



北京锦程科技有限公司
BEIJING JINCHENG MINING TECHNOLOGY CO.,LTD.

ADD:Room1005,Building 4,Tianchangyuan,Beiyuan road,Chaoyang District,Beijing,China

TEL:0086 10-84673566 FAX:0086 10-57159802 E-mail:info@rockdrillingrig.com Web:www.rockdrillingrig.com

JCD2000

Crawler Mounted Diamond Core Drilling Rig



Introduction

JCD2000 Hydraulic Core Drilling Rig is a thoroughly new-typed drilling rig developed on the basis of the advanced techniques in the world. JCD2000 is reasonable in design, excellent in performance, easy for operation and convenient for maintenance.

Main Features of the rig

The rig, equipped with tracks, has a hydraulic driving system. It owns a brief but advanced structure, with its power head driven by a variable motor and its speed adjustable for 2 gears. With the oil cylinder working with a speed-changeable chain, its performance is stable and reliable. The mast is adjustable in the range from 0° to 90° to ensure a proper hole-drilling angle. The low gravity center of the rig promises a steady operation. And it provides the operators with a convenient and comfortable working circumstance with a wide view. In short, the rig has a beautiful outline and shows a people-oriented design idea.

Reliable Quality

The main parts and auxiliary equipment, including the engine, diesel engine, hydraulic pump, gear reducer and some key valves and hydraulic accessories, are all products with well-known brands.

High Efficiency

Big torque, powerful driving force, rational and practical design, advanced controlling mode and a 6-meter-long (19.7 feet) drilling rod guarantee the high operation efficiency of the rig.

Environmental Protection

The diesel engine is professionally designed to reduce noise and other contamination (The noise can not be over 72db), which makes the rig proper to be operated in urban areas.

Energy Saving

The advanced technique of loading-sensor-controlling helps the rig reduce its consumption of driving force and heat discharge to the minimum extent.

JCD2000 has an outstanding external appearance, a compacted structure, a reliable function, and a flexible operating system.

All these factors have made the rig the best choice among the same products in both domestic and abroad markets.

Application Range

JCD2000 can be applied to both slant and vertical drilling. Being a rig equipped with diamond and the carbide alloy bit drilling, it can be used in the fields of geology, metallurgy, coal mining, nuke industry and hydrology measuring.

The drill rig is equipped with a series motor driving pump. The feeding and lifting of rotator are driven in the structure of cylinder directly pushing, with a 3.5m(11.5 feet) stroke. The rotation of spindle is driven by a single engine. It has four mechanical shifts of range of speeds, and the speed could be adjusted hydraulically with stepless change.

The rig is simple in structure. It is light and easy for transference; the mast has the functions of sliding and touching ground; the spindle lifted and lowered with hydraulic cylinder; it could be folded for transport and relocation. The spindle hole is in large diameter.

Main Parameters

The figures in these tables have been calculated, based on field experiences, and may be reasonably expected.

Actual drilling capacity will depend on in-hold tools and conditions, drilling techniques and equipment used.

Specification

Item	Specification	Data
Diesel Engine	Model	Cummins 6CTA (turbocharged and charge water cooled)
	Displacement	8.3L (2.19 US Gallons)
	Power	179kW (240HP)
	Rated RPM(Factory setting)	2200rpm
Drilling Capacity	BQ	2000 m(6560 feet)
	NQ	1600 m(5248 feet)
	HQ	1300 m(4264 feet)
	PQ	1000 m(3280 feet)
Drill Head	Rotation Motor	Double Hydraulic Motor
		-variable and Reversible
		Maker: SAUER-DANFOSS
	RPM	Two Shifts/ Stepless Change 0-1100 RPM
	Ratios	1st 8.776:1
		2nd 2.716:1
	Head Opener	sidewise sliding way with hydraulic drive
	Max. Torque	6400 N·m(4717 lbf·ft)
	Hold Diameter	121 mm(4.76 inch)
	Max. Lifting capacity of Spindle	220 kN(49456 lbf)
	Max. Feeding Power	110 kN(24728 lbf)

Primary Pump	Hydraulic pump:	Maker: DANFOSS
	Axial Piston variable displacement Triplex	1st Pump: 200LPM at 32MPa
	With load sensing system.	2nd Pump: 120LPM at 28MPa 3rd Pump: 120 LPM at 28MPa
Hydraulic Tank	Capacity	420 L (111 US Gallons)
Capacity of Main Hoist	Hoisting Speed (single wire)	44m/min(bare drum)
	Hoisting force (single wire)	120kN(26976 lbf)
	Steel Wire Diameter	22 mm(0.86 inch)
	Steel Wire Length	60 m(196.85 feet)
Capacity of Wireline Hoist	Hoisting Force (single wire)	15 kN(3372 lbf) (bare drum)
	Steel Wire Diameter	6 mm(0.24 inch)
	Steel Wire Length	2000 m(6560 feet)
	Mast Height	11.2 m(37.74 feet)
Mast	Mast Adjusting Angle	0°—90°
	Drilling Angle	45° off horizontal to 90°vertical down
	Feeding Stroke	3800 mm(150 inch)
	Slippage Stroke	1100 mm(43.3 inch)
	Feed Pull	22000kg(48510 lb)
	Feed Thrust	11000kg(24255 lb)
Mud Pump	Type	Reciprocating Pump Triplex Plunger
	Model	BW320
	Stroke	110mm(4.3 inch)
	Output volume	320,230,165,118 L/min (84.5, 61, 44, 31 US Gallons/min)
	Discharge pressure	4.0, 5.0, 6.0, 8.0 Mpa (580, 725, 870, 1160 psi)
Foot Clamp	Clamping Scope	55.5-117.5 mm(2.18-4.63 inch) through hole Φ154mm(6.06 inch)
Others	Weight	14000 Kg(30864 lb)
	Transport Dimensions (L × W ×H)	6250×2240×2750mm (20.5×7.34×9.02 ft)
	Transport Way	Steel Crawler

