

70D 2000HP

Contents

SECTION 0	GENERAL DESCRIPTION
SECTION 1	MAST (JJ450/45-K4)
SECTION 2	SUBSTRUCTURE (DZ450/9-S)
SECTION 3	DRAWWORKS (JC70D)
SECTION 4	HOISTING SYSTEM AND ROTARY EQUIPMENTS
SECTIONS	ROTARY TABLE AND ACCESSORIES
SECTION 6	POWER SYSTEM, ELECTRICAL EQUIPMENT AND AIR SUPPLY SYSTEM(buyer provide)
SECTION 7	WELL SITE LIGHTING AND AC MOTOR CONTROL SYSTEM/EARTHING SYSTEM
SECTION 8	RIG PUMPS AND DRIVING UNIT
SECTION 9	MUD CIRCULATING SYSTEM
SECTION 10	MUD SYSTEM AND SOLID CONTROL SYSTEM
SECTION 11	FUEL & WATER SUPPLY SYSTEM
SECTION 12	BOP EQUIPMENTS WELL HEAD CONTROL EQUIPMENT
SECTION 13	DRILLING INSTRUMENTS
SECTION 14	DRILLING STRING
SECTION 15	DRILLING TOOLS
SECTION 16	ASSEMBLING PARTS AND TOOLS FOR RIG
SECTION 17	RIG UP, COMMISSIONING AND TRAINING IN FACTORY RIG-UP, COMMISSIONING AND TRAINING ON SITE
SECTION 18	RECOMMENDED SPARE PAERTS FOR 18 MONTHS
SECTION 19	PACKING
SECTION 20	FREIGHT OF SHIPPING TO TIANJIN PORT
SECTION 21	DOCUMENTS ALONG WITH RIG

SECTION 0 GENERAL DESCRIPTION

SECTION 1 MAST (JJ450/45-K4)

- 1.1 1 set Mast (JJ450/45-K4)
- 1.2 1 set Crown Block TC-450
- 1.3 Crown-O- Matic device
- 1.4 Fast line Stabilizer
- 1.5 Anchor Assembly
- 1.6 Auxiliary pulley
- 1.7 Pad eyes
- 1.8 0.5T Air Winch

SECTION 2 SUBSTRUCTURE (DZ4505/9-S)

- 2.1 1 set Substructure (DZ4505/9-S)
- 2.2 1 set Escape assembly
- 2.3 1 ea Dog House
- 2.4 1 ea Toolkit House
- 2.5 1 ea Tools Elevator
- 2.6 1 ea Stand Pipe Rack
- 2.7 1 ea BOP Trail and Lift Tools
- 2.8 2ea 5T Air Winch

SECTION 3 DRAWWORKS(JC70D)

- 3.1 1 set Drawworks (JC70D)
- 3.2 1 ea 436WCB2 Eaton auxiliary brake
- 3.3 2 ea YZ08 or YZ08A

SECTION 4 HOISTING SYSTEM AND ROTARY EQUIPMENTS

- 4.1 1 set Traveling Block conform to API - 8A (YC-450)
- 4.2 1 set Hook conform to API -8A(DG-450)
- 4.3 1 set Swivel conform to API-8A (SL-450)
- 4.4 1 ea - Electric drill spooler (1-1/2", 1200meter)
- 4.5 1 ea - Dead line anchor
- 4.6 1 reel - Drilling Line
- 4.7 1 pair - DH4500 Elevator Link

SECTION 5 ROTARY TABLE AND ACCESSORIES

- 5.1 1 set Rotary table conform to API - 7K, ZP-375
- 5.2 1 set ZP-375 Rotary table Accessories
 - Roller Bushing for hex. Kelly(5 1/4")
 - Master Bushing
 - Split Bushing 2 3/8"-8 5/8"
 - Split Bushing 9-5/8"-10-3/4"
 - Split Bushing 11-3/4"-13-3/8"
 - Elevator Links for Bushing
 - Bit Breaker
- 5.3 1 set Chain Reducer
- 5.4 1 set Cardan Shaft
- 5.5 1 ea YZ08

SECTION 6 POWER SYSTEM, ELECTRICAL EQUIPMENT AND AIR SUPPLY SYSTEM(buyer provide) may be revised

- 6.1 1 set Power Plant
- 6.1.1 3 sets Main Generator Sets Model: CAT3508 DITA
- 6.2 7 sets DC Electric Motor Model: YZ08andYZ08A
- 6.3 1 set SCR/MCC Control System
- 6.3.1 1 SCR Room
- 6.3.2 The SCR room will be equipped with following items:
- 6.3.3 1 set 400V MCC Located in SCR Room
- 6.3.4 1 set Lighting Panel (located in SCR room)
- 6.3.5 1 set Driller's Console
- 6.3.6 1 set Drawworks Foot Throttle
- 6.3.7 1 set Cable and Fittings
- 6.4 1 set Air Supply System

SECTION 7 WELL SITE LIGHTING AND AC MOTOR CONTROL SYSTEM/EARTHING SYSTEM

- 7.1 1 set Well site lighting and AC motor Control System
- 7.2 - The design and manufacture of well site lighting and AC motor control system are in compliance with API.RP500. SY/T5957-94. SY0025, GB3836, GB1497, GB4942 and IEC60079 standard.

Note:

We only provide the following components: Drilling floor (include Mast), Mud circulating system, Mud pump units (include Lubrication pump, Charging pump, Oil/water tanks and Well control devices, etc), part of 480/240/110V, 60HZ control units of the electric component, and the power supply is in the SCR/MCC Room (buyer provide). All the cables, components of the GE752 Motor's power and control parts, and the control parts of the diesel generator unit, control elements, and handles which will be mounted in the driller' cabin are provided by the buyer and mounted in the driller' cabin.

The buyer should provide diesel generator units, SCR/MCC control system (room), the GE752 Motor, DC cable, etc. After signing the contract, then transport these equipments to the Highland Company; the details should be operated by the agent.

SECTION 8 RIG PUMPS AND DRIVING UNIT

8 RIG PUMPS AND DRIVING UNIT

- 8.1 3 sets F-1600 mud pump (triplex single acting)
- 8.2 4 ea DC motor (800KW) x4 Model: YZ08 and YZ08A

SECTION 9 MUD CIRCULATING SYSTEM

9 MUD CIRCULATING SYSTEM

- 9.1 1 set Double Stand pipe
- 9.2 1 set Mud manifold
- 9.3 2 sets Rotary hose

SECTION 10 MUD SYSTEM AND SOLID CONTROL SYSTEM

10 MUD SYSTEM AND SOLID CONTROL SYSTEM

- 10.1 1 set No.1 mud tank
- 10.2 1set No.2 mud tank
- 10.3 1 set Desander (NCS-300X2)
- 10.4 1 set Desilter (Model ZCN)
- 10.5 2 sets Sand pump (Model SB6"x8"-13)
- 10.6 2 sets charging pump (Model SB5"×6"-10)
- 10.7 2 sets Mixing pump (Model SB6"×8"-13)
- 10.8 8 sets Agitator

SECTION 11 FUEL & WATER SUPPLY SYSTEM

11 FUEL&WATER SUPPLY SYSTEM

- 11.1 1 set Fuel Tank (Model: CYG 50)
- 11.2 1 set Multi oil tank (Model: JYG 5x3)
- 11.3 1 set Water tank
- 11.4 1 set Cooling water tank (Model: SG 40)

SECTION 12 BOP EQUIPMENT & WELL HEAD CONTROL EQUIPMENT

12 BOP EQUIPMENT & WELL HEAD CONTROL EQUIPMENT

- 12.1 1 set Single ram type BOP (Model- FZ35-35)
- 12.2 1 set Double ram type BOP (Model-2FZ35-35)
- 12.3 1 set Annular BOP (Model: FH35-35)
- 12.4 1 set Drilling spool(Model:FS35-35)
- 12.5 1 set Choke manifold(Model:JY80-35 3-1/16" double valve)
- 12.6 1 set Kill manifold(Model:YG80-35)
- 12.7 1 set Pup joint (35-35)
- 12.8 1 set Variable Flange (28-35/3-35)
- 12.9 1 set Remote control panel FKQ6406
- 12.10 1 set Hydraulic Control unit FKQ1280-9
- 12.11 1 set manifold and Accessories

SECTION 13 DRILLING INSTRUMENTS

13 DRILLING INSTRUMENTS (To be finalized by both party later)

13.1 1 set Drilling Instruments

The system consists of drilling console, VIP workstation, DAQ, sensors, stable power supply, UPS, hoses, cable with UL explosion-proof certification and installation assemblies,

Drilling console is located on the floor, and VIP workstation, DAQ, sensors stable power supply. UPS, hoses are located dog house.

13.2 1 set The Drilling console displays the following drilling parameters

- Hook load;
- Well depth;
- Rotary table rpm;
- Rotary table torque;
- Tong torque;
- Return mud flow;
- Two pump spm;
- Standpipe pressure,
- Mud tank volume;

- Weight on bit, ROP,
- Hook position;
- Hook speed,
- Total mud volume,
- 13.3 1 set Alarm Functions**
- 13.4 1 set Sensors**
 - Hook load sensor
 - Drawworks shaft code device
 - Pump stroke sensor (1, 2)
 - Rotary speed sensor
 - Rotary torque sensor
 - Tong torque sensor
 - Mud pressure sensor
 - Return mud flow sensor assembly
 - Mud level sensor (7)
 - R.O.P sensor
- 13.5 1 set Data Acquisition unit (DAQ)**
- 13.6 1 set VIP Data Logging Module**
- 13.7 1 set Drilling Recorder (7 Pen)**

SECTION 14 DRILLING STRING

14 DRILLING STRING

- 14.1 2 No s Hexagonal Kelly**
- 14.3 400 Joints 5" Drill Pipe**
 - 5"drill pipe grade G135, brand new, 19.5 lbs/ft range 3 with 6¹/₂"OD tool joints x 4¹/₂" IF, 18" shoulder, flash-weld ANCO 100 casing friendly hard facing tool, joints, internal coating & thread protectors
 - Internal coal, H₂S resistant.
Joints of hard facing outside.

14.8 6 No.s 8" Spiral Collar

14.9 21 No. s 6¹/₂" Slick Drill Collar

SECTION 15 DRILLING TOOLS HYDRAULIC TOOLS

15 HYDRAULIC POWER TOOLS

- 15.1 1 set Power Tong (Model ZQ203-100)**
- 15.3 2 set Hydraulic Power Cathead (Model BYM-10-11-A)**
- 15.4 1 set Hydraulic Power Station (Model YZ120)**
- 15.5 1 set Hydraulic Lifter (Model TS1.5B)**

SECTION 16 ASSEMBLING PARTS AND TOOLS FOR RIG

- 16. 1 set General assembly parts(1 set)**
- 16.2 1 Ea. Hydraulic wireline shearer**
- 16.3 1 YQ- 30Jack**

- 16.4 1 YQ- 50Jack
- 16.5 1 Movable grease unit
- 16.6 1 Wireline guide
- 16.7 1 Dia.1 1/4" wireline spooler
- 16.8 1 Casing centralizer:
- 16.9 1 Complete set of standard tools
- 16.10 1 Complete set of wire line
- 16.11 1 Bit breakers (set)
- 16.12 1 Trays for cable (grasshopper), oil, water and air
- 16.13 1 Workshop
- 16.14 1 Store Container

SECTION 17-1

RIG-UP, COMMISSIONING AND TRAINING IN FACTORY

- 17.1 Rig-up
- 17.2 Commissioning
- 17.3 Rig-down, touch up paint and packing

SECTION 17-2

RIG-UP, COMMISSIONING AND TRAINING ON SITE

SECTION 18

RECOMMENDED SPARE PARTS LIST TO BE PROVIDED TO BUYER BY MANUFACTURER

SECTION 19 PACKING

SECTION 20

FREIGHT FOR SHIPPING TO QINGDAO PORT

SECTION 21

DOCUMENTS ALONG WITH RIG

- 21.1 4 sets Four (4) sets of the following drawings and documents will be provided to the customer in English along with the equipment,