



Overview:

The Hydro 55 Diamond Core Drill has a PowerTech PSX 9.0L, 6 cyl., 360 hp @ 1800 rpm engine as the prime mover, giving this drill the capacity to drill to depths of 2,500m with NQ drill rods. This drill is mounted in a 2 part, fully unitized drill shack and is equipped with a 40' pull telescopic tower, 2 part line, and a fully hydraulic breakout tool, FMC 550 pressure pump and a Bloom Winch holdback system for precise weight control.

Depth Capacity

BQ	9842 ft (3000 m)
NQ	8202 ft (2500 m)
HQ	5574 ft (1700 m)

Hydraulic System

One hydrostatic, variable volume, piston pump (manual swashplate control) delivers power to the spindle and main hoist motor drive.

Suggested operating pressure: 3,000 psi (20.7 MPa)

Relief Setting: 5000 psi (34.4 MPa) maximum rated delivery: 96.3 gpm (36.5 l/min)

A second, pressure compensated piston pump delivers power to the retraction, chuck and feed cylinders.

System Pressures:

Normal operation:	1000 psi (6.9 MPa)
Intermittent:	1200 psi (8.3 MPa)
Maximum delivery:	25 gpm (95 l/min)

A third pump powers the optional wireline hoist and mud pump circuits.



Main Hoist

Type:	Planetary (hyd/mech)
Drum Dimensions:	13" (330mm) dia, 11" (280mm) long drum
Clutch band size:	4" (102mm) W x 18" (457 mm) diameter
Brake band size:	5" (127mm) W x 24" (610mm) diameter
Drum capacity:	100 ft of 3/4" rope (30m x 19mm)
Rated bare drum speed:	0-364 ft/min (0-88.5m/min)
Rated bare drum line pull:	27,500 lbf (122.3 kN)
Max. bare drum line pull:	75,000 lbf @ 3000 psi system pressure (245 kN @ 20.7 MPa)
Hoisting cable:	3/4" (19mm)
Breaking Strength:	43,600 lbf (194 kN) for new cable

Transmission

Type:	Spur gear
Speeds:	5 forward (reversible in all gears with hydraulics for operating the hoist only)

Hydraulic Swivel Head

Type:	Twin cylinder
Spindle ID:	3 7/8" (98.4mm)
Hydraulic cylinder ID:	4" (101mm)
Lift area:	25.1" (162cm) square, total for 2 cylinders
Thrust area:	18.85" (121.6 cm) square, total for 2 cylinders
Feed length:	24" (610mm) std; 42" (1067mm) upon request
Angle range: 3	60 degrees
Max rated thrust:	22,600 lb (100.5 kN) @ 1200 psi for swivel head
Rated lifting capacity:	25,000 lbf (111.0 kN) for swivel head @ 1000 psi (6.9 MPa)
Max lift:	30,000 lb (133.4 kN) for swivel head

Hydro Chuck

Type:	Fully hydraulic adjustable chuck jaw pressure
Jaws:	3 self-centering, tungsten carbide, insert type
Capacity:	EW rods through HQ (rods)/NW casing/CHD 101 (rods)
Rated lifting capacity:	23,000 lbf @ 750 psi - normal operating pressure
Rated thrust capacity:	25,000 lbf @ 750 psi - normal operating pressure
Tested lifting capacity:	44,500 lbf @ 1000 psi - non-rotating load
Rated torsional capacity:	2000 lb ft (2.7 kN) for NQ or NCQ rod. For other rod or casing sizes, the capacity is proportional to the rod or casing OD

Wireline Hoist:

Type:	Hydraulic powered, skid mounted
Drum dimensions:	5 1/2" (140mm) diameter x 18.125" (460mm) length
Brake type:	Band
Rope capacity:	12,930 ft of 3/16" (3945m x 4.8mm) cable 6930 ft of 1/4" (2115m x 6.3mm) cable
Line Speed:	Infinitely adjustable up to 800 ft/min (244m/min)
Maximum rated line pull:	3490 lbf (15.5kN)
Weight (net):	510 lb (230 kg)