

DL2720 TOP HAMMER LONGHOLE DRILL

TECHNICAL SPECIFICATION

Sandvik DL2720 is a fully mechanized and compact electro-hydraulic top hammer longhole drill designed for underground mining in 3.2 x 3.2 meters or larger production drifts. It is capable of drilling vertical and inclined fans and single or parallel diameter 64 – 89 mm longholes up to 38 meters in length, using T38, T45 and T51 MF-rods or Ø65 mm tube rods.

Sandvik DL2720 is mounted on a 4-wheel drive frame-steered and diesel powered carrier. It is equipped with HL820ST hydraulic rock drill, LFRC700 drilling module, FR10 longhole boom, VIC control system and FOPS operator's safety canopy for high drilling capacity, good hole accuracy and maximum safety. The 360° drilling module rotation and wide boom swing and tilt angles make the drill suitable for most mining methods and various service support applications.

The layout of the Sandvik DL2720 undercarriage is designed for good visibility, mobility and stability, ensuring fast and safe tramming in narrow mine drifts. The operator's canopy and maintenance interface are designed for easy access, safe operation and all service points are accessible from the ground level.

KEY FEATURES

Hydraulic rock drill	HL820ST (21 kW)
Drilling module	LFRC700 (20 + 1 rods)
Rod length	4' - 6' (1 220 - 1 830 mm)
Single section boom	FR10 (on front stabilizer)
Minimum drift size (H x W)	3 150 x 3 150 mm (4' drilling module)
Pivot point height	1 390 - 1 640 mm
Vertical holes covering	1 500 mm
T-section width in turning	3 500 mm
Transport width	1 600 mm
Transport height	2 715 / 2 750 mm
Transport length	8 570 mm
Transport weight	14 800 kg

ROCK TOOLS AND HOLE LENGTH

Thread	Rod Ø (mm)	Hole Ø (mm)	Hole length (m)*
T38	39	64	25 - 38
T45	46	76	25 - 38
T45	65 (tube)	76 - 89	25 - 38
T51	52	89	25 - 38

**) Feed in contact with rock, front stinger retracted*



1. SANDVIK DL2720 - LONGHOLE DRILL

HYDRAULIC ROCK DRILL

Type of rock drill	HL820ST (TS2-301)
Percussion power	21 kW
Percussion pressure	200 bar
Percussion rate	42 - 53 Hz
Rotation speed	0 - 180 rpm
Rotation torque	1 095 Nm (OMT200)
Weight	260 kg
Length with shank adapter	1 241 mm

DRILLING MODULE

Type of drilling module	LFRC700 (TS2-175)
Rod length	4' - 6' (1 220 - 1 830 mm)
Storing capacity	20 + 1 rods (all threads)
Fan distance from drift end	1 250 mm (minimum)
Feed force	31 kN
Feed and return speed	Up to 0.3 m/s
Retaining centralizer	Pito 7
Cuttings diverter	CC705
Front stinger	Extension 2 000 mm

DRILLING MODULE DIMENSIONS

Type	Rod length	Total length
LFRC704	1 220 mm	2 940 mm
LFRC705	1 525 mm	3 240 mm
LFRC706	1 830 mm	3 550 mm

LONGHOLE BOOM

Type of boom	FR10 (TS2-297)
Boom swing	Left 37° / Right 37°
Fan tilt (upholes)	Backward 20° / Forward 40°
Drilling module roll-over	360°
Drilling module travel	1 050 mm (LFRC705 and 706) 920 mm (LFRC704)
Vertical hole drilling coverage	1 500 mm (up) 1 200 mm (down)
Pivot point height	1 390 - 1 640 mm
Rear stinger	Mounted on feed cradle
Rear stinger extension	1 250 mm
Front stabilizer	Horseshoe (long)
Laser distance from drill center	1 430 mm (vertical holes)

HYDRAULIC SYSTEM

Type of hydraulic system	TPC LH
Operating principle	Electric pilot control
Powerpack	HPP 755 (1 x 55 kW)
Filtration (pressure / return)	10 µ / 10 µ
Oil tank volume	200 liters
Oil cooler (water actuated)	OW30 oil-to-water (1 x 30 kW)
Low oil level indication	Level indicator and automatic switch-off

DRILLING CONTROL SYSTEM

Type of control system	Sandvik VIC
Control panel	In safety canopy
Power control (adjustable)	Full percussion Collaring Rotation / Threading Feed / Anti-jamming Flushing
Diagnostics system	Interactive

ELECTRIC SYSTEM

Standard voltages	380 - 690 V (± 10%)
Frequency	50 - 60 Hz
Total installed power	72 kW
Main switch gear	NSX160N/38
IP classification	Specification TS2-132
Starting method	Star delta starter 380 - 575 V
Automatic cable reel	CR with tramming interlock
Cable reel remote control	At the operator station
Phase inverter detector	Automatic
Front working lights (combined working and driving)	4 x 48 W LED (24 V)
Rear tramming lights	2 x 48 W LED (24 V)
Operator station light	1 x 5 W (24V)
Carrier positioning lights	2 x Laser type
Batteries	2 x 12 V, 80Ah
Battery charger	24 V, 10A

AIR AND WATER SYSTEM

Flushing of holes	By water
Water booster pump type	WBP2 (4 kW)
Water pump capacity	60 l/min at 14 bar (inlet pressure = 4 bar)
Water pump inlet pressure	2 bar (min.)
Flushing water pressure	10 - 15 bar
Shank lubrication device	SLU-1 (air / oil mist)
Air compressor	CTN9, 1 m ³ /min (7 bar)
Rock drill oil consumption	250 - 550 g/h
Rock drill air consumption	200 - 300 l/min

OPERATOR'S SAFETY CANOPY

Canopy certification	FOPS (ISO 3449)
Unit height in tramming (FOPS)	High position : 2 750 mm Low position : 2 535 mm
Sound pressure level EN 16228	Operator station: 100 dB(A) Emitted: 124 dB(A)
Operator's seat	For working / tramming Adjustable with seat belt

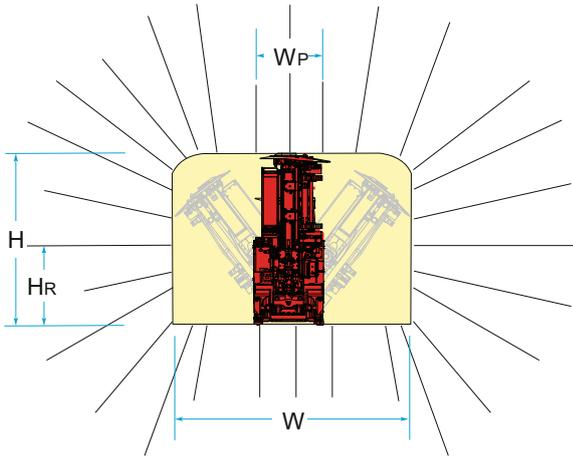
CARRIER

Type of carrier	MERCURY (frame steered)
Carrier articulation	± 35°
Rear axle oscillation	± 6°
Ground clearance	240 mm
Diesel engine	DeutzTCD3.6 L4EDG, 74 kW, China IV
Exhaust catalyzer	DPF for China IV
Transmission	Hydrostatic, automotive
Wheel motors	4 x radial piston
Tires	10.00 - 15
Service brakes	Hydrostatic and positive braking
Parking and emergency brakes	SAHR fail safe type wet disc brakes
Tramming speed	9 km/h (Horizontal) 4 km/h (14%=1:7=8°)
Gradeability / sideways tilt	15° / 5°
Fuel tank	60 liters
Carrier stabilization	2 x hydraulic jacks (rear)
Brake release	Manual hand pump
Centralized greasing points	Carrier
Hand held fire extinguisher	1 x 6 kg (type ABC)
Tramming alarm	Backward alarm
Knowledge Box™	Connectivity solution (TS2-535) My Sandvik insight readiness (TS2-390)
Colour scheme	Sandvik
Documentation	1 x Operator's manual 1 x Maintenance 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

Rock drill	
Type of rock drill	HL710S
Power extractor	PE for HL820ST
Drilling module	
Drilling module wear parts kit	For alternative tools
Hydraulic system	
Filling pump for hydraulic oil	Electric
Instrumentation	
Drilling instrument	TIS with USB data collection
Spirit level angle indicators	On the side drilling module
Cleaning system	
LP system with reel	Up to 15 bar (TS2-343)
HP system with reel	Up to 180 bar (TS2-343)
Air and water system	
*Air compressor	CT28 (2.8 l/min at 7 bar)
*Air mist flushing	For external air and water supply (IP5 air cleaner included)
Air cleaner	IP5 with air supply
*End-of-hole flushing	CT28 with 2 x 60L air receiver
Hooks for water / air hose	2 hooks
Greasing system	
Manual system	Greasing unit with pump, reel and nozzle (TS2-463)
Electric system	
*Multi-voltage	1 000 V (50 Hz) with multivoltage transformer
*Electric cables	Specification TS2-121
*Starting method	DOL for voltage above 575 V
Ground fault and overcurrent protection	VYK200, VYK1000
Battery jump start	Optional
Dewatering pump outlet	8 kW (site voltage 380 - 1 000 V)
Amber flashing light	LED (24V)
Operator's safety canopy	
Safety grill	For canopy
Fire suppression system	
Manual or automatic system	Ansul, 6 nozzles (TS2-460)
Auto. fire suppression system	Sandvik Eclipse™ (TS2-461)
Carrier	
*Diesel engine	TCD3.6L4EDG, 74kW, Stage IIIA
High altitude engine start	Hydraulic unloading for high altitude engine start
*Foam filled tires	4 pcs
Carrier stabilization	U-frame (long) jacks (front)
Tramming camera	Front
Speedometer	For 2700 serie
Wheel chocks and holders	2 Sets
Extra Items	
Berg plug / Berg socket	
Spare rock drill	HL820ST or HL710S
Spare wheel assembly	Air or foam filled tires
Special tools for rock drill	Complete set (TS2-452) Field kit (TS2-453)
Documentation	Extra manual (printed)
*Package: Harsh water	Advanced (TS2-049)

*) Replaces standard feature



MINIMUM PRODUCTION DRIFT SIZE (MM)*

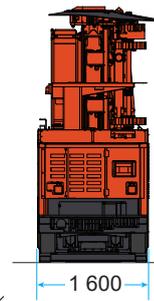
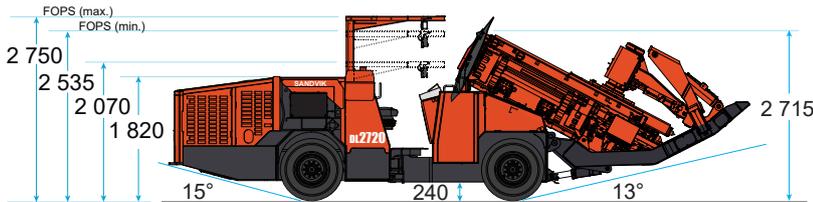
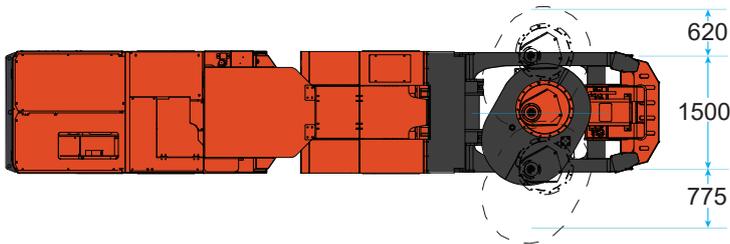
Model	H	HR	Wp***	W
LFRC704	3 380 mm	1 390 mm	1 500 / 1 200 mm	3 150 mm
LFRC705	3 680 mm	1 390 mm	1 500 / 1 200 mm	3 450 mm
LFRC706	3 980 mm	1 390 mm	1 500 / 1 200 mm	3 750 mm

100 mm clearance on each side *** Upholes / downholes

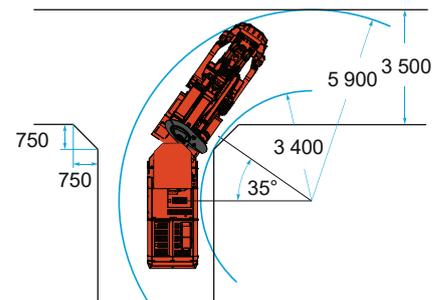
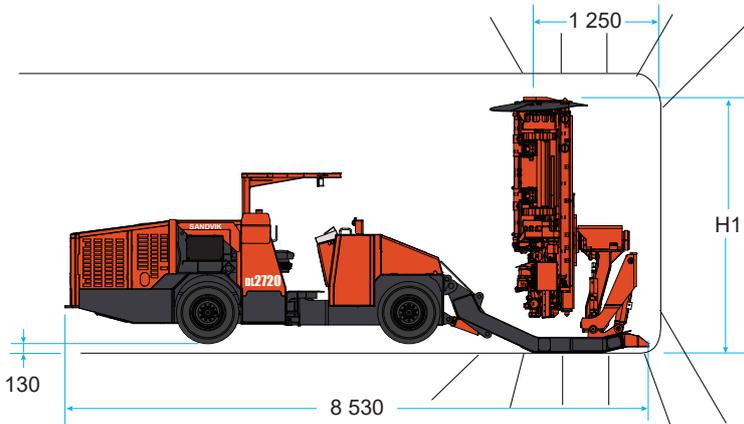
MAXIMUM PRODUCTION DRIFT SIZE (MM)**

Model	H	HR	Wp***	W
LFRC704	3 500 mm	1 390 mm	1 500 / 1 200 mm	4 180 mm
LFRC705	3 870 mm	1 390 mm	1 500 / 1 200 mm	4 550 mm
LFRC706	4 170 mm	1 390 mm	1 500 / 1 200 mm	4 850 mm

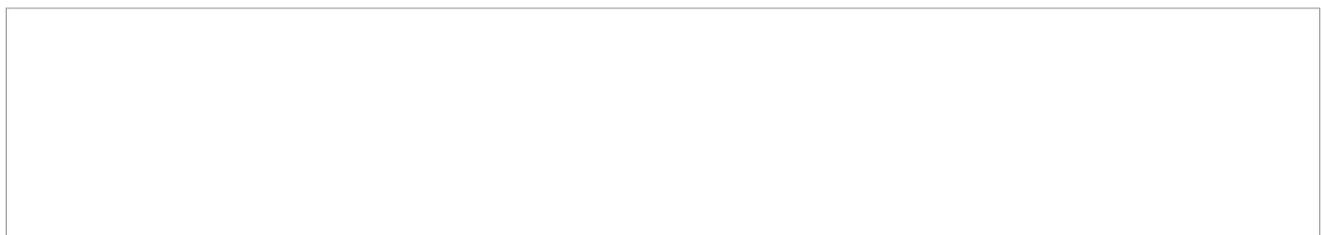
Rear stinger extended, the use of drilling module mounted front stinger extends the coverage further. Front stinger retracted. * Upholes / downholes



Model	H1
LFRC704	2 940 mm
LFRC705	3 240 mm
LFRC706	3 550 mm



All dimensions in mm



Sandvik Mining and Rock Technology 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.

ROCKTECHNOLOGY.SANDVIK

4. SANDVIK DL2720 - LONGHOLE DRILL