

HCR-8 Full Hydraulic Drilling Rig



I. General Introduction

HCR-8 Hydraulic Core Drilling Rig, an up-to-date multifunctional product made by Lianyungang Huanghai Machinery Co., Ltd, is a thoroughly new-type hydraulic core drilling rig developed on the basis of the market demand and the advanced techniques in the world. It is suitable to use in plains, hills, high temperature as well as low temperature places. The main machine is integrated in structure, which consists of self-propelled chassis, power, mud pump and hoist, etc. It is wire-line coring, and at the same time has the unique top drive function. The maximum torque is 7200 Nm (5307 lbf ft), which will be much more suitable for large dia. drilling in coal bed methane,

hydrology and water well. According to many years of experience in HDD field, our engineers install clamp and shackle device on the rig to relieve labor intensity, improve drilling efficiency and guarantee operator's safety.. HCR-8 is excellent in performance, high in working efficiency, easy for operation and keeps the operators from dangers.

II. Main Performance Parameters of HCR-8

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.

Power Unit	Power	276 kW (370HP) at 2100 r/min
	NQ	3000m(9840 feet)
Drilling Capacity	HQ	2400 m(7872 feet)
	PQ	1700 m(5576 feet)
	RPM of Spindle	Three Shifts/ Stepless Change Three 0-1250 RPM
Drill Head		7200 Nm(5307 lbf·ft) at 170 rpm
	Max. Torque of Spindle	1300 Nm(958 lbf·ft) at 1250 rpm
	Spindle Diameter	121 mm(4.76 inch)
	Max. Lifting capacity of Spindle	295 kN(66316 lbf)

	Max. Feeding Power	152 kN(34170 lbf)
Capacity of Main Hoist	Hoisting force (single wire)	120kN(26976 lbf)
	Steel Wire Diameter	21.5 mm(0.85 inch)
	Steel Wire Length	50 m(164 feet)
Capacity of Wire line Hoist	Hoisting Force (single wire)	15 kN(3372 lbf) (bare drum)
	Steel Wire Diameter	6.3 mm(0.25 inch)
	Steel Wire Length	2800 m(9184 feet)
	Effective Hoisting Height	9.6 m(31.5 feet)
	Mast Adjusting Angle	0°—90°
Mast	Drilling Angle	45° off horizontal to 90°vertical down
	Feeding Stroke	4700 mm(185 inch)
	Slippage Stroke	1100 mm(43 inch)
Foot Clamp	Clamping Scope	55.5-117.5 mm(2.19-4.63 inch) through hole Φ154mm(6.06 inch)
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)
Others	Weight	25000 Kg (55125 lb)
	Transport Dimensions (L × W × H)	8300×2400×3500mm (326.8×94.5×137.8 inch)