



DEEP DRILLING

MOBILE DRILLING RIG TB 2100S EXPLORER

- Self propelled truck
- High level of automation
- Pipe connections with automatic floorhand
- High tripping performance
- Integrated drilling monitoring system
- Separate rotary table
- Diesel-hydraulic power pack
- High standard of safety



MOBILE DRILLING RIG TB 2100S EXPLORER

The mobile drilling and workover unit was completed in 2013 within the STREICHER Group. It moves on a high mobile carrier, multi wheel drive. An independent hydraulic power unit supplies hydraulic energy for the drawworks, the top drive, the rotary table and various functions.

The TB 2100S Explorer can operate at temperatures from -40°C up to +40°C.

Max. Depth

- 3,500 m (11,500 ft)

Mast

- Type: STREICHER Drilling Technology, telescopic
- Height: 128 ft (39 m)
- Free mast height: 69 ft (21 m)
- API gross nominal capacity: 440,925 lbs (200 mt)

Substructure

- Type: STREICHER Drilling Technology
- Skeleton framework (box on box)
- Height: 20 ft (6.2 m)
- Clear height below rotary beams: 17 ft (5.2 m)
- Rotary load: 440,925 lbs (200 mt)
- Setback load: 330,693 lbs (150 mt)
- Combined load: 771.618 lbs (350 mt)

Rotary Table

- Type: STREICHER Drilling Technology MRL-275-HY
- Power: hydraulic drive
- Table opening: 27 1/2"
- Torque cont.: 20,650 ft lbs (28,000 Nm)
- Max. speed: 190 rpm

Top Drive

- Type: SATVIA KDK 220
- Capacity: 440,925 lbs (200 mt)
- Continuous torque: 32,200 Nm @ 55 rpm
- Max. speed: 180 rpm
- Make up/break out: max 32,600 Nm

Carrier/Drive Group

- Carrier: Daimler Benz, 7 axles ACTROS 4150 AK, 503 hp (370 kW)

Drawworks

- Type: STREICHER Drilling Technology hydraulic
- Rope length: 1,525 ft (465 m)
- Drilling line diameter: 1 - 1/4" (32 mm)

Catwalk

- Catwalk: 46 x 6,5 x 4 ft (14 m x 2 m x 1.2 m)
- Pipe racks: 10 pcs., height: 1.2 m
- Catwalk winch: line pull: 8,990 lbs (40 kN)

Data Acquisition System

- Comprehensive system to acquire and digitally store all relevant drilling and operating parameters
- Remote diagnostic system for drilling rig

Power Generation/Hydraulic System

Rig unit

- Hydraulic power unit, containerized
- 2 x Deutz BF8M1015-CP, 570 HP (419 kW)

Other equipment

- 3 x 1065 kVA AC Generators
- 3 x MTU 18V/16V 2000 diesel engines

- Optional: operation by power from grid
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Fuel Storage

- 1 fuel tank: 20 m³ (126 bbl), with automatic refill system for generators; second tank available on request

Data Acquisition System

- Comprehensive system to acquire and digitally process relevant drilling and operating parameters

Blow Out Prevention Equipment (Example)

Stack Configuration

- Annular preventer spherical 13 5/8" 5,000 psi
- Double ram preventer U-Type 13 5/8" 10,000 psi (standard bonnets and large bore bonnets with tandem booster)
- Single ram preventer U-Type 13 5/8" 10,000 psi (standard bonnets)

Accumulator Unit

- 5 - 8 stations
- 240 - 370 gallons (bottle volume)
- Working pressure: 3,000 psi
- 2 remote panels
- API certified suppliers

Degasser

- Poor boy degasser
- Vacuum degasser

Choke Manifold

- 11 - 15 gate valves (3 1/16" 10,000 psi)
- Rated working pressure 10,000 psi
- One remote choke and one manual choke
- One remote panel

Drill Pipe

- Supplied as required by the customer (Range II)

Mud System

Mud Pumps

- 2 x STREICHER HHF 1000
- 1 x AC motor per pump
- 4 1/2" to 6" liner
- 10" stroke
- Pressure rating: 350 bar (approx. 5,000 psi)
- 2 x centrifugal charging pumps, 60 HP (45 kW) each

Mud Tanks

- Total tank volume: 117 m³ (736 bbl)
- Shaker tank: 40 m³ (251,6 bbl), 2 chambers
- Suction tank: 39 m³, 2 x 19-20 m³ (245 bbl)
- Mix tank: 17 m³ (107 bbl)
- Pill tank: 21 m³ (10 m³ + 11 m³) (132 bbl)
- Trip tank: 5 m³ (31.5 bbl), trip tank pump (7,5 kW)
- 2 x mixing pumps forum or similar, 75 HP (55kW) each
- 2 x hoppers AMC 6"
- Optional extendable by additional tanks

Solids Control System

- 3 x 4-panel shale shakers, AMC MD 813 SD
- 1 x desilter AMC, 16 x 4", capacity 3,000 l/min

Air System

- 1 x compressor: Atlas Copco GA 3013 E2FF or similar
- Max. volume: 3.67 m³
- Max. pressure: 12.75 bar

