

1000HP ZJ40/2250DT (AC-VFD) Trailer Mounted Drilling Rig

General Description

- Hook load: 500,000 lbs, 250 US ton (2250KN) with 10 lines
- Mast type: 125' two section telescoping type that is raised using hydraulic cylinders.
- Substructure type: Six leg foldable type, single section, swing up with screw jacks to secure in position, with rotary table base and setback base independent of each other.
- Depth rating: 4 ½" Drill pipe: 13,300 ft (4000M), 5" DP 10,500 ft (3200M)
- Wind speed: No hook load & set back full of drill pipe: 68 mph (110 km/h)
- Rotary beam capacity: 505,820 lbs, 250 US ton (2250KN)
- Setback capacity: 269,770lbs, 135 US ton (1200KN)
- Rig floor height: 19.7 ft (6M)
- Clear height below rotary beams: 16 ft (4.9M)
- Rotary table size: 27.5"
- Drill line size: 1¼in (32mm)
- Draw works: JC40DB 1000hp (735KW), single sided hydraulic disc brake
- Catheads: 2 ea, Mounted in mast section, rated at 22,480 ft lbs straight pull
- Winches: 2 x hydraulic winches Model YJ3B and YJ5B & 2 x air winches one monkey board and one at end of cat walk
- Max. gross weight of trailer: 80,000kg
- Quantity of axles: 5
- Suspension system: Combination leaf springs + air suspension
- Model towing pin: #90 towing pin (3-1/2 ")
- Martin Decker RigSense 2.0 drilling instrumentation system
- Gaitronics rig site communications system
- Mathey wireline unit complete with Totco 8 and 16 degree survey equipment
- Operating temperature: -20°C to +55°C (cold weather or desert modifications on request)

Top Drive

- TDS and drive unit: Tesco 250 HXI 700 (hydraulic) or 250 EMI 400 (electric) Top Drive system complete with electrical and hydraulic control systems, power unit, Guide rail, shipping containers, spares, tools and operation manuals

Power Package

- Type and rating of generator sets: 3 x Cat 3512B 1200KW c/w 1500KVA generator

Electrical System

- Power system 600v, 50 Hz for VFD drives. 400V 50 Hz for DC Motor control and 230v 50 Hz for solids control system, lighting and general power (60Hz system also available)

Control System

- Stainless steel clad Drillers cabin
- High tech PLC control system is utilized to give precise control of the Variable Frequency Drives (VFD) to operate all rig functions
- Driller control system employs a drillers chair with two joysticks to control draw works hoisting and lowering, the second to apply and release the disc brakes
- The driller controls the major rig functions such as the Mud Pumps and the Top Drive via simple, user friendly touch screen terminal and switch panels mounted within easy reach and view of the drillers chair
- Driller's cabin console also houses all other interface devices such as instrumentation system, hydraulic

weight indicator and stand pipe pressure gauges

Mud Pumps

- Mud Pumps: Qty 2 x 1000hp 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. Each pump is powered by a YJ31 965 HP (720 KW) motor

BOP and Control system

- 13- $\frac{5}{8}$ " 5K Annular BOP, 13- $\frac{5}{8}$ " 10K Double Ram (Blind Type Lower, 5" pipe upper), Drilling Spool. Additional ram assemblies. 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 4-1/16" X 10K. 4-1/16" X 10K Manual and Hydraulic valves. JY-70A Remote Choke panel. DSA. 2-1/16" 10K Non-return Valve. Complete with high pressure fire proof hydraulic hoses and hand wheels

Solids Control System

- BBL capacity: 5 tank, 1695 BBL (270M³) system. One additional brake cooling water tank and trip tank are also included.
- 3 each Brandt King Cobra Linear Shale Shakers with 3rd shaker incorporating 1 each Brandt King Cobra Mud Cleaner (16 x 4" de-silter cones rated for 1000GPM and 2 x 12" de-sander cones rated for 1000GPM)
- Qty 1 Ea Model Brandt DG-12 Vacuum Degasser with 5 hp, 50 hz, 230/460 volt, 3 phase, explosion proof electric motor rated for 1200 GPM complete with JP-12 Jet Pump Educator.
- Mix hopper: Qty 2 DN150 x Jet hoppers
- 16 total. 15 x HM-15, 20 hp (15KW) and 1 x 7 hp (5.5 KW)
- Poor Boy degasser: Qty 1- NQF1200/0.7
- Mud Guns: Qty 11- mud guns supplied
- Centrifugal pumps: Qty 2- 6 x 8 x 12 1/2" impeller, 100 hp (75KW) (de-silter, de-sander pumps)
- Centrifugal pumps: Qty 2- 6 x 8 x 13" impeller, 100 hp (75KW) (mix pumps)
- Centrifugal pumps: Qty 2- 6 x 8 x 13" impeller, 100 hp (75KW) (charge pump)
- Centrifugal pumps: Qty 2- 3 x 4 x 9" impeller, 15 hp (11KW) (water pump)
- Centrifugal pumps: Qty 2- Cooling pumps

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

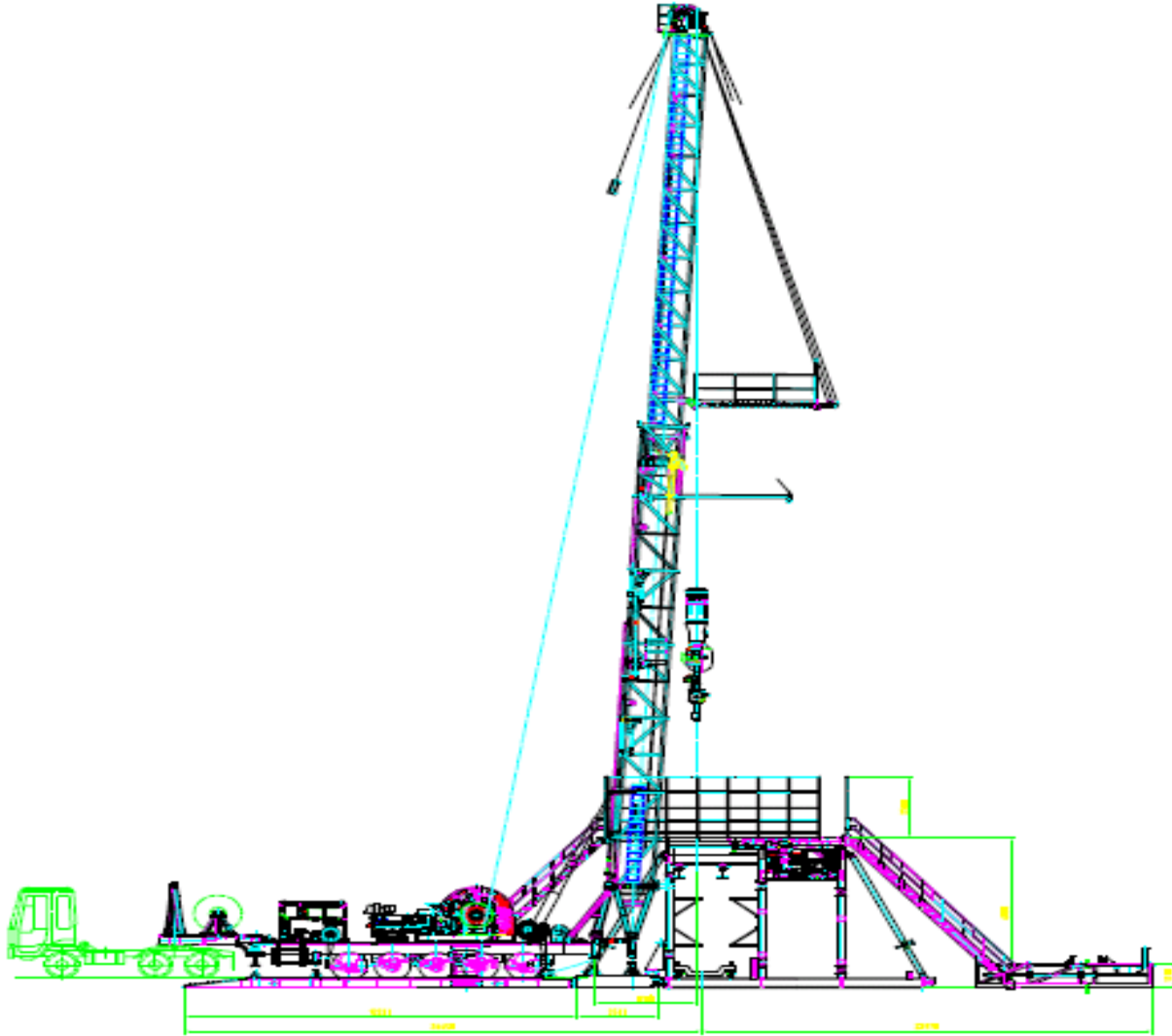
- 2 X Air compressors 50 hp (Sullair LH12-50) and air dryer system with reservoir in compressor house as well as additional reservoir located on Trailer

Rig Move

- Max. Road speed (limited): 45km/h
- Departure Angle: 17°
- Min. ground clearance: 330mm
- Dimensions of trailer: 72'x10'x17'

Technical Drawings

- Side View



- Top View

