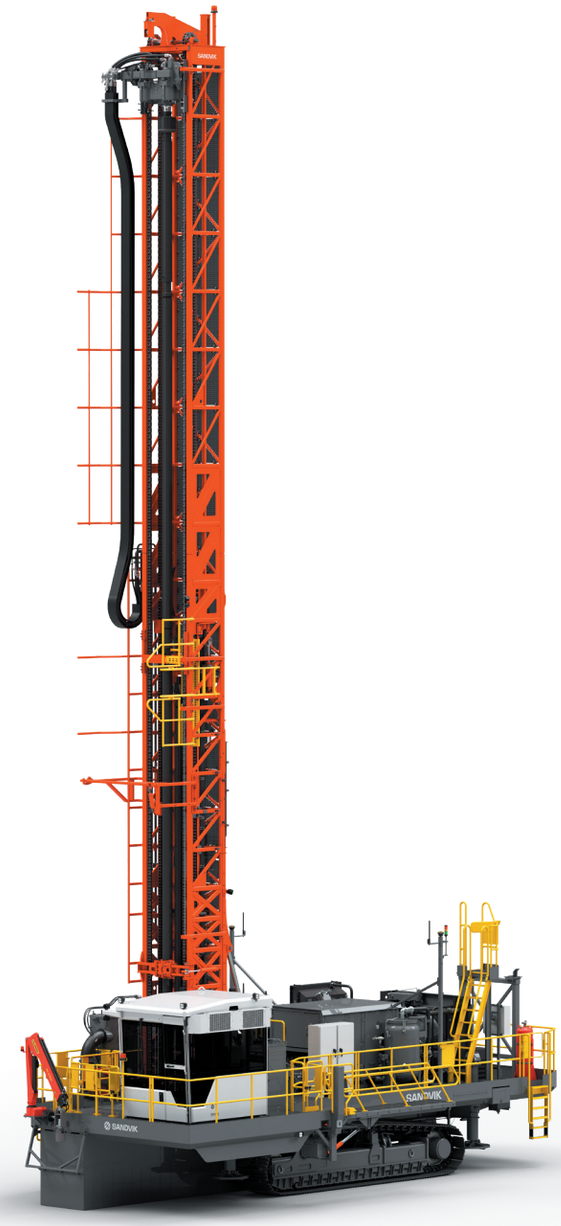
Sandvik DR411i

Rotary / DTH blast hole drill



Sandvik DR411i is a diesel-powered, self-propelled, crawler-mounted blasthole drill for surface mining. It is standard equipped for rotary with optional down-the-hole (DTH) hammer drilling power.

Higher productivity through innovation
Sandvik DR411i uses a CAN bus controlled hydraulic system to monitor the machine, allowing for timely preventative maintenance while delivering higher availability.

Rugged design
Sandvik DR411i is equipped to drill 171 to 270 millimeter (6 .75 to 10.63 inch) diameter blastholes with first-pass capacity of 16.8 meters (55 feet) or multi-pass capacity of 65.5 meters (215 feet).

Innovation for safer operation
Pipes can be handled from within the cab using the Sandvik carousel and breakout system, with optional Hands free bits changing capability.

Operator comfort and control
The ergonomically designed cab includes controls and touchscreen integrated into the operators seat and a safari-style roof to keep the cab cooler.

Easier access
360° walkways enable superior drillaccess for routine maintenance. An optional hydraulic main-access stairway can be mounted to provide a parallel step onto and off the drill.

Designed with safety in mind
We designed Sandvik DR411i with worldwide standards in mind, such as ISO standards, Mining Design Guidelines (MDG) for mobile and transportable equipment in mines, Earth Moving Equipment Safety Round Table (EMESRT) Design Philosophies.

Compressor management
Advanced compressor management reduces the compressor load allowing the operator to manage air volume and pressure to maximize efficiency and reduce fuel burn reducing your carbon footprint and extending engine and compressor life.

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Performance	
Hole diameter	171 – 270 mm / 6.75 – 10.63 in
First pass hole depth (Std. Mast)	12.2 m / 40 ft.
First pass hole depth (Ext. Mast)	16.8 m / 55 ft.
Max. hole depth (Std. mast)	65.5 m / 215 ft.
Max. hole depth (Ext. mast)	24.4 m / 80 ft.
Pull down force	311 kN / 70,000 lbf.
Weight on bit	36,287 kg / 80,000 lbs.
Power group	
Engine options:	
CAT C27 (Tier 4 / Non Tier 4)	652 kW / 875 HP
Cummins QSK 23 (Tier 4 / Non Tier 4)	708 kW / 950 HP
Compressor options:	
Rotary drilling	56.6 m^3/min @ 8.6 bar / 2,000 SCFM @ 125 psi
DTH drilling	41 m^3/min @ 24.1 bar / 1,450 SCFM @ 350 psi 38.2 m^3/min @ 34.5 bar / 1,350 CFM @ 500 psi
Fuel tank	1,892 l / 500 gal.
Ambient operating range	-40° to 50°C / -40° to 122°F
Hydraulic system	
Reservoir capacity	833 l / 220 gal.
Frame and integral jacks	
Main frame	Designed with wide flange beams and design verified by structural FEA calculations
Walkways	Slip resistant FRP grating on all maintenance areas
Leveling jacks	4
Pad diameter	762 mm / 30 in
Pad to ground clearance	460 mm / 18 in
Undercarriage	
Model	S41HD
Track shoe width	850 mm / 33.5 in
Track shoe type	Triple grouser
Width over tracks	3,970 mm / 156.3 in
Track length	6,133 mm / 241.4 in
Tram speed	1.5/2.3 kmph / 1/1.5 mph

Mast	
Construction	Designed with rectangular structural tubing and design verified by structural FEA calculations
Angle drilling	0 - 30° for std. mast 0 - 20° for ext. mast
Hoist	17.8 kN / 4,000 lbf.
Pipe loader	4/5 pod loader for std. mast (varies on pipe size) 1 pod loader for ext. mast
Pipe size	152 mm / 6 in, 159 mm / 6.25 in, 165 mm / 6.50 in, 178 mm / 7 in, 194 mm / 7.63 in, 219 mm / 8.63 in
Feed	
Feed type	Twin cylinders with heavy duty roller chains
Pull down force	311 kN / 70,000 lbf.
Feed down rate	0 – 23.8 m/min. / 0 – 78 fpm
Pull back force	102 kN / 23,000 lbf. (Extended mast) 147 kN / 33,000 lbf. (Standard mast)
Feed up rate	0 – 39.6 m/min. / 0 – 130 fpm
Chain tensioning	Manual - standard Automatic - option
Rotary head	
Model	MRH 10
Rotary power	149 kW / 200 HP
Speed	0 - 150 RPM
Bull shaft thread	5.5 in API REG.
Operator's cab	
Certification	FOPS rated (ISO 3449 level II)
Sound level	80 dB or less
Operator's seat	Fully adjustable and swiveling with lumbar support, pnuematic suspension and 3 point seat belt
Helper's seat	With 2-point seat belt
Camera display	Tramming and pipe handling
HVAC system	-40° to 50°C / -40° to 122°F Standard – Single system Optional – Dual system
Cabin filtration	HEPA filtration with pressure / CO_2 monitoring system
Sunshades	Standard on all windows – retractable
AM/FM radio	Standard w/ bluetooth

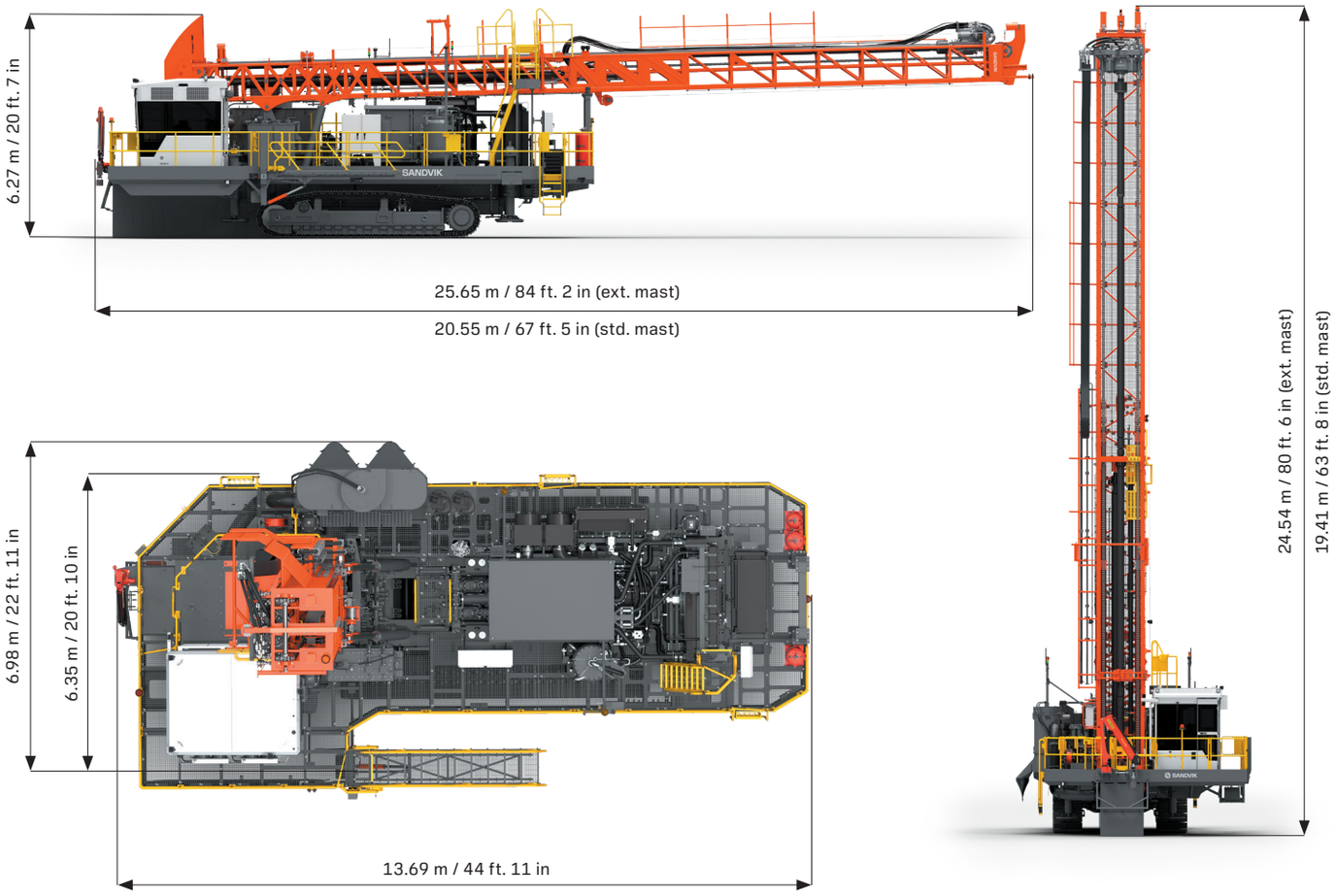
Operator's controls	
Location	Seat mounted left and right hand control panels for all drill functions
GUI	Seat mounted 12" touch screen
Dust suppression	
Dust collector	203 m³/min. / 7,200 CFM (for Rotary) 127 m³/min. / 4,500 CFM (for DTH)
Water injection (w/ or w/o DC)	2,271 l / 600 gal.
Water pump	30 lpm / 7.9 GPM
Dust hood	Hyd. cylinder actuated dust door and curtains
Standard features	
Lighting	LED lights for access and maintenance
Chain lubrication	Electric, operated from cab
Central grease lubrication	Electric, automatic
Thread lubrication	Electric, operated from cab
Cameras	2 for tramming 2 for pipe handling
Safety features	Emergency stops near all ladders and on main elec. enclosure; pull type cable stop on mast; fuel fill isolator on fluid service center
Fluid service center	Remote fill points: fuel, engine coolant, hyd. oil, central lube, chain lube Remote drain points: engine oil, engine coolant, hyd. oil, compressor oil, pump drive oil
Strobe lights	2 (on mast and on frame)
Oil Sampling	Live SOS sampling points for: hydraulic oils and compressor oils
Diagnostics package	Sensor package for key pump parameters
Options	
Radio remote	For tramming and hoist
Mast access	FRP infill and lifeline on mast with access ladder
Wash down	Water wash hose reel
Hammer lube / bit lube	115 l / 30 gal.
Deck crane	For bit handling
Fire suppression	Sandvik eclipse wet fire suppression system
Additional cameras	360° camera package for an all around view of the machine

Arctic package	
Genset	30 kW / 40 HP
Electric heaters	Hydraulic oil, water, chain lube, pump drive, compressor oil, engine oil, battery warmer
Fuel fire heaters	Water, engine coolant
Insulation wrap	On water pump and receiver tank
Water purging	Automatic water purging system to prevent water freezing during idle, maintenance and shutdown
Automation & technology features	
iDrill Performance	Auto level Auto Mast Adaptive Auto Drill
iDrill Navigation	High precision TIM 3D navigation (Trimble / Leica)
Automine® readiness package	Line of sight Control Room Autonomous
Connectivity	Onboard Knowledge box® (4G / LTE , Wifi)
iLink interface	3rd party interface through Rest API
Digital solutions	Driller's office My Sandvik Onsite My Sandvik Productivity Remote Monitoring Service

Dimensions	
Length - Mast up	13.69 m / 44 ft. 11 in
Length - Mast down (std. mast)	20.55 m / 67 ft. 5 in
Length - Mast down (ext. mast)	25.65 m / 84 ft. 2 in
Height - Mast down	6.27 m / 20 ft. 7 in
Height - Mast up (std. mast)	19.41 m / 63 ft. 8 in
Height - Mast up (ext. mast)	24.54 m / 80 ft. 6 in
Width w/ dust collector	6.98 m / 22 ft. 11 in
Width w/o dust collector	6.35 m / 20 ft. 10 in

Weight	
Estimated operating weight	83.9 – 97.1 tonnes / 185,000 – 214,000 lbs.

Dimensions are per engineering drawings, actuals may vary slightly. Weights are approximate and subject to change without notice. All performance figures are theoretical and at 100% systems efficiency.



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