



# SANDVIK D90KS ROTARY BLAST HOLE DRILL

## TECHNICAL SPECIFICATION

The Sandvik D90KS is a diesel powered, self-propelled crawler mounted blasthole drill for mining. It is equipped to rotary drill 229 to 349 mm (9" to 13 3/4") diameter holes. This modern design, with excellent visibility, powerful slewing, and strut-less mast support, results in high mobility, good hole spotting, and maximum productive time. The D90KS is one of the most powerful diesel driven rigs available.

- Hole depth is up to 85 m (279') Multi-Pass Mast
- First pass depth up to 20 m (65') Single-Pass Mast
- Pulldown is up to 400 kN (90,000 lbf)
- Bit load is up to 523 kN (118,000 lbf)
- Pullback is up to 209 kN (47,000 lbf)



**PERFORMANCE**

	Metric	Imperial
Hole diameter	228 - 349 mm	9 - 13.75"
Maximum hole depth	85 m	279'
Drill pipe	12.19 m	40 ft
Maximum pull-down	400 kN	90,000 lbf
Maximum bit load	523 kN	118,000 lbf
Feed rate	0 - 21.6 m/min	0 - 71 fpm
Operating weight*	140,614 kg*	310,000 lb

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

**POWER GROUP**

	Metric	Imperial
Rated horsepower	447 kW	600 hp
Full load rpm	1,800 RPM	
Standard ambient range	54°C	130°F
Fuel tank	3,785L	1000 gal
Volume	73.6 m <sup>3</sup> /min	2600 scfm
Pressure	5.52 bar	80 psi

**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	
Lifting hooks	Welded, 2 front, 2 rear	
Pad diameter	1,219 mm	48"
Pad ground clearance	889 mm front, 737 mm rear when retracted	35" front, 29" rear when retracted

**UNDERCARRIAGE**

	Metric	Imperial
Model	350 Excavator (multi-pass) 385 Excavator (single-pass)	
Pad width	900 mm	35-2/5"
Pad type	Triple grouser	
Width over tracks	5.33 m	17' - 6"
Tram speed	1.2 km/h	3/4 mph
Gradeability, mast down	42%	

**MAST**

	Metric	Imperial
Construction	CAD/FEA designed, rectangular tubing, single cut, beveled toe joint design, angle and plate reinforced lower section	
Pivot bushings	Replaceable alloy aluminum bronze	
Hydraulic lines	Pressure rated steel hydraulic tubing, rotation, feed and air pipes shocked mounted	
Table hole diameter	660 mm	26" for holding wrench pilot
Mast Raising cylinders	two	

**FEED SYSTEM**

	Metric	Imperial
Feed type	Hydraulic cyl. & chain, 46' headstroke mast Hydraulic motor & chain, 65' single pass	
Brake	Spring set, hydraulic release	
Chain type	Heavy series roller chains with heavy side bars and through hardened pins	
Chain size	ANSI #SURGR 240H, 76.2 mm pitch	ANSI #SURGR 240H, 3" pit
Rotary head stroke	12.19 m	40'
Bit load	49,896 kg	110,000 lb
Feed rate	0 to 21.6 m/min	0 to 71 fpm
Chain adjustment	Manually adjusted hydraulic	

**HYDRAULIC SYSTEM**

	Metric	Imperial
Oil reservoir w/sight glass & temp. gauge	1,155 L	305 gal
Reservoir pressurization air, filtered breather	34.5 kPa	5 psi
Reservoir refill capacity	1,325 L	350 gal
Standard ambient rating	40 to +100°C	-40 to +212°F

**OPERATOR'S CAB**

	Metric	Imperial
Certification	Steel FOPS cover over AC unit meets AS 2294-1979 & ISO 3449-1992 FOPS drop test criteria	
Length	2.43 m	8' 0"
Width	2.13 m	7' 0"
Floor area	5.2 m <sup>2</sup>	56 ft. <sup>2</sup>
Height inside	1.98 m	6' 6"
Construction	Welded 10 gauge steel w/ 3/16" sheet steel roof	
Doors	2 with heavy duty hinges lockable door latches	
Operator's seat	Fully adjustable and swiveling with adjustable lumbar support, shoulder type seat belt	
Helper's seat	Fixed	
Sound level rating	81.8 dBA operating in drill mode tested per SAE J9196	

**ROTARY HEAD**

	Metric	Imperial
Standard rotary speed/torque	0-97 rpm at 16,900 Nm	149,570 in-lb
Alternate rotary speed/torque	0-118 rpm @ 13,973 Nm 0-145 rpm @ 11,327 Nm 0-175 rpm @ 9,365 Nm	123,670 in-lb 100,250 in-lb 82,890 in-lb

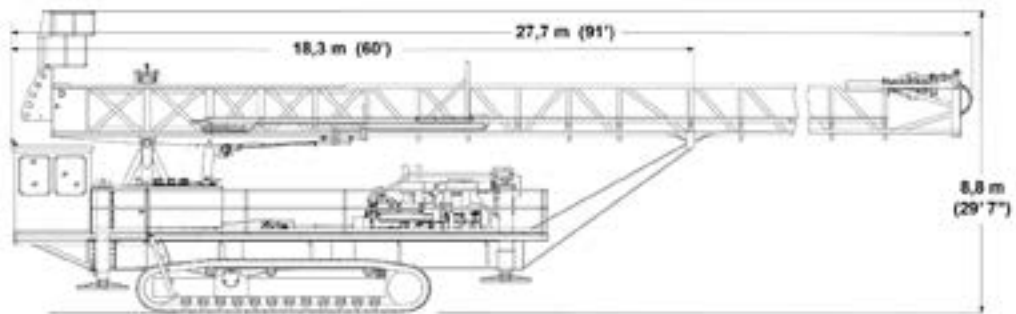
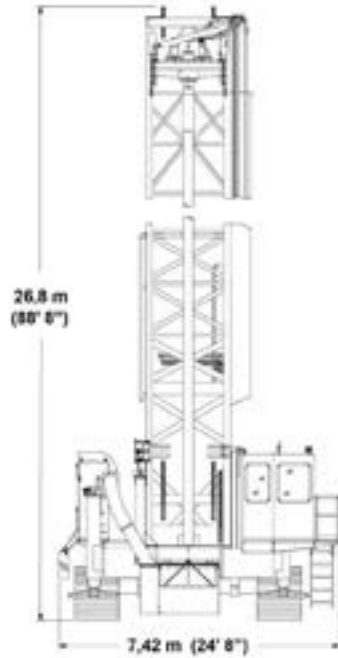
**DIMENSIONS**

	Metric	Imperial
Mast up height (single-pass)	26.8 m	88' 8"
Operating width	7.42 m	24' 8"
Mast down length (single-pass)	27.7 m	91'
Mast down height w/ work deck	8.8 m	29' 7"
Mast up length	18.3 m	60'

**WEIGHT**

Base unit less tools	104,328 kg	230,000 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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