



# DD220L LOW-PROFILE DRILL

## TECHNICAL SPECIFICATION

Sandvik DD220L is a low profile twin-boom electro-hydraulic drilling machine designed to operate in the excavations with a headroom as low as 1.7 m. The robust, universal booms have a large, optimum shaped coverage, 360° rotation, and full automatic parallelism for fast and easy face drilling. The booms can also be used for cross-cutting, and the hose layout is specifically designed to maximize protection in low headings.

The exceptional 'V' shaped layout is designed for good visibility and balance. This, and the powerful four-wheel-drive articulated carrier, ensure fast and safe manoeuvring, even in low headroom conditions. The high performance drilling system allows high drilling performance with good drill steel economy and high machine reliability. The operator environment and added automatic functions allow the operator to concentrate in safe, fast and accurate drilling. All service points are well protected but easy to access.

### KEY FEATURES

|                            |                                   |
|----------------------------|-----------------------------------|
| Coverage area              | 40 m <sup>2</sup> (auto-parallel) |
| Hydraulic rock drills      | 2 x HLX5                          |
| Drill feeds                | 2 x TF512                         |
| Booms                      | 2 x B26F                          |
| Hole length                | Up to 4 660 mm                    |
| Minimum drift size (H x W) | 2 500 mm x 2 500 mm               |
| Turning width (T-section)  | 4 950 mm                          |
| Transport width            | 2 260 mm                          |
| Transport height           | 1 380 mm / 1 950 mm               |
| Transport length           | 13 210 mm                         |
| Total weight               | 20 000 kg<br>depending on options |



## HYDRAULIC ROCK DRILL

|                                  |  |
|----------------------------------|--|
| Type of rock drill               | HLX5 (TS2-232)   |
| Percussion power                 | 20 kW  |
| Percussion pressure              | Max. 220 bar   |
| Percussion rate                  | 67 Hz  |
| Rotation speed                   | Max. 250 rpm (with OMS80)  |
| Rotation torque                  | 400 Nm (with OMS80)  |
| Hole size (drifting)             | 43 - 64 mm   |
| Hole size (cut hole)             | 76 - 127 mm  |
| Recommended rod                  | T38 - Hex 35 - R32<br>T38 - Hex 35 - Alpha 330<br>T38 - Hex 35 - R35 |
| Shank adapter                    | T38 (male)   |
| Weight                           | 210 kg   |
| Length                           | 955 mm   |
| Profile height                   | 87 mm  |
| Inflating device for accumulator | Specification 2-9110   |

## DRILLING FEED

| Type of feed | Feed force | Total length | Hole length | Rod length | Net weight |
|--------------|------------|--------------|-------------|------------|------------|
| TF512        | 25 kN      | 5 270 mm     | 3 440 mm    | 3 700 mm   | 500 kg     |
| CF12         | 31 kN      | 4 780 mm     | 3 450 mm    | 3 700 mm   | 490 kg     |
| CFX6/12      | 31 kN      | 2 930 mm     | 3 417 mm    | 3 660 mm   | 505 kg     |

## BOOM

|                   |                     |
|-------------------|---------------------|
| Type of boom      | B26F (TS2-259)      |
| Parallel coverage | 29 m²               |
| Parallelism       | Automatic hydraulic |
| Boom extension    | 1 200 mm            |
| Feed extension    | 1 350 mm            |
| Boom weight, net  | 1 900 kg            |
| Roll-over angle   | 360°                |

## HYDRAULIC SYSTEM

|                                     |  |
|-------------------------------------|--|
| Powerpack                           | HPP555 (2 x 55 kW)                                       |
| Filtration size (pressure / return) | 20 µ / 10 µ  |
| Oil tank volume                     | 300 liters   |
| Filling pump for hydraulic oil      | Manual   |
| Oil cooler (water actuated)         | 2 x OW30 (30 kW)   |
| Hydraulic low level indicator       | Stop drilling when the oil level in drilling tank is low |
| Oil drilling safety temperature     | Above 75°C   |
| Tool set for hydraulic adjustment   | Specification 2-9100                                     |

## CONTROL SYSTEM

|                                       |  |
|---------------------------------------|--|
| Type of control system                | THC560 (5-1010)  |
| Operating principle                   | Hydraulic pilot control  |
| Manual boom control                   | Direct control<br>Fully proportional<br>Hydraulic parallelism                  |
| Drilling control                      | Adjustable collaring power<br>Feed / percussion control<br>Anti-jamming system |
| Automatic cycle                       | Stop and return automatics   |
| Drilling reaming selector             | Two rotations speeds can be preset   |
| Drilling and boom movement inhibition | 2 x switches and 1 x door interlock  |

## ELECTRIC SYSTEM

|  |   |
|--|---|
| Standard voltage                                       | 380 - 575 V (± 10%), 50 or 60 Hz                |
| Total input power                                      | 130 kW  |
| Main switch gear                                       | MSE-1JH   |
| IP classification                                      | Specification TS2-132                           |
| Starting method  | Star delta starter 380 - 575 V                  |
| Automatic cable reel                                   | TCR2 LP with spooling system                    |
| Cable reel control                                     | Operator station and rear of unit               |
| Cable reel end switch                                  | Automatic brake application before end of cable |
| Battery switch   | 1 x double pole lockable switch                 |
| Front working lights<br>(combined working and driving) | 2 x 35 W HID and 4 x 70 W (24 V)                |
| Rear driving lights                                    | 2 x 70 W (24 V)                                 |
| Amber flashing light                                   | LED (24 V)                                      |
| Operator station light                                 | 1 x 21 W (24 V)                                 |
| Sealed AGM batteries                                   | 2 x 12 V, 95 Ah                                 |

## FLUSHING SYSTEM

|                            |                             |
|----------------------------|-----------------------------|
| Flushing of holes          | By water                    |
| Water booster pump         | WBP2                        |
| Water pump capacity        | 43 l/min                    |
| Water pump inlet pressure  | 2 bar (min.)                |
| Flushing water pressure    | 10 - 15 bar                 |
| Shank lubrication device   | SLU-2 (air / oil mist)      |
| Air compressor             | CTN16 (1.6 m³/min at 7 bar) |
| Rock drill oil consumption | 180 - 250 g/h               |
| Rock drill air consumption | 250 - 350 l/min             |

## OPERATOR'S SAFETY CANOPY

|                             |   |
|-----------------------------|---|
| Canopy certification        | FOPS / ROPS (ISO 3449)                              |
| Unit height in tramming     | High position : 1 950 mm<br>Low position : 1 775 mm |
| Operation                   | Seated operations                                   |
| Operator's seat             | Ergonomic T-back seat                               |
| Sound pressure level EN 791 | Operator station: 102 dB(A)<br>Emitted: 124 dB(A)   |

## CARRIER

|                              |  |
|------------------------------|--|
| Type of carrier              | TC2B LP (frame steered)  |
| Carrier articulation         | ± 37°  |
| Rear axle oscillation        | ± 15°  |
| Ground clearance             | 300 mm   |
| Diesel engine                | Deutz BF4M2012 (74 kW, Tier 2)   |
| Diesel engine control        | Electronic, EMR  |
| Exhaust catalyzer            | Standard   |
| Transmission                 | Hydrostatic, automotive  |
| Wheel motor                  | 4 x radial piston  |
| Tires                        | Foam filled tires<br>Front: 14.5-15 Eternity<br>Rear: 315/85 x 15 Solideal   |
| Service brakes               | Hydrostatic braking  |
| Parking and emergency brakes | SAHR fail safe type wet disc brakes  |
| Neutral braking              | Brakes applied when neutral position activated   |
| Tramming speed               | 7 km/h (Horizontal)<br>5 km/h (14%=1:7=8°)   |
| Gradeability / sideways tilt | Max. 15° / 15°   |
| Fuel tank                    | 60 liters  |
| Tramming oil tank            | 50 liters  |
| Carrier stabilization        | Vertical (front and rear)  |
| Brake release                | Manual pump  |
| Tramming alarm               | Standard   |
| Wheel chocks and holder      | 2 pieces   |
| Document box                 | A3 format  |
| Access point                 | Yellow reflective (stair and handle)   |
| Colour scheme                | Sandvik  |
| Documentation                | 2 x Operator's manual<br>2 x Maintenance manual<br>2 x Technical manual (in English only)<br>2 x Parts manual (in English only)<br>PDF manuals |

## OPTIONAL FEATURES AND PACKAGES

### Rock drill

\*Type of rock drill RD314 (with CF / CFX feed only)

### Drilling feed

\*TF feed lengths 10', 14'  
\*CF feed lengths CF10', CF12', CF14' (with RD314 only)  
\*Telescopic feed CFX6/12, CFX8/14 (with RD314 only)  
CFX6/12 with 3R Pito

### Boom

\*Type of boom B26S-NV boom  
(N/A with TF514 and CFX8/14)

### Hydraulic system

\*Filling pump for hydraulic oil Electric  
Additional tramming HP filter 10 micron.

### Electric system

Electric cabinet Protection door  
Electric cables Specification TS2-121  
Ground fault and overcurrent protection VYK  
Electric power interlock Powerpack starts only when jacks are on ground  
Dewatering pump outlet readiness Site voltage 380 - 575 V (Max. 11 kW)  
\*LED lights package 43 W LED, excluding additional lights  
Extra working HID lights 2 x 35 W HID (24 V).  
Extra working LED lights 2 x 43 W LED (24 VDC)

## OPTIONAL FEATURES AND PACKAGES

### Air and water system

\*Shank lubrication device KVL10-2 (air/oil mist)  
KVL10-2 (air/oil mist) with low level indicator  
Air mist flushing External water / external air with IP5  
Air mine connection With IP5 air cleaner  
Pressurized air outlet Hose and reel for accessories  
Water hose with hooks 32 mm (1 ¼"), 80 meters  
38 mm (1 ½"), 60 meters

### Cleaning system

HP system without reel Up to 180 bar  
HP system with reel Up to 180 bar

### Greasing systems

Centralized greasing points Carrier  
Manual system Hose reel only

### Fire suppression system

Spare fire extinguisher Desautel, 2 x 6 Type ABC  
Manual system Ansul, 6 nozzles. (2 booms)

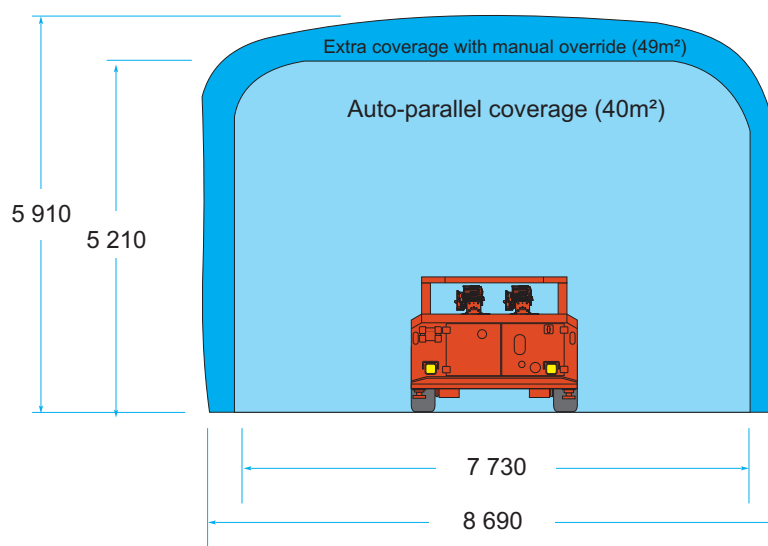
### Carrier

Fast filling systems Complete  
ABA brakes Auto brake application on default  
\*Lockable filler cap Fuel and oil tanks

### Extra items

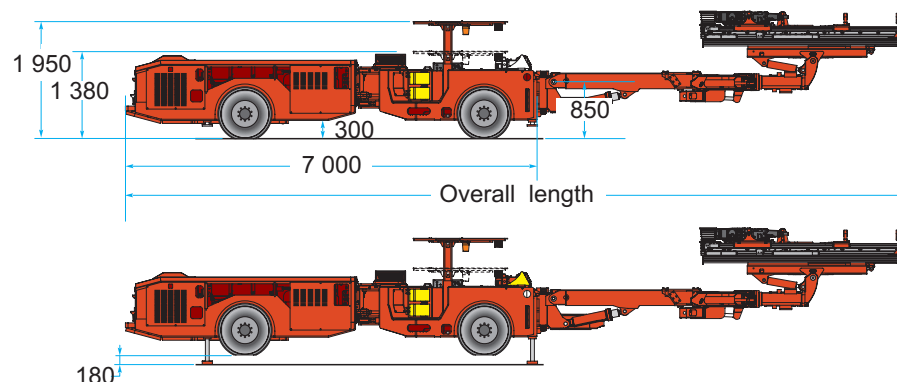
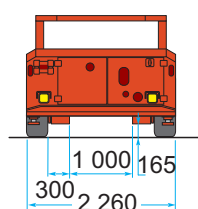
Gate end box  
Berg plug / Berg base  
Spare rock drill HLX5 or RD314  
Spare wheel assembly 1 x Solideal or / and 1x Eternity.  
Special tools for rock drill  
Documentation Extra paper, PDF manuals  
Package: Country specific SAS (Specification TS2-155)  
options  
Package: Extra safety Specification TS2-275  
Package: \*Harsh water Basic or advanced (TS2-049)

\*) replaces standard feature

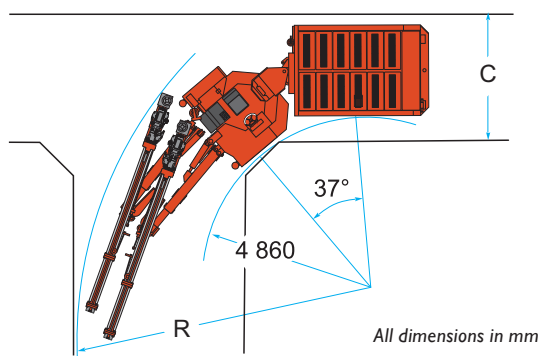


All dimensions in mm

|                |    | TF510  | TF512  | TF514  | CF10   | CF12   | CF14   |
|----------------|----|--------|--------|--------|--------|--------|--------|
| Overall length | mm | 12 660 | 13 210 | 13 440 | 12 250 | 12 860 | 13 470 |



All dimensions in mm



All dimensions in mm

|                |    | Angle (A) | Radius (R) | T-cross (C) |
|----------------|----|-----------|------------|-------------|
| DD220L (TF510) | mm | 37°       | 8 030      | 4 800       |
| DD220L (TF512) | mm | 37°       | 8 183      | 4 950       |
| DD220L (TF514) | mm | 37°       | 8 245      | 5 000       |
| DD220L (CF10)  | mm | 37°       | 7 990      | 4 750       |
| DD220L (CF12)  | mm | 37°       | 8 088      | 4 850       |
| DD220L (CF14)  | mm | 37°       | 8 155      | 4 910       |

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