Sandvik DT821-C is a two-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 enable productive and high quality excavation. Sandvik RD520 rock drills deliver superior performance with high consumable life.

Sandvik S890 universal booms have a large optimum shaped coverage and full automatic parallelism. In addition to face drilling the unit can also be used for crosscutting and bolt hole drilling. An optional utility boom for bolting and utility works is available.

The powerful 4-wheel-drive center articulated carrier ensures rapid and safe tramming with a good balance. Noise and vibration insulated cabin provides ergonomic and extremely comfortable working place with excellent visibility during tramming and drilling.

### KEY FEATURES

| **Coverage area** | 110 m² (14 210 x 8 420 mm) |
| **Hydraulic rock drill** | 2 x RD520 (20 kW) |
| **Drill feed** | 2 x TF500-16’ |
| **Boom** | 2 x S890 |
| **Control system** | THC561, hydraulic |
| **Hole length** | Up to 6 180 mm |
| **Turning width (T-section)** | 4 840 mm (with TF500-16’)** |
| **Transport / drilling width** | 2 500 mm / 3 000 mm |
| **Transport height** | 3 600 mm (*3 190 mm) |
| **Transport length** | 14 930 mm (with TF500-16’) |
| **Total weight** | 27 000 kg (without utility boom) depending on options |
| **Total weight** | 29 400 kg (with utility boom) depending on options |

*Low mounted cabin
BOOM
Type of boom SB90 (TS2-265)
Parallel coverage 90 m²
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
Type of rock drill RD520 (TS2-235)
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 ROCK DRILL
Type of rock drill RD520 (TS2-235)
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

FEED
Type of feed TF512
Feed force (Max.) 25 kN
Total length 5 270 mm
Hole length 3 440 mm
Rod length 3 700 mm
Net weight (kg) 500 kg
TF514
Feed force (Max.) 25 kN
Total length 5 880 mm
Hole length 4 050 mm
Rod length 4 305 mm
Net weight (kg) 530 kg
TF516
Feed force (Max.) 25 kN
Total length 6 490 mm
Hole length 4 680 mm
Rod length 4 915 mm
Net weight (kg) 560 kg
TF518
Feed force (Max.) 25 kN
Total length 7 100 mm
Hole length 5 270 mm
Rod length 5 525 mm
Net weight (kg) 590 kg
TF520
Feed force (Max.) 25 kN
Total length 7 710 mm
Hole length 5 880 mm
Rod length 6 135 mm
Net weight (kg) 620 kg

BOOM
Type of boom SB90 (TS2-265)
Parallel coverage 90 m²
Parallelism Hydraulic
Boom extension 1 800 mm
Feed extension 1 650 mm
Boom weight, net 2 650 kg
Roll-over angle 358°

UTILITY BOOM (OPTIONAL)
Type of utility boom SUB3A (TS2-307)
Utility boom pump 60cc (gear)
Boom extension 2 x 2 000 mm
Boom weight, net 2 350 kg
Max allowed load 510 kg
Max allowed load with safety canopy 400 kg

HYDRAULIC SYSTEM
Powerpack HPP555 (2x55 kW)
Percussion pump 110 cc (variable)
Rotation pump 60 cc (variable)
Filtration size (pressure / return) 20 µ / 10 µ
Oil tank volume 290 liters
Filling pump for hydraulic oil Electric
Cooler for hydraulic oil OW30 oil-to-water (2x30 kW)

CONTROL SYSTEM
Type of control system THC561, hydraulic (TS2-362)
Manual boom control Direct control
Fully proportional
Hydraulic parallelism
Drilling control Feed / percussion control
Automatic cycle Stop and return automatics

ELECTRIC SYSTEM
Standard voltage 380 - 690 V (± 10%)
Total input power 135 kW
Main switch MSE20
IP classification Specification TS2-132
Starting method Star-delta starter 380 - 690 V
Automatic cable reel TCR4E with spooling system
Cable reel control (in / out) Operator station
Front lights (combined working and driving) 8 x 50 W LED (24V)
Rear lights (combined working and driving) 4 x 50 W LED (24V)
Rear parking / brake lights 2 x Red LED (24V)
Stair case service lights LED (24V)

AIR AND WATER SYSTEM
Flushing of holes By water
Water booster pump type WBP2 (11 kW)
Water pump capacity 200 l/min
Water pump inlet pressure 2 - 7 bar
Flushing water pressure 10 - 15 bar
Shank lubrication device SLU-2 (air / oil mist)
Air compressor CTN10 (1.0 m³/min at 7 bar)
Air consumption 250 - 350 l/min
Oil consumption 150 - 250 g/h

OPERATOR’S SAFETY CABIN
Cabin certification FOPS (ISO 3449)
Type of cabin Standard height
Cabin height 3 600 mm
Cabin inside height 2 000 mm
Sound pressure level EN 16228 Cabin < 79 dB(A)
Emitting 125 dB(A)
Operation Standing drilling, seated tramming
Floor Water-washable
Air conditioning During drilling and tramming
Cabin heating During drilling and tramming
Electricity outlets 1 x 12 V
### CARRIER

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of carrier</td>
<td>TC8 (frame-steered)</td>
</tr>
<tr>
<td>Carrier articulation</td>
<td>± 37°</td>
</tr>
<tr>
<td>Rear axle 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 113 (front) / 123 (rear)</td>
</tr>
<tr>
<td>Tires</td>
<td>14.00-24 PR28</td>
</tr>
<tr>
<td>Service brakes</td>
<td>Hydraulically applied wet disc brakes</td>
</tr>
<tr>
<td>Parking / emergency brakes</td>
<td>SAHR type, fail safe wet disc brakes</td>
</tr>
<tr>
<td>Fuel tank</td>
<td>150 liters</td>
</tr>
<tr>
<td>Tramming speed</td>
<td>Horizontal (0%): 16 km/h, 14% = 1.7: 8°: 5.4 km/h</td>
</tr>
<tr>
<td>Gradeability / sideways tilt</td>
<td>Max. 15° / 5°</td>
</tr>
<tr>
<td>Carrier stabilization</td>
<td>TJ60 (front), TJ75 (rear)</td>
</tr>
<tr>
<td>Hand throttle</td>
<td>Standard</td>
</tr>
<tr>
<td>Hand held fire extinguisher</td>
<td>7.7 kg (type ABC)</td>
</tr>
<tr>
<td>Carrier centralized greasing</td>
<td>Specification 5-2110</td>
</tr>
<tr>
<td>Tramming alarm</td>
<td>Standard</td>
</tr>
<tr>
<td>Colour scheme</td>
<td>Sandvik standard</td>
</tr>
<tr>
<td>Documentation</td>
<td>2 x Operator’s manual, 2 x Maintenance manual, 2 x Technical manual (in English only), 2 x Parts manual (in English only), 2 x Toolman CD</td>
</tr>
</tbody>
</table>

### OPTIONAL ITEMS

<table>
<thead>
<tr>
<th>Type</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rock drill</td>
<td>RD525 (with 75 kW HPP)</td>
</tr>
<tr>
<td>Power extractor</td>
<td>For RD520, RD525 or HLX5</td>
</tr>
<tr>
<td>Feed</td>
<td>12', 14', 18', 20'</td>
</tr>
<tr>
<td>Rod retainer</td>
<td>SCR with TF feed (incl. safety wire)</td>
</tr>
<tr>
<td></td>
<td>TTR1 with TF feed (incl. safety wire)</td>
</tr>
<tr>
<td>Utility boom</td>
<td>FOPS approved</td>
</tr>
<tr>
<td></td>
<td>Sliding FOPS safety canopy</td>
</tr>
<tr>
<td>Spot lights</td>
<td>2 x 17 W LED</td>
</tr>
<tr>
<td>Rod racks</td>
<td>For 4 pcs of 10 or 12 ft rods</td>
</tr>
<tr>
<td></td>
<td>RX expansion bolt installation kit D30 mm or D41 mm</td>
</tr>
<tr>
<td>Hydraulics</td>
<td>Manual</td>
</tr>
<tr>
<td></td>
<td>Sandvik oils</td>
</tr>
<tr>
<td>Control system</td>
<td>Replaces feed / percussion control</td>
</tr>
<tr>
<td></td>
<td>Mandatory in Europe (TS2-211)</td>
</tr>
<tr>
<td></td>
<td>TMS+D2 for TF and TFX feeds</td>
</tr>
<tr>
<td></td>
<td>TMS+DODS2 for TF feeds only</td>
</tr>
<tr>
<td></td>
<td>TCAD+ with iSURE I-III design and reporting, (with SB40 boom only)</td>
</tr>
<tr>
<td></td>
<td>iSURE III Analysis (with TCAD+)</td>
</tr>
<tr>
<td></td>
<td>iSURE IV Bolting plan</td>
</tr>
<tr>
<td>Extra display</td>
<td>For TCAD+</td>
</tr>
</tbody>
</table>

### ELECTRIC SYSTEM

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric system</td>
<td>1 000 V (50 Hz) with DOL starting system</td>
</tr>
<tr>
<td>Electric cables</td>
<td>Specification TS2-121</td>
</tr>
<tr>
<td>Spooling device for cable reel</td>
<td>For voltages 690 - 1 000 V VYK</td>
</tr>
<tr>
<td>Ground fault and overcurrent unit</td>
<td></td>
</tr>
<tr>
<td>Power outlet in front carrier</td>
<td>1 x 400 V or 2 x 230 V</td>
</tr>
<tr>
<td>Remote control for reel(s)</td>
<td>At rear machine</td>
</tr>
<tr>
<td>Spot lights</td>
<td>2 pcs remoted with joystick</td>
</tr>
<tr>
<td>Amber flashing light</td>
<td>LED (24 V)</td>
</tr>
</tbody>
</table>

### AIR AND WATER SYSTEM

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flushing flow supervision</td>
<td>CTN16 (1.6 m³/min at 7 bar)</td>
</tr>
<tr>
<td>*Air compressor</td>
<td></td>
</tr>
<tr>
<td>Air mist flushing kit</td>
<td>External air / water supply (incl. IPS air cleaner)</td>
</tr>
<tr>
<td>End of hole flushing</td>
<td>2 x 80 liters receiver (incl. IPS air cleaner)</td>
</tr>
<tr>
<td>External air connection</td>
<td>IPS air cleaner</td>
</tr>
<tr>
<td>Water hose reel</td>
<td>THR2.5E with water hose</td>
</tr>
<tr>
<td></td>
<td>38 mm (1 1/4), 65 m</td>
</tr>
</tbody>
</table>

### CLEANING SYSTEM

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low pressure system with reel</td>
<td>Up to 15 bar (TS2-343)</td>
</tr>
<tr>
<td>High pressure system with reel</td>
<td>Up to 180 bar (TS2-343)</td>
</tr>
</tbody>
</table>

### Greasing systems

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automatic system</td>
<td>Lincoln (for carrier, boom, rod handler and utility boom)</td>
</tr>
<tr>
<td>Manual system</td>
<td>Specification 5-2110</td>
</tr>
</tbody>
</table>

### Operator’s safety cabin

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduced tramming speed</td>
<td>3rd gear lockout</td>
</tr>
<tr>
<td>*Stainless steel cabin</td>
<td></td>
</tr>
<tr>
<td>*Low mounted cabin</td>
<td></td>
</tr>
<tr>
<td>Boot washer</td>
<td></td>
</tr>
<tr>
<td>Audio player</td>
<td>CD / MP3-player, radio and loudspeakers</td>
</tr>
</tbody>
</table>

### Fire suppression system

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manual system</td>
<td>Ansl (6 nozzles)</td>
</tr>
<tr>
<td>Automatic system</td>
<td>Ansl (6 nozzles)</td>
</tr>
</tbody>
</table>

### Carrier

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>*High speed carrier</td>
<td>TC8, incl. MB OM906LA, 170 kW, Tier 3, Stage IIIA, with Spicer T32 000 transmission</td>
</tr>
<tr>
<td>*High speed carrier</td>
<td>TC8, incl. QSB6.7, 164 kW, Tier 4i, Stage IIIB, with Spicer T32 000 transmission</td>
</tr>
<tr>
<td>*Optional engine</td>
<td>QSB4.5, 119 kW, Tier 4i, Stage IIIB</td>
</tr>
<tr>
<td>Exhaust catalyzer</td>
<td>For Tier 3 engines</td>
</tr>
<tr>
<td>*Tires</td>
<td>Foam filled tires</td>
</tr>
<tr>
<td>Fast filling system</td>
<td>For fuel or complete</td>
</tr>
<tr>
<td>Rod rack on carrier side</td>
<td>12 to 20 ft rods</td>
</tr>
<tr>
<td>Tramming camera</td>
<td>Rear and side</td>
</tr>
<tr>
<td>Wheel chocks and holders</td>
<td>2 pieces</td>
</tr>
</tbody>
</table>

### Extra items

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spare rock drill</td>
<td>RDS20, RDS25 or HLX5</td>
</tr>
<tr>
<td>Spare wheel assembly</td>
<td>Standard or foam filled tires</td>
</tr>
<tr>
<td>Special tools for rock drill</td>
<td>Field kit or complete set</td>
</tr>
<tr>
<td>Tunnel laser set</td>
<td></td>
</tr>
<tr>
<td>Documentation</td>
<td>Extra manuals</td>
</tr>
<tr>
<td>Extended warranty</td>
<td>2 years</td>
</tr>
<tr>
<td>Package: Country specific options</td>
<td>EUR package</td>
</tr>
<tr>
<td>Package: Anti-freezing</td>
<td>Block heater for engine, heater for hydraulic oil, water circuit flushing with air, antifreeze adding in water circuit</td>
</tr>
</tbody>
</table>

*) replaces standard feature
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.