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

Sandvik RD520 rock drills deliver superior performance with high consumable lifetime. 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 axle steered carrier ensures rapid and safe tramming with good balance.

### KEY FEATURES

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coverage area</td>
<td>19 190 x 11 920 mm (211 m²)</td>
</tr>
<tr>
<td>Hydraulic rock drill</td>
<td>3 x Sandvik RD520</td>
</tr>
<tr>
<td>Drill feed</td>
<td>3 x Sandvik TF500-18'</td>
</tr>
<tr>
<td>Booms</td>
<td>3 x Sandvik SB150</td>
</tr>
<tr>
<td>Elevating boom support</td>
<td>Standard</td>
</tr>
<tr>
<td>Elevating operator station</td>
<td>1 000 mm</td>
</tr>
<tr>
<td>Control system</td>
<td>Sandvik THC561, hydraulic</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>2 950 mm / 3 860 mm (TC11)</td>
</tr>
<tr>
<td></td>
<td>3 050 mm / 3 860 mm (TC12)</td>
</tr>
<tr>
<td>Tramming / drilling height</td>
<td>3 620 mm / Max. 4 935 mm</td>
</tr>
<tr>
<td>Tramming length</td>
<td>18 200 mm (with TF500-18')</td>
</tr>
<tr>
<td>Total weight (without utility boom)</td>
<td>42 000 kg depending on options</td>
</tr>
<tr>
<td>Total weight (with utility boom)</td>
<td>46 000 kg depending on options</td>
</tr>
</tbody>
</table>
HYDRAULIC ROCK DRILL

Rock drill type: Sandvik RD520
Percussion power: 20 kW
Percussion pressure: Max. 220 bar
Percussion rate: 74 Hz
Stabilizer: Hydraulic
Rotation speed: Max. 280 rpm (with OMS125)
Rotation torque: 625 Nm (with OMS125)
Hole size (drifting): 43 - 64 mm
Hole size (cut hole): 76 - 127 mm
Recommended rod: T38 - H35 - R32
T38 - R39 - R35
Shank adapter: T38 (male)
Weight: 225 kg
Length: 1 010 mm
Profile height: 90 mm

HYDRAULIC SYSTEM

Operating principle: Hydraulic control
Powerpack: HPP555 (3 x 55 kW)
Filtration size (pressure / return): 20µ / 10µ
Oil tank volume: 470 liters
Oil tank filling pump: Electric pump
Oil cooler (water actuated): 1 x OW30 (30 kW)

FEED

Feed type | Feed force (Max.) | Total length (mm) | Hole length (mm) | Rod length (mm) | Net weight (kg)
---|---|---|---|---|---
TF500-12' | 25 kN | 5 270 | 3 440 | 3 700 | 500
TF500-14' | 25 kN | 5 880 | 4 050 | 4 305 | 530
TF500-16' | 25 kN | 6 490 | 4 660 | 4 915 | 560
TF500-18' | 25 kN | 7 100 | 5 270 | 5 525 | 590
TF500-20' | 25 kN | 7 710 | 5 880 | 6 135 | 620
TF500-21' | 25 kN | 8 015 | 6 185 | 6 440 | 640

BOOM

Boom type: Sandvik SB150
Parallel coverage: 159 m²
Parallelism: Hydraulic
Boom extension: 3 200 mm
Feed extension: 1 650 mm
Boom weight, net: 3 300 kg
Roll-over angle: 358°

UTILITY BOOM (OPTIONAL)

Boom type: Sandvik SUB5A
Boom extension: 2 x 3 000 mm
Boom weight, net: 2 675 kg
Max allowed load: 510 kg
Max allowed load with safety canopy: 400 kg

DRILLING CONTROL SYSTEM

Control system type: Sandvik THC561
Manual boom control: Direct control
Fully proportional
Hydraulic parallelism
Drilling control: Feed / percussion control
Automatic cycle: Stop and return automatics

ELECTRIC SYSTEM

Total installed power: 200 kW
Standard voltage: 380 - 690 VAC (± 10%)
Main switch gear: MSE3
IP classification: Spec. sheet TS2-132
Starting method: Star-delta starter 380 - 690 VAC
Automatic cable reel: TCR6EHD
Cable reel control: Operator station
Front lights (combined working and driving): 12 x 50 W LED (24VDC)
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 of holes: By Water
Water booster pump type: WBP3
Water pump capacity: 215 l/min
Water pump inlet pressure: 2 - 7 bar (Min.)
Flushing water pressure: 10 - 15 bar
Shank lubrication device: SLU-3 (air / oil mist)
Oil consumption: 180 - 250 g/h
Air consumption: 250 - 350 l/min
Air compressor type: CTN10, 1 m³/min (7 bar)

TRAMMING AND OPERATOR STATION

Safety canopy certification: FOPS (ISO 3449)
Elevating operator station: 1 000 mm
Operation: Seated tramming
Standing drilling
Sound pressure level: According to EN791
Operator station: 103 dB(A)
Emitted: 128 dB(A)
Stair and service lights: LED lights
### CARRIER

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carrier type</td>
<td>Sandvik TC11</td>
</tr>
<tr>
<td>Steering system</td>
<td>Axle steering in engine end Orbitrol</td>
</tr>
<tr>
<td>Rear oscillation</td>
<td>± 8°</td>
</tr>
<tr>
<td>Ground clearance</td>
<td>400 mm</td>
</tr>
<tr>
<td>Diesel engine</td>
<td>MB OM904LA, 110 kW Tier 3, Stage IIIA</td>
</tr>
<tr>
<td>Transmission</td>
<td>Hydrodynamic, Spicer T20 000</td>
</tr>
<tr>
<td>Axles</td>
<td>Dana Spicer 37R (front) Dana Spicer 213 (rear)</td>
</tr>
<tr>
<td>Tires</td>
<td>14.00-24 28RL</td>
</tr>
<tr>
<td>Service brakes</td>
<td>Hydraulically operated wet disc brakes</td>
</tr>
<tr>
<td>Parking and emergency brakes</td>
<td>SAHR type, fail safe wet disc brakes</td>
</tr>
<tr>
<td>Tramming speed</td>
<td>15 km/h (Horizontal) 3.5 km/h (14% = 17° = 8°)</td>
</tr>
<tr>
<td>Gradeability / inclination</td>
<td>Max. 15°/ 5°</td>
</tr>
<tr>
<td>Fuel tank</td>
<td>150 liters</td>
</tr>
<tr>
<td>Hydraulic jacks</td>
<td>TJ60 (front), TJ75 (rear)</td>
</tr>
<tr>
<td>Hand throttle</td>
<td>Standard</td>
</tr>
<tr>
<td>Centralized greasing points</td>
<td>Carrier</td>
</tr>
<tr>
<td>Fire extinguisher</td>
<td>1 x 7.7 kg Type ABC</td>
</tr>
</tbody>
</table>

#### OPTIONAL FEATURES AND PACKAGES

**Rock drill**
- *Rock drill type* Sandvik HLX5 instead of RD520 for RD520 and HLX5
- *Feed length* 12', 14', 16', 20', 21'
- *Telescopic feed* Rod retainer
  - Sandvik TFX6/12, TFX8/14, TFX10/16
  - SCR with TF feed (incl. safety wire)
  - TRR1 with TFX 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
  - For 90 mm (3 ½") or 115 mm (4 ½") pipe
- 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
  - *Oil tank filling pump* Manual
  - *Oil cooler (air actuated)* 1 x OA30 (30 kW)
  - Vacuum pump
    - For hydraulic system
  - *Biodegradable oils* Shell Naturelle HFE46/HFE68
- Drilling control system
  - *Constant speed drilling instrumentation* TMS DDSS3 system (Spec. 5-9200)
  - *Optional voltage* 1 000 VAC, 50 Hz.
  - *Optional feature* Electric cable rubber or PUR
  - *Ground fault and overcurrent protection* Specification T2S-121
  - *Spooling device* CT28 air compressor
  - *Remote control for reell(s)* Additional 2 x 80 l air receivers
  - *Electricity outlet in front carrier* IP5 air cleaner
  - *Ambler flashing light* THRSE incl. water hose 44.5 mm (1 ¾'), 60 m

**Electric system**
- *Optional voltage* 1 000 VAC, 50 Hz.
- *Optional feature* Electric cable rubber or PUR
- *Ground fault and overcurrent protection* Specification T2S-121
- *Spooling device* CT28 air compressor
- *Remote control for reell(s)* Additional 2 x 80 l air receivers
- *Electricity outlet in front carrier* IP5 air cleaner
- *Ambler flashing light* THRSE incl. water hose 44.5 mm (1 ¾'), 60 m

**Air and water system**
- *Flushing flow supervision* Option
  - External air/water supply (incl. IP5 air cleaner)
  - CT28 air compressor
  - Additional 2 x 80 l air receivers
  - IP5 air cleaner
- *External air connection* THRE incl. water hose 44.5 mm (1 ¾'), 60 m

**Cleaning system**
- *LP system with reel* Up to 15 bar
- *HP system with reel* Up to 180 bar

**Greasing systems**
- Manual system Specification 5-2110
- Automatic system Carrier, booms and basket boom

**Operator’s safety canopy**
- Tramming camera Rear and side
- Fire suppression system Manual or automatic system Ansol, 8 nozzles (incl. 1 x fire extinguisher)

**Carrier**
- High speed carrier TC12, incl. MB OM906LA, 170 kW, Tier 3, Stage IIIA, with Spicer T32 000 transmission and front axle 43R.
- TC12, incl. QS6.7, 164 kW, Tier 4i, Stage IIIB, with Spicer T32 000 transmission and front axle 43R.
- 3rd gear lockout For Tier 3 engines
- 3rd gear lockout 3rd gear lockout
- Reduced tramming speed For 12 - 21 ft rods
- Exhaust catalyzer For Tier 3 engines
- Rod rack under carrier 3rd gear lockout

**Packages**
- Anti-freezing Block heater for engine, heater for hydraulic oil, water circuit flushing with air, antifreeze adding in water circuit.
- Extra items
  - Spare rock drill RD520 or HLX5
  - Spare wheel assembly 14.00-24 28RL
  - Special tools for rock drill RD520 or HLX5
  - Tunnel laser set Documentation
  - Extra paper, Catbase, Link one manuals

* replaces standard feature
Feed length:
- 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

Total length:
- TF500-14": 17,160 mm
- TF500-16": 17,760 mm
- TF500-18": 18,200 mm
- TF500-20": 19,160 mm
- TF500-21": 18,610 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.