



# Technical Specification for XJ150 Truck-mounted Workover Rig





## 1. Main technical requirements:

### 1.1 Technical standard and reference

- API Spec 4F Specification for Drilling and Well Servicing Structures
- API Spec Q1 Specification for Quality Programs
- API Spec 8C Specification for Drilling and Production Hoisting Equipment
- API Spec 7K Specification for Drilling Equipment
- API Spec 9A Specification for Wire Rope
- Quality system: ISO9001-2008 for Quality Assurance in Design, Development, Production, Installation and Servicing

### 1.2 Overall specifications

- Service depth: 2600m ( $\phi 2\frac{7}{8}$ " EUE tubing)
- Nominal hook load: 300kN
- Max. static load: 585kN
- Engine power 290hp
- Drawworks horsepower: 150hp
- Traveling system: 3×4
- Drive type, carrier: 6×4
- Dia., wireline:  $\phi 22$ mm

## 2. Specifications of main parts

### 2.1 Diesel engine

Model: WP10.290 E40

QTY: 1 set

Rated power: 290hp

### 2.2 Hydraulic Torque converter

Model: YJ409GC

QTY: 1 set

Max. input torque: 1280N.m

### 2.3 Angle gear box

Model: JX20A-12

QTY. 1 set

- Max. Input Speed 2200 r/min
- Max. Input Torque 2331N·m
- Drive ratio 2.68, 4.9, 1.7

### 2.4 Chassis



Model: SX5326TXJUR434

QTY: 1 set

- Drive type 6x4

### 2.5 Drawworks(single drum)

QTY: 1 set

- Drum diameter  $\phi$ 362mm
- Groove structure:  $\phi$ 22 LEBUS groove
- Main brake: band brake
- Diameter x width, brake rim:  $\phi$ 810mmx2185mm
- Cooling type: air pressure splash water cooling
- Clutch: ATD318-H
- Max. fastline pull: 120kN
- C/W Overwinding crown saver

### 2.6 Mast

Model: JJ585/17

QTY: 1 set

- Clear height: 17m
- Max. static load: 585kN (6 lines)
- Inclination angle: 5°
- Traveling system: 3x4
- Max. wind rate: 100km/h

### 2.7 Crown block

Model: TC70

QTY: 1 set

- Max. static load: 700kN
- Number of pulley: 4

### 2.8 Hydraulic system

Consist of actuator mechanism elements such as mast raising cylinder, chassis leveling jack, hydraulic wrench and hydraulic tong joint and hydraulic control elements, hydraulic control panel, hydraulic pipeline, oil tank, filter, pressure regulating valve and etc.

#### Main oil pump

- Model: CB100
- Rated pressure 14MPa

#### Hydraulic winch

- Model YCJ3B



- QTY 1 set
- Dia. wireline  $\phi$  13mm
- Hoisting capacity  $\leq$ 30kN

Hydraulic cylinder/Y(3)345 1 set

Hydraulic leveling jack/Y1530A 2 sets

Hydraulic main jack 2 sets

### 2.9 Air system

Consist of air compressor, relief valve, dryer, control valve, driller control box and pneumatic pipeline etc.

### 2.10 Electric system

The electric system is used for driving and operation lighting system. Driving system is supplied with 24V DC. Power comes from the battery and the silicon rectification alternator driven by the engine. It mainly consists of engine start-up, lamp signals of monitoring instrumentations on carrier, and various lights during driving. Operation lighting system is supplied with external AC power, including lighting for engine, drawworks and mast. On top of mast, a red explosion-proof flashing lamp is set. All cables for the lighting system are protected by steel pipes, and a specialized explosion-proof control box is used for centralized control.

- Power for carrier: 24V DC
- Power for operation lighting system: 110V AC, 60 Hz
- Lamps: Explosion-proof illumination daylight lamp

## 3. Accessories

### 3.1 Traveling hook

- Model: YG70
- QTY: 1 set
- Max. static load: 675kN
- Number of pulley: 3

### 3.2 Elevator link

- Model: DH585
- QTY: 1 set
- Rated load 585kN

### 3.3 Wellhead working platform

QTY: 1 set

Complete with working platform, drillers console and the ladder from carrier to drillers



console. The height of wellhead platform can be adjusted from 1.2m to 2.7m. Both sides of working platform is complete with widen walkway and could be transported with main rig. Drillers console will be set on 2.7m height.

### **3.4 Drilling line**

- Diameter, wireline  $\phi$ 22mm
- Length: 200m

### **3.5 Weight indicator**

Model: JZ60

QTY: 1 set

C/W sensor and recorder

### **3.6 Slings, 1 set**

### **3.7 Fall arrester, G-J-30, 1 set**

### **3.8 Winch line, for 3T hydraulic winch**

### **3.9 Spare tire and rack, 1 set**

### **3.10 Protective sleeve, 1 set, for raising cylinder**

### **3.11 Cab air conditioner, 1 set**

### **3.12 Fire extinguisher, 5kg, 2 sets**