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DB540 MULTIPURPOSE DRILL

Technical Overview

DB540 MULTIPURPOSE DRILL

HIGH DRILLING POWER IN A VERSATILE TRACK BASED FORMAT, THE MULTIPURPOSE DB540 IS AN ESSENTIAL TOOL ON TODAY'S JOB SITE.

Power and Versatility

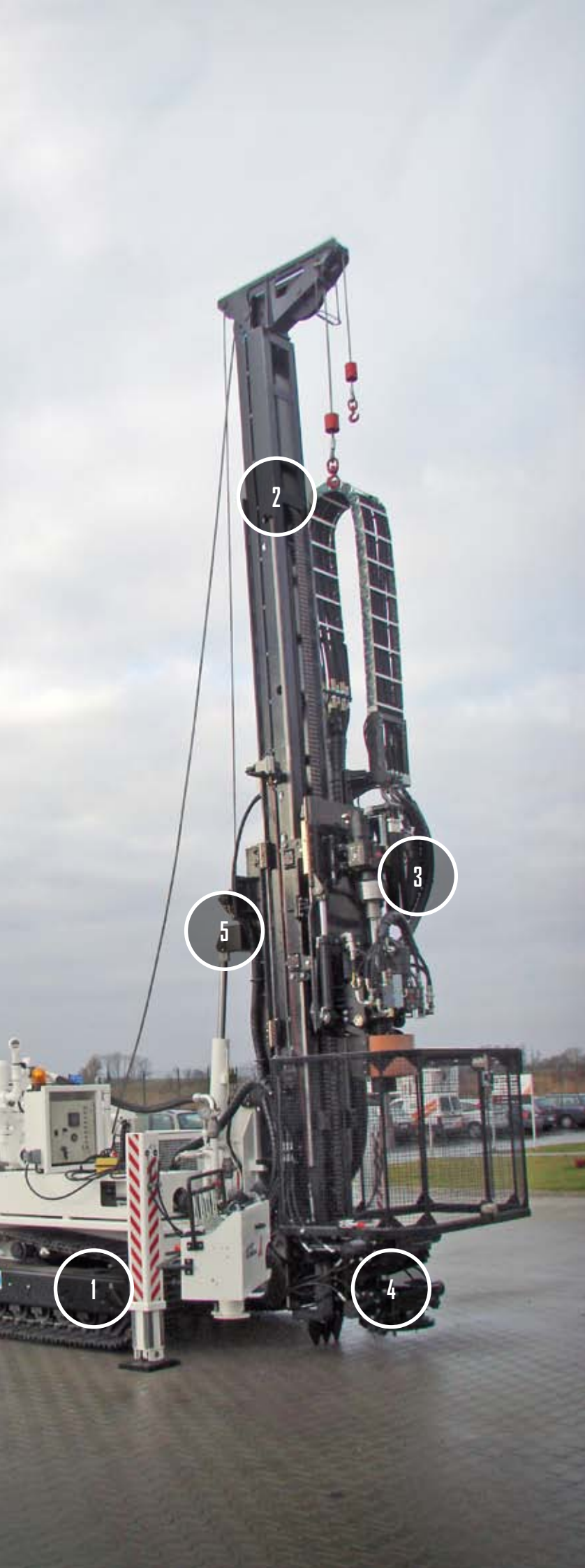
The DB540 features a powerful Deutz tier 3 liquid cooled diesel engine, producing 147KW (197hp) at 2,300 rpm. The DB540 has a maximum breaking torque of 44 kNm (31,140 lb-ft), 15 t of pull back force and 10 t of pulldown force

Multi-purpose

The DB540 is ideal for rotary, wireline & conventional coring, DTH drilling, double head rotary, auger and mini piling.

Safety

The DB540 comes loaded with standard safety features. The safety cage ensures drillers remain a safe distance from the drill string, while low speed and low torque rotation ensures safe rod management. The steel crawlers coupled with the DB540's upright stability make this machine extremely stable on uneven formations.



1 POWERFUL STEEL CRAWLERS
Ensure mobility on difficult terrain.

2 1,000 MM MAST DUMP
For improved positioning on rough terrain

3 STANDARD HYDRAULIC SIDE SHIFT
For easy rod-pulling and clear access to center line

4 305 MM DOUBLE CLAMP
For making and breaking rod joints quickly

5 HYDRAULIC MAST RAISING
For increased mobility

STANDARD SAFETY FEATURES
Safety cage, low speed and low torque rotation for safe rod management

DB40 TECHNICAL INFORMATION

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| Prime Mover | | |
|---------------------------|--|-------------------|
| | Metric | U.S. |
| Standard Unit | Deutz TCD2012L062V liquid cooled engine, com III | |
| Fuel | Diesel | |
| No. of Cylinders | 6 | |
| Swept Volume | 7146 ccm | 436 cubic in |
| Power | 147 kW @ 2300 rpm | 197 hp @ 2300 rpm |
| Torque | 702 Nm | 500 lbf-ft |
| Fuel Tank Capacity | 200 l | 53 g |
| Specific fuel consumption | 200 g/kWh | |
| Battery Voltage | 24V | |

| Rotary Head DD54 | | |
|---|---|-------------------|
| | Metric | U.S. |
| Hydraulic Motor | | |
| 1st gear 80 - 400 rpm | 10120 - 2025 Nm | 7468 - 1494 lb-ft |
| 2nd gear 110 - 550 rpm | 4330 - 860 Nm | 3195 - 634 lb-ft |
| Rotation Motor | Rexroth hydraulic motor -variable / reversible with pressure remote | |
| Mechanical Transmission | 2 speed | |
| Gear Ratio - 1st | 10.18:1 | |
| Gear Ratio - 2nd | 4.36:1 | |
| Bore I.D. | 100 mm | 4 in |
| Floating Spindle I.D. | 42 mm | 1.65 in |
| Floating Spindle - Stroke | 125 mm | 5 in |
| Drive Flange | 2 3/8" API or 2 7/8" | |
| Head carriage with hydraulic side shift | | |
| Optional rod handling assist system available | | |

| Rotary Head HY77 | | |
|---|-------------------------|----------|
| | Metric | U.S. |
| Max. Torque | | |
| 1st Gear 0 - 50 rpm | 10000 Nm | 7375 lbf |
| 2nd Gear 0 - 120 rpm | 5600 Nm | 4130 lbf |
| 3rd Gear 0 - 800 rpm | 745 Nm | 550 lbf |
| Rotation Motor | Danfoss Variable Motors | |
| Gear Ratio | 5.19:1 | |
| Bore I.D. | 100 mm | 4 in |
| Top Drive Flange | 2 7/8" API Reg Box | |
| Head carriage with hydraulic Side Shift and front tip out | | |
| Head includes Break-O-Matic system for additional torque when breaking rods | | |

| Double Rotary Head DH1700 | | |
|---|---------------|---------------|
| | Metric | U.S. |
| Casing Head RH1400 Head - 3 Speed - Type 30 | | |
| | Max. Torque | |
| 1st Gear 29 rpm | 16,8 kNm | 12,400 ft-lbf |
| 2nd Gear 43 rpm | 11,2 kNm | 8,260 ft-lbf |
| 3rd Gear 86 rpm | 5,6 kNm | 413 ft-lbf |
| Inner Rod Head RH900 Head - 2 Speed - Type 97 | | |
| | Max. Torque | |
| 1st gear 55 rpm | 8,7 kNm | 6,420 ft-lbf |
| 2nd gear 110 rpm | 4,4 kNm | 3,210 ft-lbf |
| Electrically controlled shifting for each gear | | |
| Double head carriage with hydraulic side shift | | |
| All additional head tooling available (Flushing head, shock absorber, adapter flanges, etc) | | |

| Hydraulic System | | |
|-------------------------|--|---------------------|
| | Metric | U.S. |
| Primary Pump A10VO60 | Rexroth bent axis, variable displacement | |
| Maximum Flow | 120 lpm @ 2200 rpm | 31.7 gpm @ 2200 rpm |
| Maximum Pressure | 20 MPa | 2,900 psi |
| Secondary Pump A11VO75 | Rexroth bent axis, variable displacement | |
| Maximum Flow (1st) | 150 lpm @ 2200 rpm | 38.1 gpm @ 2200 rpm |
| Maximum Flow (2nd) | 150 lpm @ 2200 rpm | 38.1 gpm @ 2200 rpm |
| Maximum Pressure (1st) | 25 MPa | 3,625 psi |
| Maximum Pressure (2nd) | 25 MPa | 3,625 psi |
| Oil Tank Capacity | 600 l | 158 gal |

| Drill Mast and Feed System with Feed Cylinder | | |
|--|---|-----------------|
| | Metric | U.S. |
| Total Length | 7,25 m | 24 ft |
| Feed Stroke | 4,0 m | 13.2 ft |
| Feed Speed | Normal / fast | |
| Up | 7 / 22 m/min | 23 / 72 ft/ min |
| Down | 11/ 32 m/min | 36 / 104 ft/min |
| Pull down | 100 kN | 22,480 lbf |
| Pull Back | 150 kN | 33,700 lbf |
| Mast Dump | 1000 mm | 3.3 ft |
| Drilling Inclination | 45° off horizontal to 90° vertical down | |

DB540 TECHNICAL INFORMATION

| Undercarriage | | |
|----------------------|-----------------------------------|----------|
| | Metric | U.S. |
| Type | Crawler mounted with steel tracks | |
| Max. Driving Speed | 1,7 km/hr | 1.1 mph |
| Axis Distance | 2,530 mm | 100 in |
| Max. Ground Pressure | 0,066 MPa | 0.96 psi |
| Width of Track Shoe | 500 mm | 19.7 in |
| Climbing Capacity | 60% (approx. 30°) | |

| Additional Included Equipment | |
|---|-------------|
| Hydraulic Leveling Jacks | 4 pcs |
| Night Lights | 5 pcs |
| Towing Hook | Rear of rig |
| Fixed Rod Storage Rack | |
| Hydraulic Mast Raising Cylinders | |
| Safety Guarding and Emergency Stop Switches | |

Optional Equipment

| Rod Clamp 305 mm (12") | | |
|---------------------------|--------|---------------|
| | Metric | U.S. |
| Maximum Clamping Diameter | 305 mm | 12 in |
| Maximum Clamping Force | 330 kN | 75,000 lbf |
| Maximum Breaking Torque | 30 kNm | 22,140 lbf-ft |

| Rod Clamp 406 mm (16") | | |
|---------------------------|--------|---------------|
| | Metric | U.S. |
| Maximum Clamping Diameter | 406 mm | 16 in |
| Maximum Clamping Force | 400 kN | 90,000 lbf |
| Maximum Breaking Torque | 44 kNm | 31,200 lft-ft |

| Main Hoist S45V | | |
|---------------------------|----------|-------------|
| | Metric | U.S. |
| Line Pull | 57 kN | 12,800 lbft |
| Rope Speed @ 50 lpm | 50 m/min | 164 ft/min |
| For Cable Ø18 mm (0.7 in) | 50 m | 164 ft |

| Support PL5 Hoist | | |
|--------------------------|---------------|-------------|
| | Metric | U.S. |
| Line Pull | 19 kN | 4271 lbf |
| Rope Speed @ 59 lpm | 35 m/min | 115 ft/min |
| Cable Ø12mm (0.47 in) | 38 m | 125 ft |

| Support PL2 Hoist | | |
|--------------------------|---------------|-------------|
| | Metric | U.S. |
| Line Pull | 9 kN | 2023 lbf |
| Rope Speed @ 50 lpm | 30 m/min | 98 ft/min |
| Cable Ø8mm (0.32 in) | 40 m | 131 ft |

| Wireline Hoist WL54 | | |
|-----------------------------|---------------|-------------|
| | Metric | U.S. |
| Line Pull | 6,5 kN | 1461 lbf |
| Line Speed @ 50 lpm | 100 m/min | 328 ft/min |
| Cable Ø6mm (0.24 in) | 350 m | 1150 ft |

| Wireline Hoist WL100 | | |
|-----------------------------|---------------|-------------|
| | Metric | U.S. |
| Line Pull - Bare Drum | 933 kg | 2190 lbf |
| Line Pull - Full Drum | 288 kg | 502 lbf |
| Line Speed - Bare Drum | 145 m/min | 475 ft/min |
| Line Speed - Full Drum | 433 m/min | 1422 ft/min |
| Cable Ø4.8mm (0.19 in) | 1000 m | 3280 ft |

| Mud Pump Type FMC W1122BCD | | |
|-----------------------------------|---------------|--------------|
| | Metric | U.S. |
| Working Pressure | 50 bar | 725 psi |
| Continuous Delivery | 72 l/min | 19.0 gal/min |
| Maximum Delivery | 130 l/min | 34.3 gal/min |

| Mud Pump Gardner Denver FG-FGX | | |
|---------------------------------------|---------------|-------------|
| | Metric | U.S. |
| Working Pressure | 21 bar | 305 psi |
| Maximum Flow | 600 l/min | 158 gal/min |

| Combi Block Mud Pump Group CB80-250 | | |
|--|---------------|-------------|
| | Metric | U.S. |
| Working Pressure | 10 bar | 145 psi |
| Maximum Flow | 2500 l/min | 660 gal/min |

DB540 TECHNICAL INFORMATION

| Mud Pump Deltapump 200 | | |
|------------------------|-----------|------------|
| | Metric | U.S. |
| Working Pressure | 30 bar | 435 psi |
| Maximum Flow | 200 l/min | 53 gal/min |

| Oil Line Lubricator For DTH-Drilling | | |
|--------------------------------------|--------|---------|
| | Metric | U.S. |
| Oil Tank Capacity | 20 l | 5.3 gal |
| Operating Pressure | 25 bar | 363 psi |

| High Pressure Mist Washdown Pump - HPW 200/30 | | |
|---|----------|-----------|
| | Metric | U.S. |
| Flow | 30 l/min | 8 gal/min |
| Operating Pressure | 200 bar | 2900 psi |
| | | |

Radio Remote Control For Driving

| ODEX Dust Deflector - Mounts Under Drill Mast | | |
|---|--------|-------|
| | Metric | U.S. |
| Diameter | 305 mm | 12 in |

Toolbox

Includes all basic tools for rig maintenance and lubrication

Welding Generator With Auxillary Power

| | | |
|----------------------------------|-------------|--|
| Power Output (Nominal) | 6 kVa | |
| Voltage | 400 / 230 V | |
| North American Voltage Available | | |

Compressor For Pneumatic Tools - HK400

| | Metric | U.S. |
|----------|-----------|---------|
| Flow | 400 l/min | 14 cfm |
| Pressure | 8 bar | 116 psi |

SPT (Standard Penetration Test) Auto Hammer With Automatic Blow Counter

| | Metric | U.S. |
|------------------|------------|--------|
| Impact Rate | 1 - 30 bpm | |
| Length of Travel | 762 mm | 30 in |
| Hammer Weigth | 63,5 kg | 140 lb |
| Total Weigth | 180 kg | 397 lb |

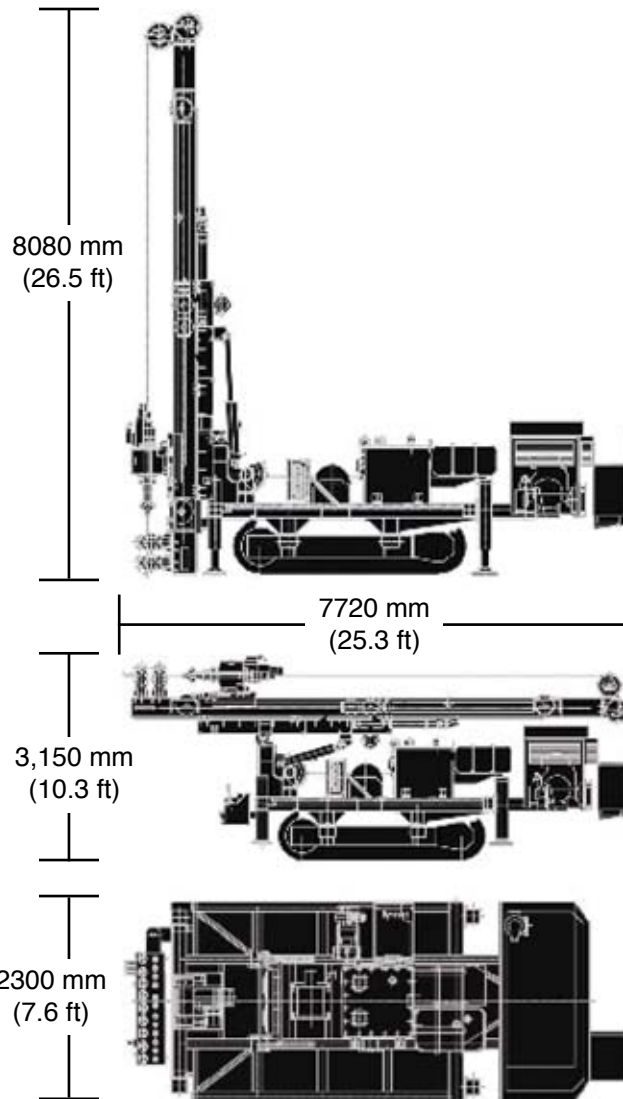
Weight

Operational Weight = 16500 kg
(36376 lb)

Consisting of:
Diesel Power Unit Group DEUTZ TCD2012, 7.15 litre, 6 cylinder
Hydraulic Module
Main Hoist c/w Cable S45V
Hydraulic Mast Raising (Independent)
Lower Mast Assembly
Rotation Unit Group DD54
Crawler Frame
Battery
Levelling Jacks (Hydraulic)
Operator Controls
Foot Clamp and Breaking Clamp

Measurements

With Safety Cage
Height = 3620 mm (11.9 ft)



NOTES

NOTES



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