# SANDVIK

# Leopard DI550 T4 SURFACE DRILLS

## **TECHNICAL SPECIFICATION**

Leopard DI550 is a diesel powered, self-contained crawler mounted drilling rig designed for DTH blasthole drilling in the mining, quarry and construction industries. The drill is equipped with an operator's cabin, fixed boom, dry dust collector and drill pipe changer. The design and the lay-out are according to latest state-of-art.

## **KEY FEATURES**

| Hole diameter:       | 90 - 165 mm 3½" – 6 ½"        |
|----------------------|-------------------------------|
| Drill pipes:         | 76, 89, 102 and 114 mm 3",    |
|                      | 31⁄2", 4" and 41⁄2"           |
| DTH-Hammer           | 4", 5" and 6"                 |
| Engine output:       | 328 kW (Tier 4 Final)         |
| Air delivery         | 24,4 m3/min at 24 bar 862 cfm |
|                      | at 348 psi                    |
| Production capacity: | 1,85 Mt/a, one shift          |
| Total weight :       | 24 050 kg                     |



| ROTARY HEAD             |   |
|-------------------------|---|
| Rotary head             | HTRH6                                   |
| Drill pipes             | 76, 89, 102, 114 mm 3", 3½",<br>4", 4½" |
| Operating pressure      | 180 bar                                 |
| Rotation speed          | 080 rpm                                 |
| Maximum rotation torque | 4300 Nm                                 |
| Hammer lubrication      | Air / oil mist                          |
| Flushing                | Air                                     |
| Weight                  | 478 kg                                  |

#### FEED

| Feed type             | Chain feed |
|-----------------------|------------|
| Total length          | 10050 mm   |
| Rotary head travel    | 5990 mm    |
| Length of tubes       | 5000 mm    |
| Hose reel             | Standard   |
| Feed extension travel | 1200 mm    |
| Feed/pull out force   | 32 kN      |
| Feed swing            | -30/+95°   |
| Feed tilt             | -35/+93°   |
|                       |            |

# Engine output328 kW / 1800 rpmTransmission typeDirectScrew compressor typeGHH CF 1000HAir filters2 pcs, dry typeFuel tank930 litres

## HYDRAULIC SYSTEM

| Filtration rate          | 10 micron           |
|--------------------------|---------------------|
| Cooling capacity         | Up to +55°C ambient |
| Hydraulic oil tank       | 3501                |
| Shank lubrication device | SLU 50              |

## CONTROL SYSTEM

| Control system type                | PLC controlled proportional<br>electro- hydraulics |
|------------------------------------|--|
| Tramming/boom/ drilling<br>control | PLC controlled                                     |
| User interface                     | Electro proportional joysticks<br>and screen       |
| Antijamming system                 | Standard   |
| Collaring control                  | Automatic  |
| Voltage                            | 24 VDC   |

## DUST COLLECTOR

| Dust collector type      | X-150                  |
|--------------------------|------------------------|
| Capacity/vacuum          | 51 m3/min at 500 mm WG |
| Filter elements/material | 4 pcs / fiber          |
| Total filter surface     | 16 m2                  |
| Primary cyclone          | Standard               |
| Movable suction head     | Standard               |

#### CARRIER

| CARRIER               |                |
|-----------------------|----------------|
| Track type            | FL 6           |
| Grouser plate width   | 400 mm         |
| Ground contact length | 2450 mm        |
| Ground pressure       | 1.21.3 kg/cm2  |
| Ground clearance      | 360 mm         |
| Oscillation angles    | +/- 10°        |
| Tramming force        | 140 kN         |
| Max. tramming speed   | 1.6 / 3.2 km/h |
|                       |                |

# PIPE CHANGER

| Pipe changer type | Carousel  |
|-------------------|---|
| Storage capacity  | 7+1 (76 to 102 mm pipes)<br>5+1 (114 mm drill pipe) |
| Pipe length       | 5000 mm   |
| Max. hole depth   | 40 m *  |

#### BOOM

| Been             |                   |
|------------------|-------------------|
| Boom type        | Fixed             |
| Boom extension   | 500 mm (Optional) |
| Boom reach       | 3,6 m             |
| Boom swing       | 0/+20°            |
| Collaring height | + 0,5 / -3,8 m    |
| Horizontal holes | To the right      |

| CABIN                    |                          |
|--------------------------|--------------------------|
| Cabin type               | HVC550                   |
| Certificates             | FOPS and ROPS            |
| Noise level in the cabin | <80 dB (A)               |
| Air conditioning         | Standard *               |
| Pressurization           | Standard                 |
| Seat                     | Ergonomic, adjustable    |
| Vibration dampening      | Standard                 |
| Windows                  | Safety laminated, tinted |

\* Air condition system contains fluorinated greenhouse gases HFC-134a

#### POWERPACK

-

| Engine type         | Caterpillar C13 (Tier 4 Final) |
|---------------------|--------------------------------|
| DEF tank            | AdBlue 47 I                    |
| Number of cylinders | 6                              |

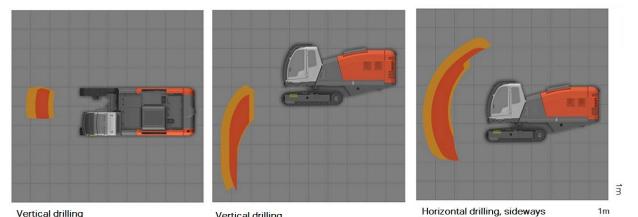
| STANDARD COMPONENTS                                   |
|---|
| Rotary head HTRH6.0                                   |
| Chain feed, with hose reel                            |
| Safety cage for feed                                  |
| Pipe changer, carousel type                           |
| Fixed boom  |
| Cabin HVC550  |
| Carrier, track mounted                                |
| Powerpack, diesel driven, hydraulic pumps and onboard |
| compressor  |
| Dust collector X-150                                  |
| Hydraulic system, load sensing                        |
| Control system  |
| Working lights, 11 pcs, 3 pcs in engine compartment   |
| 1 Set Manuals, paper copy                             |
| 1 Set Manuals, CD rom                                 |

| THE JAWS FOR DRILL STEELS |                      |  |  |  |
|---------------------------|----------------------|--|--|--|
| DRILL STEEL               | RECOMMENDED          |  |  |  |
| DIAMETER                  | HOLE DIAMETER        |  |  |  |
| 76/89 mm                  | 89 - 127 mm 3½" -    |  |  |  |
|                           | 5"                   |  |  |  |
| 102/114mm                 | 114 - 165 mm 4½"     |  |  |  |
|                           | - 6 1⁄2"             |  |  |  |
|                           | DIAMETER<br>76/89 mm |  |  |  |

|     | ditional tool box below cabin<br>dio with CD-MP3 player          |
|-----|--|
|     | versing camera   |
|     | ck shield for lights and lower part of the window                |
| Ro  | ller blinds for cabin windows                                    |
|     | cuum cleaner for cabin   |
|     | S aiming device for TIM and TIMi inclined holes                  |
|     | A 5200 for vertical holes  |
| TIN | A 5300 for vertical holes and depth measuring                    |
|     | A 5600 for vertical and horizontal holes and depth measuring     |
|     | A 6300 for inclined holes and depth measuring                    |
|     | 1 6500 for inclined holes, depth measuring and laser level       |
|     | /I3D hole navigation system                                      |
| DT  | H hammer service tool (requires radio remote control option      |
| Ho  | rizontal drilling kit  |
|     | for alternative pipes, each                                      |
| Pip | e winch (requires radio remote control option)                   |
| Th  | read greasing  |
|     | lescopic boom  |
|     | ti-freeze system for thread greasing                             |
| Ce  | ntral lubrication system Sandvik                                 |
|     | ectric fuel filling pump   |
| Ele | ectric hydraulic oil filling pump                                |
| Ele | ectric water filling pump  |
|     | st fill connection for engine coolant, hydraulic and engine oils |
|     | st fill connection for fuel Wiggins                              |
|     | ides for grousers  |
| Ha  | nd-held led working light with accumulator                       |
| Hy  | draulic rear ground support                                      |
|     | draulic winch (requires radio remote control option)             |
|     | nual compressor oil filling pump                                 |
|     | essure washer (with water injection option only)                 |
|     | dio remote control for carrier and pipe winch and hammer         |
|     | rvice tool   |
|     | ngle bar grouser plates  |
|     | wing hook<br>non lights, 11 pcs                                  |
|     | sengagement clutch for compressor, manual                        |
|     | her starting aid for engine without ether bottle                 |
|     | el powered engine heater, extra large                            |
|     | el powered engine heater, large                                  |
|     | mp start device (high current el. socket)                        |
|     | ater injection system  |
|     | nder Sandvik RG420H  |
|     | tra bit basket   |
|     | tra manuals, price will be added according to pricing sheet      |
|     | st service kit for DI550   |
|     | rvice agreement - select level from extra item                   |
|     | nRemo - select level from extra item                             |



# COVERAGE AREA AND DIMENSIONS



Vertical drilling

Horizontal drilling, sideways

Fix boom

Vertical drilling



Zoom boom



#### DIMENSIONS

| Weight       | 24 050 kg          |
|--------------|--------------------|
| Width        | 2.49 m             |
| Height       | 3.37 m/3.29 m      |
| Total length | c/d, 12.6 m/12.1 m |

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.

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