SANDVIK

# Leopard DI610i T3
# SURFACE DRILLS

Technical specification

Leopard DI610i is a diesel powered, self-contained crawler mounted intelligent down-the-hole drill rig designed for demanding high-capacity production drilling applications in surface mining, as well as large-scale quarry applications. The drill is equipped with an operator's cabin, fixed boom, water injection system, drill pipe changer and incorporates a state-of-art design and layout.

| KEY FEATURES | |
|---|---|
| Hole diameter: | 115 - 203 mm (4½" – 8") |
| Drill pipes: | 89, 102, 114 and 127 mm (3½", 4", 4½" and 5") |
| DTH-Hammer | 4", 5", 6" |
| Engine output: | 403 kW (Tier 3) |
| Air delivery | 28,3 m3/min at 24 bar (1000cfm at 348 psi) |
| Production capacity: | 2,1 Mt/a, one shift operation |
| Total weight : | 27 100 kg (59,745 lb) dry weigth |



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| ROTARY HEAD | |
|---|---|
| Rotary head | HTRH6 |
| Drill pipes | 89 / 102 / 114 / 127 mm<br>3½" / 4" / 4½" / 5" |
| Operating pressure | 180 bar |
| Rotation speed | 0…80 rpm |
| Maximum rotation torque | 4300 Nm |
| Hammer lubrication | Air / oil mist |
| Flushing | Air |
| Weight | 478 kg |

| FEED | |
|---|---|
| Feed type | Chain feed |
| Total length | 11400 mm |
| Rotary head travel | 6550 mm |
| Length of tubes | 6000 mm |
| Hose reel | Standard |
| Feed extension travel | 1100 mm |
| Feed/pull out force | 54 kN |
| Feed swing | +30/-30° |
| Feed tilt | (-32°/+93°) |

| PIPE CHANGER | |
|---|---|
| Pipechanger type | Carousel |
| Storage capacity | 8+1 (89 to 114 mm pipes), 4+1 (127 mm pipes) |
| Pipe length | 6000 mm |
| Max. hole depth | 53,6 m (from 89 to 114 mm pipes) / 29,6m (127 mm pipes) |

| BOOM | |
|---|---|
| Boom type | Fixed |
| Boom reach | 4,2 m |
| Boom swing | 0/+20° |
| Collaring height | +0.7 m/-3.5 m |

| CABIN | |
|---|---|
| Cabin type | iCab |
| Certificates | FOPS and ROPS |
| Noise level in the cabin | below 78 dB(A) |
| Air conditioning | Intelligent air condition safety + * |
| Pressurization | Standard |
| Seat | Ergonomic, multiposition |
| Vibration dampening | Standard |
| Windows | Safety laminated, tinted, with wipers |
| Power take-off | 12 VDC and 24 VDC |

* A/C system contains fluorinated greenhouse gases HFC-134a

| POWERPACK | |
|---|---|
| Engine type | Caterpillar C15 (Tier 3) |
| Engine output | 403 kW / 1800 rpm |
| Transmission type | Direct |
| Screw compressor type | GHH CF 1000H |
| Air filters | 2 pcs, dry type |
| Fuel tank | 900 litres |

| HYDRAULIC SYSTEM | |
|---|---|
| Number of gear pumps | 2pcs. for PTO |
| Number of piston pumps | 3 pcs. for drilling, tramming, boom and pipehandling, dust collector |
| Filtration rate | 10 micron |
| Cooling capacity | Up to +50°C ambient |
| Hydraulic oil tank | 290 l |
| Shank lubrication device | SLU 50 |

| CONTROL SYSTEM | |
|---|---|
| Control system type | PLC controlled proportional electro- hydraulics |
| Tramming/boom/ drilling control | PLC controlled |
| User interface | Electro-proportional joysticks and touchscreen |
| Control system diagnostics | Graphical flow chart type |
| Drilling control system type | iTorque |
| Half percussion/minimum percussion | Three adjustable flushing and percussion levels |
| Antijamming system | Standard |
| Collaring control | Automatic |
| Preset drilling parameters | Adjustable for fine tuning for different rock conditions |
| Auto-stop to preset hole depth | Optional one hole automatics |
| Voltage | 24 VDC |

| DUST COLLECTOR | |
|---|---|
| Dust collector type | X-200-4-D (option) |
| Capacity/vacuum | 76 m3/min at 500 mm WG |
| Filter elements/material | 4 pcs , length 750mm / fiber |
| Total filter surface | 24 m2 |
| Primary cyclone | Option |
| Movable suction head | Option |

| CARRIER | |
|---|---|
| Track type | FL 7 |
| Grouser plate width | 400 mm |
| Ground contact length | 2450 mm |
| Ground pressure | 1.38 kg/cm2 |
| Ground clearance | 360 mm |
| Oscillation angles | +/- 10° |
| Tramming force | 168 kN |
| Max. tramming speed | 2 / 3.6 km/h |

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| STANDARD COMPONENTS |
|---|
| Rotary head HTRH6 |
| Chain feed |
| Pipe changer, carousel type |
| Fixed boom |
| Cabin iCAB |
| Carrier, track mounted |
| Guides for grousers |
| Powerpack, diesel driven, hydraulic pumps and onboard compressor |
| Water injection system |
| Extra water tank 500 l / 132 gal. (replaces dry dust collect |
| Hydraulic system, load sensing |
| Control system, PLC controlled proportional electro- hydraulics |
| Working lights, 9 pcs |
| Service lights in engine compartment, 5pcs |
| 1 pc Operator's manual (paper copy) |
| Knowledge Box for My Sandvik |
| (*) Option replaces standard component |

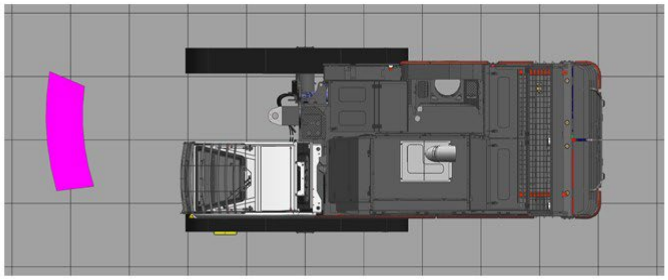
THE JAWS FOR DRILL STEELS

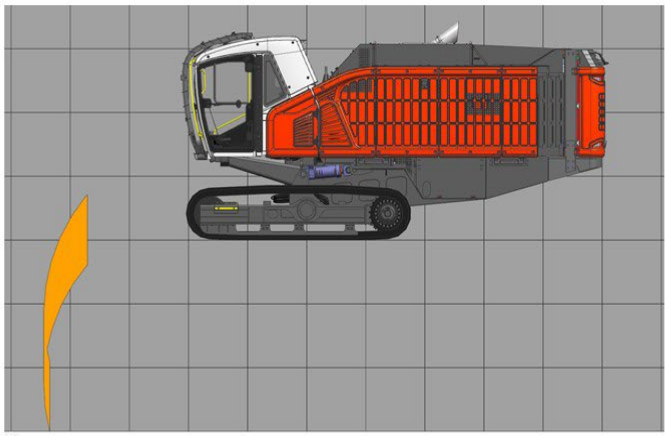
| DRILL STEEL TYPE | DRILL STEEL DIAMETER | RECOMMENDED HOLE DIAMETER |
|---|---|---|
| Pipes | 89 mm | 115 - 127 mm<br>4½" - 5" |
| Pipes | 102/114 mm | 130 - 190 mm<br>5 1/8" - 7½" |
| Pipes | 127 mm | 172 - 203 mm<br>6½" - 8" |

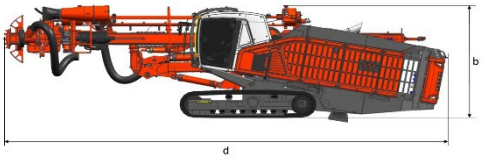
| SELECTION OF OPTIONS |
|---|
| Alternative seat, 3-point seat belt and air cushioning(*) |
| H13 Cabin filter, HEPA |
| Cooler bag in cabin |
| Radio, CD/USB MP3/WMA, DAB/DAB+/DMB, Bluetooth® |
| Reversing camera |
| Roller blinds for cabin windows |
| Explosion proof cabin window |
| Heated mirrors |
| Emergency glass breaker hammer (additional outside of the cabin installation) |
| Drill bit strorage for 4 bits |
| TIMi for inclined holes and hole depth measurement |
| TIMi for inclined holes with TIM3D readiness (Leica/Trimble) |
| TIMi for inclined holes with Open Drill Interface, TIM3D readiness |
| Knowledge Box (4G/LTE and WiFi for My Sandvik) |
| + My Sandvik Insight, 1-yr license, BG01722724 |
| + My Sandvik Productivity and Drill Plan Transfer, 1-yr license, BG01765055 |
| Kit for alternative pipes, each |
| Service winch (requires remote control-, or full-radio option) |
| Thread greasing |
| Compressor flow control system |
| Central lubrication system Lincoln |
| Electric fuel filling pump |
| Electric hydraulic oil filling pump |
| Fast fill connection for engine coolant, hydraulic and engine oils |
| Fast fill connection for fuel Wiggins |
| Live fluid sampling point |
| Fluid service fill safety lock out |
| Fire suppression, Eclipse Sustain, automatic 0°C to +60°C |
| Fire suppression, Eclipse Extreme, automatic 0°C to -40°C |
| Fire suppression Ansul (hybrid), automatic |
| Hydraulic rear ground support |
| Remote Screen interface (Tablet or mobile phone not included). |
| Pressure washer (requires water injection option) |
| Radio remote control for service winch (not with teleremote option!) |
| Full-radio remote for tramming, drilling and service winch |
| Led lights, 9 pcs (*) |
| Led lights 15 pcs. (*) |
| Disengagement clutch for compressor, manual |
| Extra heat protection for exhaust gas muffler |
| Fuel powered engine heater, extra large |
| Heating for pipe transfer arm |
| Jump start device (high current el. socket) |
| Dustmizer (requires water injection) |
| Dry dust collector X-200 (*) |
| Extra manuals: Operator's Manual (paper copy) |
| Extra manuals: Parts Manual (paper copy) |
| First Service Kit for DI610i |
| Drill bit opening device for 4 1/2" - 5 1/8" drill bits |
| Drill bit opening device for 6" - 8" drill bits |

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## Coverage area and dimensions








| DIMENSIONS | |
|---|---|
| Weight | 27 100 kg (59,745 lb) dry weigth |
| Width | 3.00 m |
| Height | a/b, 3.5/4.2 m |
| Total length | c/d, 12.4m/12.4 |

Sandvik Mining and Rock Solutions 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.

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