

530HP ZJ15CZ Truck Mounted Mechanical Workover/Drilling Rig

General Description

- Hook load rating: 303,000 lbs, 150 US ton (1350KN)
- Mast type: 108' (33m) two section telescoping type that is raised using hydraulic cylinders
- Substructure type: 6 x telescopic legs, box type, with rotary table base and setback base independent of each other
- Depth rating: 5" Drill pipe: 3937' (1200m), 4½" Drill pipe: 4,920' (1500m), 3 ½" Drill Pipe 13,124ft (4000m), 2 7/8" Drill Pipe 19,029ft (5800m) or 2 7/8" Tubing 22,967ft (7000m)
- Wind speed: No hook load & set back full of drill pipe: 68 mph (110 km/h)
- Rotary beam capacity: 300,000 lbs, 150 US ton (1350Kn)
- Setback capacity: 130,000 lbs, (600KN)
- Rig floor height: 14.76ft (4.5M)
- Clear height below rotary beams: 11.48ft (3.5M)
- Rotary table size: 20.5" (520mm) rated RPM 250rpm
- Drill line size: 1in (26mm)
- Draw works: JC21/11 530hp (395Kw), disc brake with WCB224 auxiliary brake, Includes sand line drum with 4,757ft of 9/16 cable (14.5mm line - 1450m)
- Catheads: 2 ea Y15160, Mounted in mast section, 11,240ft lbs make up single line pull force and 22,480 ft lbs breakout single line pull force, stroke length 6ft
- Winches: 2 x 3.3 ton hydraulic winches Model YJ3B and YJ5B
- Crown saver: pneumatic Crown-o-matic system
- Swivel and Kelly - Max static hook load 303,492 lbs complete with forward and reverse function air spinner
- Operating temperature: -20°C to +55°C (cold weather or desert modifications on request)

Power Package Rig and Carrier

- 1 x Cat C-15, 540 hp (400KW) @ 2100RPM, with water loss, low oil pressure, high water temperature and over speed protection, electrical-start

Main Transmission

- Allison 6 speed 5610HR, six forward speeds, one reverse

Rig Electrical Power System

- 1 x Cat C-15, 540 hp (400KW) @ 2100RPM, with water loss, low oil pressure, high water temperature and over speed protection, electrical-start, including the MCC and generator house. Lighting fixtures are rated for service in classified areas as per API RP 505 for rig system

Control System

- Drillers console is mounted on the side of the mast, and the rear of the carrier
- All electric and pneumatic controls are installed into a purged stainless steel console
- Driller's console panel is furnished with other interface devices such as instrumentation system, hydraulic weight indicator and stand pipe pressure gauges

Mud Pumps

- Mud Pumps: Qty 2 x F-500hp (372KW) triplex pump c/w liner wash and charge pump, Suction strainer, dampener and pulsation dampener, reset relief valves with integrated bleed and relief valve line. Pump is powered by CAT C-15 540 HP engine and Allison S6610 Torque Converter/Transmission

BOP and Control system

- 11" 3K Annular BOP, 11" 3K Double Ram (Blind Type Lower, 5" pipe upper), Drilling Spool, BOP Test Pump, (air powered) with hoses and chart recorder. BOP Test Base. BOP Stack Lifting device. Transport Skid. BOP Control Unit. BOP Control Unit remote Panel, (For Drill floor) Transport Skid for above control units. Choke and Kill Manifold 3-1/16" X 3K. 3-1/16" X 3K Manual and Hydraulic valves. Remote Choke panel. Non-return Valve. All high pressure fire proof hydraulic hoses, hand wheels etc. Stack up height = 73.6" (1.87m)

Solid Control System

- BBL capacity: 753 BBL (120m³)
- Tanks: 3 tank system to include built in trip tank and brake cooling water tank
- Shakers: Qty 2 Ea, Brandt King Cobra shakers with 16/2 De-silter / De-sander Combo installed over 2nd shaker
- Vacuum Degasser: DG12 Brandt, treating capacity 1200 GPM (191m³/h)
- Mix hopper: Qty 2 DN150 x Jet Mixing hopper
- Agitators: 7 Ea. NJ7.5, 1 Ea NJ5.5
- Centrifugal pumps: Qty 2- SB6"x8"x12½", 75 hp (55KW) (mix pump)
- Centrifugal pumps: Qty 2- SB6"x8"x12½", 75 hp (55KW) (charge pump)
- Centrifugal pumps: Qty 1- SB3"x4"x9" 15 hp (11KW) (trip pump)
- Centrifugal pumps: Qty 2- SB6"X8"-12½"(De-silter / De-sander pumps)
- Mud Guns: Qty 7- mud guns supplied
- Poor Boy degasser: Qty, 1 Ea NQF1200/0.7

Handling Tools and Equipment

- Drill pipe and casing elevators, Bails, Slips for drill pipe and casing, Manual drill pipe and casing tongs, Pipe spinner, Casing power tong, Hydraulic unit, Swivel/Kelly unit with drive bushings, rotary table bushings and inserts, pipe racks, bit breakers

Air System

- Main air compressor: 2 X Air compressors (Sullair LS10-30H) and air dryer system with receiver tank, all located in compressor house
- Auxiliary compressor: Air compressor is driven by the carrier engine; air receiver is mounted in the carrier chassis. All air hard and flexible air lines as well as control valves and quick connect fittings are supplied

Hydraulic System

- Max. System pressure 2060psi (14MPa)
- All hoses, hard line, fittings and valves to connect and control all hydraulic functions
- Remote hydraulic panel to allow operator to raise, telescope and latch (and the reverse) from a safe distance

Auxiliary Tanks

- Water tank: 255 bbl (40 M³) including 2 x pumps
- Diesel Fuel tank: 185 bbl (30 M³) fuel tank and 32 bbl (5 M³) day tank, complete with pumps, filtration and distribution system

Auxiliary Components

- Tools and Spares Warehouse with A/C unit
- Workshop, split for electrical and mechanical repairs with A/C unit

Rig Move

- Max. rated speed: 45 kph (28mph)
- Max climb gradient: 32%
- Gross weight of carrier 52T (114,640 lbs)
- Dimensions of carrier: 60' x 9.3' x 14.1'
- Turning radius = 15.8m

Technical Drawing

