

# ATWOOD EAGLE



## CHARACTERISTICS

<b>Type of Vessel</b>	Semisubmersible
<b>Rig Design</b>	Upgraded Korkut New Era
<b>Water Depth</b>	5,000 ft.
<b>Drilling Depth</b>	25,000 ft.
<b>Year of Construction</b>	1982
<b>Year of Upgrade</b>	2002
<b>Variable Load</b>	5,000 ST
<b>Drilling Draft</b>	55 ft.
<b>Operating Displacement</b>	31,883 ST

## PRINICIPAL DIMENSIONS

<b>Length</b>	325 ft.
<b>Beam</b>	235 ft.
<b>Hulls (2)</b>	
<b>Beam</b>	52.5 ft.
<b>Depth</b>	25 ft.
<b>Baseline to Main Deck</b>	95 ft.
<b>Baseline to Pipe Rack</b>	108 ft.
<b>Baseline to Drill Floor</b>	128.25 ft.

## CAPACITIES

<b>Liquid Mud</b>	3,624 bbls.
<b>Bulk Material</b>	10,000 cu. ft.
<b>Sack Storage</b>	5,120 sacks
<b>Drill Water</b>	16,464 bbls.
<b>Fuel</b>	6,255 bbls.
<b>Potable Water</b>	1,488 bbls.
<b>Ballast Water</b>	87,808 bbls.
<b>Base Oil</b>	2,390 bbls.
<b>Brine</b>	2,630 bbls.
<b>Riser Displacement</b>	2,578 bbls.
<b>Accommodations</b>	125 persons (plus 5 bed hospital)

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## MOORING SYSTEM

**Chains** – Eight (8) 3 ¼” ORQ + 20% x 3,200 ft. each minimum break load 1,427,000 lbs

**Anchors** – Eight (8) 12 Metric Ton Stevpris

**Wire** – Eight (8) 10,000 ft. each 3.5 diameter 6x47 WS+1WRC, RHRL preformed EEEIPS with minimum break load 1,450,000 lbs

**Mooring Winch System** – Four (4) Amclyde Model CTW350/52 double combination traction winch/windlass, with eight (8) each take-up reels for wire storage. (System capable of mooring in water depths to 7,500 ft. in non-harsh environment areas).

## DRILLING EQUIPMENT

**Drawworks** – Oilwell E-3000 driven by three (3) GE-752 DC motors with Baylor 7838 electric brake and National Oilwell M/E 3000 disc brake

**Derrick** – 185’ Pyramid with 1,200,000 lb. static hook load capacity (w/ 12 lines)

**Motion Compensator** – Western Gear HC-650-20-25 (650,000 lb. 25 ft. stroke) 1,600,000 lbs. locked

**Rotary Table** – National Oilwell Model D-605 with 60 ½” opening and Hagglund CA70 hydraulic motor

**Crown Block** – Pyramid 600 ton

**Traveling Block** – Western Gear 650 ton

**Swivel** – Oilwell PC-650

**Iron Roughneck** – Varco model AR3200CM with electric hydraulic controls

**Top Drive** – Varco TDS-4H c/w RBS

**Drillers Cabin** – Petron drillers cabin and console with network distributed drilling data (3D) for monitoring approximately 90 items

**Drill Pipe** – 15,000 ft., 5 ½”, 24.7 lb. grade S-135DP with HT-55 connections forty-nine (49) jts. 5 ½”, 3 ¼” ID, heavywall drill pipe with HT-55 connections

**Drill Collars** – Nine (9) 9 ½” OD x 2 7/8” ID x 30’ long spiral collars with 7 5/8” reg connections; twenty-two (22) 8 ¼” OD x 2 13/16” ID x 30’ long spiral collars with 6 5/8” Reg connections; eight (8) 8” OD x 2 13/16” ID x 30’ long spiral collars with 6 5/8” Reg connections; twenty-seven (27) 6 ½” OD x 2 13/16” ID with NC50 connections.

## BOP EQUIPMENT

**Divertor System** - Regan KFDS-CSO with 14” divertor lines, 16” flowline and 10 degree flex

**Flex Joint** – 18 ¾” with 21” Vetco HMF connection and 10 degree flex

**Riser Connector** – Vetco H-4, 18 ¾” 10,000 PSI WP

**Annular BOP's** - Two (2) Shaffer 18 ¾” 5,000 PSI WP

**Ram Preventers** – Two (2) Cameron double type “U” 18 ¾” 10,000 PSI WP

**Wellhead Connector** – Vetco H-4, 18 ¾” 10,000 PSI WP

**BOP Accumulator Unit** - NL Shaffer air-electric, 3,000 PSI

**Hydraulic Control Pods** – Two (2) NL Shaffer fully redundant with pressure bias system

## RISER EQUIPMENT

**Marine Riser** – Sixty-six (66) jts. Vetco 21” OD x 5/8” wall x 75 ft. long with HMF flanged connectors, each with two (2) each 3.75” ID, 15ksi WP integral choke and kill lines; one (1) 3.826” ID 5ksi WP mud booster line; one (1) 2.496” ID 5ksi WP integral hydraulic supply line

**Riser Pup Joints** – One (1) each length: 25 ft., 31.25 ft., 37.5 ft., 43.75 ft. and 50 ft. long

**Slip Joints** - Two (2) Vetco 60’ stroke with integrated SDL tensioning ring and Vetco HMF flanged connections

**Riser Tensioning Units** – Four (4) 160,000 lbs. Western Gear dual tensioners; four (4) 80,000 lbs. single tensioners; all with 50 ft. line travel; total riser tensioning capacity on 1,600,000 lbs.

**Pod Line Tensioning Units** – Two (2) Western Gear single line with 40 ft. line travel and maximum line load capacity of 16,000 lbs each.

**Guideline Tensioning Units** – Four (4) Western Gear single line with 40 ft. line travel and maximum line load capacity of 16,000 lbs each.

## MUD SYSTEM

**Mud Pumps** – Three (3) Oilwell A-1700PT triplex each driven by two (2) GE-752DC motors, 5000 psi system

## MUD SYSTEM (CONTINUED)

**Charging Pumps** – Three (3) 6” x 8” centrifugal with 100HP electric motors

**Mud Mixing Pumps** – Four (4) 6” x 8” centrifugal with 100HP electric motors

**Mud Conditioner** – Unitized with Brandt LCM 3D/CM-2 cascade shaker;

three (3) each 12” cones and twenty-four (24) 4” cones rated at 1,500 GPM

**Shaleshaker** – Five (5) Brandt VSM300 Balance Elliptical Shakers

**Degasser** – Burgess Magna Vac Model 1000, rated at 1,000 GPM

**Mud Gas Separator** – 48” diameter x 17’ tall with 10” vent line to derrick top

**Gumbo Box** – Brandt with gumbo chain scalper unit

## POWER SYSTEM

**AC Generator** – Two (2) EMD-16-645-E9B diesel engines 2,925 HP each driving EMD-2,100KW AC generators; one (1) EMD-16-645-E8 diesel engine 1,950 HP driving EMD-1,400KW AC generator

**Emergency Generator** – One (1) Caterpillar D-3412 diesel engine driving one (1) 550 EKW 600 VAC at 1,800 RPM generator with independent motor control center.

**Power Distribution** – Ten (10) Bay IPS SCR system with 600 VAC/750 VDC; six (6) 2,000 amp and four (4) 1,200 amp transformers

## AUXILIARY EQUIPMENT

**Cranes** – One (1) Seatrax Series 60, model 6032, with 140 ft. boom with load rating of 61,620 lbs. at 90 ft. Port Side. One (1) Seatrax Series 80 Model 8032 with 150 ft. boom with load rating of 105,061 lbs. at 100 ft. Starboard Side

**Bridge Crane** – Two (2) 60 ton hydraulic bridge cranes for handling BOP stack

**Gantry Crane** – Craneman 45 ton with two (2) 22 ½ ton hoists for handling riser and tubulars

**BOP Handling System** – BOP Transportation System with cart tracks and three (3) handling carts for skidding of BOP LMRP/Subsea trees

**Life Boats** – Three (3) Schat Harding Model MCB26, 60 person capacity, totally enclosed survival craft

**Life Rafts** – Five (5) 25 person davit launched

**Rapid Deploy Rescue Craft** – One (1) crane launched 6.5m rescue boat with 144HP motor. Maximum capacity 15 persons.

**Mooring Line Tension** – Martin Decker Load Cell with Keptrol eight (8) channel recorder

**Vessel Positioning and Riser Angle Reference System** – Kongsberg Simrad HPR410D Acoustic Positioning System

**Drilling Instrumentation** – Petron driller cabin containing Petron Networked Distributed Drilling Data (3D) Instrumentation System consisting of:

1) Integrated drilling recorder function

2) Dual rig floor touch screen display with dual master panel capability

3) Drilling data hub monitoring:

- |                          |                               |
|--------------------------|-------------------------------|
| a) Top drive torque      | e) Crown sensor depth and ROP |
| b) Top Drive RPM         | f) Mud pump pressure (2) each |
| c) Hydraulic hook load   | g) Cement pump pressure       |
| d) Hydraulic tong torque | h) Casing/annular pressure    |
|                          | i) Flow sensor                |

4) Mud pit data hub monitoring:

- |   |                              |
|---|------------------------------|
| a) Riser boost pressure   | b) Mud pump strokes (3 each) |
| c) Mud pit volume – 13 sensors in main mud pit system (3 pits have dual sensors) and 2 sensors in trip tank |                              |

5) Drilling data hub and Mud pit data hub are networked to workstation in Toolpusher’s office and Company Rep’s office (optional)

6) Drillers console consisting of controls, gauges, and lights for the control and monitoring of approximately 90 items.

**Ballast Control System** – Electronic control board with readouts on all tanks

**Heliport** – Hydro Marine Aluminum, 83’ x 83’, designed to ABS MODU Rules 1997, accommodating a Sikorsky S-61N helicopter

**Communication System** – Full GMDSS Compliance

**Distillation Units** – Alfa-Laval Model DPU36C125 with heater rated at 14,500 GPD capacity.

**Sewage Treatment System** – Omnipure 12M812-27