
XY-2B CORE DRILLING RIG

I General

XY-2B Core Drill is up-dated designed according to the development of geological works to meet the needs of users. It is a new type spindle core drill rig. It is applied for engineering geological exploration drilling, hydrogeology well drilling and big-hole basic engineering drilling including core drilling with ngalloy-carbid-tipped and diamond bit mainly. The rig's characteristics as follows:

1. Light in weight, easy relocation.
2. Adopting traversal winch, this will overcome the fault of wire arbitrary intertwine and quick wearing out of the winch laid in lengthways.
3. Belt transmission is adopted for the high speed level to make the drill soft in the uneven formation, and reduce the damage to the components and other mechanical failure.
4. In large spindle hole.
5. With wide speed range and large torque moment in lower speed, it is suitable for engineering geological subterranean and water explorations.
6. The rig is stable in relocation and firmly for position.
7. Debuts F3L 912 diesel engine or 22Kw electric motor for your selection.

II Specifications

1. Drilling capacity

Drilling type	Drilling depth
Foundation pile drilling	100m (328 feet)
Hydro geological well drilling	150m (492 feet)
Core Drilling	600m (1968 feet)

2. Rotator

Type of power engine	Diesel	Electromotor
Positive speed (r/min)	92, 152, 230, 330, 293, 485, 734, 1056	92, 152, 230, 330, 293, 485, 734, 1056
Negative speed (r/min)	81, 258	81, 258
Max. torque of Spindle	2.1 KN·m (1548 lbf·ft)	2.1 KN·m (1548 lbf·ft)

Spindle I.D	93mm (3.66 inch)	93mm (3.66 inch)
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3. Hoist

Hoisting capacity (Single-third of the rope): 31300, 12600, 8800 N (7034, 2831, 1978 lbf)

Lifting speed of wire rope (The third rope): 0.64, 1.05, 1.6, 2.3 m/s (2.1, 3.44, 5.25, 7.54 inch/s)

Wire rope dia.: 12.5 mm (0.49 inch)

Drum dia: 194 mm (7.64 inch)

Brake rim dia.: 360 mm (14.17 inch)

Drum length: 150 mm (5.91 inch)

Brake band width: -90 mm (3.54 inch)

Drum capacity: 80 m (262.4feet)

4. Traveling device

Retraction cylinder stroke -: 600 mm (23.62 inch)

Distance between drill rig and hole: 420 mm (16.54 inch)

5. Pressurizing system

Cylinder I.D.: 70 mm (2.76 inch)

Cylinder rod dia: 35 mm (1.38 inch)

Max. Pressure: 45 KN (10116 lbf)

Max. Lifting force: 60 KN (13488 lbf)

Cylinder stroke: 550 mm (21.65 inch)

6. Oil pump

Type: CBF-E416-AL

Displacement: 16 L/min (4.22 US Gallons/min)

Speed (r/min): 1500

Working pressure: 8 Mpa (1160 psi)

Max. Pressure: 20 Mpa (2901 psi)

7. Drill rod

1) The hexagonal Kelly: $\Phi 89 \times 79$ mm, $\Phi 76 \times 66$ mm, $\Phi 60 \times 53$ mm

($\Phi 3.50 \times 3.11$ inch, $\Phi 3.0 \times 2.60$ inch, $\Phi 2.36 \times 2.09$ inch)

2) $\Phi 89$ mm, $\Phi 71$ mm, $\Phi 50$ mm ($\Phi 3.50$ inch, $\Phi 2.80$ inch, $\Phi 1.97$ inch)

8. Power engine

Diesel engine Deutz F3L 912 28KW (37.5HP) 1500 rpm

Electromotor Y180L-4 22KW (29.5HP) 1470 rpm

9. Dimensions (L×W×H): $2177 \times 950 \times 1863$ mm ($85.71 \times 37.40 \times 73.35$ inch)

10. Weight of drill (without power unit): about 1300 kg (2867 lb)