Sandvik DT1231-SC is a 3-boom electro hydraulic jumbo for fast and accurate drilling in tunneling and cavern excavation. The advanced, electronic controlled drilling system with added automatic functions and optional instrumentation level enable productive and high quality tunneling.

Sandvik RD525 high frequency rock drills deliver superior performance with high consumable life. Sandvik SB150 universal booms have a large optimum shaped coverage and full automatic parallelism. In addition to face drilling the unit can also be used for cross-cutting and bolt hole drilling.

An optional utility boom for bolting and utility works is available. The powerful 4-wheel-drive wheel steered carrier ensures rapid and safe tramming with good balance. Noise and vibration insulated cabin provides ergonomic and extremely comfortable working place with excellent visibility during tramming and drilling.

<table>
<thead>
<tr>
<th><strong>KEY FEATURES</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydraulic rock drill</td>
<td>Sandvik RD525</td>
</tr>
<tr>
<td>Drill feed</td>
<td>Sandvik TF500-18’</td>
</tr>
<tr>
<td>Boom</td>
<td>Sandvik SB150</td>
</tr>
<tr>
<td>Control system</td>
<td>Sandvik TPCS61, electric control system</td>
</tr>
<tr>
<td>Coverage area</td>
<td>19 190 x 11 920 mm (211 m²)</td>
</tr>
<tr>
<td>Hole length</td>
<td>Up to 6 180 mm</td>
</tr>
<tr>
<td>Turning radius</td>
<td>11 860 mm</td>
</tr>
<tr>
<td>Tramming / drilling width</td>
<td>3 050 mm / 3 860 mm</td>
</tr>
<tr>
<td>Tramming / drilling height</td>
<td>3 670 mm / 4 670 mm</td>
</tr>
<tr>
<td>Tramming length</td>
<td>17 780 mm (with TF500-18’)</td>
</tr>
<tr>
<td>Total weight</td>
<td>42 000 kg (without utility boom) depending on options</td>
</tr>
<tr>
<td>Total weight</td>
<td>48 000 kg (with utility boom) depending on options</td>
</tr>
</tbody>
</table>
**HYDRAULIC ROCK DRILL**

Table:

<table>
<thead>
<tr>
<th>Feed type</th>
<th>Feed force (Max.)</th>
<th>Total length (mm)</th>
<th>Hole length (mm)</th>
<th>Rod length (mm)</th>
<th>Net weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TF500-12'</td>
<td>25 kN</td>
<td>5 330</td>
<td>3 440</td>
<td>3 700</td>
<td>500</td>
</tr>
<tr>
<td>TF500-14'</td>
<td>25 kN</td>
<td>5 940</td>
<td>4 050</td>
<td>4 305</td>
<td>530</td>
</tr>
<tr>
<td>TF500-16'</td>
<td>25 kN</td>
<td>6 550</td>
<td>4 660</td>
<td>4 915</td>
<td>560</td>
</tr>
<tr>
<td>TF500-18'</td>
<td>25 kN</td>
<td>7 160</td>
<td>5 270</td>
<td>5 525</td>
<td>590</td>
</tr>
<tr>
<td>TF500-20'</td>
<td>25 kN</td>
<td>7 770</td>
<td>6 880</td>
<td>6 135</td>
<td>620</td>
</tr>
<tr>
<td>TF500-21'</td>
<td>25 kN</td>
<td>8 075</td>
<td>6 180</td>
<td>6 440</td>
<td>640</td>
</tr>
</tbody>
</table>

**UTILITY BOOM (OPTIONAL)**

- Boom type: SUB5i A/B
- Boom extension: 2 x 3 000 mm
- Boom weight, net: 2 635 / 2 895 kg
- Basket swing: ± 45° in B-model
- Max allowed load: 510 kg
- Max allowed load with safety canopy: 400 kg

**HYDRAULIC SYSTEM**

- Powerpack: HPP575 (3 x 75 kW)
- Percussion pump: 110 cc (variable)
- Rotation pump: 60 cc (variable)
- HVAC pump (Heating, Ventilation and A/C): 26 cc (gear)
- Filtration size: 20 µ / 10 µ (pressure / return)
- Oil tank volume: 470 liters
- Tank filling: Electric pump
- Oil cooler: Water cooled. Cooling capacity 2 x 30 kW

**CONTROL SYSTEM**

- Type: Sandvik TPC561
- Control panel: TPC563-ME (multi/single operators)
- Manual boom control: Direct control
  - Fully proportional
  - Hydraulic parallelism
- Drilling control:
  - Feed / percussion control
  - Feed / percussion manual control
- Automatic cycle:
  - One hole automatic

**ELECTRIC SYSTEM**

- Total input power: 255 kW
- Main switch: MSE3
- IP classification: Spec. sheet TS2-132
- Standard voltage: 380 - 690 VAC (± 10%)
- Starting method:
  - Star-delta starter 380 - 690 VAC
- Automatic cable reel:
  - TCR6EHD
  - Operator station
- Front lights:
  - Combined working and driving: 12 x 50 W LED (24 VDC)
- Rear lights:
  - Combined working and driving: 4 x 50 W LED (24 VDC)
- Rear brake / park lights: 2 x Red LED

**AIR AND WATER SYSTEM**

- Flushing:
  - Water
- Water pump type: WBP3 HP
- Water pump capacity: 375 l/min
- Water pump inlet pressure: 2 - 7 bar (Min.)
- Water pump outlet pressure: 10 - 15 bar
- Air compressor:
  - CT28, 2.8 m³/min (7 bar)

**TRAMMING AND OPERATOR STATION**

- Tramming speed:
  - Horizontal: 15 km/h
  - Max. 4.5 km/h (14% = 1:7 = 8°)
- Gradeability / inclination: Max. 15° / 5°
- Safety cabin:
  - FOPS (ISO 3449)
- Cabin elevation: 1 000 mm
- Operation:
  - Seated tramming
  - Standing drilling
- Sound pressure level:
  - According to EN791
  - Operator station: 80 dB(A)
  - Emitted: 128 dB(A)
- Floor:
  - Water-washable
- Air conditioning:
  - EU6/7 filtering capacity
- Cabin heating:
  - During tramming and drilling
- Stairs and indoors lights: LED lights
CARRIER

Carrier: Sandvik TC12

Carrier type: Axle steering in engine end

Rear oscillation: ± 8°

Ground clearance: 400 mm

Diesel engine: MB OM906LA, 170 kW

Transmission: Hydrodynamic, Spicer T32 000

Axles: Dana Spicer 43R (front), Dana Spicer 213 (rear)

Tires: 14.00-24 28RL

Service brakes: Hydraulically operated wet disc brakes

Parking and emergency brakes: SAHR type, fail safe wet disc brakes

Fuel tank: 150 liters

Hydraulic jacks: TJ60 (front), TJ75 (rear)

Hand throttle: Standard

Centralized greasing points: Carrier

Handheld fire extinguisher: 1 x 7.7 kg Type ABC

OPTIONAL FEATURES AND PACKAGES

Rock drill

*Rock drill type: Sandvik RD520 instead of RD525

Power extractor: For RD525

Feed

*Feed length: 12', 14', 16', 20', 21'

*Telescopic feed: Sandvik TFX6/12, TFX8/14, TFX10/16

Rod retainer: SCR with TF feed (incl. safety wire)

Two rods system: TRS (incl. SCR for 10-12 ft extension rods)

Start-up drilling tools: For 45 -51 mm holes

Casing drilling set: For 90 mm (3 ½”) or 115 mm (4 ½”) pipes

Utility boom option

Safety canopy for utility boom: FOPS approved

Spot lights for utility boom: 2 x 17 W LED

Rod racks for utility boom: For 4 pcs of 10 or 12 ft rods

RX expansion bolt installation kit for utility boom: D30 mm or D41 mm

Hydraulic system

*Power pack: HPP555 (3 x 55 kW) with RD520

*Filling pump: Manual pump

*Air oil cooler: Cooling capacity 2 x 30 kW

Vacuum pump: For hydraulic system

*Biodegradable oils: Shell Naturelle HFE46 / HFE68

Control system

Operator seat: For TPC563-ME panel

Control panel TPC563-S: Single operator, incl. operator’s seat

Instrumentation: TCAD+ with iSURE I-II design and reporting (incl. data logging).

iSure III Analysis: MWD analysis (with TCAD+ option)

Extra display: 1 or 2 pcs for TCAD+

OPTIONAL FEATURES AND PACKAGES

Electric system

*Optional voltage: 1 000 VAC, 50 Hz

Spooling device: For cable reel

*Electric cable rubber or PUR: Spec sheet TS2-121

Electricity outlet in front carrier: 1 x 400VAC or 1 x Main voltage

Remote control for reel(s): At rear machine

Remote joystick: Controlled spot lights

Amber strobe light: LED (24VDC)

Air and water system

Flushing flow supervision: External air/water supply

Air mist flushing: CT28 compressor, 2 x 80 liters

Additional air capacity for hole cleaning with air: receiver (incl. IP5 air cleaner)

External air connection: IP5 air cleaner.

Water hose reel: THRSE incl. water hose 44.5 mm (1 ¼”), 60 m

Operator’s safety cabin (tramming)

Reduced trammimg speed: 3rd gear lockout

Reversing camera: Rear and side of the machine

Electricity outlets: 1 x 12 VDC and CD player readiness

Boot washer: At cabin entrance

Audio system: CD/MP3 player with radio

Carrier

*Diesel engine: QSB6.7, 164 kW, Tier 4i, Stage IIIB

Exhaust catalyzer: For Tier 3 engines

Power supply: for MiniSSE

Rod rack under carrier: For 12 - 21 ft rods

LP cleaning system: Max. 15 bar

HP cleaning system: Max. 180 bar

Greasing unit with pump: Manual

Automatic greasing system: Carrier, booms and utility boom

Manual fire suppression system: 8 nozzles (incl. 1 x extinguisher)

Auto. fire suppression system: 8 nozzles (incl. 1 x extinguisher)

Access Detector system: Mandatory in Europe (TS2-211)

Packages

Regional packages: EUR package

Anti-freezing package: Block heater for engine, heater for hydraulic oil, Water circuit flushing with air, antifreeze adding in water circuit.

Extra items

Ground fault and overcurrent protection: VYK

Spare rock drill: RD525 or RD520

Spare wheel assembly: RD525 or RD520

Special tools for rock drill: Extra manuals

Tunnel laser set: Documentation

Extra display: * replaces standard feature
Feed length:
- TF500-12': 5 330 mm
- TF500-14': 5 940 mm
- TF500-16': 6 550 mm
- TF500-18': 7 160 mm
- TF500-20': 7 770 mm
- TF500-21': 8 075 mm

Overall length:
- TF500-12': 15 850 mm
- TF500-14': 16 740 mm
- TF500-16': 17 340 mm
- TF500-18': 17 780 mm
- TF500-20': 18 540 mm
- TF500-21': 18 740 mm

Sandvik Construction 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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