percussion control
Automatic cycle	Stop and return automatics
*Constant speed drilling	Replaces feed / percussion control
Cleaning systems	

Cleaning system

"Pressure cleanin	g system with reel	5-15 bar
#High pressure cl	leaning system with ree	el Max. 180 bar

Greasing systems and options

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

Electric system and options

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Total input power	85kW
Main switch	MSE10
Standard voltages	380-690 VAC
*Optional voltage	1000 VAC, 50Hz
Voltage fluctuation	± 10%
Automatic cable reel	TCR3EL with spooling system
Cable reel control (in & out)	Operator station
Cable plug holder	Hook type holder and cable pull stock
#Cable reel control (in & out)	At rear unit
#Electric cable rubber or PUR	Depending on voltage (see spec 5-4100)
[#] Ground fault and overcurrent protection	VYK
#Sealed AGM batteries	2×12V, 50Ah
#Battery jump start	

Flushing system and options

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Flushing	Water
*Flushing flow supervision	
Water pump	WBPI
Water pump capacity	65 I/min
Inlet pressure	2-7 bar
Flushing water pressure	10-20 bar
#Water hose reel + hose	THR2,5E + 38mm (1½"), 65 m
*Water flushing with air cleaning of hole	External water and CT16 (11kW) Additional 1x60l air receiver
#Air mist flushing	External water/air connection (incl. air cleaner and flushing flow supervision)
#External air connection	IP5 air cleaner

Fire suppression system and options Tech. Spec. 5-9800

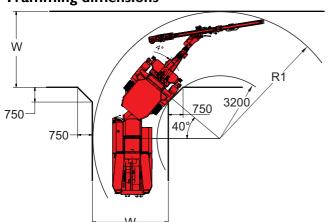
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[#] Hand held fire extinguisher	I pcs
#Manual fire suppression system	6 nozzles
#Automatic fire suppression system	6 nozzles
[#] FS1000	above 0°C

[#] Additional options features/components

^{*} Alternative options features/components

Sandvik DD411-60

Tramming dimensions



Feed	RI	W
TF500-12'	6550	3950
TF500-14'	6650	4050
TF500-16'	6800	4200

All dimensions in mm

Tramming

Tramming speed	Horizontal: 16 km/h 14% = 1:7 = 8° 6,0 km/h
Gradeability / Inclination	Max. 15° / 5°
#Reduced tramming speed	3rd gear lockout

Operator station

Safety canopy	FOPS (ISO 3449)
*Heightened canopy roof	250mm higher canopy, FOPS (ISO 3449)
Operation	Standing drilling, seated tramming
Seat	Ergonomic, adjustable For tramming including seat belt
Sound pressure level according to EN791	Operator station: 100 dB(A)
Reversing alarm	Standard
#Reversing camera	On machine rear and side

Lights and *options

Front lights (combined working and driving)	6 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
#Extra working lights	2 x 35W HID (24V)
[#] Amber strobe light	Flashing (24V)

Packages

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#Regional	LAM, AUS, USC
*Harsh water packages	Basic or advanced See spec sheet 5-9100
#Antifreezing	Block heater for engine Hydraulic oil tank heater Water circuit flushing

Carrier

Carrier	NC7W
Carrier type	Wheel mounted, frame steering
Frame steering	± 40°
Rear oscillation	± 10°
Ground clearance	320 mm
Diesel engine	MB OM904LA, 110kW, Tier 3
Exhaust catalyzer	Standard
Transmission	Hydrodynamic, Spicer T20000
Axles	Spicer
Tyres	12.00-20
*Tyres	Foam filled tyres
Service Brakes	SAHR type, fail safe wet disc brakes
Brakes park and emergency	SAHR type, fail safe wet disc brakes
Fuel tank	150 liters
Hydraulic jacks	TJ40 (front), TJ60 (rear)
Hand throttle	Standard
[#] Fast filling systems	Complete
#Wheel chocks and holders	2 pieces
[#] Rod rack on carrier side	For 10-16ft rods and two shank adapters

Extra items

#Spare rock drill	
#Spare wheel assembly	Standard or foam filled
#Special tools for rock drill	
#Documentation	Extra manuals

Additional options features/components



^{*} Alternative options features/components