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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

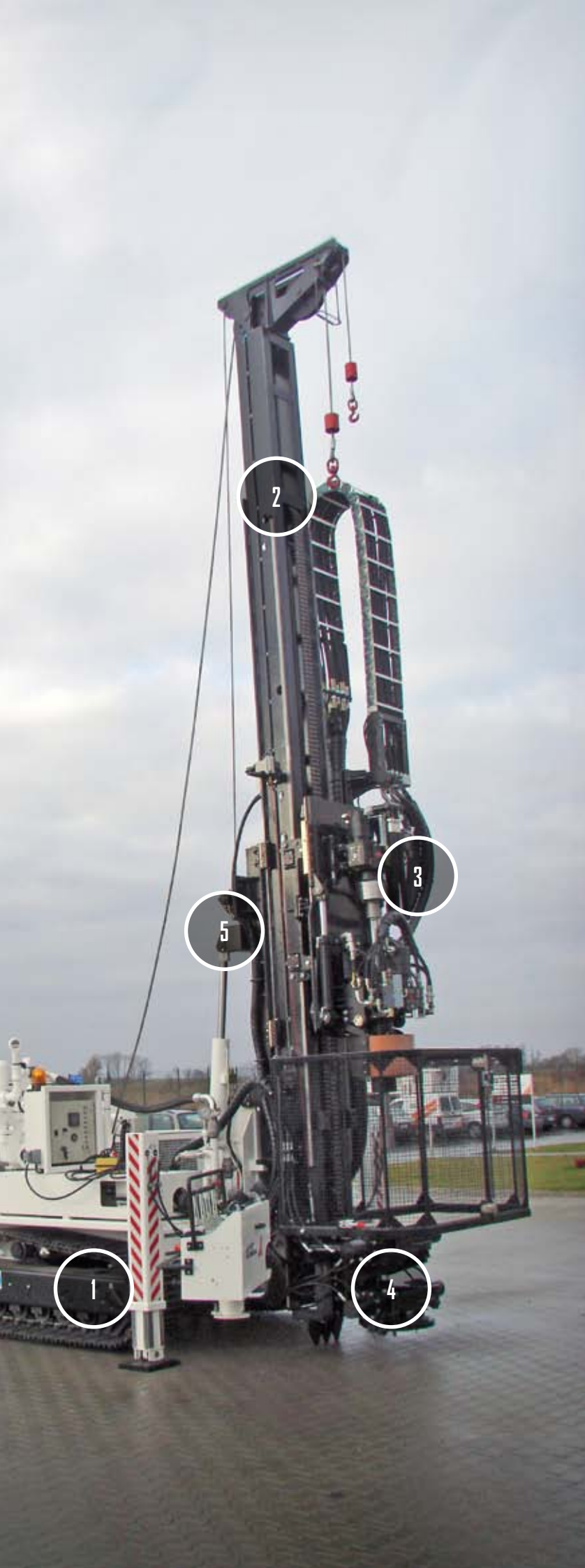
The DB540 features a powerful Deutz tier 3 liquid cooled diesel engine, producing 147KW (197hp) at 2,300 rpm. The DB540 has a maximum breaking torque of 44 kNm (31,140 lb-ft), 15 t of pull back force and 10 t of pulldown force

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

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 lbf
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

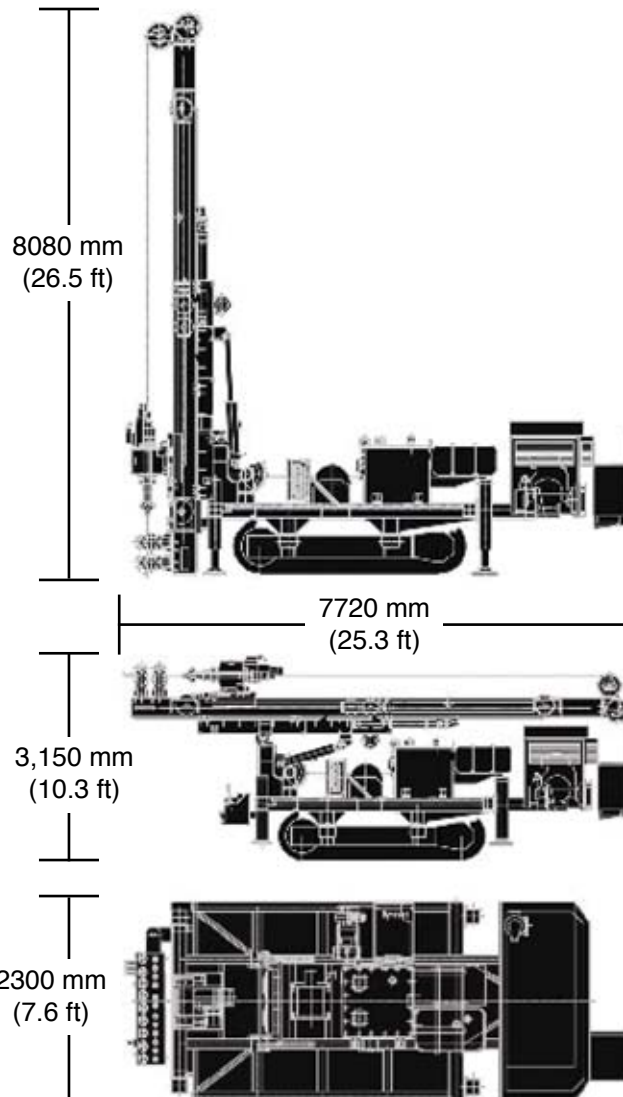
Weight

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



Global Headquarters

Boart Longyear
10808 South River Front Parkway
Suite 600
South Jordan, Utah 84095
United States of America
info@boartlongyear.com

Tel: +1 801 972 6430
Fax: +1 801 977 3374

Latin America

Boart Longyear
Portal Riesco
Av. El Salto 4001, Huechuraba
Santiago, Chile 858 0641
infochile@boartlongyear.com

Tel: +56 2 595 3300
Fax: +51 242 671

Canada

Boart Longyear
2442 South Sheridan Way
Mississauga, Ontario
Canada L5J 2M7
info@boartlongyear.com

Tel: +1 905 822-7922
Fax: +1 905 822-7232

Europe

Boart Longyear
12 Avenue des Morgines
CH1213 Petit-Lancy,
Geneva, Switzerland
infoEU@boartlongyear.com

Tel: +41 22 709 0800
Fax: +41 22 709 0801

Asia Pacific

Boart Longyear
919-929 Marion Road
Mitchell Park
South Australia 5043
info_au@boartlongyear.com

Tel: +61 8 8375 8375
Fax: +61 8 8377 0539

Sub-Saharan Africa

Boart Longyear
Cycad House, Constantia Office Park
Cnr 14th Avenue and Hendrik Potgieter
Weltevreden Park, 1709
Gauteng, South Africa
infos@boartlongyear.com

Tel: +27 11 767 9300
Fax: +27 11 767 9301

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