

637HP ZJ20CZ Truck Mounted Mechanical Workover/Drilling Rig

General Description

- Hook load: 355,000 lbs, 175 US ton (1580KN) with 8 lines
- Mast type: 115' (35m) 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 4921 ft (1500m), 4½" Drill Pipe: 6,560 ft (2000m), 3 ½" Drill Pipe 17,389ft (5300m), 2 7/8" Drill Pipe 22,967ft (7000m) or 2 7/8" Tubing 26,000ft (7925m)
- Wind speed: No hook load & set back full of drill pipe: 68 mph (110 km/h)
- Rotary beam capacity: 360,000 lbs, (1600Kn)
- Setback capacity: 130Klbs, (600KN)
- Rig floor height: 16½ ft (5M)
- Clear height below rotary beams: 13 ft (4M)
- Rotary table size: 20.5" (520mm) rated RPM 250
- Drill line size: 1 ⅛in (29mm)
- Draw works: JC21D/11 637hp (475Kw), disc brake with WCB224 auxiliary brake Includes sand line drum with 5,741ft of 9/16 cable (14.5mm line - 1750m)
- 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
- Winches: 2 x 3.3 ton hydraulic winches Model YJ5B
- Crown saver: pneumatic Crown-o-matic system
- Swivel and Kelly - Max static hook load 400,492 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-18, 637 hp (473KW) @ 2000RPM, with water loss, low oil pressure, high water temperature and over speed protection, electrical-start

Main Transmission

- Allison 6 speed S6610HR, six forward speeds, one reverse

Rig Electrical Power System

- 1 x Cat C-18, 637 hp (473KW) @ 2000RPM, 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-800 triplex pumps c/w liner wash and charge pumps, Suction strainer, dampener and pulsation dampener, reset relief valves with integrated bleed and relief valve line. Pumps are powered by CAT C 27 760 HP engines with Allison S6610 Torque Converter/Transmission

BOP and Control system

- 11" 3K Annular BOP, 11" 3K Double Ram (Blind Type Lower, 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)

Solids Control System

- BBL capacity: 755 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

- System pressure 2800psi (19MPa)
- 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)

Auxiliary Tanks

- Water tank: 314 bbl (50m³) including 2 x transfer pumps
- Diesel Fuel tank: 314 bbl (50m³) and 32 bbl (5 M³) day tank, complete with pumps, filtration and distribution system

Rig Move

- Max. rated speed: 45 kph (28mph)
- Max climb gradient: 32%
- Gross weight of carrier 62T US (56T metric)
- Dimensions of carrier: 66' x 10 1/4' x 14 3/4' (20.12m x 3.1m x 4.47m)
- Turning radius = 17.5m

Photo

