Technical Specification 6-9619-A 2011-08-10

Sandvik DD220L Underground Drill Rig



Sandvik DD220L is a low profile twin boom electrohydraulic drilling machine designed to work in excavations with headroom as low as 1.7 m.

The robust universal booms have a large optimum shaped coverage, 360° rotation and full automatic parallelism for fast and easy face drilling. The booms can also be used for cross-cutting, the hose layout is specifically designed to maximize protection in low headings.

The exceptional «V» shape layout is designed for good visibility and balance, this and the powerful four-wheel-drive articulated carrier ensure fast and safe maneuvering even in low headroom conditions. The high performance drilling system allows high drilling performance with good drill steel economy and high machine reliability. The operator environment and added automatic functions allow the operator to concentrate on safe, fast band accurate drilling.

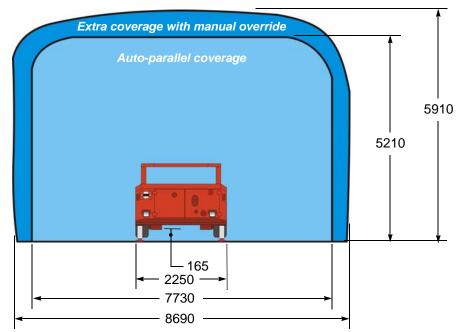
All the service points are well protected but easy to access.

Carrier Type	TC LP
Booms	2 x B26F
Feeds	2 x TF512
Rock drills	2 x HLX5
Hole diameter	43-64 mm
Hole length	Up to 4660 mm
Cornering	3600 mm
Weight	20 000kg



Sandvik DD220L

Coverage area



DD220L on jacks. All dimensions in mm.

Hydraulic rock drill

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Rock drill	HLX5
Percussion power	20 kW
Percussion pressure	Max. 225 bar
Percussion rate	67 Hz
Rotation speed	Max. 250 rpm
Rotation torque	400 Nm (OMS80)
Hole size	43 - 64 mm
Recommended rod	T38 - R32 T38- alpha 330 T38-R35
Shank adapter	T38 (male)
Weight	210 kg
Flushing water pressure	10-20 bar
Shank lubrication device	Air /oil mist, SLU
Shank lubrication compressor	CT10, 1m³/min (7 bar)
*Shank lubrication device	KVL10-1
Boom	Technical Specification 4-200 S
Boom type	B26F
Boom extension	1200 mm
Feed extension	1600 mm
Rotation angle	360°
Weight	1 900kg
*Cylinder rods	Harsh water

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Technical Specification 3-1400

Feed type	TF500 Cylinder - wire rope
Standard Feed	TF512 (12')
Feed force	Max. 25 kN
Feed extension	1350 mn

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

*Drilling options

*TF Feed length	10', 14', 16' (with B26F only)
*Rod retainer	TRR1
*Boom type	B26NV

*Cleaning system

*Pressure cleaning system	Max. 15 bar (11 bar additional
with reel	to mine water network)
*High pressure cleaning system with reel	Max. 180 bar

*Greasing systems and options

*Greasing unit with pump, reel and nozzle	Manual
*Centralized greasing nipples	Remoted and centralized carrier greasing nipples

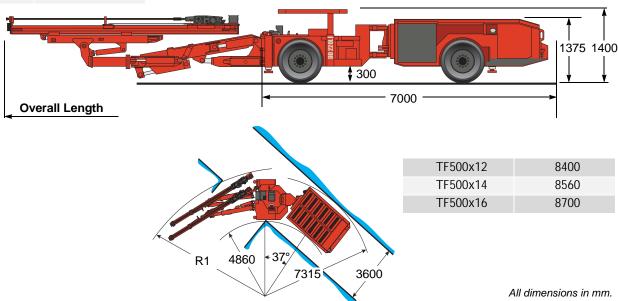
*Fire suppression system and options

The suppression system	and options
*Manual fire suppression system (Ansul)	6 nozzles
*Automatic fire suppression system (Ansul)	6 nozzles
*Hand held fire extinguisher	6 kg
*Ontional footures/somenonente	

^{*}Optional features/components

Tramming dimensions

OVERALL LENGTH	
TF500x12	13210
TF500x14	13440
TF500x16	13870



Hydraulic system

instrument

Filtration size	20 micron (pressure) 10 micron (return)
Oil coolers	Cooling capacity 30 kW 2xOW30 water cooler
Drilling hydraulic oil tank	300 liters
Tank filling	Manual pump
Powerpack	HPP 560 (55kW)
Percussion pump	100 cc (variable)
Rotation pump	45 cc (gear)
*Tank filling	Electric pump
*Biodegradable oils	Shell Naturelle HFE
Control system	
Туре	THC560
Power control	Adjustable full power Adjustable collaring power
Rotation control	Adjustable rotation speed Reversible rotation
Automatic functions	Collaring Feed controlled percussion Anti-jamming Flushing Stop and return
Boom controls	Fully proportional
*Drill angle measuring	TIS

TIS

20 micron (pressure)

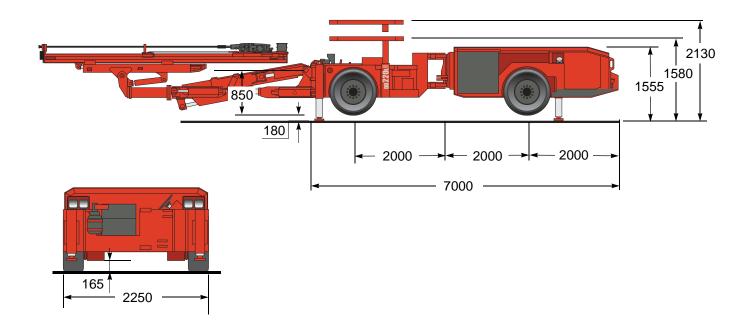
Electric system and *options

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Total input power	135 kW
Main switch	MSE 1-H
Standard voltages	380-690 VAC
Starting method	Star / Delta
Voltage fluctuation	±10%
Cable reel	TCR LP with spooling
Cable reel control	Control at operator station
Batteries	2x12V, 120Ah
Transformer rating	1.3kVa
*Electric cable rubber or PUR	100m, 150m or 200m depending on voltage
*Ground fault and over current unit	VYK

Flushing system and *options

Water pump	WBP 1 (4kW)
Water pump capacity	40 I/min (at 10 bar)
Min water supply pressure	2 bar
Inlet pressure	2 - 7 bar (while drilling)
Air compressor	CT16, screw type
Electric motor	11 kW (15hp)
Shank lubrication device	KVL 10-2
Air consumption	250-350 l/min
Oil consumption	180-250 g/h
*Shank lubrication device	SLU 2
*Automatic hole flushing on rock drill return	60L air tank
*Ontional factures/components	

^{*}Optional features/components



All dimensions in mm.

Tramming

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Tramming speed	7 km/h on horizontal 13% = 1:7 = 8° 5km/h
Gradeability / Inclination	Max. 30° / 17°
Operator station	
Safety canopy	Standard
Sound pressure level according to EN791	Operator station: 102 dB(A) Emitted: 127 dB(A)
Seat	Ergonomic, adjustable with seat belt
Lights	
Front working lights	2 x 35W HID (24V)
Front driving lights	4 x 70W (24V)
Rear working lights	2 x 70W (24V)
Rear driving lights	2 x 70W (24V)
*Amber strobe light	
Extra items	
Spare rock drill	
Spare wheel assembly	Standard or foam filled
Special tools for rock drill	
*Packages	
*Harsh water options (level 1)	Oil cooler + boom cylinders
*Harsh water options (level 2)	Level 1 + steering and jacks cylinders
*Regional	SAS

Carrier

Carrier name	TC LP
Carrier type	Wheel mounted, frame steering
Transmission	Hydrostatic, automotive one pump (variable displacement 0-71cc) Four wheel-motor (radial piston)
Tires	315/85x15
Diesel engine	Deutz BF4M2012, Tier II, 74kW
Diesel engine control	Electronic (EMR)
Exhaust catalyser	Standard
Brakes	Service, hydrostatic Emergency, neutral & parking Spring applied, Hydraulically released fail safe type oil immersed multi disc brakes on each wheel
Ground clearance	300 mm
Rear oscillation	± 15°
Frame steering	± 45°
Fuel tank	60 liters
Tramming hydraulic oil tank	50 liters
Hydraulic jacks	Vertical (front) Vertical (front)
Brake release	Manual hand pump
*Fast filling systems	For fuel/complete (Wiggins)
*Additional HP filters	On tramming circuit
*Ontional features/components	

^{*}Optional features/components

