



“MONARCH”

**ABS CLASSED FOUR
COLUMN STABILIZED
SUBMERSIBLE**

KEY DIMENSIONS

- Length, Main Deck: 116 feet
- Beam, Main Deck: 48 feet
- Length, Mat: 199 feet
- Beam, Mat: 195 feet
- Depth, Mat: 12.5 feet
- Bearing Area of Mat: 21,956 Square feet
- Skirting: 2 feet
- Depth from Main Deck: 116 feet
- Draft, Transit (Keel): 8.02 feet

GENERAL DESCRIPTION

- Rated Water Depth: 12 to 85 feet
- Rated Drilling Depth: 25,000 feet
- Variable Deck Load, Operating: 4,000 Kips
- Variable Deck Load, Transit: 1,200 Kips
- Variable Deck Load, Storm: 4,000 Kips

PARTICULARS

- Goldman Shipyard 1982, Upgrade 1998, 2006 and life-enhanced 2014
- ABS Class A1 Column Stabilized Drilling Unit
- Meets International SOLAS Regulations, 1998 LSA Code
- Meets Load Line International Convention
- Meets International Prevention of Pollution Protocol, 1978
- API, AWS 1 standards

CAPACITIES

- Accommodations: 108 Men, upgradable to 116 Men
- Potable water: 1,140 barrels
- Fuel Oil: 2,750 barrels
- Liquid mud: 1,900 barrels – Active

- Slug Pit: 82 barrels
- Trip Tank: 40 barrels
- Mud Process tank: 312 barrels - Active
- Surge tank: 70 cubic feet
- Drill Water 5,500 barrels

STORAGE

- Bulk Storage: 9,600 Cu Ft (8 Tanks)
- Sack Storage: 3,360 sacks
- Riser Racks (P&S): 1,500 Kips
- Tubular Rack (Center): 500 kips

DRAWWORKS

- National 1320UE Double Drum
- Powered by two (2) EMD D-79 Electric Motors
- 1 3/8" Drill line grooved
- Wichita Disk Brake

TOP DRIVE SYSTEM

- GDM 500 DC
- Continuous torque rating of 47,000 Foot/Pounds @ 200 rpm and 67,000 Foot/Pounds Maximum
- Powered by GE 752 High Torque 1,130 HP traction motor
- 500 ton x 144" elevator bails

ROTARY DRIVE SYSTEM

- National Model C-375 37 1/2"
- Complete with Master Bushings and all split (API) Bushings
- Driven by EMD D-79 800 HP Traction Motor

MAST AND TRAVELING EQUIPMENT

- Cantilever Derrick Services Mast – 149 feet clear height x 30 feet wide base.
- Gross nominal capacity of 1,670,000 Pounds.
 - 14 Line Capability
 - Model C Casing Stabbing board complete with 20' of vertical travel, girt adapter brackets, adjustable hinged working platform, belly band and pad.
 - One Crown Block – manufactured by Derrick Services – 8 x 60" sheaves and 60" Fastline – grooved for 1 3/8" drilling line.
 - One 650 short ton Traveling Block: manufactured by National. Seven (7) x 60" diameter sheaves grooved for 1 3/8" drill line. Connects to Top Drive via Becket.

CRANES

PRIMARY CRANE – Starboard Side Mid-Ship

- Marathon Le Tourneau PC-120 full revolving deck crane with 120 foot Boom
- Rated at 50 short tons at 25 feet

SECONDARY CRANE – Port Side Aft Ship

- Marathon Le Tourneau PC-120 full revolving deck crane with 120 foot Boom
- Rated at 50 short tons at 25 feet

MUD PUMPS (THREE)

- National 12-P-160 Triplex pump
- Working pressure 7,500 psi
- Each pump driven by two (2) GE 752 DC Traction Motors with blower ventilation.
- Each pump supplied by one (1) 50 HP 5" x 6" Mission Mag I centrifugal supercharger pump.
- Chain lubrication system included.

LIQUID MUD SYSTEM

- 2,212 barrel total Active system
- Three (3) Ruff Model SL4480 linear motion shaker
- One (1) Ruff Model SLM4 with (20) x 4" Desilter cones and (3) x 10" Desander cones.
- One (1) Swaco Vacuum Degasser with 8" suction and discharge.
- One Ruff Cuttings Dryer added to dedicated Cuttings Deck
- Two (Optional for Client use) MI Swaco Centrifuges. One Model 414 and One Model 518
- One Screw Conveyor for Cuttings (Auger) 12" x 30 feet 22.39:1 Ratio

POWER GENERATION

- Three (3) Electro Motive Diesel (EMD) Diesel Engines
- Rated at total of 7,200 HP
- One (1) Emergency Generator GM 12V71 350 KW

POWER MANAGEMENT

- ISC Five (5) Bay SCR System
- Three (3) ITC 750 kVA Transformers

RIG AIR SYSTEM

- Two (2) Each Quincy Model QSI-490 – 100 HP – 490CFM @ 140 psi
- One (1) Each Premier Model PHL1000 – 700 CFM air dryer – refrigerated system
- One (1) Each Quincy Model 34034 Simplex Reciprocating Air Compressor powered by a Lister Diesel engine rated at 125 PSIG. (Cold Start Compressor)

BLOW OUT PREVENTION SYSTEM

- One (1) CAD Koomey Accumulator System with 370 Gallons Capacity.
- One (1) Hydril Annular Preventer 10M working pressure
- One (1) Cameron style Type "U" Double Preventer 13 5/8 x 15M working pressure **
- One (1) Cameron style Type "U" Single Preventer 13 5/8 x 15M working pressure **
Contractor can upgrade to Class V BOP Stack with additional Ram.
- One (1) Ram Preventer 21 1/4" x 2000 working pressure with,
- One (1) Annular Preventer 21 1/4" x 2000 working pressure
- One (1) Diverter System 29 1/2" x 500 working pressure- Model 500 MSP
- BOPS are all H2S service
- Rig fitted with 2 x 37.5 ton BOP Handling Cranes.
- Choke Manifold rated to 15,000 psi

DRILLING/HANDLING TOOLS

- AOT Type HT-65 Manual Drilling Tongs, complete with lugs up to 14 3/8" and safety handles.
- Two (2) each 0 to 20,000 lbs tong torque gauges with hose and sensor
- Two (2) each 5" drill pipe GG x 350 ton Elevators
- One (1) Spin master 950 Hydraulic pipe spinner with independent Hydraulic unit sized to

- accommodate 3 ½” to 9 1.2: OD pipe
- Blohm and Voss Model FH-80 hydraulic MU/BO Wrench
- 4 each 4 ½” Reg x NC50 bit subs
- 4 each 6 5/8” Reg pin x NC50 box bottleneck crossover subs

TUBULARS

- Drill Pipe – 15,000 feet of 5” S-135 Premium, Cat V Drill Pipe. 19.50 Pounds/foot, 6 5/8” OD tool joints with NC 50 connections both ends. (Contractor carries additional pipe for LIH)
- Heviwate Drill Pipe - 30 each 5” 49 lbs/ft Drilco-style HeviWate with NC 50 connections
- Drill collars - 15 each x 6 3/4 ” x 2 13/16” ID x spiral collars with NC50 connections
- Drill collars - 10 each x 8” x 2 13/16” ID x spiral collars with 6 5/8” Regular connections
- 2 each NC50 inside I-BOP valves with releasing tool
- 3 each NC50 one piece lower Kelly valves
- 5 each NC50 saver subs
- 6 each 6 5/8” Reg pin lift subs for 8” drill collars
- 8 each NC50 lift subs for 6 ¾” drill collars
- 3 each 6 5/8” Reg x 7 5/8” Reg bit subs
- 6 each 6 5/8” Reg x 6 5/8” Reg bit subs
- 1 each 6 5/8” Reg x NC50 bit subs
- 1 each 4 ½” Reg x NC50 bit subs
- 1 each 6 5/8” Reg pin x NC50 box bottleneck crossover subs
- 2 each NC 50 pin x NC38 box crossover subs
- 1 each 6 5/8” Reg Box 7 5/8" Reg pin bottleneck crossover subs

AUXILLIARY EQUIPMENT

- One (1) Mathey Model RET Wireline Unit with 15 HP motor and 20,000 feet 0.092 wire including one lot of spares
- Three (3) each 5 Star 48” Bug Blowers
- Four (4) Man Rider winches - two (2) rig floor service two (2) under rig floor for BOP service
- M/D Totco Rig Sense w/ Mud gas detector or equivalent mud pit level recording unit
- Omni Pure 12MXMP sewage disposal unit
- 70 Cu Meter Per Day Water Maker
- U.V. potable water purification system.

ACCOMODATIONS

- Rig is fitted with accommodation module (expandable for 116 Men). Two galleys.
- Fully air conditioned with Heliport rated at 9.3 Tons. Capable of Bell 212 or equivalent – heliport fitted with transponder heli-beacon.
- Private accommodation for Company Representative, Toolpusher and Engineer office.
- Accommodation provides Media Room with large screen satellite TV.
- Accommodation fitted with Radio Room complete with Furuno Marine VHF, 10 each Marine Walkie Talkie radios with Chargers, 2 each GMDSS SART Units (Search and Rescue), One (1) each EPIRB Unit, One Navtex Transceiver and One (1) Furuno Model 16-SSAS Inmarsat Unit for Global communication.
- Full Hospital with easy access/egress to Heliport.
- Gai-tronics Indoor and Outdoor Public Address and Alarm system.
- Driller’s talkback system will be provided on Floor.
- Security Provisions as required

SAFETY EQUIPMENT

- New towing bridles
- Heliport foam fire- fighting system complete with SOLAS-approved FF Suit and Monitor.
- 8 x 25 man inflatable Life Rafts
- 2 x 58 man Enclosed Life Boats
- 1 x 65 man Enclosed Life Boat
- Fire blankets
- Mast escape device/safety harness and assists
- Confined Space Entry Kit with Tripod
- Environmental Spill Kits (2)
- H2S and Combustible Gas Monitoring at drill floor, flow-line, shakers and active mud pit
- 2 portable gas detectors-4 gas detector (LEL/H2S/CO2 and O2) with calibration kits and cases.
- 6 each Self- Contained Breathing apparatus
- Smoke detection system with alarm panels for accommodation.
- Thermal Detectors in Engine Room, Emergency Generator Room, Galley, Laundry.
- CO2 System fitted to Paint Locker
- CO2 fitted to SCR House
- Water Mist System fitted in Engine Room
- Shower Stations at Mud Pits, Shakers, Rig Floor and Mud Mix Area
- Eye Wash Stations at Mud Pits, Shakers, Rig Floor and Mud Mix Area.
- Type 1 USCG-approved Life Jackets – 230 each
- Sala Blocks, Lanyards, Belts, Harnesses for fall protection.
- All Fire Hoses, Extinguishers, wrenches, Two (2) each Fire Fighting Suits for Fire Teams.
- Overheat Galley Hood System for both Junior and Senior Galleys.
- Radio Room Notification Panel with Annunciator Panel at Drillers Console.
- Three (3) Portable axial blowers for Ventilation.
- Two (2) MSDS Stations for Rig
- One (1) Lock Out-Tag Out Electrical Hazard System
- PPE equipment includes: hard hats, safety glasses, Face Shields, Gloves, Respirators, ear plugs, PPE Boxes (5) Chemical aprons, eye glass cleaning stations, Life Jacket boxes, static-free electrical pole, electrical-insulated matting for VFD House

Contractor carries a very large Consumeable Inventory (Computerized) on board the vessel.

Note: Owner reserves the right to change Manufacturer of certain items of capital equipment dependent upon delivery schedules. Ratings however, will remain constant.