



Bicentenario

6th Generation Semisubmersible Drilling Rig, Design GVA 7500, four stabilized columns with capacity to operate in 10,000 ft. water depth and drill up to 35,000 ft. in moderated environment such as the Gulf of Mexico, West Africa and Brazilian Waters.

Class:

Det Norske Veritas, Malta Cross 1A1 COLUMN-STABILIZED DRILLING UNIT, DRILL, HELDK, CRANE, E0, DYNPOS, AUTRO.

Built by:

Daewoo Shipbuilding & Marine Engineering Co.

Variable Deck Load Capacity:

Operation Draft	9,799 ton
Transit Draft	7,432 ton

Living Quarters:

200 persons

Helideck:

Sikorsky S-61 and S-92 with helicopter refueling system.

Main Dimensions:

Length Over all	119.20 m
Beam Over all	96.70 m
Height Base line to upper deck	42.50 m

Storage Capacities:

Riser storage area	860 m ²
Deck Area	7,293 m ²
Drill pipe and casing setback	12,000 m
Sacks storage	6,000 Sk x 50 kg
Mud tanks in upper hull	1014 m ³
Reserve Mud tanks (pontoons & columns)	1,774 m ³
Brine	745.7 m ³
Synthetic base mud	749.3 m ³
Drill water	2,686 m ³
Bulk storage	912 m ³

Drafts:

Normal operation	23.00 m
Survival	19.00 m
Transit	9.94 m

Dynamic Positioning System (DPS):

DNV DYNPOS AUTRO (DP Class 3). Redundancy based on three DP control stations and a segregate back up room with a DP control station, including DGPS and hydro-acoustic position reference system.

Azimuth Thrusters:

Eight (8) Flowserve WFSD-350-3500, azimuthing 360 degrees, 3500 Kw each connected to the DP, DYNPOS AUTRO (DP Class 3).

Power:

Eight (8) Caterpillar C-3616 main engines with generators with an output of 4,700 KW each arranged in four segregated engine rooms, as per DP3 requirement. One Dead Ship Generator (350Kw) installed in a separated room.

Main Cranes:

Two cranes of 80 ton each.

Air Compressors:

Tree (3) service compressors, 1500 m³/hr each at 8 barg pressure.

Two (2) Starting air compressors 195 m³/h each.

Fresh Water Generator:

Two (2) vapor compression type with capacity for 50 m³/day each.

Sewage Treatment Plant:

Two (2) units with capacity for total service to 200 persons.

Life Saving Equipment:

Four (4) lifeboats fully enclosed, diesel engine driven, capacity for 100 men each.

One (1) High speed rescue boat diesel engine driven for 9 men.

Twelve (12) Life-rafts, for 35 men each.

Communication System:

GMDSS Radio station including emergency radio equipment.

VSAT satellite communication system.

Derrick:

Dynamic type derrick rated for 2,000,000 lbs. static hook load.

Crown Block:

2,000,000 lbs capacity with eight 72" sheaves for 2" drill line.

Drill String Compensator:

Crown mounting compensator

Max compensating load capacity 1,000,000 lbs

Compensating stroke 25 ft

Also includes an Active Heave compensator.

Traveling Block:

Capacity for 2,000,000 lbs capacity with seven 72" sheaves for 2" drill line.

With pressure energized seals, to be installed in the 60 ½" rotary table, rated for 500 psi with 16" flow-lines and valves and remotely operated hydraulic control panel.

Top Drive:

2,000,000 lbs capacity, speed range 0-240 rpm, maximum torque 87,020 lbs-feet, 2 AC motors 1,150 HP each.

Drawwork:

One drawwork 4,500HP.

Rotary Table:

60 ½" rotary table hydraulically driven, capacity 2,000,000 lbs.

Driller Control Room:

One drill control cabin with drilling instrumentation and controls for drill floor and derricks equipment, remote indication of relevant drilling parameters, driller and assistant driller control chairs.

Drill String and Pipe Handling equipment:

Remotely controlled and operated drill string and pipe handling system with tubular racking system for casing and drill string, fingerboard for vertical racking, hydraulic roughneck (Two), Power slips.

Riser and pipe handling equipment:

Riser Gantry Crane, riser feeding machine, drill floor manipulator arm, pipe deck pipe handler, tubular feeding machine.

Well Control Equipment:

One Cameron TL 18 ¾" 15,000 psi, H₂S resistant including:
Two 18 ¾" DL annular preventer, 10,000 psi.
One double 18 ¾" TL ram preventer, 15,000 psi WP (shear blind and super shear).
One single 18 ¾" TL ram preventer, 15,000 psi WP (pipe ram)*.
One double 18 ¾" TL ram preventer, 15,000 psi WP (variable and bidirectional at the bottom)*.
Choke and kill lines with six sets of master valves.
Well head H-4 mandrel connector 2,000,000 lbs tension for 15,000 psi WP.
Wide angle release LMRP connector for 10,000 psi WP.
Test Stumps, one for each hydraulic connector.

BOP Control System:

One set of multiplex Electro-hydraulic BOP control system including surface hydraulic power unit, surface and subsea accumulators units, control panels, subsea system with two control PODs, two mux cable, and cable reels, hot line hose and reel, riser fill up valve and acoustic system for 10,000 ft.

BOP and X-TREE MH handling equipment:

BOP & LMRP transporter 520 Tm.
BOP Crane, 2x75 TM (150 Tm)
X-MAS TREE Overhead crane and trolley, 200 Tm.

Choke and Kill Manifold:

Pressure rated for 15,000 psi, W.P., 3 1/6" I.D., includes two manual and two hydraulic operated chokes, rated for H₂S service, with 2 remote choke control panel.

Marine Riser:

10,000 ft of Aker Marine Clip riser, with buoyancy elements and integral choke and kill lines, booster and hydraulic lines, telescopic and two flex joints, Gimbal and riser spider and riser angle monitoring system.

Diverter:

Riser Tensioning System:

3,500,000 lbs capacity (1,587.5 Tm) in six tensioning cylinders with maximum stroke of 50 feet.

Mud Pumps:

Four (4) With Triplex Mud Pumps 2,200 HP each, 7,500 psi. max. pressure, 884 gpm max. flow rate each, and four Mission super-charger pumps.

Solids Control Equipment:

Six (6) double deck shale shakers capacity, 529 gpm (120 m³/hr)
One desilter unit 20 cones 4", 50-600 gpm capacity
One desander two cones 12" 1200 gpm capacity
Two degassers 1,200 gpm capacity each
One mud-grass separator
Two centrifugal decanting units

Other Equipment:

Mud Laboratory Room
Cementing Unit CPS-665, 1720 HP; Mixer of 100 Bls ROV, Subsea 7, Quantum WROV, 230 HP, 10,000 ft.
Emergency mooring system: Two 18.8 Ton Anchors. 928 m mooring

* BOP ram's arrangement depending on operations