

# Ranger 500 SURFACE DRILLS

## TECHNICAL SPECIFICATION

Ranger DX500 is a hydraulic, self-propelled, self-contained, crawler based surface drilling rig equipped with a cabin (F.O.P.S. and R.O.P.S.) and rod handling system.

Typical applications for Ranger DX500 are road cutting, pipe-line drilling and foundation drilling, as well as production drilling in medium size quarries. Therefore Ranger DX500 is most often used by construction contractors, mines and quarries, and also included in the equipment fleet of rental houses as well.

### KEY FEATURES

|                      |                                     |
|----------------------|-------------------------------------|
| Hole diameter:       | 51- 89 mm (2"- 3½")                 |
| Rock tools:          | 32, 38 or 45 mm (1¼", 1½", and 1¾") |
| Rock Drill           | 15,5kW                              |
| Engine output:       | 168 kW                              |
| Flushing air:        | 6,2 m3/min, up to 10 bar            |
| Production capacity: | 2200 m3/8h                          |
| Total weight :       | 15 200 kg                           |



**HYDRAULIC ROCK DRILL**

|                         |                |
|-------------------------|----------------|
| Rock drill              | HL 500         |
| Rock tools              | 32,38,45 mm    |
| Operating pressure      | 80-170 bar     |
| Percussion rate         | 60 Hz          |
| Percussion output power | 15.5 kW        |
| Maximum rotation torque | 680 Nm         |
| Shank lubrication       | Air / oil mist |
| Flushing                | Air            |
| Weight                  | 130 kg         |

**FEED**

|                            |                       |
|----------------------------|-----------------------|
| Feed type                  | CF 145H               |
| Total length               | 7 700 mm              |
| Rock drill travel          | 5 020 mm              |
| Max. length of starter rod | 5 485 mm (18')        |
| Feed extension travel      | 1350 mm               |
| Feed/pull out force        | 20 kN                 |
| Feed swing                 | -56°/+52° (-20°/+94°) |
| Feed tilt                  | 125°                  |

**ROD CHANGER**

|                  |                                     |
|------------------|-------------------------------------|
| Rod changer type | RH 714                              |
| Storage capacity | 6+1 rods (45 mm)                    |
| Rod length       | 3050, 3660, 4265 mm (10', 12', 14') |
| Max. hole depth  | 29 m (7x14')*                       |

**BOOM**

|                   |  |
|-------------------|--|
| Boom type         | DB 800H, articulated                       |
| Boom reach        | 4,8 m                                      |
| Drilling coverage | 17.6 m <sup>2</sup> (26.4 m <sup>2</sup> ) |
| Collaring height  | +2.5 m/-4.5 m                              |
| Horizontal holes  | To the right                               |

**CABIN**

|                          |                                       |
|--------------------------|---------------------------------------|
| Cabin type               | Ergo                                  |
| Certificates             | F.O.P.S. and R.O.P.S.                 |
| Noise level in the cabin | below 80 dB(A)                        |
| Air conditioning         | Standard *                            |
| Pressurization           | Standard                              |
| Seat                     | Multiposition                         |
| Vibration dampening      | Standard                              |
| Windows                  | Safety laminated, tinted, with wipers |
| Power take-off           | 12 VDC                                |

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

**POWERPACK**

|                       |   |
|-----------------------|---|
| Engine type           | Caterpillar C 7.1 (TIER 3)              |
| Max. tilt angles      | +/- 45°                                 |
| Number of cylinders   | 6                                       |
| Engine output         | 168 kW / 1 800 rpm                      |
| Transmission type     | Gear box                                |
| Screw compressor type | Enduro 12                               |
| Air filters           | 2 pcs., with ejector and safety element |
| Fuel tank             | 380 l                                   |

**HYDRAULIC SYSTEM**

|                          |  |
|--------------------------|--|
| Number of gear pumps     | 4 pcs. for dust collector and cooling              |
| Number of piston pumps   | 2pcs. for drilling, tramming, boom and rodhandling |
| Filtration rate          | 12 micron abs., return 25 micron, pressure         |
| Cooling capacity         | up to +50°C ambient                                |
| Hydraulic oil tank       | 200 l  |
| Shank lubrication device | SLU 14-1   |

**CONTROL SYSTEM**

|                                 |  |
|---------------------------------|--|
| Control system type             | Hydraulic pilot control and relay logic              |
| Tramming/boom/ drilling control | Pilot/direct/ pilot controlled                       |
| User interface                  | Proportional hydraulic joysticks and pressure gauges |
| Drilling control system type    | Rock Pilot+  |
| Antijamming system              | For rotation standard and flushing optional          |
| Collaring control               | Stepless   |
| Voltage                         | 24 VDC   |

**DUST COLLECTOR**

|                          |  |
|--------------------------|--|
| Dust collector type      | DC 810H  |
| Capacity/vacuum          | 23 m <sup>3</sup> /min at 1 000 mm vacuum H <sub>2</sub> O |
| Filter elements/material | 13 pcs/fiber   |
| Total filter surface     | 10.4 m <sup>2</sup>  |
| Primary cyclone          | Standard   |
| Movable suction head     | Standard   |

**CARRIER**

|                         |                         |
|-------------------------|-------------------------|
| Track type              | FL 6                    |
| Grouser plate width     | 310 mm                  |
| Ground contact length   | 2 590 mm                |
| Ground pressure         | 0.81 kg/cm <sup>2</sup> |
| Ground clearance        | 440 mm                  |
| Turnable superstructure | 120° / 180°             |
| Oscillation angles      | +/- 10°                 |
| Tramming force          | 121 Kn                  |
| Max. tramming speed     | 3.5 km/h                |

## STANDARD COMPONENTS

### Standard Component:

|       |  |
|-------|--|
| 1 pc  | Rock drill HL 510, hydraulic OMSU200 rotation motor  |
| 1 pc  | Chain feed CF 145H with movable drill steel support  |
| 1 pc  | Rod handler RH 714 incl. 1 set of jaws   |
| 1 pc  | Boom DB 800, articulated   |
| 1 pc  | Carrier track mounted, turnable superstructure   |
| 1 pc  | Power pack diesel driven, hydraulic pumps and on-board compressor with twin pressure control |
| 1 pc  | Hydraulic system load sensing and open center  |
| 1 pc  | Control system Rock Pilot+   |
| 1 pc  | Operator's cabin F.O.P.S. and R.O.P.S. with AC   |
| 1 pc  | Dust collection system DC 810 H, hydraulic, Primary separator                                |
| 9 pcs | Working lights   |
| 1 pc  | Gauge set for accumulator pressure checking  |
| 1 pc  | Back up alarm  |
| 1 Set | Manuals, paper copy  |
| 1 Set | Manuals, CD rom  |
|       | Eu-safety devices  |

## THE JAWS FOR DRILL STEELS

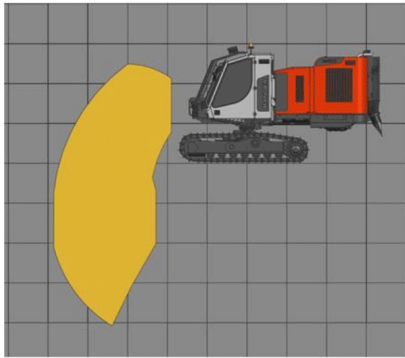
| DRILL STEEL TYPE | DRILL STEEL DIAMETER | RECOMMENDED HOLE DIAMETER |
|------------------|----------------------|---------------------------|
| Extension rods   | 32 mm 1 ¼"           | 45 - 57 mm 1 ¾" - 2 ¼"    |
| MF-rods          | 32 mm 1 ¼"           | 45 - 57 mm 1 ¾" - 2 ¼"    |
| Extension rods   | 38 mm 1 ½"           | 64 - 70 mm 2 ½" - 2 ¾"    |
| MF-rods          | 38 mm 1 ½"           | 64 - 70 mm 2 ½" - 2 ¾"    |
| MF-rods          | 45 mm 1 ¾"           | 76 - 89 mm 3" - 3 ½"      |
| Extension rods   | 45 mm 1 ¾"           | 76 - 89 mm 3" - 3 ½"      |

## SELECTION OF OPTIONS

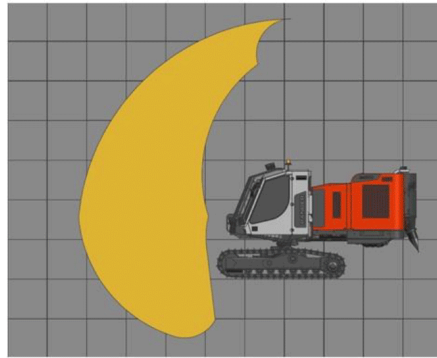
|  |
|--|
| Alternative seat ISRI 6000   |
| Radio with CD-MP3 player   |
| Reversing camera   |
| Vacuum cleaner for cabin   |
| GPS aiming device for TIM and TIMi inclined holes                        |
| TIM 5200 for vertical holes  |
| TIM 5300 for vertical holes and depth measuring                          |
| TIM 6300 for inclined holes and depth measuring                          |
| TIM 6500 for inclined holes, depth measuring and laser level             |
| TIM3D hole navigation system   |
| Horizontal drilling kit including hose reel                              |
| Kit for alternative steels, each   |
| Thread greasing  |
| Thread greasing with 5 gallon bucket                                     |
| Anti- freeze system for air lines  |
| Biodegradable hydraulic oil  |
| Central lubrication system Sandvik                                       |
| Electric fuel filling pump   |
| Guides for grousers, long  |
| Hydraulic rear ground support  |
| Hydraulic winch with radio remote and cable tightness automatics         |
| Hydraulic winch with full radio drilling, tramming boom and rod handling |
| Led lights, 6 pcs  |
| Radio remote control for rear ground support, tramming and oscillation   |
| Full radio remote control for drilling, tramming, boom and rod handling  |
| Three bar grouser plates   |
| Towing hook  |
| Turnable superstructure 180 deg.   |
| Xenon lights, 6 pcs  |
| Fuel powered heater for engine and cabin                                 |
| Fuel powered heater for engine, cabin and water tank                     |
| Readyness for fuel powered heater  |
| Dustmizer (engine heater option needed below freezing point)             |
| Flushing control automatics  |
| Sampling device  |
| Shut down of suction for water holes                                     |
| Water injection system   |
| Grinder Sandvik RG420H   |
| Extra manuals, price will be added according to pricing sheet            |
| First service kit for DX500  |
| Special tools for HL 510, field kit                                      |
| Special tools for HL 510, complete                                       |
| Service agreement - select level from extra item                         |
| SanRemo - select level from extra item                                   |



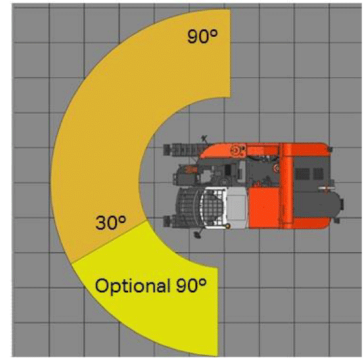
## COVERAGE AREA AND DIMENSIONS



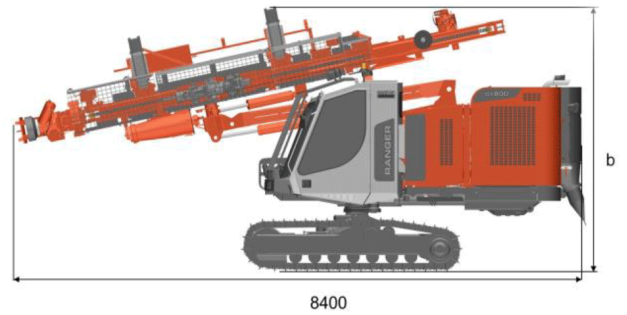
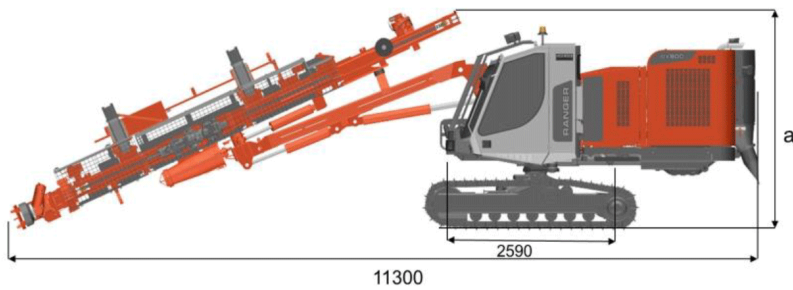
Vertical drilling



Horizontal drilling



Drilling coverage



### DIMENSIONS

|              |                  |
|--------------|------------------|
| Weight       | 15 200 kg        |
| Width        | 2.45 m           |
| Height       | a/b, 3.2 m/3.6 m |
| Total length | 8.4 m / 11.3 m   |

