



Constellation.

Alpha Star

High-Performance
Standardized Fleet

Alpha Star

A column-stabilized semi-submersible mobile offshore drilling unit (MODU) with dynamic positioning. It is designed to drill wells down to approximately 9.144m (30.000ft) from the mud line and operate in up to 3.000m (9.842ft) water depths for year-round operations in regions such as Offshore Brazil, Gulf of Mexico, West Africa and Southeast Asia.

HIGHLIGHTS

TYPE | SS Dynamic Positioning
FLAG | Marshall Islands
YEAR BUILT/UPGRADED | 2011
DESIGN | DTG & MSC DSS-38
DP CLASS | DPS-2+

DPS 2+
DP Class



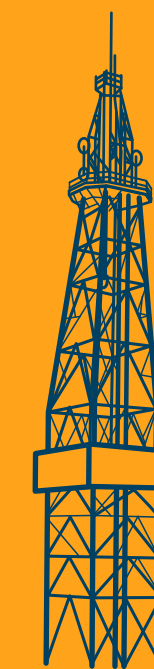
**4x NOV
14-P-220
Triplex**
Mud Pumps
7.500psi capacity

**3.000m
(9.842ft)**
Maximum
Water Depth



**1x NOV
18^{3/4} BOP**
15.000psi
working pressure

**NOV 56m
(185ft)
Derrick**
2.000.000lbs (907t)
Nominal Capacity



Top Drive
NOV TDS-1000A
907t capacity

5.800t
Maximum
Variable
Deck Load



MPD
Non-equipped

3xCranes
2 Main Deck – 70t
1 AFT side – 12t





GENERAL DESCRIPTION

DRILLING EQUIPMENT

| | |
|---|---|
| Operation Draft | 20.5 m |
| Survival Draft | 16.5 m |
| Transit Draft – Field Move | 16.5 m |
| Transit Draft – Open Sea | 8.8 m |
| Variable Deck Load Drilling | 5,800 ton |
| Variable Deck Load Transit (Towing/Field) | 5,800 ton |
| Variable Deck Load Survival | 5,800 ton |
| Transit Speed | 9.3 knots |
| Maximum Water Depth | 3,000 m |
| Minimum Water Depth | 500 m |
| Maximum Drilling Depth | 9,144 m |
| Accommodation | 156 people |
| | |
| Derrick | NOV 185’ |
| Hookload Capacity | 907 ton |
| Drawworks | NOV SSSGD-1000-6000 |
| Drilling Line | 2 in |
| Compensator Type | NOV CMC-100-25 |
| Rotary Table | NOV RST605 |
| Rotary Table Opening | 60 1/2 in |
| Rotary Table Static Load Capacity | 907 ton |
| Top Drive | NOV TDS-1000A |
| Top Drive Capacity | 907 ton |
| Top Drive Max. Cont. / Interm. Torque | 62,300 (100,000) ft.lb |
| Top Drive Working Pressure | 5,000 psi |
| Tubular Handling | NOV PRS-4i Vertical Pipe Racker;NOV Drill Floor Manipulator Arm; NOV AR4500 Automated Roughneck |
| Mud Pumps Quantity | 4 |
| Mud Pump Type | NOV 14-P-220 |
| Mud Pump Working Pressure | 7,500 psi |
| Mud Pump Power | 2,200 hp |
| Shale Shakers | 5 (Five) BRANDT LCM3D/CM2 |
| Mud Cleaner & Vacuum Degasser | 1 (One) Shale shaker equipped with scalping deck, Desilter 24x4” and Desander 3x10” and Vacuum Degasser |

POWER & MACHINERY

| | |
|----------------------|---|
| Main Power | 10 |
| Generators Model | NOV Baylor 210-T855ZXT-661 |
| Generators Power | 358 kW |
| Engines Model | EMD, ME20-710G9B |
| Engines Power (each) | 5,000 hp |
| Emergency Power | Caterpillar, CAT 3508B DITA Engine, 750 kW, 1,800 rpm |
| Power Distribution | Keppel Norway |

STORAGE CAPACITIES

| | |
|----------------------|--------------|
| Fuel Oil | 15,680 bbl |
| Liquid Mud (active) | 4,959 bbl |
| Liquid Mud (reserve) | 2,516 bbl |
| Base Oil Mud | 2,880 bbl |
| Brine | 5,346 bbl |
| Drill Water | 9,019 bbl |
| Potable Water | 9,051 bbl |
| Bulk Material | 20,000 cu.ft |
| Sack Storage | 3,200 sacks |

BOP AND WELL CONTROL EQUIPMENT

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|---------------------------------|--|
| Bop Configuration | 7-A2-R5 |
| Bop Size | 18 3/4 in |
| Bop Rams Working Pressure | 15,000 psi |
| Bop Annular Working Pressure | 10,000 psi |
| Bop Handling | NOV 400-ton BOP Transporter; NOV BOP Gantry Crane 2 x 125 ton |
| Marine Riser Type | AKER CLIP Riser 75 ft |
| Marine Riser Id | 19 3/8 in |
| Marine Riser Joints | 123 |
| Diverter | GE Hydril, FS21, 21" x 500 psi |
| Tree Handling | NOV 200-ton Tree Trolley; NOV 150-ton Tree Skid; NOV 2 X 50-ton Tree Overhead Crane |
| Choke Manifold Working Pressure | 15,000 psi |
| Choke Manifold Size | 3.0625 in |





STATION KEEPING / PROPULSION

| | |
|-----------------|--|
| Thrusters | 8 |
| Thrusters Type | Flowserve Azimuth Thrusters |
| Thrusters Power | 3,000 kW |
| DP System | Kongsberg K-POS-32 Dynamic Positioning System |
| Mooring System | Emergency Mooring System with 2 (two) BRÖHL double mooring winches |

CRANES

| | |
|-----------|--|
| Port | 1 (one) kingpost crane TSC Patriot Series 240 70 ton @ 12.2 m |
| Starboard | 1 (one) kingpost crane TSC Patriot Series 240 70 ton @ 12.2 m 1 (one) pedestal Knuckle Boom NOV forward of the drill floor for material handling 12 ton |

OTHER INFORMATION & FEATURES

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|----------|---|
| Helideck | D value 22.2m; Max. weight 12.8 ton; Zero Discharge |
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