



DL2721 TOP HAMMER LONGHOLE DRILL

TECHNICAL SPECIFICATION

Sandvik DL2721 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 DL2721 is mounted on a 4-wheel drive frame-steered and diesel powered carrier. It is equipped with HL710S 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 DL2721 undercarrier 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 | HL710S (20 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 |
| 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 DL2721 - LONGHOLE DRILL

HYDRAULIC ROCK DRILL

| | |
|---------------------------------|------------------------|
| Type of rock drill | HL710S (TS2-302) |
| Percussion power | 20 kW |
| Percussion pressure | Up to 190 bar |
| Percussion rate | 52 Hz |
| Rotation speed | 0 - 180 rpm |
| Rotation torque | Max. 1 095 Nm (OMT200) |
| Weight | 245 kg |
| Length with shank adapter | 1 340 mm |
| Filling device for accumulators | Specification TS2-430 |

DRILLING MODULE

| | |
|-------------------------------|----------------------------|
| Type of drilling module | LFRC700 (TS2-341) |
| 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 1 500 mm |
| Spirit level angle indicators | One on the drilling module |

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 28° / Forward 40° |
| Drilling module roll-over | 360° |
| Drilling module travel | 1 050 mm (LFRC705 and 706) 970 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) with hydraulic jacks |
| Laser distance from drill center | 1430 mm (vertical holes) |

HYDRAULIC SYSTEM

| | |
|--------------------------------|--|
| Type of hydraulic system | TPC LH |
| Operating principle | Electric pilot control |
| Powerpack | HPP 755 (55 kW) |
| Filtration (pressure / return) | 10 µ / 10 µ |
| Oil tank volume | 200 liters |
| Filling pump for hydraulic oil | Electric |
| Oil cooler (water actuated) | OW30 oil-to-water (30 kW) |
| Low oil level indication | Level indicator and automatic switch-off |
| Set of tools | Specification TS2-429 |

DRILLING CONTROL SYSTEM

| | |
|----------------------------|---|
| Type of control system | Sandvik VIC |
| Control panel | At the operator station |
| Power control (adjustable) | Full percussion Collaring Rotation / Threading Feed / Anti-jamming Flushing |
| Diagnostics system | Interactive |
| MySandvik insight | Remote monitoring system |

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 control | At the operator station |
| Phase relay protection | Standard |
| Front working lights (combined working and driving) | 4 x 50 W LED (4 200 lm, 6 000 K) |
| Rear tramming lights | 2 x 50 W LED (4 200 lm, 6 000 K) |
| Operator station light | 1 x 5 W (24V) |
| Carrier positioning lights | 2 x Laser type |
| Sealed AGM batteries | 2 x 12 V, 80Ah |

AIR AND WATER SYSTEM

| | |
|----------------------------|---|
| Flushing of holes | By water |
| Water booster pump type | WBP2 (4 kW) |
| Water pump capacity | 100 l/min at 12 bar (inlet pressure = 4 bar) |
| Water pump inlet pressure | 2 - 5.4 bar |
| Flushing water pressure | 10 - 12 bar |
| Shank lubrication device | SLU-1 (air / oil mist) |
| Air compressor | CTN10 (1.0 m³/min, 7 bar) |
| Rock drill oil consumption | 250 - 550 g/h |
| Rock drill air consumption | 200 - 300 l/min |

OPERATOR'S SAFETY CANOPY

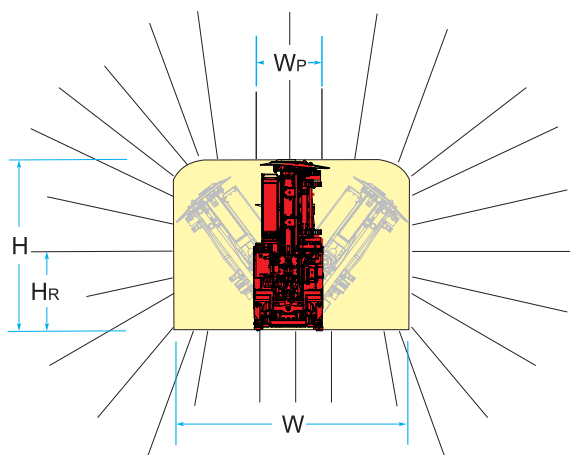
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| Canopy certification | FOPS (ISO 3449) |
| Unit height in tramming (FOPS) | High position : 2 750 mm Low position : 2 535 mm |
| Sound pressure level EN 16228 | Operator station: 102 dB(A) Emitted: 124 dB(A) |
| Operator's seat | Ergonomic T-back seat |

CARRIER

| | |
|------------------------------|--|
| Type of carrier | MERCURY (frame steered) |
| Carrier articulation | ± 35° |
| Rear axle oscillation | ± 6° |
| Ground clearance | 295 mm |
| Diesel engine | Deutz TCD3.6 L4EDG74 kW, Tier 4i, Stage IIIB |
| Exhaust catalyzer | Standard |
| Transmission | Hydrostatic, automotive |
| Wheel motors | 4 x radial piston |
| Tires | 315/85 x 15 |
| Service brakes | Hydrostatic and positive braking |
| Parking and emergency brakes | SAHR fail safe type wet disc brakes |
| Tramming speed | 8 km/h (Horizontal) 4 km/h (14°=1:7=8°) |
| Gradeability / sideways tilt | Max. 15° / 5° (according to EN 16228-2) |
| Fuel tank | 60 liters |
| Carrier stabilization | Horseshoe (long) 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 | Standard |
| Colour scheme | Sandvik |
| Documentation | 2 x Operator's manual 2 x Maintenance manual 2 x Technical manual (in English only) 2 x Parts manual (in English only) 2 x CD of manuals (PDF files) |

OPTIONAL FEATURES AND PACKAGES

| | |
|---|--|
| Rock drill | |
| Power extractor | For HL710S |
| Drilling module | |
| Drilling module wear parts kit | for alternative tools |
| Instrumentation | |
| Drilling instrument | TIS with USB data collection |
| Spirit level angle indicators | 2 pcs on feed |
| Cleaning system | |
| HP system with reel | Up to 180 bar (TS2-343) |
| Electric system | |
| *Multi-voltage | 1 000 V (50 Hz), with transformer |
| *Electric cables | Specification TS2-121 |
| *Starting method | DOL for voltage above 575 V |
| Ground fault and overcurrent protection | VYK |
| Drilling and boom movement inhibition | 2 x switches and 1 x chain guard |
| Amber flashing light | LED (24 V) |
| Battery jump start | Optional |
| Proximity interface | PDS / VDS system (TS2-381) |
| Air and water system | |
| Air mist flushing kit | For external air and water supply (IP5 air cleaner included) |
| *End-of-hole flushing | With 1 x 60L air receiver requires CT28 air compressor |
| Air mine connection | IP5 air cleaner |
| *Air compressor | CT28 instead of CTN10 |
| Water hose with hooks | 32 mm (1¼"), 80 meters |
| Greasing system | |
| Manual system | Greasing unit with pump, reel and nozzle |
| Operator's safety canopy | |
| Front protection | Safety grill |
| Fire suppression system | |
| Manual system | Ansul, 6 nozzles (Spec. 5-9800) |
| Auto. fire suppression system | Sandvik Eclipse™ |
| Carrier | |
| *Foam filled tires | 4 pcs |
| Wheel chocks and holders | 2 Sets |
| Tramming cameras | Front |
| Speedometer | Control tramming speed |
| Extra Items | |
| Berg plug / Berg socket | HL710S |
| Spare rock drill | Air or foam filled tires |
| Spare wheel assembly | Complete set (TS2-449) |
| Special tools for rock drill | Field kit (TS2-450) |
| Warranty extension | One year (excl. Kazakhstan) |
| Documentation | Extra manual (printed) |
| *Package: Harsh water | Advanced (TS2-049) |
| *Package: Arctic | For extreme conditions |
| *Package: Dry drilling | (N/A with 1 000V) CT28 with 1 x 60L air receiver, air / oil cooler, dust hood on feed, readiness for hydraulic supply. Dust collector is not supplied. |
| *) Replaces standard feature | |



MINIMUM PRODUCTION DRIFT SIZE (MM)*

| Model | H | HR | Wp*** | W |
|---------|----------|----------|------------------|----------|
| LFRC704 | 3 150 mm | 1 640 mm | 1 500 / 1 200 mm | 3 150 mm |
| LFRC705 | 3 450 mm | 1 640 mm | 1 500 / 1 200 mm | 3 450 mm |
| LFRC706 | 3 750 mm | 1 640 mm | 1 500 / 1 200 mm | 3 750 mm |

*100 mm clearance

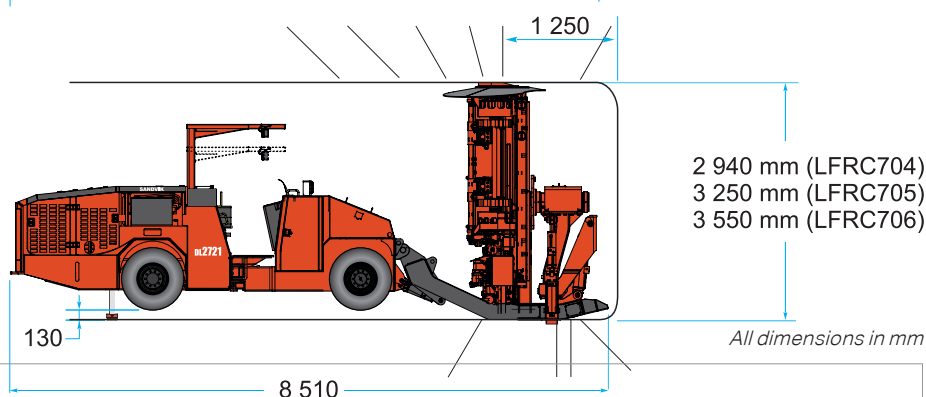
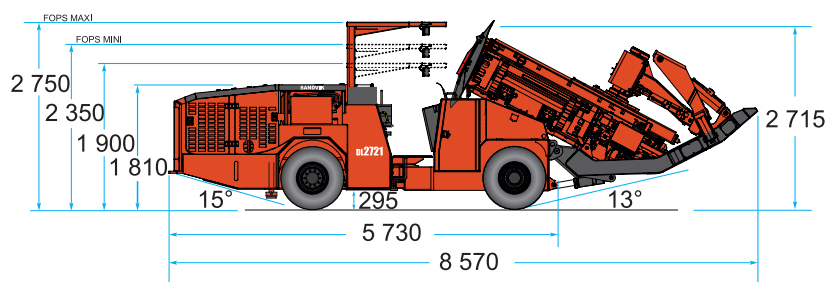
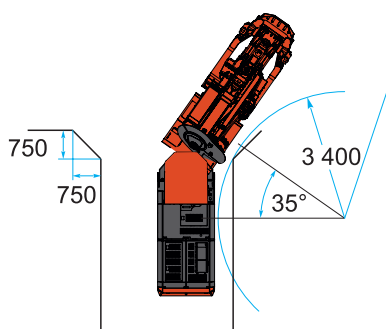
*** Upholes / downholes

MAXIMUM PRODUCTION DRIFT SIZE (MM)**

| Model | H | HR | Wp*** | W |
|---------|----------|----------|------------------|----------|
| LFRC704 | 3 670 mm | 1 640 mm | 1 500 / 1 200 mm | 4 350 mm |
| LFRC705 | 3 970 mm | 1 640 mm | 1 500 / 1 200 mm | 4 650 mm |
| LFRC706 | 4 270 mm | 1 640 mm | 1 500 / 1 200 mm | 4 950 mm |

**Rear stinger extended, the use of drilling module mounted front stinger extends the coverage further

*** Upholes / downholes



All dimensions in mm

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4. SANDVIK DL2721 - LONGHOLE DRILL