

Delorean Drill Rig Specifications

Note: The maximum depth capacity of this core rig depends on several factors, primarily the mechanical limits of the drill string, including the pipe grade, connection strength, and safety factors.

The Delorean is an ADC engineered, fit-for-purpose drilling rig designed for remote access and versatile deployment. Capable of being mobilized by trucks, over snow roads, or via fixed-wing aircraft, it can be transported anywhere. The rig is API 4F certified and supports mud rotary drilling, diamond coring drilling, abandonment, workover, and geothermal operations in environments where conventional modular rigs are not practical. With a closed-loop drilling fluid system, well control system and total site containment package, the Delorean offers a low-impact, environmentally responsible solution. Timber cradles distribute weight evenly, maintaining ground pressure below 15 psi. The mast and rig substructure are rated for 175,000 lbs., and the rig has a nominal depth capacity of 8,700+ ft MD/TVD using an 'N' size coring assembly.

Depth Capacity*	
Drill Rod / Core Barrel	Fluid Filled
BQ	10,000 ft +
NQ	8,750 ft +
HQ	5,900 ft
PQ	4,200 ft

Hydraulic System	
Primary Pump	Axial piston, variable displacement load sensing, pressure compensated with low pressure standby
Max Flow	63 gpm / 238 L/m
Max Pressure	4,061 psi / 28 MPa
Secondary Pump	Axial piston, variable displacement load sensing, pressure compensated with low pressure standby
Max Flow	63 gpm / 238 L/m
Max Pressure	2,500 psi / 20 MPa

Feed System / Drill Mast	
Feed Stroke	6 Feet / 1.8 Meters
Pull Capacity @ 2,000 psi	53,000 lbf / 24,040 kg
Thrust Capacity @ 2,000 psi	35,600 lbf / 16,147 kg
Rod Pull	40 Feet / 12 Meters
Drilling Angle	45° off horizontal to 90° vertical down
Foot Clamp	PW

Closed Loop Mud System	
Mud Pits	208 Bbl total volume
2 ea. Centrifugal Pumps	3x2x13 Mission Magnum pumps with 25hp electric motor
Shaker	GN 2 panel shale shaker
Centrifuge	GN VFD controlled decanter centrifuge
Hopper	Hydrodyne venturi diffuser
PVT	Sonar level detectors for each pit with alarm system
Gun Lines	Alpha Level gun line system

Note	
All individual components weigh less than 6,500 lbs	
Rig consists of no oversize or overweight loads for highway transport	
Rig weighs less 275 pounds per square foot	
Hydraulically adjustable legs, self leveling	
Aux utility winch	

Power Unit	
Engine	Mercedes Benz, 6 cylinder, turbo charged, after cooled diesel engine
Size	7.7L
Horse Power (HP)	350 HP @ 2200 RPM
Cooling	Water Cooled
OR	
Motor	WEG, Class I Division 1/ Zone 1 Hazardous Location, 4-Pole Electric Motor
Size	n/a
Horse Power (HP)	300 HP @ 1800 RPM
Cooling	Air Cooled

PQ Drill Head			
Type	Hollow Spindle		
Size	P, Accepts up to 117 mm 4 5/8 In		
Chuck	Hydraulic		
Rotation Motor	Parker V14-V160		
Transmission	Funk 4 Speed / Mechanical		
Transmission Gear Ratio	1st Gear	7.16:1	
	2nd Gear	3.17:1	
	3rd Gear	1.76:1	
	4th Gear	1.00:1	
RPM / Torque	Gear	RPM	Torque / lbft
	1st	128-178	6,490-3,173
	2nd	268-400	3,229-1,784
	3rd	511-711	1,811-1,046
PU @ 2200 RPM	4th	735-950	1,035-356
	Max Torque	6,590 ft / lbs	
Max RPM	950 rpm		

Hoists		
Main Line Max Pull	50,000 lbs	22,679 kg (Bare Drum)
Speed / Bare Drum (7/8" wire rope)	3 ft/sec	1 m/sec
Wireline / Bare Drum	2,190 lb	9.7 kN / 988.2 kgf
Speed/ Bare Drum	337 ft/min	100 m/min
Capacity (.250 cable)	7,000 ft	2,134 Meters

7 1/16" BOPE System	
SPH Annular	7 1/16" ID with capability to close on itself. Nitrile element
LWP Pipe Rams	Fixed rams, rebuildable, 2 3/8" to 5 1/2"
LWP Blind Rams	Fixed block rebuildable
Mud Cross	2 9/16" Manual slab gate valves
Accumulator System	4 station, 33 gallon, N2 Back up, Remote station
Choke Manifold	9 valve choke manifold with 2 manual adjustable chokes
Poor Boy Degaser	6" Outlet (Internal U-tube of 20 1/2")

