

DRILLING RIG

Oil Drilling Rig can be used in exploration and exploitation of oil and gas well.

All products conform to API Spec. 4F, 7K, 8A, and acquired the certificate of authority to use the official API monogram.

Technical Performance

1. Electric-drive drilling rig: The drive mode of DC electric-drive drilling rig is AC-SCR-DC, while AC electric-drive drilling rig is AC-DC-AC; it is equipped with a complete diesel generator as the power source. Drawworks adopts hydraulic disc brake and the EATON auxiliary brake, etc. Drawworks, Mud Pump and Rotary Table can be driven by independent motors (Rotary table can be driven compound). K type mast, self-lifting or spin-lifting substructure, mast and substructure are raised integrally. The rig is controlled concentratively in Driller's control cabin and achieves automatic bit feeding function. The auxiliary brake of AC-VFD drilling rig is dynamic brake
2. Combined drive drilling rig: The rig's drive mode is that the diesel engines provide power and integrated chain compound box transmits power. Drawworks adopts sealed chain transmission with hydraulic disc brake, etc. Drawworks and Mud Pump are driven uniformly. Rotary Table is driven by AC frequency converter and equipped with VFD system; K type mast; Substructure adopts box on box type or spin-lifting type; Mast and substructure are installed at ground level and raised integrally.
3. Mechanical drive drilling rig: The rig's drive mode is that the diesel engines provide power and the belt compound device transmits power. Drawworks adopts sealed chain driving with band brake system. Drawworks, Rotary Table, Mud Pump are driven uniformly. A type or K type mast. Substructure adopts box on box type or spin-lifting type. Mast is installed at ground level and raised integrally.



● 9000m digital-control VF electric rig

Major features:

It adopts integrated design of mechanical, electrical and digital , its major functions realize digital control, and it possesses elementary functions of automation, intelligence and information . Structure design of rig components adopts advanced and proven technology from China and Overseas, which has advantages of reliable operation, convenient transportation and economic running to meet HSE requiremets .

Electric transmission adopts vector VF driving system, major electric equipments are placed in VFD house and top drive VFD system can be integrated in. Furthermore for mud pump set electric control system, it can meet the control requirement after upgrading to three sets of 2200HP mud pump.

This rig is equipped with an integral driller's cabin, in which a driller can finish major operations, and it achieves real time display, memory, print and management of parameters (signal). In addition, top drive operation can be realized through the touch screen on driller's seat.

Main technical parameters:

ZJ90/6750 DBS Rig

1	Nominal drilling depth	6000 ~ 9000m (114mmDP)	10	Substructure type	Swing up type
		5000 ~ 8000m (127mmDP)			
2	Max hook load	6750kN	11	Substructure height and clear height under RT beam	12m / 10m
3	Wire rope system of traveling system	7×8 , parallel	12	Mast type and effective height	K TYPE , 48m
4	DW rated power	3200kW (4200hp)	13	Transimission mode	AC-DC-AC , one-on-one control
5	DW gear	Two gears stepless speed regulation	14	Quantity/power of main diesel engine	5× 1200 kw
			15	Quantity/power of auxiliary generator set	1×292kW
6	Diameter of drilling wire rope	φ 45mm			
7	RT opening diameter	1257 .3mm (49 1/2")	16	Quantity and power of VF motor	2× 1600 kW+2×45kw+1×800 kW+3× 1200 kW

8	RT gear	One gear stepless speed regulation	17	HP mud manifold	4" (bore diameter) ×53MPa
9	Quantity and power of drilling pump	3× 1600 HP pump (can upgrade to 2200HP pump)	18	Effective mud volume of solid control system	600m ³