

LAND DRILLING RIG

Land Drilling Rig

Land drilling rig is used in exploration of oil and gas well. PPGL provides the components and structure of drilling rig conform to API SPEC 4F, 7K, 8A and acquires the certificate of authority to use the official API monogram.

Electric Drive Drilling Rig

There're two models of electric-drive drilling rig, i.e. DC electric-drive drilling rig (AC-DC-AC) and AC electric-drive drilling rig (AC-DC-AC). Usually one complete diesel generator as the power source will be enquired together with drilling rig. K type mast, self-lifting or spin-lifting substructure, are normal configuration for integral raise. Electric-drive drilling rig realizes the concentrative control and automatic bit-feeding function through driller's control cabin. The auxiliary brake of AC-VFD drilling rig is dynamic brake. The drawworks adopts hydraulic disc brake and the EATON auxiliary brake etc. Mud pump, drawworks and rotary table can be driven by independent motors.

Combined Drive Drilling Rig

Combined drive drilling rig is driven by power from diesel engines and integrated chain compound box. The drawworks of drilling rig adopts chain transmission with hydraulic disc brake, uniformly driven as mud pump. Rotary table is driven by AC frequency converter and equipped with VFD system. K type mast is adopted for combined drive drilling rig and substructure adopts box on box type or spin-lifting type. Mast and substructure of rig are installed at ground level and raised integrally.



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Mechanical Drive Drilling Rig

Mechanical drive drilling rig is driven by power from diesel engines and belt compound device. The drawworks adopts sealed chain driving with band brake system. Rotary table, drawworks and mud pump are driven uniformly. A type & K type mast will be adopted for mechanical drive drilling rig, and substructure adopts box on box type or spin-lifting type. Mast is installed at ground level and raised integrally.

Technical specifications of Drilling Rig

Model	PPGL-ZJ20	PPGL-ZJ30	PPGL-ZJ40A	PPGL-ZJ40B	PPGL-ZJ50	PPGL-ZJ70
Nominal Drilling Depth(114mm DP) ft(m)	6,600 (2,000)	9,900(3,000)	13,100(4,000)		16,400(5,000)	23,000(7,000)
Max. Hook Load lbf (KN)	303,500 (1,3500)	382,000 (1,700)	505,800 (2,250)		708,200 (3,150)	1,011,600 (4,500)
Drawwork Rated Power HP(KW)	650 (484)		1,000 (735)		1,500 (1,100)	2,000 (1,470)
Wirelines of Hoisting System	4x5	5x6			6x7	
Diameter of Wire Rope in (mm)	1-1/8 (28.5)		1-1/4 (32)		1-3/8 (35)	1-1/2 (38)
One Mud Pump Rated Power HP (KW)	800 (590)	1,000 (735)	1,300 (960)		1,300 (960) 1,600 (1,180)	1,600 (1,180)
Rotary Opening Diameter in(mm)	20-1/2 (520)		27-1/2 (698.5)		37-1/2 (952.5)	
Drill Floor Height ft(m)	11.5(3.5)/15(4.5)		16(4.8)	25(7.5)	30(9)	30(9)/35(10.5)
Mast Type and Mast Height ft(m)	A-shaped Mast		Front-open K Type Mast			
	112(34)		138(42)	141(43)	148(45)	