

2000 HP, 60 Hz, Electric Drilling Rig Technical Specifications

Pictures of this rig are available on the product's main page:

<http://www.in-stock-drilling-equipment/in-stock-7000m-2000-hp-60-hz-electrical-land-drilling-rig/>

Item	Description	Qty	Remarks
I	drilling floor area		
1	TC450 Crown block	One set	API 8A 4F
Max. Hook load 4500KN, seven Φ 1524mm sheaves, applicable wire line Φ 38mm four Φ 400 auxiliary sheaves, 2t gin-pole of crown block, Crown block frame, rail, line is strung up in parallel setting buffer rubber, apply to API 4F, API 8A			
2	YC450Traveling block	One set	API 8A
Max. Hook load 4500KN, six Φ 1524m sheaves, applicable line Φ 38mm (1-1/2"), conforming to API Spec 8A regulations			
3	DG450 hook	One set	API 8A
Max. Hook load 4500KN dimension of main hook opening 220mm diameter of deputy hook opening Φ 120mm, apply to API Spec 8A			
4	SL450 dual-purpose swivels	One set	API 8A
Max. Static load 4500KN, Max. Rotary speed 300r/min, Max. working pressure 35Mpa, inner diameter of central pipe 75mm, sub-thread of joint 6 5/8" REG left-hand rotation, apply to API Spec 8A			
5	ZP375 rotary table	One set	API 7K
Diameter of opening ϕ 952.5mm, Max. Static load 5850KN, Max. rotary speed 300r/min, Drive ratio of gear 3.56, rotary table applies to API Spec 7K			
-1	main body of rotary table	One	
-2	main bushing device 5 1/4 "	One set	API 7K (driven by four pins)
-3	2 3/8"-8 5/8"bushing	One set	Normal drilling
-4	9 5/8"-10 3/4"bushing	One set	For setting 9 5/8" casing
-5	11 3/4"-13 3/8"bushing	One set	For setting 13 3/8" casing
6	Rotary table drive	One set	
-1	800kw DC motor	One	
Mounted under the drilling floor, the rotary table drive is driven by one 600kW AC motor through universal shaft, rotary table chain box.			
7	JC70D drawworks	One set	
Drawworks of three shafts, and the transmission is 4F+4R, stepless speed.			
-1	main body of drawworks	One set	
-2	Hydraulic disc brake	One set	
-3	800kW DC motor	Two	
8	JJ450/45.5-K mast	One set	API 4F
The derrick is of " K " type, the effective height is 45.5m, and the capacity of racking platform is Φ 114mm pipe, 7000m(standpipes of 28m in length), 4 strings 10" drillcollar , 6 strings 8" drill collars.			
Equip climb assistant device, fall arrestor device, escape device, tong counterweight, wire line stabilizer.			
-1	Main body of mast	One set	
-2	Fall arrestor device	Two sets	
-3	Escaping device	One set	Imported
-4	Climbing safety device	Two sets	

-5	Hydraulic casing centralizer platform	One set	
-6	Hoisting line	One set	
-7	Mast transport frame	One set	
9	DZ450/10.5-S substructure	One set	API 4F
<p>The substructure types: sling shot. The height of drilling floor is 10.5m, the clear height is 9m, the Max. Hook load of the rotary beam is 4500KN, and the capacity of setback includes 114mm pipe, 7000m (stand pipes of 28m in length), 4 strings 10" drill collars, 6 strings 8" drill collars, derrick, drawworks and all the equipments on the drill floor can be installed at ground level; equip one safety slide, three ladders, raising line for lifting substructure. BOP moving guide is use to lift the equipments of well bore and is matched under the substructure beam. Apply to the API Spec 4F.</p>			
-1	Main body of substructure	One set	
-2	BOP handling device, 2x25t	One set	hydraulic
-3	Bell nipple	One set	
-4	Mouse hose and rat hole pipes	One set	
10	Driller's cab	One set	Equipped with 1P refrigerated ex-proof air conditioner
<p>Driller's gas control, hydraulic operation (the operation of hydraulic cat head is set outside the controlling house), electric transmission control, industrial monitoring (four pictures), display of drilling instrument and the traveling block control are all set in the house. The electric devices are all of explosion proof type.</p>			
11	Dog house	Two sets	
<p>The former is of front-open structure (added with push-hang door), the length of the house is 10m. The hydraulic source, working platform, tool cabinet are set in the dog house. The illumination adopts explosion proof lamps. The electric equipments are of explosion proof type. The interface of hydraulic tripping out machine is reserved. One single-mode explosion proof 2P air conditioner is set in the dog house.</p>			
12	Instrument	One set	
<p>Drilling Instrumentation System consists of driller's console, data acquisition unit (DAQ), computer terminal and software, various sensors, cables and hydraulic hoses. The system can test and display hook load ,weight on bit ,rotary torque , standpipe pressure, tong torque, Rotary RPM, SPM Pump #1 ∨ 2&3, inlet mud volume, mud return flow, mud pit 1#-6# volume, well depth. The parameters can be recorded, displayed and plotted with indoor computer as well as with a recorder of general weight indicator.</p>			
13	Hydraulic buffering device for mast and substructure	One set	
<p>The derrick and substructure adopt hydraulic hydro-cylinder damping, including hydro-cylinder, operating case, hydraulic pipe lines.</p>			
14	5t small air wench	Three sets	
15	0.5t small air wench	Two sets	
16	Mechanical tools of wellhead	One set	
-1	ZQ125 hydraulic tong	One set	
-2	YM-10 / YM-16 hydraulic cat head	Each one Total two	
-3	B tongs	Two	
-4	Elevator bail DH-500	one	
17	Combined hydraulic unit	one set	
18	Final assembly components	One set	
<p>The fixed pressing shield, connecting bolt and locating piece of drawworks, rotary table and so on.</p>			

19	Deadline anchor (JZG41)	One set	(including weight indicator, pressure sensor)
20	Φ38mm Drill line Φ38mm	1000 m	
21	Drill line spooler		electric
22	Lifting machine1.5t	One set	electric
II Power and electric drive control area			
1	Diesel generator set	Four sets	
Electric jet, of diesel engine CAT3512B 1101kw rotary speed 1200r/min generator 1750KVA voltage 600V frequency 60Hz			
2	Generator house	Five sets	
The dimensions of the generator house are 12mX3mX3.1m, the two push-pull walls can be dismantled, and the end of the fan is of split door type, which can form into an integral control room. The encrustation is of corrugated plate which is ϕ 3mm in width.			
3	CAT C15 292kW auxiliary diesel generator set	One set	
4	Electrical transmission control system	One set	
One-to-one (driving RT), one-to-two (driving DW and MP) control, the system includes:			
(1) One SCR controlling house, involving generator controlling unit, 5 sets SCR integral controlling cabinet.			
(2) MCC system, involving feedback of transformer and MCC unit dry transformer.			
(3) The using of top-drive and the interface of power supply.			
The house body is of closed steel structure.			
5	Rig field circuit of well route	One set	
The explosion proof seal plug unit is made in China (Baojiyoutai brand). The illumination of the house adopts the same type explosion proof fluorescent lamp, The cables have penetrating pipe protection and trough rack; apply to the explosion proof location d II BT4.			
6	Air source and air purification system	One set	
It is matched with two air cooled electric screw compressors, one freezing dryer, one air storage tank of 3m ³ and the highest working pressure is 1MPa. The air source device is arranged in the auxiliary generator set house.			
III Pump house area			
1	F-1600 mud pump unit	Three sets	
Each mud pump is matched with one ZYF-1600 mud pump with rated input power of 1200kW, Max. Discharge capacity is 46.54L/S and the Max. Pressure is 35MPa; the unit is composed of transmitting base, transmitting shaft, narrow V belt, belt pulley, safeguard, spray pump and so on. It is driven by two 800kW DC motors.			
-1	ZYF-1600 mud pumps	Three sets	
-2	Pump set	Three sets	
-3	800kW DC motor	Six sets	
2	Drilling fluid manifold	One set	Labeled with API mark
103mm (full opening) *35MPa dual ground stand pipe, including dual ground manifold, swivel, valve sets, H valve sets, cleaning screw from the discharging exit of the mud pump to the inlet of the goose neck of the swivel			
3	1-1-0.27/150A air inflator	One set	
V Mud circulation area			
1	Solid control system 358m3	One	
-1	1# mud tank	One set	
	Metering pump	One set	

	Shale shaker	Three sets	Derrick Flo-Line
	Vacuum degasser	One set	
-2	2# mud tank	One set	
	Sand pump	Two sets	
	Cleaner	One set	Derrick Flo-Line
-3	3# mud tank	One set	
	intermediate speed centrifugal machine	One set	
	high speed centrifugal machine	One set	
-4	4# mud tank	One set	
	Sand pump	Two sets	
	Jetting hopper	One set	
	Cyclone hopper	One set	
-5	5# mud tank	One set	
	shear pump	One set	
	Jetting hopper	One set	
-6	6# mud tank	One set	
-7	Agitator	17sets	
-8	Mud gun	15 sets	
V	Oil tank area		
1	Diesel oil tank 45+55 m ³	One set	
2	Multi oil tank, total capacity: 20m ³ (5m ³ +5m ³ +5m ³ +5m ³)	One set	
3	Industrial water tank 100m ³	Two sets	
4	Forced cooling device 40m ³	One	
VI	Additional Equipment		
1	Air system	One set	Including 4m ³ air storage tank
2	Oil supply system	One set	
3	Water supply system	One set	
4	cable tray	One set	
5	Hydraulic line shear	One set	
6	50t hydraulic jack	Two	
7	Line reeve	Six sets	
8	Tools	One set	
9	Lifting lines	One set	Including special lifting belt
10	Pipe rack	One set	
11	Catwalk	One set	
12	Cement line	One set	
VII	Assembly		
VIII	Package		

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