



SANDVIK D55SP ROTARY/DTH BLAST HOLE DRILL

TECHNICAL SPECIFICATION

The D55SP is a diesel powered, self-propelled crawler mounted drill designed for high pressure down-the-hole and/or rotary blasthole drilling in quarrying and the mining industry. The D55SP is equipped to rotary drill 172 to 254 mm (6 3/4" to 9 7/8") diameter holes. This drill can single pass up to 17 m (55'), including angle drilling with standard tooling for breaking the bit above the table.

- Total depth capacity of 32 m (105').
- Maximum pulldown is 200 kN (45,000 lbf)
- Maximum pullback is 967 kN (21,677 lbf)
- Maximum bit load is 232 kN (52,000 lbf).



PERFORMANCE

	Metric	Imperial
Hole diameter	172 - 254 mm	6 3/4" - 10"
Maximum hole depth	17 m	55' Single Pass
Drill pipe	7.62 m	25'
Maximum pull-down	200 kN	45,000 lbf
Maximum bit load	232 kN	52,000 lbf
Feed rate	0 - 35.4 m/min	0-116 fpm
Operating weight*	79,333 kg	174,900 lb

*Weights are approximate and subject to change without notice. All performance figures are theoretical and at 100% systems efficiency.

POWER GROUP

(Non-Tier 4)*	Metric	Imperial
Rated horsepower	567 kW	760 hp
Full load rpm	1,800 RPM	
Standard ambient rating	-VE 15°C +VE 54°C	5°F -130°F
Fuel tank	2,274 L	600 gal
High pressure	38.2 m³/min	1,350 scfm
DTH	24.1 bar	350 psi
Low pressure	45.3 m³/min	1,600 scfm
Rotary	6.9 bar	100 psi

*Consult factory for tier 4 options

FRAME AND INTEGRAL JACKS

	Metric	Imperial
Main frame	CAD/FEA designed, wide flange beam main rails w/ heavy cross bracing reinforced at high-stress areas.	
Walkways	Open grip strut, 610 mm (24") wide, from cab to right deck and front to service cooler and air cleaners. Left side to service compressor receiver tank and dust control systems. Complete w/ handrails, kickplates & access ladders.	
Lifting hooks	Welded, 2 front, 2 rear	
Leveling Jacks	Three	
Pad diameter	7621 mm	30"
Pad ground clearance	559 mm front, 457 mm rear when retracted	22" front, 18" rear when retracted

UNDERCARRIAGE

	Metric	Imperial
Model	Sandvik S40HD	
Pad width	850 mm	33 1/2"
Pad type	Triple grouser	
Width over tracks	4,34 m	14' 3"
Tram speed	2.4 km/h	1 1/2 mph
Gradeability, mast down	58% (approx. 30°)	

FEED SYSTEM

	Metric	Imperial
Feed type	Hydraulic cylinder and chain	
Brake	Spring set, hydraulic release	
Chain type	2 heavy series roller chains with heavy side bars and thru hardened pins	
Chain size	ANSI #180 Super-H Series, 57.2 mm pitch	ANSI #180 Super-H Series, 2 1/4" pitch
Rotary head stroke	18.9 m	62'
Bit load	232 kN	52,000 lbf with heavy wall pipe
Chain adjustment	Manually adjusted hydraulic	

HYDRAULIC SYSTEM

	Metric	Imperial
Oil reservoir	872 L w/sight glass	230 gal & temp. gauge
Reservoir pressurization	34.5 kPa air, filtered breather	5 psi air, filtered breather
Reservoir refill capacity	1,213 L	320 gal
Standard ambient rating	40 to +100°C	40 to +212°F

MAST

	Metric	Imperial
Construction	Rectangular tubing, welded, spray transfer welding method w/beveled toe joints and recessed side members, and reinforcing in high stress areas. CAD designed.	
Pivot bushings	Replaceable alloy aluminum bronze	
Hydraulic lines	Pressure rated steel hydraulic tubing, all pipes clamped in plastic clamps	
Table hole diameter	508 mm	20" for holding wrench pilot
Mast Raising cylinders	two	
Angle drill	0° to 20° in 5° increments	

OPERATOR'S CAB

	Metric	Imperial
Certification	FOPS rated AS2294, meets drop criteria per SAE J231	
Sound level rating	80 dB(A) or less	
Floor area	4 m ²	43 ft ²
Height inside	2.28 m	90"
Length	1.83 m	6 ft
Width	2.2 m	87"
Construction	Welded 10 gauge steel w/ 3/16" sheet steel roof	
Doors	Two, swing type with heavy duty hinges and rotary type latch	
Operator's seat	Fully adjustable and swiveling with adjustable lumbar support, shoulder type seat belt	
Helper's seat	Fixed	

ROTARY HEAD

	Metric	Imperial
Rotary power	136 kW	182 hp
Standard rotary speed/torque	131 rpm at 9,943 Nm	88,000 in-lb
Alternate rotary speed/torque w/ 5 1/2" API thread	114 rpm at 10,993 Nm 145 rpm at 8,643 Nm	97,300 in-lb 76,400 in-lb
Bullshaft thread	3 1/2" API REGULAR	

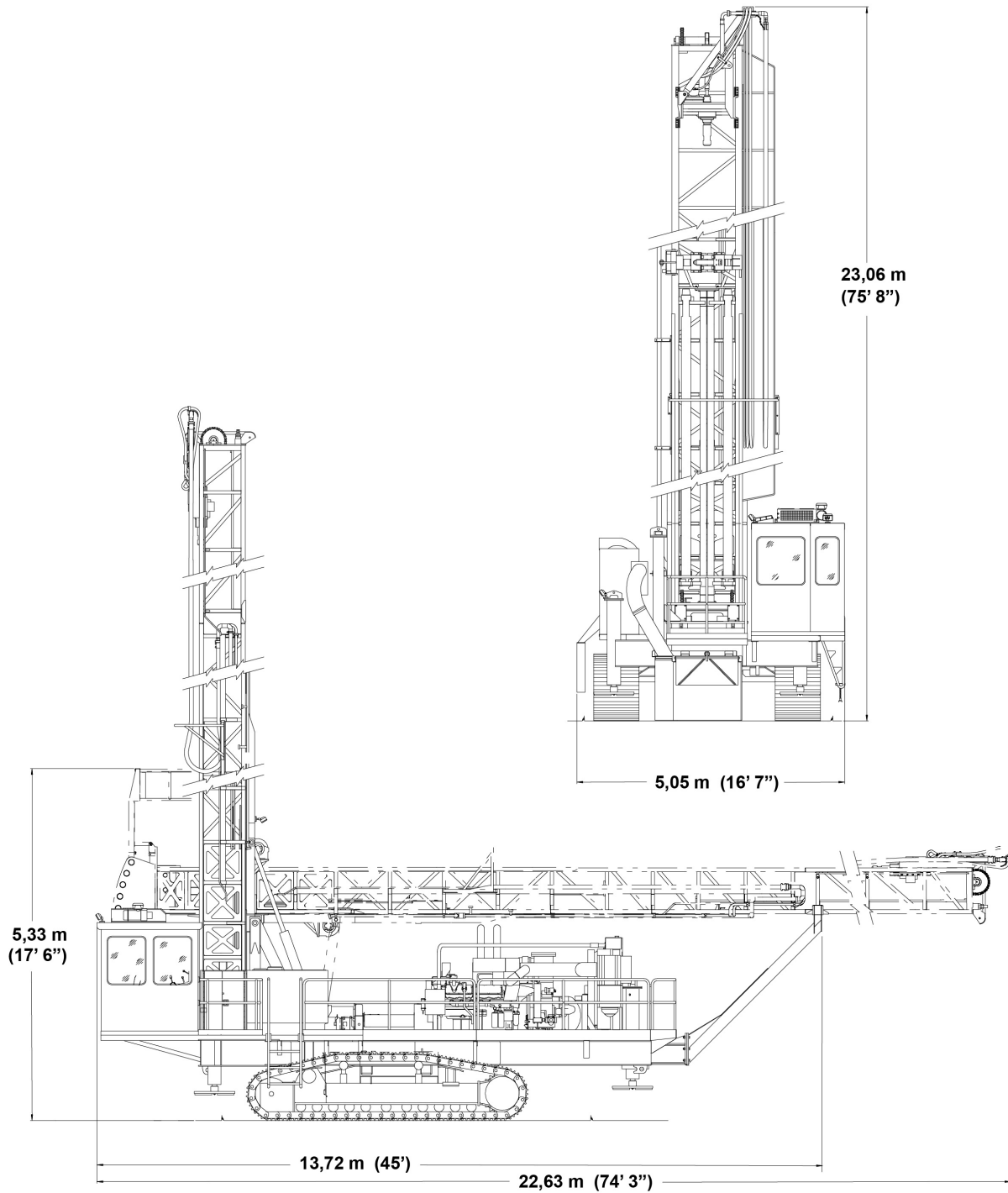
DIMENSIONS

	Metric	Imperial
Mast up height (single-pass)	23.06 m	75' 8"
Operating width	5.05 m	16' 7"
Mast down length (single-pass)	22.63 m	74' 3"
Mast down height w/ work deck	5.33 m	17' 6"
Mast up length	13.72 m	45' 0"

WEIGHT

Base unit less tools	51,937 kg	114,500 lb
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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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