



ENSCO 8500 Series®
Ultra-Deepwater Semisubmersibles

# ENSCO 8500 Series®

# **Ultra-Deepwater Semisubmersibles**

The proprietary design of the ENSCO 8500 Series® was developed with extensive input from customers to address the drilling requirements of nearly every deep water field around the world. Capable of drilling in up to 8,500 feet of water, the rigs feature enhancements including a 2 million-pound quad derrick, offline pipe handling capability, automatic station-keeping ability, and 150-person living quarters. The universal design of the ENSCO 8500 Series® rigs streamlines construction, operational functionality, training, spare part requirements, repairs and maintenance to control costs and enhance the overall reliability of rig operations.

Since the first rig in the ENSCO 8500 Series® commenced operations in 2009, the rigs have built a history of outstanding performance as evidenced by repeat customers. They have taken part in significant exploration achievements: ENSCO 8500 drilled a major discovery for Anadarko in the U.S. Gulf of Mexico Lucius field in 2009, and ENSCO 8503 drilled Tullow's significant discovery offshore French Guiana in 2011. These rigs have also proved to be efficient and cost-effective drilling machines, accumulating a remarkable record of 97% utilization in 2011.



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# **GENERAL INFORMATION**

**Builder** KFELS - Singapore **Design** Dynamically Positioned DP-2 **Classification** A. B. S. Maltese Cross A1 column stabilized drilling unit

### **MAIN DIMENSIONS**

Pontoons 56' x 24' x 310' Moon Pool 30' x 120' Columns 50' x 45' Keel to Main Deck 97' 0" Main Deck 240' W x 255' L

#### **MACHINERY**

Main Power (7) EMD series ME20-710G7C - 5,000 (Marine/Continuous) BHP/each; (7) Baylor S855YNV - 643, 3,580 KW generators

**Power Distribution** NOV-ABB, 25.1 MW, 4,160-volt main power generation distributed through transformers for marine and drilling functions

Emergency Power (1) Cat 3512B, 1,476 HP Thrusters (8) Flowserve Pleuger WFDS-340-2610, 3,500 HP/each

# **OPERATING PARAMETERS**

Water Depth 8,500'
Maximum Drilling Depth 35,000'
Air Gap 34' @ 55' drilling draft
Transit Speed 3.5 knots @ 45' draft
Variable Drilling Loads 8,000 t
Operating Conditions 8,000 s. tons @ 55'
Survival Conditions 8,000 s. ton @ 45'
Transit Conditions 5,800 s. ton @ 25'

# **DRILLING EQUIPMENT**

**Derrick** NOV 201' x 46' x 40'; 2,000,000 lb static hook load

**Drawworks** NOV ADS-30Q, 6,000 HP, 2" Drill Line **Rotary** NOV RST 605 hydraulic, 60 ½" opening, 1,000 t **Top Drive** NOV-TDS-1000 (1000 t) 7,500 psi, GEB-20B 1150 HP (AC Motor), PH-100

Drill String Compensator NOV, CMC-H-1000-25, 1000K Travelling Block NOV HTB 7-72TB-1000, 1,000 ton Pipe Handling NOV-BR-15 Bridge Racker with Z-Back racking guide arm 3 ½" - 22", HTV machine up to 22", PR-45-90HS Catwalk machine, AR4500 & ST-120 iron roughnecks, PS30 slips, BX4 & BX5 elevators, 1 x 45' & 1 x 60' telescopic foxholes

Cementing Haliburton HCS Advantage Mud Pumps (4) Lewco, W-2215, 2,200 HP, 7,500 psi

# HOISTING EQUIPMENT

**Deck Cranes**: (2) Seatrax S90 Model S9032, 160' Boom Lifts at 70' radius: Offboard 79 ST, Onboard 88 ST. 1m Hsig, 40 knot winds; Mipeg 2000NR load indicators **Riser Gantry Crane**: (1) 106' span, 52 ST capacity

#### **CAPACITIES**

Active Mud Pits 4,500 bbls
Reserve Liquid Mud Storage 11,750 bbls
Bulk Mud/Cement 26,000 cu ft
Sacks 8,000 sacks
Drill Water 14,000 bbls
Potable Water 1,570 bbls
Fuel Oil 16,700 bbls

### **WELL CONTROL SYSTEMS**

BOP (6) Ram Hydril 18 ¾" 15 M; dual Hydril annular 18 ¾" 10M GX; (1) Cameron HC 18 ¾" 10 M LMRP Connector; (1) Super HDH4 18 ¾" 15 M Wellhead connector

BOP Handling 400 t BOP cart & elevator; 150 t Xmas tree cart, 400 t Casing hang-off

Control System Hydril Multiplex, 5,000 psi

Riser Details Drill-Quip 21" 2,500,000 lb. flanged - 4 1/2" ID C/K lines - 4" ID Booster line; Dual 2 7/8" ID hydraulic conduit lines

Riser Tensioner (10) NOV, 250 kips / each Diverter Dril-Quip CSO, 60", 500 psi Drill Pipe 6 5/8" x 34 ppf & 40 ppf, S-135, 6 5/8" FH, range 3; 5" x 19.5 ppf, S-135, GPDS50, range 3; HWDP: 6 5/8", 5", S-135; Landing String: 6 5/8", 68 ppf, Z-140, 6 5/8" FH, Range 2

Drill Collars 9 ½"; 8 ¼", 6 ¾"

**Choke and Kill Manifold** WOM 3 1/16" x 15,000 psi, with dual hydraulic power chokes

## **MOORING**

Winches (4) Brohl, RAMW-2050 (460 kips) Wire 3 ½", 2,500', 6 x 55 Anchors (4) Vrijhof-Stevpris MK5, 9 MT

# **HELIDECK**

Sikorsky S-61 or S-92, 73' diameter

# **ACCOMODATION**

150 berths

# **ADDITIONAL DATA**

Mud cleaning facilities: (6) Derrick FLC-514; (2) Derrick Vacu-Flo-1200 Degassers

**Sewage treatment**: (2) Hamworthy ST-8; single point discharge

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