

Year Modified: 2023

Mast
Type: Telescoping
Height: 152 ft.
Max Allowable Static Hook Load: 1,000,000 lbs.
Racking Capacity (5-1/2in DP): 23,000 ft.

Drawworks
Drawworks Make/Model: NOV ADS-10D
Total Input Power: 2,300 hp
Number of Motors: 2
Drilling Line Size: 1-1/2 in.

Traveling Equipment
Traveling Block Make/Model: Dreco 660TB-500
Hoisting Capacity: 500 tons

Substructure
Type: Sling-Shot
Rig Floor Height: 32 ft.
Clear Working Height: 28 ft.
Setback Capacity: 600,000 lbs.

Rotary Equipment
Top Drive Make/Model: NOV TDS-11SAE
Hoisting Capacity: 500 tons
Maximum Continuous Torque: 58,800 ft.-lbs.
Total Input Power: 1,200 hp
Number of Motors: 2
Rotary Table Make/Model: NOV D-375
Size: 37-1/2 in.
Static Loading Rating: 650 tons

BOP System
Annular Preventer Make/Model: Hydril GK
Size: 13-5/8 in.
Pressure Rating: 5,000 psi
Annular Preventer Make/Model: Hydril MSP
Size: 21-1/4 in.
Pressure Rating: 2,000 psi
Ram Preventer Make/Model: Cameron Type U – Single
Size: 13-5/8 in.
Pressure Rating: 10,000 psi
Ram Preventer Make/Model: Cameron Type U - Double
Size: 13-5/8 in.
Pressure Rating: 10,000 psi

Handling Tools
Make/Model: FR-120-C
Make-up Torque: 100,000 ft.-lbs.
Break-out Torque: 120,000 ft.-lbs.
Tubular Range: 3-1/2 in. – 9-3/4 in.
Spinner Torque: 3,000 ft.-lbs.



Gensets
Engine Make/Model: CAT 3512B
Generator Make/Model: Kato 1950 kVA
Number of Gensets: 5

Power Distribution
Gen. Control Make/Model: NOV - Allen Bradley
Power Distribution: AC 480V & 600V

Mud Pumps
Pump Make/Model: NOV 12-P-160
Total Input Power per Pump: 1,600 hp
Pressure Rating: 7,500 psi
Total Number of Pumps: 3

Mud Handling/Solids Control
Total Mud Volume: 3,050 bbls
Shale Shakers Make/Model: Derrick FLC-503
Number of Shakers: 4
Desander Make/Model: Derrick In-Line 3-Cone
Number of Desanders: 1
Deslitter Make/Model: Derrick Round 16-Cone
Number of Desilters: 1
Degasser Make/Model: Swaco Horizontal Mud D-Gasser
Number of Degassers: 1

Moving Systems
Type: Hydraulic Walking Shoes
Load Capacity: 2,400,000 lbs.



Design Features (All main components conform to API specifications)

Mast & Substructure

- Mast and substructure are raised via hydraulic cylinders, and the mast sections are scoped via the Drawworks
- Mast is completely assembled at horizontal position, pinned to the drill floor, and with the drill floor in the lowered position
- Beams are integrated into the mast structure for the dissipation of torque generated by the top drive during operation.
- Substructure's slingshot design allows floor equipment to be installed in its lower position and swing up in place during the raising operation. Subsequently, it is all lowered simultaneously as the rig is lowered.
- Maximum package for transportation for either the mast or substructure is 44.3 feet in length x 10.5 feet in width x 8.5 feet in height. Maximum weight associated with this package is 44,000 lbs, or 20 metric tons.

Mud Pumps

- Three (3) NOV 12-P-160, 1600 HP mud pump packages driven by belt drives.

Drawworks

- Digital closed-loop controls and dynamic braking systems take full advantage of integrated automation during tripping operations and zero-speed hovering.
- Can achieve constant bit weight and automatic bit feed control 0.3 – 197 ft/hr (0.1-60 m/hr).
- Drawworks features a simple mechanical transmission and reliable controls.
- Brake system is a combination of hydraulic disc brakes and dynamic braking.
- Motor, gearbox, drum, lubricating system and disc brake are installed on skid as one piece for ease of transportation.
- Digital control of drawworks parameters, such as hook speed, hook position, automatic drilling and dynamic braking. Drawworks' air and hydraulic systems controlled by the programmable logic controller (PLC) system in driller's console.

Controls

- Intelligent driller control uses advanced variable frequency drive (VFD) control technologies and integrated PLCs. Driller monitors and operates essential drilling functions from a driller's chair located on the rig floor.

