

SANDVIK DS511-C ROCK SUPPORT DRILLS

TECHNICAL SPECIFICATION



Sandvik DS511-C, equipped with Sandvik SB120S boom, offers the widest coverage currently available for underground mining operations and civil construction tunnelling.

Sandvik DS511-C installs the industry's longest rock bolts in drifts with ease, thanks to its Sandvik BH bolting head and compact yet powerful Sandvik RD314B rock drill.

Like all Sandvik underground drills, Sandvik DS511-C benefits from a design philosophy that focuses on the operator. The air-conditioned enclosed cabin can be tilted back 10 degrees when bolting at maximum reach, just one of many features designed to improve operator comfort.



HYDRAULIC ROCK DRILL

Rock drill	Sandvik RD314B (for BH15 to BH30) (spec sheet TS2-137) Sandvik HL510S (for BH40 to BH60) (spec sheet 2-1150)	
Percussion power	14 kW	
Percussion pressure	Max. 160 bar	
Percussion rate	110 Hz	
Rotation speed	Max. 300 rpm	
Rotation torque	Max. 505 Nm	
Hole size	33 - 46 mm	1 9/64 in - 1 3/4 in
Shank adapter	R32 (female)	
Weight	115 kg	253 lb
Length	559 mm	22 in
Profile height	95 mm	3.7 in
Shank lubrication device	Air / oil mist, SLU-1	
Air consumption	150 - 250 l/min	
Oil consumption	100 - 200 g/h	

BOOM

Boom	Sandvik SB120S (spec sheet 4-3320)	
Length minimum	6,130 mm	241.3 in
Boom extension	1,900 mm	74.8 in
Boom weight, net	3,000 kg	6,613 lb
Roll-over angle	360°	

BOLTING HEAD

Bolting head type and feed	Sandvik BH and KS140 (spec sheet 8-5200)	
Bolt carousel capacity	8 rock bolts	
Bolt length	1.5 to 6.0 m	
Bolting head length	Max. 2,482 mm (BH15) Max. 7,535 mm (BH60)	Max. 97.7 in Max. 296.6 in
Bolting head weight, net	Max. 1,720 kg (BH15) Max. 2,174 kg (BH60)	Max. 3,792 lb Max. 4,793 lb

HYDRAULIC SYSTEM

Powerpack	HPP355 (55kW)	
Percussion pump	130 l/min (variable)	
Rotation pump	45 l/min (gear)	
Filtration size	20 micron (pressure)	
	12 micron (return)	
Oil tank volume	200 liters	52.8 US gal
Tank filling	Electric pump	
Oil cooler	Water cooled. Cooling capacity 1 x 30 kW	

CONTROL SYSTEM

Type	Sandvik TPC301 EW
Power control	Adjustable full power Adjustable collaring power
Anti-jamming control	Adjustable anti-jamming pressure
Rotation control	Adjustable rotation speed
Flushing control	Water flushing flow with flow control Air-mist flushing, option
Boom control	Proportional, four movements simultaneously
Automatic return	Rock drill

ELECTRIC SYSTEM

Total input power	90 kW
Main switch	MSE10
IP classification	See spec sheet TS2-132
Standard voltages	380 - 690 VAC, 50Hz or 60Hz
Starting method	Star delta starter 380 - 690 VAC Soft starter 480 - 575 VAC Direct on line (DOL) 1,000 VAC
Voltage fluctuation	± 10%
Automatic cable reel	TCR3EL
Cable reel control (in and out)	Operator station and remote at rear machine
Outlet	230V outlet
Front working lights	4 x 50W LED (24V)
Front tramming lights	2 x 50W LED (24V)
Rear working lights	2 x 50W LED (24V)
Rear tramming lights	2 x 50W LED (24V)
Remote controlled search light	1 x 70W (24V)
Mixer lights (If P-System)	1 x 70W (24V)

FLUSHING SYSTEM

Flushing	Water
Water pump type	WBP1
Water pump capacity	65 l/min
Water pump inlet pressure	2 bar (Min.)
Flushing water pressure	10 - 15 bar
Air compressor	CTN10, 1 m³/min (7 bar)
External air connection	IP5 air cleaner

TRAMMING AND OPERATOR STATION

Tramming speed	Horizontal: 16 km/h	9.9 mph
	14% = 1:7 = 8° 5.0 km/h	3.1 mph
Gradeability / inclination	Max. 15° / 5°	
Safety cabin	FOPS (ISO 3449)	
Operation	Standing and seated drilling Seated tramming	
Sound pressure level according to EN 791	Operator station: 80 dB(A) Emitted : 124 dB(A)	
Cabin air conditioning	Cooling Heating (drilling and tramming) Filtration 100µ	
Audio system	CD player/radio/MP3	
Boot washer	At cabin entrance	
Front screen protection bar	Standard	

CARRIER

Carrier	TC8	
Carrier type	Wheel-mounted, frame-steering	
Frame steering	± 35°	
Rear oscillation	± 8°	
Ground clearance	400 mm	15.7 in
Diesel engine	MB OM904LA, 110kW. Tier 3, Stage IIIA	
Diesel engine controls	Electronic	
Exhaust catalyzer, muffler	Standard	
Transmission	Hydrodynamic, Spicer T20000	
Tires	14.00-24	
Service brakes	Hydraulically-operated wet disc brakes	
Parking and emergency brakes	Emergency and parking SAHR type, fail-safe wet disc brakes	
Fuel tank	150 liters	39.6 US gal
Hydraulic jacks	TJ60 Vertical (front) TJ75 Vertical (rear)	
Total weight (Depending on options)	Around 25,000 kg	Around 55,115 lb

OPTIONS AND PACKAGES

Bolting head Bolt carousel capacity*	*10 rock bolts for square plate 120 mm *12 rock bolts for square plate 100 mm *16 rock bolts for square plate 85 mm	
Bolting option Bolting alternatives* Automatic resin shooting system* Rod retainer (PITO 9H)** Bolt storage with a drill bit rack** Bolt storage** In-the-hole resin injection system**	GCR, WI, S, BCS, M, K ARI For temporary long hole drilling with R32 male shank Max. 3 m length (front) Right side See spec 8-610 S	

OPTIONS AND PACKAGES

Bolting option Basket boom**	SUB 3iA FOPS safety canopy Sandvik SB93SH separate boom (Not compatible with basket boom**) Above the mixer For 4 rods (N/A with bolt storage)	
Screen handler**		
Cement dust collector** Rod rack**		
Instrumentation Sandvik Bolting Instrumentation**	Navigate with fan laser or tachometer	
Hydraulic system Oil cooler* Biodegradable oils* Vacuum pump for hydr. oil**	Harsh water Shell Naturelle HFE46/HFE68	
Cleaning system Pressure cleaning system with reel** HP cleaning system with reel** Bolting module continuous washing system**	Max. 15 bar Max. 180 bar	
Greasing system Greasing unit with pump, reel and nozzle** Automatic greasing system** Bolting head oiler**	Manual Carrier, boom	
Electric system Optional voltage* Electric cable rubber or PUR** Optional plug** Optional outlet** Cable plug holder** Spolling device for cable reel** Sealed AGM batteries* Battery jump start** Extra working lights** Amber strobe light**	1,000 VAC Depending on voltage (See spec TS2-121) 1,000 VAC 3 - phase outlet 3 - phase outlet > 415V, max 15kVA For 1,000 VAC unit 2 x 50W LED (24V)	
Flushing system Air mist flushing** Pressurized air outlet** Water hose reel with hose**	External water / Internal air Hose and reel for accessories THR5E with 32 mm (1 ¼ in), 130 m	
Fire suppression system Handheld fire extinguisher** Manual fire suppression system** Auto. fire suppression system**	1 x 7.7 kg, Type ABC, Ansul, 6 nozzles (incl.1 x extinguisher) Ansul, 6 nozzles (incl.1 x extinguisher)	
Tramming and operation station 3rd tramming gear** Cabin* Reversing camera**	Lock out (Max. 6.5 km/h) Tilttable 10° Stainless steel Rear and side	
Carrier High-speed carrier TC8*	OM906LA, 170kW,Tier 3,Stage IIIA QSB4.5, 110kW,Tier 4i,Stage IIIB QSB6.7, 164kW,Tier 4i,Stage IIIB Foam-filled tires Complete 2 pieces	
Tires* Fast filling systems** Wheel chocks and holder**		
Extra items Ground fault and overcurrent protection** Spare rock drill** Spare wheel assembly** Special tools for rock drill** Documentation**	VYK Standard or foam-filled Extra manuals	
Packages Regional packages** Harsh water package**	AUS, USC, EUR, SWE Basic (spec sheet TS2-049)	

*Alternative options/features/components ** Additional options/features/components

COVERAGE - BOLTING (depending on bolting head)

		BH15	BH18	BH22	BH24
Minimum operating height and width (A;D)	mm	2,930	3,150	3,650	3,900
	in	115.3	124	143.7	153.5
Optimum operating height (B)	mm	8,320	8,320	8,320	8,780
	in	327.5	327.5	327.5	345.6
Maximum operating height (C)	mm	10,260	10,260	10,260	10,720
	in	403.9	403.9	403.9	422
Maximum width (E)	mm	12,460	12,460	12,460	13,380
	in	490.5	490.5	490.5	526.7

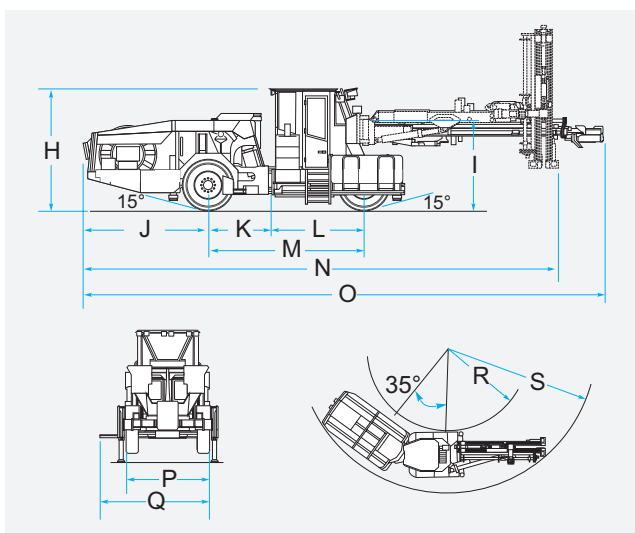
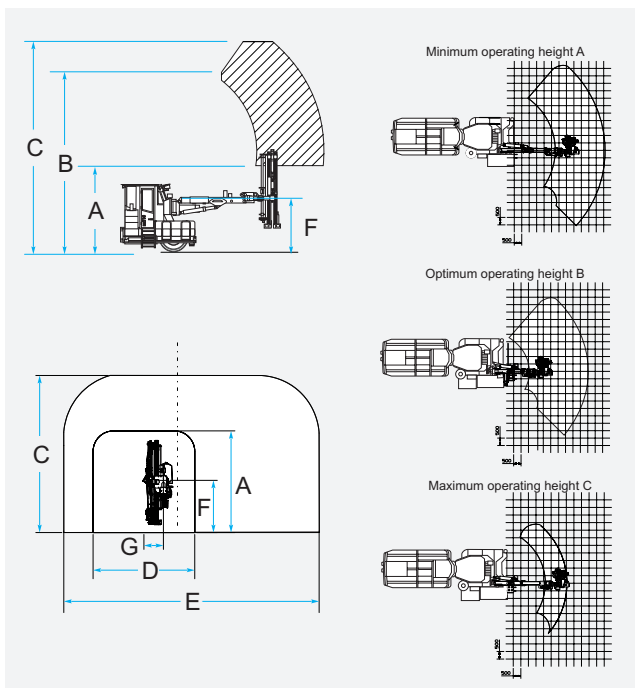
		BH27	BH30	BH40	BH50	BH60
Minimum operating height and width (A;D)	mm	4,110	4,450	5,650	6,650	7,620
	in	161.8	175.2	222.4	261.8	300
Optimum operating height (B)	mm	8,780	8,780	9,620	10,620	10,620
	in	345.6	345.6	378.7	418.1	418.1
Maximum operating height (C)	mm	10,720	10,720	11,560	12,560	12,560
	in	422	422	455.1	494.5	494.5
Maximum width (E)	mm	13,380	13,380	15,060	17,060	17,060
	in	526.7	526.7	592.9	671.6	671.6

MAIN DIMENSIONS

H	3,190 mm	125.6 in
I	2,395 mm	94.2 in
J	3,200 mm	126 in
K	1,820 mm	71.6 in
L	2,300 mm	90.5 in
M	4,120 mm	162.2 in
N	13,365 mm	526.2 in
O	15,200 mm	598.4 in
P	2,500 mm	98.4 in
Q	3,440 mm	135.4 in
R	4,800 mm	189 in
S	9,250 mm	364.1 in

COVERAGE - DIMENSIONS

F	2,567 mm	101 in
G	959 mm	37.7 in



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