



# DB311 SECONDARY BREAKING DRILL

TECHNICAL SPECIFICATION

Sandvik DB311 is a Secondary Breaking Unit (SBU) for rock boulders reduction and ore facilitation in mass mining methods, enabling fast recovery of full mining production when large rock boulders cause draw points blockages.

Sandvik DB311 is a fully autonomous unit based on self-contained diesel hydraulic carrier, with on-board water tank and large air compressor for air-mist flushing. The drill rig does not require any connection to external power nor water hose, thus allowing fast set up and removal in production areas.

The robust telescopic boom with double rotation actuators and compact feed offers an easy positioning within confined spaces at drawpoints. The high frequency rock drill enables fast drilling, short time exposure in drawpoints.

Drill and blast method is used to fragment the boulders.

The explosive charging system is not included.

The drill rig layout is designed for good visibility and stability. This, and the powerful four-wheel-drive articulated carrier, ensure fast and safe manoeuvring in narrow drifts. The operator environment and added automatic functions allow the operator to concentrate on safe, fast and accurate drilling.

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

## KEY FEATURES

Coverage area	30 m <sup>2</sup>
Hydraulic rock drill	1 x RD314
Drilling feed	1 x CF8
Boom	1 x B26B NV
Hole length	Up to 2 230 mm
Drift size class (H x W)	3 000 mm x 3 000 mm
Turning width (T-section)	3 600 mm
Transport width	1 980 mm
Transport height (canopy)	2 140 mm / 3 100 mm
Transport height (cabin)	2 920 mm or 2 670 mm
Transport length	10 720 mm
Total weight	15 000 kg depending on options



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## HYDRAULIC ROCK DRILL

Type of rock drill	RD314 (TS2-137)
Percussion power	14 kW
Percussion pressure	Max. 180 bar
Percussion rate	110 Hz
Rotation speed	Max. 520 rpm (with OMS100)
Rotation torque	400 Nm (with OMS100)
Hole size	43 - 51 mm
Shank adapter	R32 - T38 (male)
Weight	115 kg
Length	559 mm
Profile height	95 mm
Inflating device for accumulator	Specification TS2-430

## DRILLING FEED

Type of feed	CF-feed (TS2-258)
Feed force	Max. 31 kN
Total length	3 560 mm
Hole length	2 230 mm
Rod length	2 475 mm (8')
Net weight	320 kg

## BOOM

Type of boom	B26B NV (TS2-346)
Parallel coverage	30 m <sup>2</sup>
Boom extension	1 200 mm
Boom weight, net	1 600 kg
Roll-over angle	360°

## HYDRAULIC SYSTEM

Powerpack	Diesel hydraulic powered
Filtration (pressure / return)	20 μ / 10 μ
Oil tank volume	330 liters (drilling)
Oil tank filling pump	Electric
Cooler for hydraulic oil	OA21 oil-to-air (1 x 21 kW)

## DRILLING CONTROL SYSTEM

Type of control system	THC561 (TS2-362)
Operating principle	Hydraulic control
Manual boom control	Direct control Fully proportional Hydraulic parallelism
Drilling control	Manual collaring Feed / percussion pressure control Feed / percussion pressure monitoring Anti-jamming system Flushing control (On /Off/Auto.) Reaming control
Automatic cycle	Stop and return automatics
Drilling safety	Boom movements inhibition switches

## ELECTRIC SYSTEM

Main switch gear	MSE 5 (24V)
IP classification	Specification TS2-132
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)
Rear 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
Search light	Remoted with cabin: 1 x 40W LED (2 300 lm, 5 700 K) Manual with canopy: 1 x 17W LED (600 lm, 6 000K)

## AIR AND WATER SYSTEM

Flushing of holes	By air mist
Water booster pump	CAT pump (hydraulic driven 25 cc)
Water pump capacity	16 l/min
Water pump inlet pressure	2 bar (Min.)
Flushing water pressure	10 - 15 bar
Shank lubrication device	SLU-1 (air / oil mist)
Air compressor	2.8 m <sup>3</sup> /min (at 7 bar) hydraulic driven 16 cc
End of hole air flushing	1 x 60 liters air receiver
Water tank	500 liters (parts of flushing packages)
Air mist flushing packages	For internal supply of air and water
Rock drill oil consumption	100 - 200 g/h
Rock drill air consumption	150 - 250 l/min

## OPERATOR'S SAFETY CABIN

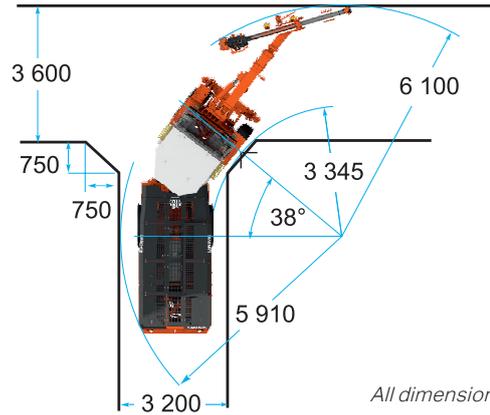
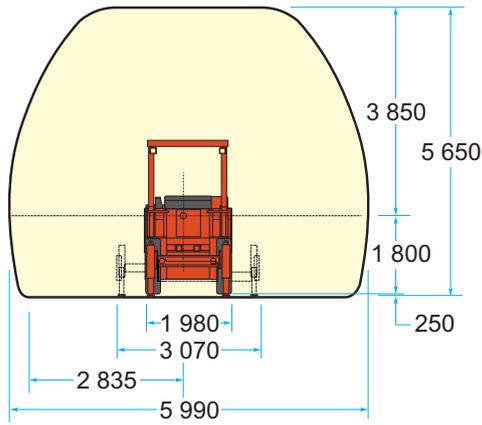
Cabin certification	FOPS / ROPS (ISO 3449)
Unit height in tramming (FOPS)	Height 2 920 mm
Sound pressure level according to EN 16228	Operator station: 80 dB(A)
Operator's seat	Ergonomic T-back seat
Operation	Standing drilling, seated tramming
Air conditioning	Standard
Tramming cameras	On rear frame and cabin or canopy

**CARRIER**

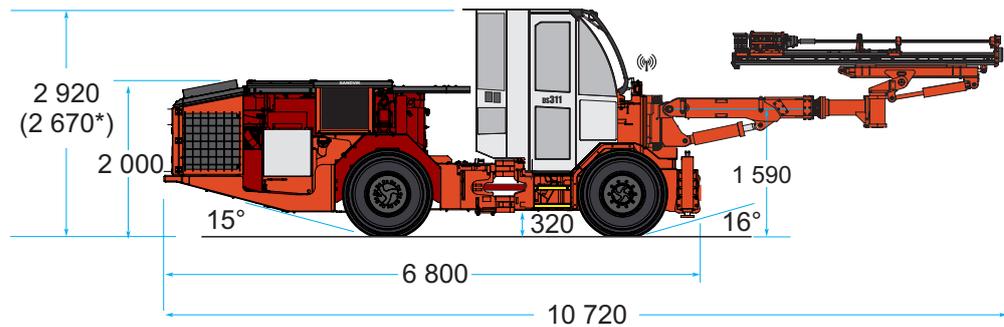
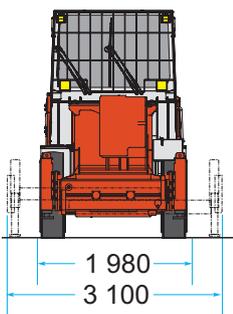
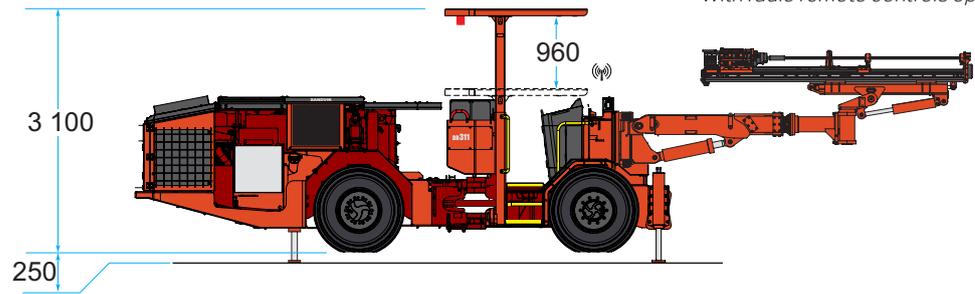
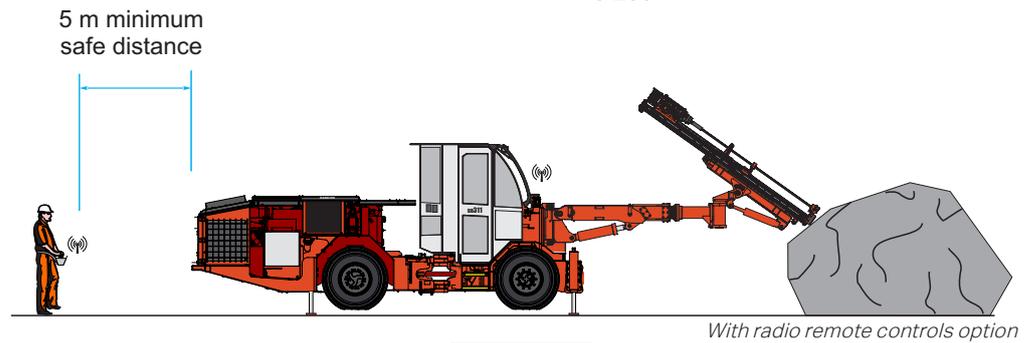
Type of carrier	NC5-17
Steering system	Frame steering
Carrier articulation	± 38°
Rear axle oscillation	± 10°
Ground clearance	320 mm
Diesel engine	Deutz TCD2012, 100 kW, Tier 3, Stage IIIA, China 3
Exhaust catalyzer	Standard
Transmission	Hydrostatic, automotive
Axles	Dana spicer 112 with extended differential breathers
Tires	12.00-20
Service brakes	Hydrostatic and positive braking
Parking and emergency brakes	Hydraulic oil immersed multiple disc brakes on both brakes
Tramming speed	12 km/h (horizontal) 5 km/h (14%=1:7=8°)
Gradeability / sideways tilt	Max. 15° / 5° (according to EN 16228-2)
Fuel tank	160 liters
Tramming oil tank	55 liters (tramming)
Carrier stabilization	Telescopic (front) Vertical (rear)
Tramming alarm	Standard
Knowledge Box™	Connectivity solution (TS2-535) My Sandvik insight readiness (TS2-390)
Documentation	1 x Operator's manual 1 x Technical manual (in English only) 1 x Parts manual (in English only) 2 x USB key of manuals (PDF files) 1 x Online Parts manuals (MySandvik)

**OPTIONAL FEATURES AND PACKAGES**

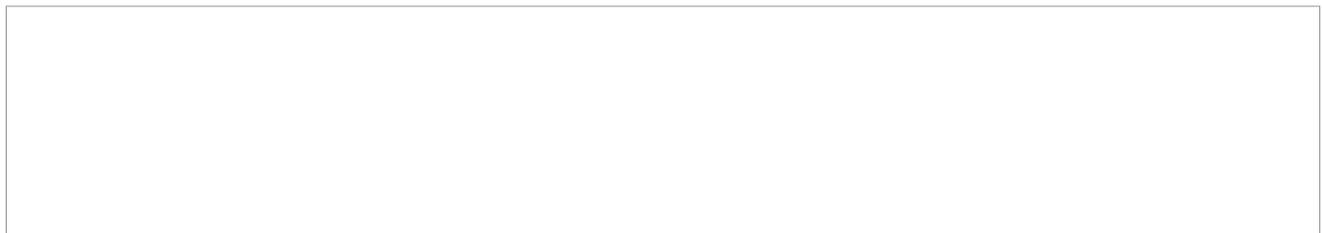
<b>Drilling feed</b>	
*CF Feed length	10', 12'
<b>Electric system</b>	
Battery jump start	Optional
Amber flashing light	LED (24 V)
<b>Drilling control system</b>	
Radio remote controls	Drilling
Access detector system	Mandatory in Europe (TS2-211)
Access protector system	Mandatory in Canada (TS2-211)
<b>Cleaning system</b>	
HP system with reel	Up to 180 bar (TS2-343)
<b>Greasing systems</b>	
Centralized greasing points	Specification TS2-463
Manual system	Grease gun and cartridge system
Automatic system	Carrier and boom
<b>Operator's safety cabin / canopy</b>	
*Safety canopy	FOPS / ROPS certification
*Lowered cabin	FOPS / ROPS certification Height 2 670 mm, During drilling and tramming
Cabin heating	CD player / radio / MP3 / Bluetooth and loudspeakers
Cabin audio system	For cabin or canopy
Safety grill	
<b>Fire suppression system</b>	
Hand held fire extinguisher	1 x 6 kg Type ABC
Manual or automatic system	Ansul, 6 nozzles (TS2-460)
Auto. fire suppression system	Sandvik Eclipse™ (TS2-461)
<b>Carrier</b>	
*Diesel engine	Deutz TCD3.6, 100 kW, Tier 4F, Stage V, Canmet
*Foam filled tires	4 pcs
Fast filling and evacuation system	Wiggins (complete)
Brake release	Manual hand pump
Knowledge Box™	My Sandvik productivity readiness (TS2-390)
Wheel chocks and holders	2 Sets
*Directional tramming alarm	Cri du Lynx®
<b>Extra items</b>	
Spare rock drill	RD314
Tools and pressure test box	Specification TS2-429
Spare wheel assembly	Air or foam filled tires
Special tools for rock drill	Field tool set (TS2-119)
Warranty extension	Complete tool set (TS2-118)
Documentation	One year (excl. Kazakhstan)
Package: Country specific options	Extra paper, PDF manuals
Package: Harsh water	LAM package Basic or advanced (TS2-049)
*) Replaces standard feature	



All dimensions in mm



\* With low cabin option  
All dimensions in mm



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