



SANDVIK DD311-40C DEVELOPMENT DRILL

TECHNICAL SPECIFICATION

Sandvik DD311-40C is a single-boom electro-hydraulic jumbo for fast and accurate drilling in drifting and tunneling of 40 m² cross sections. The hydraulic controls enable accurate and efficient drilling performance.

The HLX5 rock drill has proven to be efficient and powerful. Optimal coverage is achieved with the robust SB40 boom. The drilling performance can be improved with optional instrumentation.

Sandvik DD311 is the successor of the well-known Sandvik DD310 and offers easier maintenance.

KEY FEATURES

Hydraulic rock drill	Sandvik HLX5
Drill feed	Sandvik TF512
Boom	Sandvik SB40
Coverage area	40 m ²
Hole length	Up to 4,660 mm
Minimum drift size (H x W)	3,000 mm x 3,000 mm
Turning width (T-section)	4,040 mm
Transport width	1,980 mm
Transport height	2,670 mm (lowered cabin) 2,920 mm (high cabin)
Transport length	12,370 mm
Total weight	15,500 kg depending on options



HYDRAULIC ROCK DRILL

TECHNICAL SPECIFICATION TS2-232

Rock drill	Sandvik HLX5
Percussion power	20 kW
Percussion pressure	Max. 220 bar
Percussion rate	67 Hz
Rotation speed	Max. 250 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 - Hex 35 - R32 T38 - Hex 35 - Alpha 330 T38 - Hex 35 -R35
Shank adapter	T38 (male)
Weight	210 kg
Length	955 mm
Profile height	87 mm
Shank lubrication device	Air / oil mist, SLU-1
Air consumption	250 - 350 l/min
Oil consumption	180 - 250 g/h
Inflating device for accumulator	Spec. sheet 2-9110

BOOM

TECHNICAL SPECIFICATION TS2-231

Boom type	Sandvik SB40
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°

Options

- Sandvik SB40NV boom instead of Sandvik SB40.

FEED

TECHNICAL SPECIFICATION 3-1400

Feed type	TF500-10'	TF500-12'	TF500-14'	TF500-16'
Feed force	Max. 25 kN	Max. 25 kN	Max. 25 kN	Max. 25 kN
Total length	4,660 mm	5,270 mm	5,880 mm	6,490 mm
Hole length	2,830 mm	3,440 mm	4,050 mm	4,660 mm
Rod length	3,090 mm	3,700 mm	4,305 mm	4,915 mm
Net weight	470 kg	500 kg	530 kg	560 kg

Options

- TF feed lengths. TF510, TF514, TF516.
- Telescopic feed. Sandvik 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.

HYDRAULIC SYSTEM

Powerpack	HPP555 (55 kW)
Percussion pump	100 cc (variable)
Rotation pump	45 cc (gear)
Filtration size	20 micron (pressure) 10 micron (return)
Oil tank volume	180 liters (drilling) 55 liters (tramming)
Tank filling	Manual pump
Oil cooler	Water cooled. Cooling capacity 1 x 30 kW
Tool set for hydraulic adjustment	Spec. sheet 2-9100

Options

- Electric filling pump.
- Biodegradable oils. Shell Naturelle HFE46 / HFE68.

CONTROL SYSTEM

TECHNICAL SPECIFICATION 5-1010

Type	Sandvik THC560, hydraulic
Manual boom control	Direct control Fully proportional Hydraulic parallelism
Drilling control	Manual collaring Feed / percussion control Anti-jamming system
Automatic cycle	Stop and return automatics

Options

- Constant speed drilling
- Instrumentation TCAD+ with iSURE I-II design and reporting.
- iSure III Analysis (with TCAD+ option).

ELECTRIC SYSTEM

Total input power	70 kW
Main switch	MSE 5
IP classification	Spec. sheet TS2-132
Standard voltage	380 - 690 VAC (± 10%)
Starting method	Star delta, DOL or soft starter depending on voltage
Automatic cable reel	TCR1
Cable reel control (in / out)	Operator station and remote control at rear of unit
Sealed AGM batteries	2 x 12 V, 95 Ah
Front working lights (combined working and driving)	4 x 50 W LED (4,200 lm, 6,000 K)
Front working 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

Options

- Optional voltage. 1,000 VAC, 50 Hz.
- Electric cable rubber or PUR. Spec sheet TS2-121.
- Indicator lights for jacks up.
- Optional outlet. 230 VAC outlet Max. 16 A.
- Battery jump start.
- Extra working lights. 2 x 50 W LED (4,200 lm, 6,000 K).
- Amber strobe light. LED (24 VDC).

FLUSHING SYSTEM

Flushing	Water
Water pump type	WBP1
Water pump capacity	43 l/min
Water pump inlet pressure	2 bar (Min.)
Flushing water pressure	10 - 15 bar
Air compressor	CTN10, 1 m ³ /min (7 bar)

Options

- Air mist flushing. (Spec. 5-9501).
- Water flushing with air cleaning of hole with 2 x 60L air receivers.
- Water flushing with air cleaning of hole with CTN16.
- Air mine connection with IP5 air cleaner.
- Additional air for hole cleaning with air. 2 x 60L air receivers.
- CT28 air compressor.
- Water hose reel with water hose. 32 mm (1 1/4"), 80 meters.
- Water hose with hooks. 32 mm (1 1/4"), 80 meters.

TRAMMING AND OPERATOR STATION

Tramming speed	12 km/h (Horizontal) 5 km/h (14%=1:7=8°)
Gradeability / inclination	Max. 15° / 5°
Safety cabin	FOPS / ROPS (ISO 3449) High cabin ROPS < 16,000 kg Low cabin ROPS < 18,000 kg
Operation	Standing drilling, seated tramming
Sound pressure level according to EN 791	Operator station: 80 dB(A)
Seat	Ergonomic, adjustable for tramming including seat belt
Air conditioning	Filtration 100µ
Reversing alarm	

Options

- Lowered cabin, height 2,670 mm (seated operation).
- T-back seat.
- Cabin heating (webasto) during drilling and tramming.
- CD player / radio / MP3 requires 12 VAC outlet.
- Front screen protection bar.

CARRIER

Carrier	Sandvik NC5
Carrier type	Wheel-mounted, frame steering
Frame steering	± 40°
Rear oscillation	± 10°
Ground clearance	320 mm
Diesel engine	BF4M2011, 62 kW, Tier 2, Stage II
Diesel engine control	Electronic, EMR
Exhaust catalyzer	Standard
Transmission	Hydrostatic, automotive
Axles	Dana spicer 112 with extended differential breathers
Tires	12.00-20
Service brakes	Hydrostatic and positive braking
Parking and emergency brakes	Hydraulic oil immersed multiple disc brakes on both brakes
Fuel tank	80 liters
Hydraulic jacks	Telescopic (front) Vertical (rear)

Options

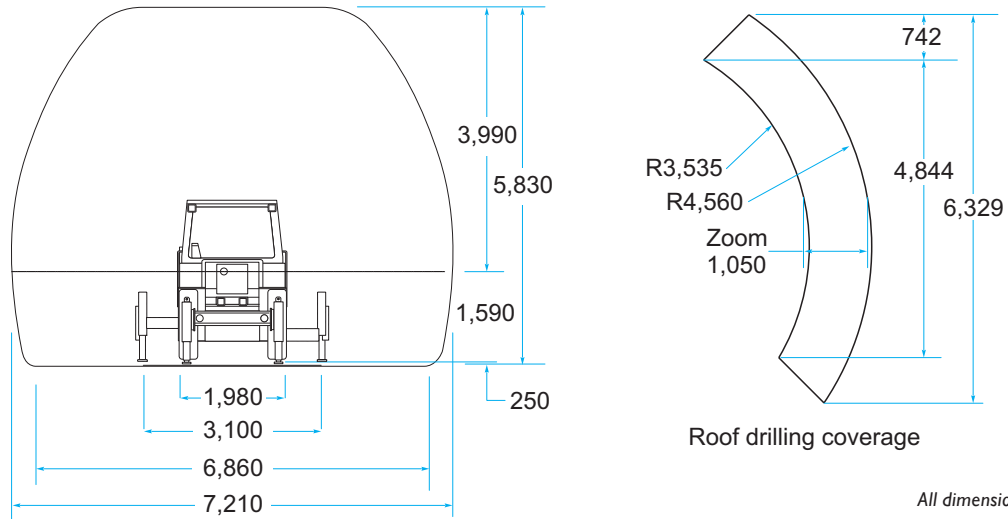
- Diesel engine TCD2012, 74 kW, Tier 3, Stage IIIA.
- Foam-filled tires.
- Fast filling systems. Complete.
- Wheel chocks and holder (2 pieces).
- Manual hand pump for brake release.
- Reversal rotation for cleaning.
- LP cleaning system with reel. Max. 15 bar.
- HP cleaning system with reel. Max. 180 bar.
- Centralized greasing points. Boom and carrier.
- Greasing unit with pump, reel and nozzle. Manual.
- Automatic greasing system. Boom and carrier.
- Handheld fire extinguisher. 1 or 2 pcs 9 kg Type ABC.
- Manual fire suppression system. 6 nozzles (incl.1 x extinguisher).
- Auto. fire suppression system. 6 nozzles (incl.1 x extinguisher).
- Access detector system. (Spec. TS2-211).

Packages

- Regional packages. LAM, USC, AUS, EUR.
- Harsh water packages. Basic or advanced (Spec. TS2-049).
- Rotary drilling package (Spec. TS2-195).
- Arctic package. Excl. 1,000 VAC and USC package (TS2-195).

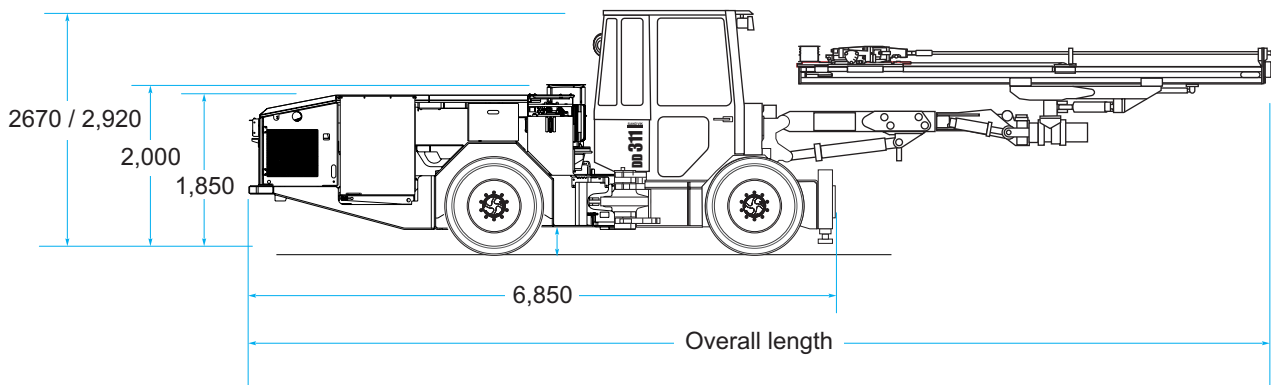
Extra items

- Ground fault and overcurrent protection (VYK).
- Spare rock drill.
- Spare wheel assembly. Standard or foam-filled.
- Special tools for rock drill.
- Documentation. Extra manuals.

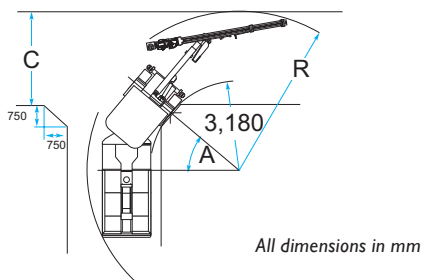


All dimensions in mm

	TF510	TF512	TF514	TF516	TFX6/12	TFX8/14
Overall length mm	11,820	12,370	12,570	13,020	11,905	11,905

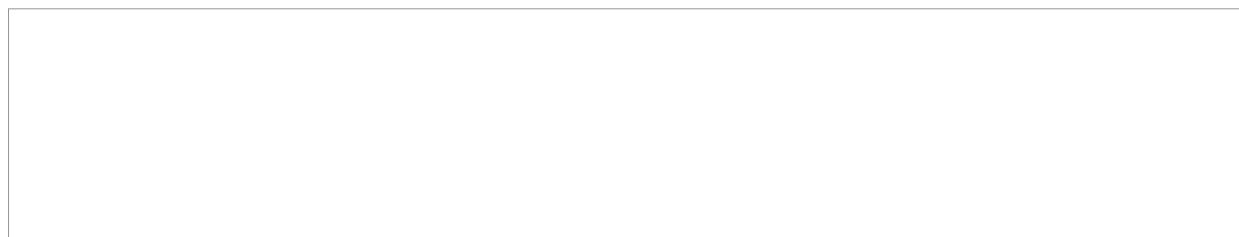


All dimensions in mm



All dimensions in mm

	Angle (A)	Radius (R)	T-cross (C)
DD311-40C (TF510)	mm 40°	6,168	3,920
DD311-40C (TF512)	mm 40°	6,290	4,040
DD311-40C (TF514)	mm 40°	6,425	4,170
DD311-40C (TF516)	mm 35°	7,000	4,800
DD311-40C (TFX6/12)	mm 40°	6,230	3,980
DD311-40C (TFX8/14)	mm 40°	6,230	3,980



Sandvik Mining 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.

MINING.SANDVIK.COM

4. SANDVIK DD311-40C