



DU311-T UNDERGROUND ITH DRILL

TECHNICAL SPECIFICATION

Sandvik DU311-T is a track mounted In-The-Hole drill designed to drill with ITH hammers powered with high air pressure.

Sandvik DU311-T can be used to drill from 3.5 in (89 mm) to 8.5 in (216 mm) diameter holes. Most applications allow the machine to drill to a depth greater than 330 ft (100 m). With additional air supply it can also be used for reaming up to 17.5 in (445 mm) diameter holes with a 12 in hammer for rapid raising.

KEY FEATURES

| | |
|----------------------------|----------------------------------|
| Top drive | 6230 |
| Positioning system | 4 ft - 6 ft |
| Control system | ERIS panel - CanBus |
| Minimum drift size (H x W) | 3 050 x 3 050 mm (120 x 120 in) |
| Turning radius | 2 540 mm (100") |
| Transport height | 2 939 mm (116 in) |
| Transport width | 1 830 mm (72 in) |
| Transport length | 4 997 mm (197 in) |
| Total weight | 12 700 kg (28 000 lbs) |



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TOP DRIVE

| | |
|---------------------------|-------------------------------------|
| Type of rotation head | RH6230 with spline piston break-out |
| Working pressure | Up to 207 bar (rotation) |
| Rotation motors | 2 x ME12 |
| Maximum torque | 5 730 Nm |
| Rotation speed | 0 - 60 rpm |
| Weight | 336 kg |
| Length with spline piston | 760 mm (including saver sub) |

POSITIONING SYSTEM

| | |
|----------------------------|-----------------|
| Single slide over | 762 mm (30") |
| Feed extension | |
| 1.8 m (6 ft) drill pipe | 1 370 mm (54") |
| 1.5 m (5 ft) drill pipe | 1 143 mm (45") |
| 1.2 m (4 ft) drill pipe | 914 mm (36") |
| Roll over angle | 360° |
| Stinger extension - top | 1 830 mm (6 ft) |
| Stinger extension - bottom | 610 mm (2 ft) |

MAST

| | |
|--------------|----------------------------------|
| Mast | Standard mast, fixed centralizer |
| Feed force | 70 kN (15 800 lbs) |
| Max. opening | 222 mm (8.75") |

HYDRAULIC SYSTEM

| | |
|--------------------------------|---|
| Power pack | 1 x 37 kW (50 hp) |
| Type of pump | 1 x 100 cc variable displacement axial piston pump (6.1 cu.in./rec) |
| Filtration (pressure / return) | 5μ / 10μ |
| Oil tank volume | 265 liters (70 US gal) |
| Tank filling pump | Electric |
| Oil cooling | Shell and tube cooler |

CONTROL SYSTEM

| | |
|------------------------|-------------------|
| Type of control system | Direct hydraulics |
| Controls | Swing arm mounted |

ELECTRICAL SYSTEM

| | |
|-------------------------|---|
| Total input power | 37 kW (50 hp) |
| Standard voltages | 600 V |
| Standard frequency | 60 Hz |
| Lights - working | 2 x 43 W LED |
| Lights - driving lights | 2x 43 W LED |
| Starter | delta wye |
| Safety shut-downs | Low mine water pressure Low hydraulic oil Level High hydraulic oil temperature |
| Safety feature | Tram active strobe Tramming alarm Phase loss / phase reversal protection Motor overload protection Voltmeter and ammeter Indicator lights Zener diode |

HAMMER LUBRICATION SYSTEM

| | |
|------------------------|------------------------|
| Grease / oil injection | For hammer lubrication |
| Metering capacity | 4 l/hr (1 US gal/hr) |
| Tank size | 30 liters (8.5 US gal) |

WATER INJECTION SYSTEM

| | |
|--------------------|--|
| Type of water pump | Triplex piston pump |
| Capacity | 27 l/min, 48 bar (7 gal/min, 700 psi) |

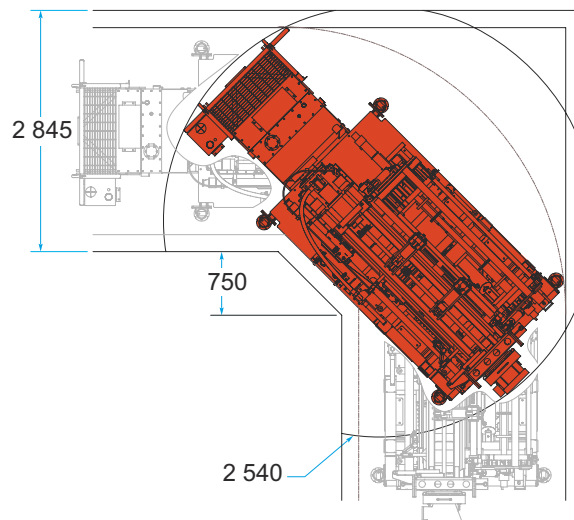
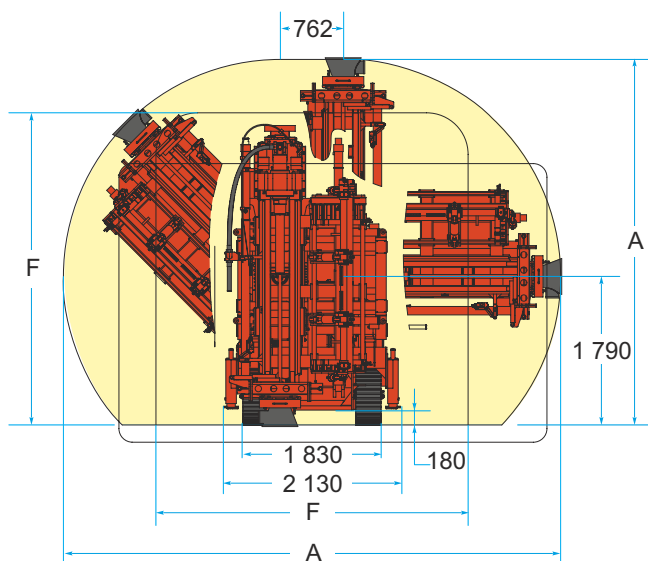
CARRIER

| | |
|-----------------------------|--|
| Type of carrier | DU211-T standard (tracked) |
| Ground clearance | 180 mm (7") |
| Tracks | Triple grouser, sealed and lubricated |
| Parking / emergency brakes | SAHR type, fail safe wet disc brakes |
| Tramming speed | High gear 2.2 km/h (1.4 mph) Low gear 1.2 km/h (0.8 mph) |
| Gradeability | 35% (20°) |
| Carrier stabilizations | 2 x Vertical (front) 2 x Vertical (rear) |
| Centralized greasing points | Standard |
| Documentation | 3 x Operator's manual 3 x Maintenance manual 3 x Parts manual (in English only) 1 x CD of manuals (PDF files) |

OPTIONAL ITEMS

| | |
|--|--|
| Mast | |
| Standard mast (Fixed or split centralizer) | 70 kN (15800 lbs), 222 mm (8.75") Drill pipe lengths 4 / 5 / 6 ft |
| Heavy mast (split centralizer) | 133 kN (30 000 lbs), 222 mm (8.75") Drill pipe lengths 4 / 5 / 6 ft |
| Conversion kit to change one pipe size | With carousel Without carousel |
| Carousel | |
| No carousel | Removal |
| Carousel | 16 + 1 for Ø3" to 4" (76 to 102 mm) 32 + 1 for Ø3" to 4" (76 to 102 mm) 16 + 1 for Ø3" to 5" (76 to 127 mm) 21 + 1 for Ø3" to 5" (76 to 127 mm) |
| Pipe handling | |
| Pipe arm | Single axis to assist manual pipe handling |
| Positioning systems options | |
| 50 / 50 Stingers | Upward drilling |
| Top | 1 219 mm (4 ft) |
| Bottom | 1 219 mm (4 ft) |
| Reverse circulation option | |
| Discharge diameter | 76 mm (3") |
| Max. ID of center tube | 64 mm (2.5") |
| 6230-RC top drive | RC swivel |
| Control system | |
| Additional control system | Secondary ERIS panel |
| Angle indicator with laser alignment | Portable |
| Angle indicator | Permanent |
| Alignment laser | Permanent |
| Camera and monitor package | For drilling |
| Electric system | |
| Optional voltage | 1 000 V |
| Optional frequency | 50 Hz (not needed for 1 000 V) |
| Cable reel | With automatic cable limit stop |
| Indicator for low level | For hammer lubricant |
| Fire suppression system | |
| Automatic system | Ansul, (6 nozzles) |
| Manual system | Ansul, (6 nozzles) |
| Carrier | |
| On-board pressure washer | To open hammer mounts on feed |
| Petrol chain wrench | |
| Remote thread lubrication | |
| Diesel engine | Deutz D914L04 |
| Fast filling and evacuation system | Complete |
| Greasing manual system | Greasing unit with pump, reel and nozzle (5-2110) |
| Wash wand | Without hose reel |
| Hitch for towing booster | |
| Extra items | |
| Special tools for top drive | Field kit |
| Documentation | Extra paper |
| *Package: | Wassara water hammer Reverse circulation |

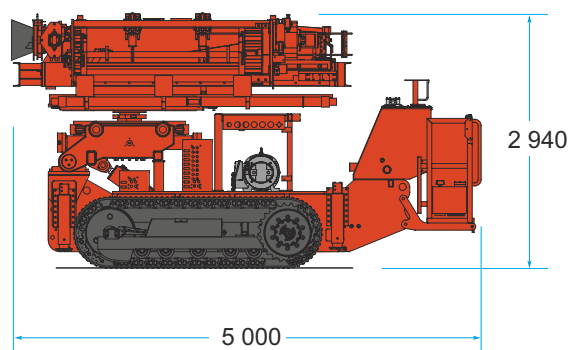
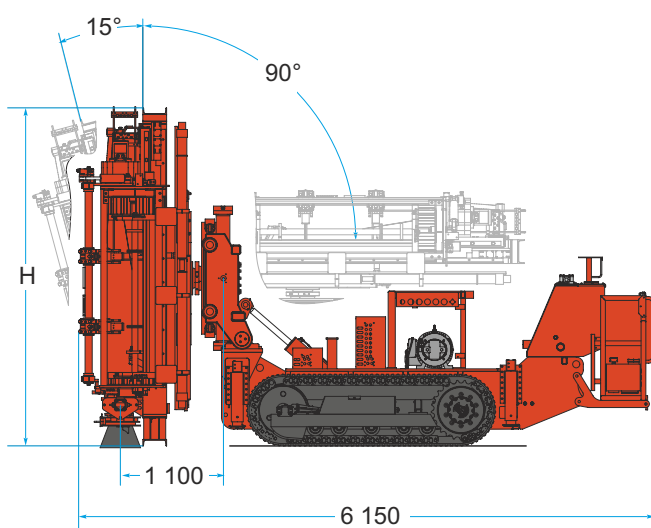
*) replaces standard feature



All dimensions in mm

MAIN DIMENSIONS DEPENDING CONFIGURATION

| | A | B | F | H |
|--------------------|-------|------|-------|-------|
| DU311-T (6ft rods) | 5 989 | 4402 | 3 759 | 3 607 |
| DU311-T (5ft rods) | 5 532 | 4173 | 3 404 | 3 251 |
| DU311-T (4ft rods) | 5 075 | 3945 | 3 048 | 2 896 |



All dimensions in mm

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