

ZJ70/4500LDB(2000HP) Rig Quotation Ex-work

Rig Specification:

Rig model	ZJ70/4500LDB
Nominal drilling depth (114mm drill pipe) m	4500-7000
Max. hook load kN	4500
Max. drill line no.	12
Wireline diameter mm(in)	38 (1 1/2)
Sheave OD mm(in)	1524 (60)
Swivel center pipe bore diameter mm(in)	75 (3)
Drawworks rated power kW(hp)	1470 (2000)
Drawworks gear	6F + R
Rotary table opening diameter mm(in)	952.5 (37 1/2)
Rotary table gear	1 stage or 2 stage stepless change
Power/mud pump set kW(hp)	1180 (1600)
Diesel engine no.	3×kW or 0kW
Integral chain box no.	1
Mast effective height m(ft)	45 (147)
Drill floor height m(ft)	9 (30)
Drill floor clearance m(ft)	7.7 (25.3)

1. Main Rig Unit-----USD\$ As Quoted

Item	Equipment Name	Model	Unit	Qty.	Remark
1	Mast&Accessories----- USD\$ As Quoted				
1.1	Mast	JJ450/45-K	set	1	K Type Mast, Five Sector,Avaliable height: 45m, max.static load:4500KN, Racking Board Height:24.5m, 25.5m and 26.5m. racking board DP Capacity:7000m(5" DP), the mast meet API Spec 4F.
1.2	Crown Block	TC-450	set	1	The Crown Block with max.hook load 4500KN, 6 pcs crown block sheaves with dia. ϕ 1524mm, 1 pc fast line sheave with dia. ϕ 1524mm, 4 pcs auxiliary sheaves with dia. ϕ 400mm. Suitable for drilling line with dia. 38mm(1-1/2"). Include crown block floor, equip with lift crane, protection handrail and bumper device. The crown block meet API Spec 4F.
1.3	Racking Board		set	1	The racking board has three avaliable height:24.5m、 25.5m and 26.5m that can be adjusted. Equip with 2.0m height windwall that made of galvanized steel plate.
1.4	Air Winch on Racking Board(used for lift the DC and DP)	JQH-5/48	set	1	Lift Weight—5KN,Working Pressure—0.8Mpa
1.5	Deadline Anchor	JZG41	set	1	Max.working load—410KN, include weight indicator and recorder.
1.6	Escape Device on Racking Board		set	1	
1.7	Ladder Climping Assistor Device		set	1	
1.8	Tong Balance Weight		set	2	
1.9	Wireline Stabilizer		.pcs	2	
1.10	Rope Guide		pcs	1	
1.11	Mast Delivery and Install Rack		set	1	

1.12	Hoisting Line of Mast and Substructure		set	1	Totally 4 pcs lines, 2 pcs line with dia.71mm and length 61.3m, 2 pcs line with dia.43mm and length 41.5m.
1.13	Ladder, Handrail and Walkway		set	1	The height of handrazil is 1200mm.
1.14	Fall Arrestor		set	1	
2	Substructure&Accessories-----USD\$ As Quoted				
2.1	Substructure	DZ450/10.5-X	set	1	Swing up rising, height to drill floor:10.5m, height to rotary beam:8.91m, rated load of rotary beam:4500KN, drill floor area: 12.25mX10.76m , setback capacity: 5''DP 7000m, setback load:2200KN. The substructure meet API Spec 4F.
2.2	Dog House		set	2	The dog house in the left equip with EXPF Air Conditioner, the house divide into three rooms, the first room put hydraulic power station, the second room put office furniture and BOP Control Console, the third room put Electric Cabinet for mast and drill floor. The dog house in the right equip Tools House, can be divide into two rooms, the first room put well head tools, the second room is repair room equip with tool kit, worktable, EXPF air conditioner, one set repair tools for equipments and electricity.
2.3	Mud Umbrella and Mud Retrun Pipe		set	1	
2.4	Horizontal Slide of Drilling Tools		set	1	Consist of two sector, washmarking. Width:2000mm, height:1070mm, total length:17000mm.
2.5	V-door Ramp		set	1	width —1.8m
2.6	Drill Pipe Rack		pcs	8	≡ Triangle, length:9000mm, height:1070mm.
2.7	Moving Device of BOP	FY-50Y	set	1	Hydraulic type, include lead rail, total lifting capacity:50Ton.
2.8	Hydraulic Cathead	YM-16-II	set	1	
2.9	Hydraulic Rotation Cathead	XYM-5	set	1	
2.10	Pneumatic Winch	XJFH-5/35	set	2	Lifting capacity—5Ton.
2.11	Wireline	6X19S-1WRC-IPC	M.	1200	With dia.38mm. the wireline meet API Spec 9A.

2.12	Wireline Spooler		set	1	Include motor, drum and reducer.
2.13	Mouse Hole		.pcs	1	
2.14	Rat Hole		pcs	1	
2.15	Air Storage Tank(mounted on the skid)	1.5m ³	pcs	2	
2.16	Escape Slide		set	1	
2.17	Hydraulic Bumper Device(used to lift mast and substructure)		set	1	Consist of 4 pcs hydraulic cylinder, control box, pipelines, pipeline connections etc.
2.18	Hydraulic Lifter		set	1	
2.19	Walkway, Handrail and Ladder		set	1	The height of handrail is 1200mm.
2.20	Cable Tray		set	1	
3	Drawworks&Accessories-----USD\$ As Quoted				
3.1	Drawworks(include RL-PS-70 Type Hydraulic Disc Brake)	JC70	set	1	Max.input power:1470KW(2000HP), max.fast line pull:485KN, wireline dia.:38mm(1-1/2"), drawworks speed: 6 F 2 R, drum size(D x L): 770mm x 1310mm, with LeBus grooving.
3.2	Auxiliary Brake-Magnetic Eddy Current Brake	FDWS70	set	1	
3.3	Cooling Device of Drawworks Brake System		set	1	With 2 sets centrifugal pump(motor power:3KW), water tank volume: 30m ³
3.4	Crown-O-Matic		set	1	
3.5	Driller's Console		set	1	Integrate the drawworks control, drilling parameter instrumentation, pneumatic control, hydraulic control, VFD and MCC control etc, equip with video-supervising system and wellsite communication system.
4	Travelling Equipments-----USD\$ As Quoted				
4.1	Travelling Block	YC-450	set	1	.max.hook load:4500KN, 6 No. Sheaves with dia.1524mm, wireline dia.38mm(1-1/2"), Lines:6 x 7, the travelling block meet API Spec 8A.

4.2	Hook	DG-450	set	1	Max.hook load:4500KN, main opening size:220mm, assist hook dia.:180mm, spring stroke:200mm. The hook meet API Spec 8A.
4.3	Swivel(with spinner)	XSL-450	set	1	Max. Static hook load:4500KN, max.rpm: 300r/min, bore dia.75mm, connection: 6-5/8" REG-LH, max.WP: 35MPa(5000psi). The swivel meet API Spec 8A.
5	Rotating Equipments-----USD\$ As Quoted				
5.1	Rotary Table and Master Bushing	ZP-375	set	1	Rotary table opening dia.: 952.5mm (37-1/2"), max.static hook load:5850KN, max.RPM:300rpm, gear ratio: 3.56:1. the rotary table meet API Spec 7K.
5.2	Kelly Bushing		set	1	
5.3	Rotary Table Bushing		set	1	
5.4	Rotary Table Independent Device		set	1	Include heavy duty skid, gear reducer, transmission shaft, inertia brake etc
5.5	Motor to drive Rotary Table	YAFS600-423	.set	1	600KW
5.6	The Bit Breaker with folowing bit diameter: - Φ444,5 1 只 pcs - Φ311,1 1 只 pcs - Φ215,9 1 只 pcs		3 pcs/set	1	

2.Mud Pump Package-----USD\$ As Quoted

Item	Equipment Name	Model	Unit	Qty.	Remark
1	Mud Pump	3NB-1600	set	2	Max.power: 1176KW(1600HP), working pressure:35Mpa, max.liner size:180mm, SPM:120spm, Liner stroke:305mm. Equip with connection flange, liner washing pump etc.
2	Mud Suction Pipe		set	1	Nominal Bore.: Φ305mm
3	Groud High Pressure Manifold		set	1	Working Pressure—35MPa, manifold bore—102mm.

3.Power System-----USD\$ As Quoted

Item	Equipment Name	Model	Unit	Qty.	Remark
1	Main Diesel Engine, Hydraulic Coupling Unit	G12V190PZL-3/O	set	4	Power —810KW, max.RPM: 1300rpm, equip with special tools.
2	Diesel Generator Units and Generator House	800GF4-7	set	2	Rated power—800KW, rated voltage—400V, frequency—50Hz. Totally two sets, one set for spare use.
3	Electric Control System		set	1	VFD and MCC put in one house.
4	Compound Box		set	1	The four sets diesel engine compound together through chain compound box then drive drawworks, automatic compressor and mud pumps(cardan shaft transmission).

4. Mud Circulating and Purification System-----USD\$ As Quoted

Item	Equipment Name	Model	Unit	Qty.	Remark
1	Mud Tank		pcs	7	The volume of mud tanks not less than 320 m ³ .
2	Shale Shaker	ZPTS-II	set	3	Motor Power —1.5KW, max.handling capacity: 180L/S.
3	Vacuum Degasser	ZCQ240	set	1	Capacity: 240m ³ /h, main motor power: 15KW, vacuum degree: 350mmHg.
4	Desander	ZCSQ250×2	set	1	Max.handling capacity: 180m ³ /h, working pressure: 0.2—0.35MPa, motor power that drive pump:45KW.
5	Desilter	ZCNQ125×12	set	1	Max.handling capacity: 180m ³ /h, working pressure: 0.2—0.35MPa, motor power that drive pump:45KW.
6	Centrifuge	LWF500-NY	set	1	Max.handling capacity: 60m ³ /h, drum rpm: 1800r/min, main motor power:37KW, assist motor power:7.5KW.
7	Agitator	NJ-11	pcs	17	Motor power: 11KW.
8	Agitator	NJ-5.5	pcs	3	Motor Power: 5.5KW
9	Mud Mixing Device		set	1	

10	Pill Tank	4m ³	pcs	2	Overall Size: 2000×2000×1400mm
11	Metering Tank	8m ³	pcs	1	Overall Size: 3600×1960×1265mm
12	Mud Charging Pump	2PN	se	1	Motor power: 15KW, flow: 47m ³ /h; Lift:18m.
13	Mud Gun		pcs.	13	Nominal pressure—6.4MPa.
14	Mud Laboratory		set	1	Overall size(L x W x H): 3000 × 2600 ×2200mm. Equip with writing desk, chair, EXPF lamp, plugs and complete set mud parameter recorder(see detail in attach 2).
15	Poorboy Degasser and Lighting Device		set	1	Capacity: 280m ³ /h, inlet bore: 140mm, degassing efficiency: 85—90%..
16	Connecting Pipelines and Valves		set	1	
17	Walkway, Handrail and Ladders		set	1	Handrail height: 1230mm.

5. BOP Stack-----USD\$ As Quoted

Item	Equipment Name	Model	Unit	Qty.	Remark
1	Annular BOP	FH35-35/70	set	1	Bore: 346.1mm (13-5/8"); max.WP: 35/70MPa(5000/10000psi).
2	Single-ram BOP	FZ35-70	set	1	Bore: 346.1mm (13-5/8"); max.WP: 70MPa(10000psi), top with studded connection, bottom with flange. Connection.
3	Double-ram BOP	2FZ35-70	set	1	.Bore: 346.1mm (13-5/8"); max.WP: 70MPa(10000psi), inside with 5" ram and blind ram, top with studded connection, bottom with flange connection.
4	Drilling Spool(include 3 pcs hand-operated valve, 1 pc hydraulic paralles slide valve)	FS35-70	set	1	. Bore: 346.1mm (13-5/8"); max.WP: 70MPa(10000psi), bypassing dia.: 65mm (2-9/16").
5	Kill Manifold	YG70A	set	1	Master bore: 103mm (13-5/8"), bypassing dia.: 65mm (2-9/16"), max.WP: 70MPa(10000psi).
6	Choke Manifold	YJG70C	set	1	Master bore: 103mm (13-5/8"), bypassing dia.: 65mm (2-9/16"), max.WP: 70MPa(10000psi).

7	Remote Control Console	FKQ640-6	set	1	
8	Auxiliary(Driller) Control Console		set	1	
9	Φ 4-1/2" Ram Assembly		set	4	
10	Φ4-1/2" Ram Rubber Core		set	4	
11	Full-closed Ram Assembly		set	2	
12	Blind Ram Rubber Core		set	2	
13	Φ25×35MPa×15m HP Fire-resistance Hose		pcs	32	
14	1" Quick Self-sealing Union		pcs	40	
15	1" Double Nipple		pcs	32	
16	X-over(connect spool and casing head)				Made according to buyer's drawing
17	Φ2-9/16"×10000 psi×4m Inside Blowout Control Pipelines		set	4	With bolt, nut, gasket
18	Φ2-9/16"×10000 psi×2m Inside Blowout Control Pipelines		set	4	With bolt, nut, gasket
19	Pneumatic Pressure Testing Station	QST-140J	set	1	. max.WP: 140MPa, with recorder
20	Test Plug		set	1	
21	Non-return Valve		pcs	4	For 127mm (5") DP and 89mm (3-1/2") DP, two pcs for each size.
22	Upper Kelly Cock		pcs	2	For 5-1/4" Square Kelly and 3-1/2" Square Kelly, one for each size.
23	Lower Kelly Cock		pcs	2	For 5-1/4" Square Kelly and 3-1/2" Square Kelly, one for each size.

6. Wellhead Equipments-----USD\$ As Quoted

Item	Equipment Name	Model	Unit	Qty.	Remark
1	Elevator Link	DH500	pair	1	Load capacity: 4500KN.
2	Elevator Link	DH250	pair	1	Load capacity: 2250KN.
3	Hydraulic DP Tong	ZQ203-125	set	1	With complete set jaws so as to hold 8" DC, 5-1/2", 5", 4-1/2" and 3-1/2"DP.
4	Hydraulic Casing Tong	TQ340-35	set	1	With 5-1/2"、 7"、 9-5/8" and 13-3/8" casing jaws.
5	B Type DP Tong	Q3.3/8-12.3/4/75	pair	2	With complete set tongs so as to hold 86—324mmDP.
6	B Type Casing Tong	Q13.3/8-20/35	pair	2	With complete set tongs so as to hold 340—508mmDP.
7	Hydraulic Power Station		set	1	
8	Φ127mm DP Elevator	350T	pcs	3	Side-open
9	Φ324mm Casing Elevator	150T	pcs	2	Side-open
10	Φ245mm Casing Elevator	200T	pcs	2	Side-open
11	Φ168mm Casing Elevator	200T	pcs	2	Side-open
12	Φ89mm DP Elevator	100T	pcs	2	Side-open
13	Φ127mm DPslip		set	2	Manual, arc, triple
14	Φ89mm DP Slip		set	2	Manual, arc, triple
15	Φ203-241mm DC Slip		set	3	Manual, arc, multichip
16	Φ114-152mm DC Slip		set	3	Manual, arc, multichip
17	Safety Clamp	95-270mm	set	4	Arc, one set consist of ten sectors.
18	5-1/4" Kelly, with 12.2m long		pcs	1	
19	3-1/2" Kelly, with 12.2m long		pcs	1	

7. Air Supply System-----USD\$ As Quoted

Item	Equipment Name	Model	Unit	Qty.	Remark
1	Electric Air Compressor	HLGD-37	set	1	Flow: 6.4m ³ /min, discharge pressure: 0.8MPa, motor power: 37KW.
2	Air Drying System		set	1	Include oil and water seperator, air dryer.
3	2m ³ Air Storage Tank		pcs	2	Include discharge air valve, pressure gauge, relief valve and manhole.
4	Cooling Start Air Compressor	HV-1.0/1.0	set	1	
5	Joints, Valve and Pipelines		set	1	
6	Automatic Air Compressor	VF-6.5/12.5	set.	1	Flow: 6.5m ³ /min, discharge air pressure: 1.25MPa,, belt transmission.

8. Gas Detection Equipments-----USD\$ As Quoted

Item	Equipment Name	Model	Unit	Qty.	Remark
1	Detect Sensor&Alarm System for fixed type H2S and combustible gas		set	1	
2	Portoble Detect Sensor for H2S and Combustible Gas		set	1	

9. Oil, Gas and Water Supply Equipments-----USD\$ As Quoted

Item	Equipment Name	Model	Unit	Qty.	Remark
1	Diesel Hay-Tank	20m ³ +3m ³	set	1	
2	Industrial Water Tank	78m ³	set	1	Include two tanks, centrigugal water pump and pipelines.
3	Oil Pipelines		set	1	The oil tank is 48m far from the diesel engine skid.

4	Air Pipelines		set	1	
5	Water Pipelines		set	1	

10. Drilling Instrumentation and Recorder-----USD\$ As Quoted

Item	Equipment Name	Model	Unit	Qty.	Remark
1	Drilling Parameter Monitoring System				
2	Power System and Cables				
3	Sensor System				
4	CAN Bus System				
5	Background Computer Processor				
6	Special Tools and Consumable		set	1	

11. Power and Lighing EXPF Electrification-----USD\$ As Quoted

Item	Equipment Name	Model	Unit	Qty.	Remark
1	Power and Lighing EXPF Electrification		set	1	Include cable, start device, lighting lamp, signal lamp, power socket etc.

12.Rig Assembling and Testing in the Factory-----USD\$ As Quoted

Item	Equipment Name	Model	Unit	Qty.	Remark
1	Rig Assembling and Testing in the Factory		set	1	The Representative of Buyer will participate.

13. Documents-----

Item	Equipment	Model	Unit	Qty.	Remark
1	Documents		set	3	Complete English Documents

14. One year's spare parts -----USD\$ As Quoted

Item	Equipment	Model	Unit	Qty.	Remark
1	One year's spare parts		set	1	

15.Export Packing and Mark-----USD\$ As Quoted

Item	Equipment Name	Model	Unit	Qty.	Remark
1	Export Packing and Mark		set	1	The Packing should protect the equipments from suffering any damage in the long journey of delivery.

Total Value: USD\$ \$7,975,000.00

(US DOLLARS: SEVEN MILLION NINE HUNDRED SEVENTY-FIVE THOUSAND DOLLARS)

Note: 1. This price is Ex-work Price.

2. The items in this configuration can be added or deducted according to customers' requirement; the final configuration is subject to the CONTRACT.

3. This Rig is current in yard, which can assure a fast delivery.