



The Longyear 50 drill is in a fully unitized drill shack that is skid mounted. It has a Deutz 260 hp @ 2500 rpm engine, with a direct coupled, 4 speed, AT 653 Allison powershift transmission. The drill is equipped with a 30' pull tower, fully hydraulic make and break system, FMC 550 pressure pump, 200 gallon water tank, and a portable mud mixer.

Depth Capacity

BQ 5000 ft (1524m)
NQ 4800 ft (1463m)
HQ 3600 ft (1098m)

Engine

Deutz 260 hp @ 2500 rpm engine, direct coupled to the transmission

Transmission

Allison Powershift AT 653

Hydraulic swivel head

Type:	Twin cylinder, max rated thrust: 22,600 lbf ((100.5kN)
Spindle ID:	4" (101.6mm)
Hydraulic cylinder ID:	4" (101.6mm)
Lift area:	25.1" (162 cm), total for 2 cylinders
Thrust area:	18.85" (121.6cm) square, total for 2 cylinders
Rated lifting capacity:	25000 lbf (1110 kN) for swivel head @ 1000 psi
Feed length:	24" (610mm) standard, 42" ((1067 mm) available on request
Angle Range:	360 degrees
Max. rated thrust:	22,600 lbf (100.5 kN)
Rated lifting capacity:	25,000 lbf (111.0 kN) for swivel head @ 1000 psi (6.9 MPa)
Hydraulic Retraction:	17" (432 mm)



Hydro chuck

Type:	Fully hydraulic, adjustable chuck jaw pressure
Jaws:	3 self-centering tungsten carbide, insert type jaws
Capacity:	EW rods through HQ (rods) NW casing/CHD 101 (rods)
Rated lifting capacity:	45,000 lbf @ 1500 psi
Rated thrust capacity:	26,000 lbf @ 1500 psi

Main Hoist

Type:	Planetary (hyd/mech)
Drum Dimension:	13" (330mm) diameter x 11" (280mm) long
Clutch band size:	4" (102mm) W x 18" (457 mm) diameter
Brake Band Size:	5" (127 mm) W x 24" (610 mm) diameter
Drum Capacity:	100 ft of ¾" rope (30m x 19mm)
Rated bare drum speed:	0-332 ft/min (0-101 m/min)
Rated bare drum line pull:	27,500 lbf (122.3 kN)
Hoisting cable:	¾" (19mm)
Breaking Strength:	43,600 lbf (194 kN) for new cable

Wireline Hoist

Capacity:	6,000 ft 1,830m) of ¼" (6.4mm) dia.
Line Pull (bare drum):	3,564 lbf @ 2,000 psi
Bare drum line speed:	170 ft/min (51.8m/min)

Hydraulic system

Pump Type:	Double pressure, compensated load sense, hydraulic pump	
Pressure:	Pump 1:	0 – 1500 psi (0 – 1.34 MPa) feed circuit
	Pump 2:	0 – 3000 psi (20.68 MPa) motor circuit
Flow:	Pump 1:	19 gallons (72 l) per minute
	Pump 2:	21 gallons (79 l) per minute