

Island Innovator

Drilling and intervention semisubmersible rig



OWNER
maracc

OPERATOR
ISLAND OFFSHORE

Technical specification Island Innovator

DP3/Anchor moored semisubmersible drilling and intervention platform

General

Design	Global Maritime GM4000-WI	
Classification	DNV+1A1 Column Stabilised Drilling Unit, DRILL (N), Well Intervention (N) DYNPOS-AUTRO, POSMOOR-ATA, CRANE, HELIDECK-SH, E0, ECO	
Water depth	Drilling: 70 - 1300m /Intervention: 70-3000 m	
Max drilling depth	8000 m	
Work area	Complies with Rules & Regulations for UK & Norwegian waters	
Transit speed	10 knots	
Positioning	IMO DP Class 3 + 8 ea anchor winches	
Operating conditions	28 m/s wind, 8 m Hs	
Survival conditions	51,5 m/s wind 17 m HS	
Design temperature	-20°C to 35°C air	
Overall length (Loa)	104,5 m	
Overall with (Bm)	65,0 m	
Length of main deck	81,5 m	
Width of main deck	65,0 m	
Height main deck	36,85 m (From bottom of pontoons)	
Height drillfloor	48,00 m	
Height top of bracing	13,85 m	
Pontoons	13 m x 9,75 m (h) (1,3 m radius)	
Columns	4 ea 13 m x 13 m (1,3 m radius)	
Moonpool	21,95 m x 7 m	
Operating draft	17,75 m	
Air gap in operating draft	11,5 m	

Displacements/draughts

Transit, d = 9.29 m	28 736 tonnes
Operation, d = 17.75	38 040 tonnes
Survival, d = 15.75	36 308 tonnes

Drilling equipment

Derrick/main lifting assembly	NOV Hydraulic cylinder rig, 590 metric tons
Free lifting height	36 m
Motion compensator	360 t passive, 240 t active, 25 ft stroke
Rotary table	RST 60.5"
Top drive	National HPS 650 - E - AC
Top drive continous torque	64175 ft-lb
Top drive max torque	96000 ft-lb
Top drive handling	2 7/8" - 6 5/8" DP
Iron Roughneck	NOV Hydratong MPT
Iron Roughneck tubular size	2 7/8" to 9 3/4" OD
Iron Roughneck make/break	140000 / 200000 Nm
Hydraulic Catheads	2 ea, 146000 Nm
Pipehandling	NOV Hydraracker, Model HR111
Catwalk-machine	NOV PR25 - 50 LS, 25 metric tons
Deck pipe-handling crane	5 t
High Pressure Mud Pumps	3 x National 14P - 220, 7500 psi
Mud Mix system	Automatic mud additive system, for handling water and oil based mud system.
Shale shaker	5 off Brandt VSM300
Cement Unit Company Provided	2 ea 15 K PSI Cement Lines

Well control equipment/Subsea

BOP	Cameron 18-3/4"- 15K, 5 cavity
BOP handling	300t BOP- carrier
Choke-manifold	Techdrill 3.1/16"API 15K /3.1/16"API 10K
Mud Gas separator	Techdrill capacity 5,44 MMSCFD
Control system	Hydraulic - 800 m hoses
Drilling Riser	Vetco MR6 21-1/4" 50 ft
Choke and Kill lines	ID 3", 15K
Conduit-lines	ID 2,62", 5K
Booster-line	ID 4", 3K
Diverter	VetcoGray w/Integrated support-ring
Slip-joint	2 ea. VetcoGray, 19,2 meter stroke, (63 feet)
Riser tensioners	8 x 120 kips, 15.24 m stroke, (50 feet)
Guide-wire winches	4 x 6.5 t, 600 m, AC
Pod-wire winches	2 x 5 t, 2000 m, AC
ROV-system	1-off OBS ROV, 1-off W/C ROV

Capacities

Tubulars in setback	350 t
Drillpipe in setback	5400 m, (pending size)
Drillcollars in setback	432 m
Liquid mud	450 + 200 m3
Bulk mud	240 m3
Bulk cement	240 m3
Brine	200 m3
Drillwater	2089 m3
Potable water	2x300 m3
Fuel oil	3277 m3
Starboard crane	NOV 165 ton AHC, capable of lifts to 2000 m
	Equipped w/yoke for riser-handling
Port crane	NOV 75 ton

Loading condition form

Loading condition	Operation	Survival	Transit
Max payload	7206	7266	5285
Max variable deck load	4505	4512	3485
Max deck payload	3465	3033	2007
Max column payload	1292	1731	1731
Max pontoon payload	2449	2501	1547

Propulsion and machinery main components

Diesel generators	6 x Wartsila 12V32 4.840 MW at 720 RPM
Azimuth thrusters	6 ea. LIPS, 3840 kW each
Propeller thrust at zero speed	71,5mt

Electrical system

3 split main power system

Voltage	6600 V
Power	29040 kW
Frequency	60 Hz
Sub-distribution LQ	440V/ 230V, 60 Hz
Sub-distribution for utulity-consumers	690 / 230 V, 60 Hz
Emergency generator	Mitsubishi S12R MPTA 1190Kw, 690V, 60 Hz

Mooring/position keeping

Dynamic positioning	IMO CLASS 3
Winches	4 double 750t Rolls Royce winches for 90 mm wire
Mooring lines	2x1092metres + 6x635metres
Anchors	2-off emergency anchors

Automation

Fully integrated system for DP machinery controls, power management, ballast control, alarm system, and drilling.

Accommodation

Accommodation for 120 persons, all single bed cabins. Eight offices with 18 workstations, one collaboration room with eight workstations, one conference room with 22 seats, hospital/treatment room, gymnasium, and cinema.

Helicopter platform

Helideck arranged for Sikorsky S92.

Navigation/communication equipment

Radars, RDF, echo sounders, speed log, clinometers, gyros, 4 point draught indications system, driller's communications system, crane communications system, PA system covering all rig areas.

Lifesaving equipment

4 free fall lifeboats of enclosed type, each for 64 persons. 2 rescue boats type water jet, inflatable life rafts and other equipment according to MOU regulations.

Well intervention details

Capable of carrying 4 Coil Tubing Reels (up to 3 1/2" coil) Facilities to spool coil tubing on deck. Facilities to carry CT injector system permanently on drillfloor.

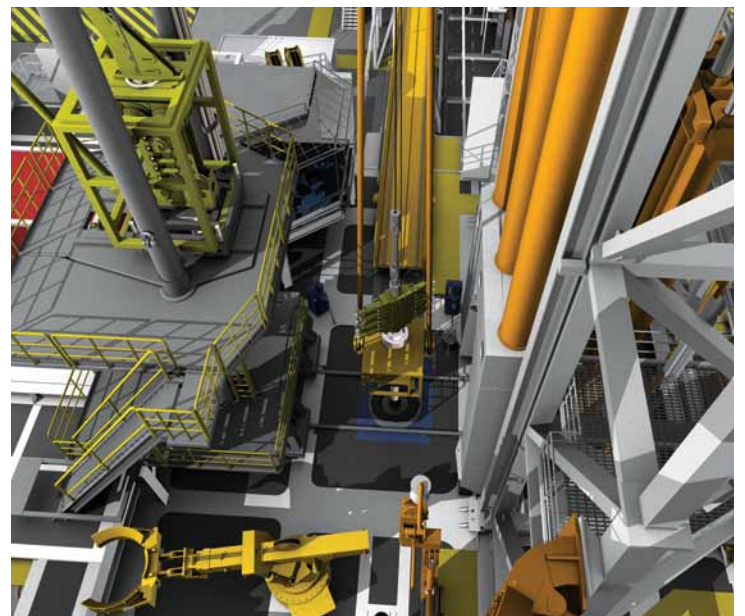
Additional data

Specially Prepared for full range of well intervention Activities.



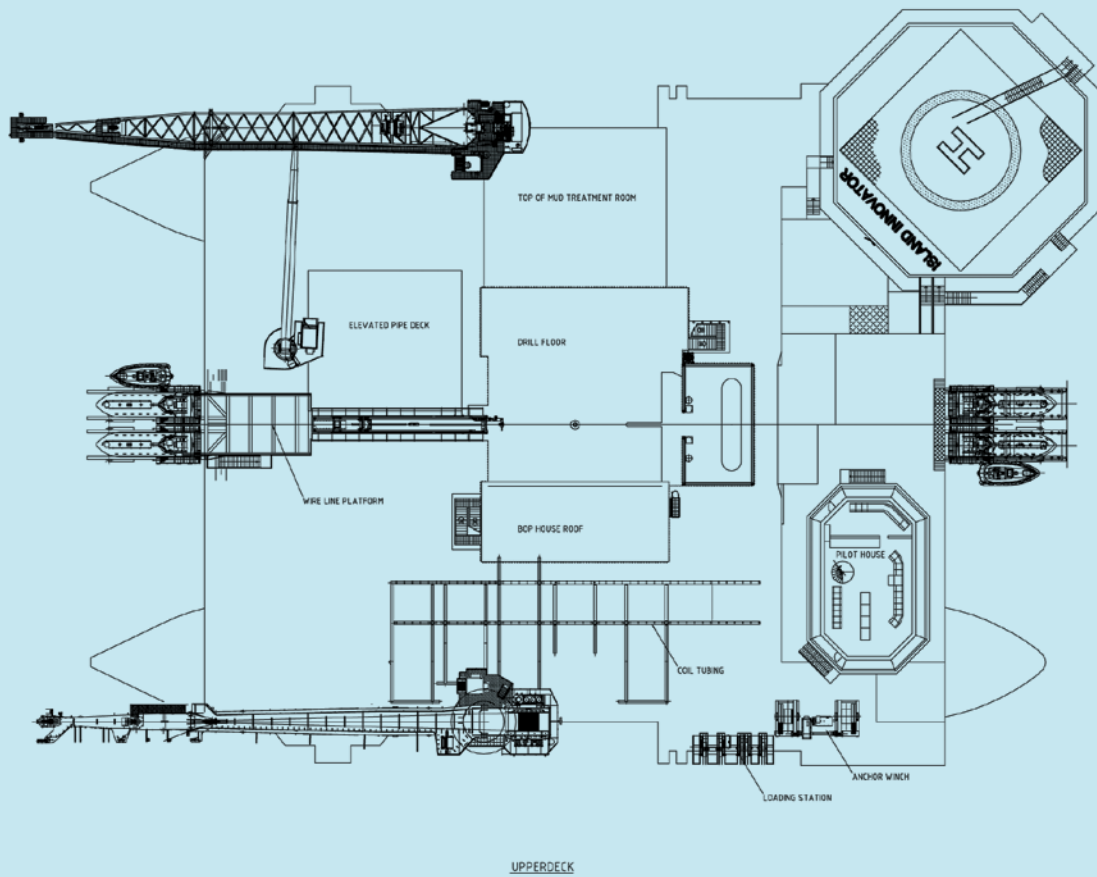
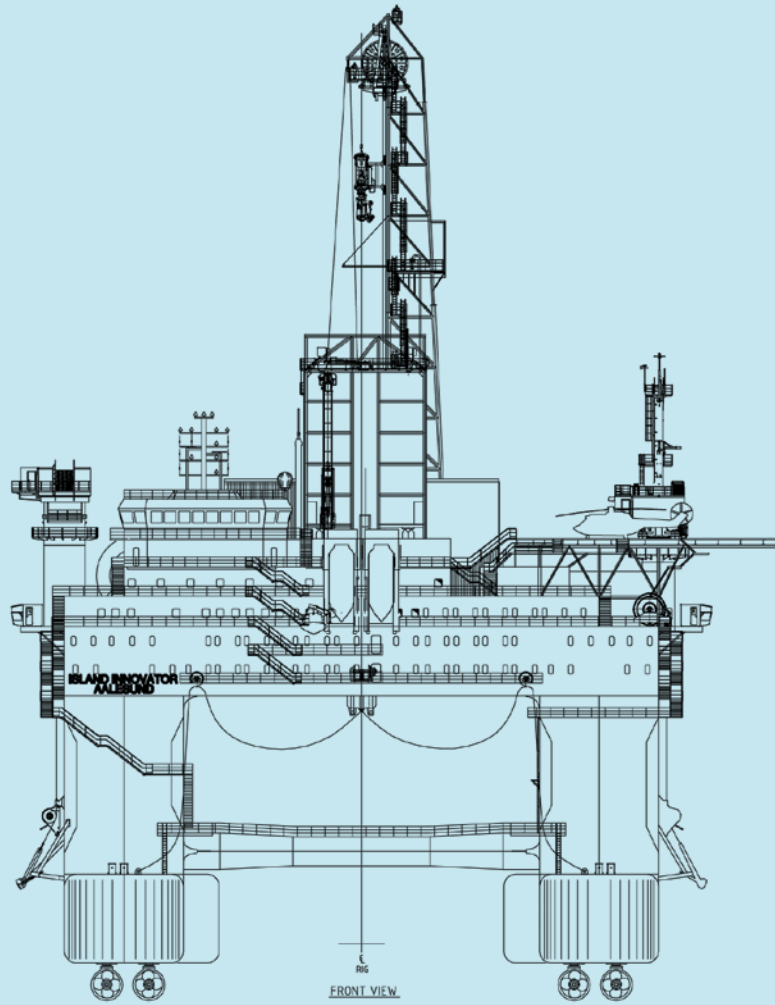
State of the art drilling equipment

- Conventional drilling rig to 1300 m water depth
- Through Tubing Rotary Drilling and heavy well-intervention capacities to 3000 m, (7 1/16" BOP provided by others)
- Subsea Active Heave compensated 165 ton crane to 2000 m water depth
- Can accommodate up to 4-off coil tubing reels (max. 3 1/2" coiled tubing size)
- Can spool coil tubing on board
- Can alternate modus between coil tubing, wireline and drilling in less than one hour.

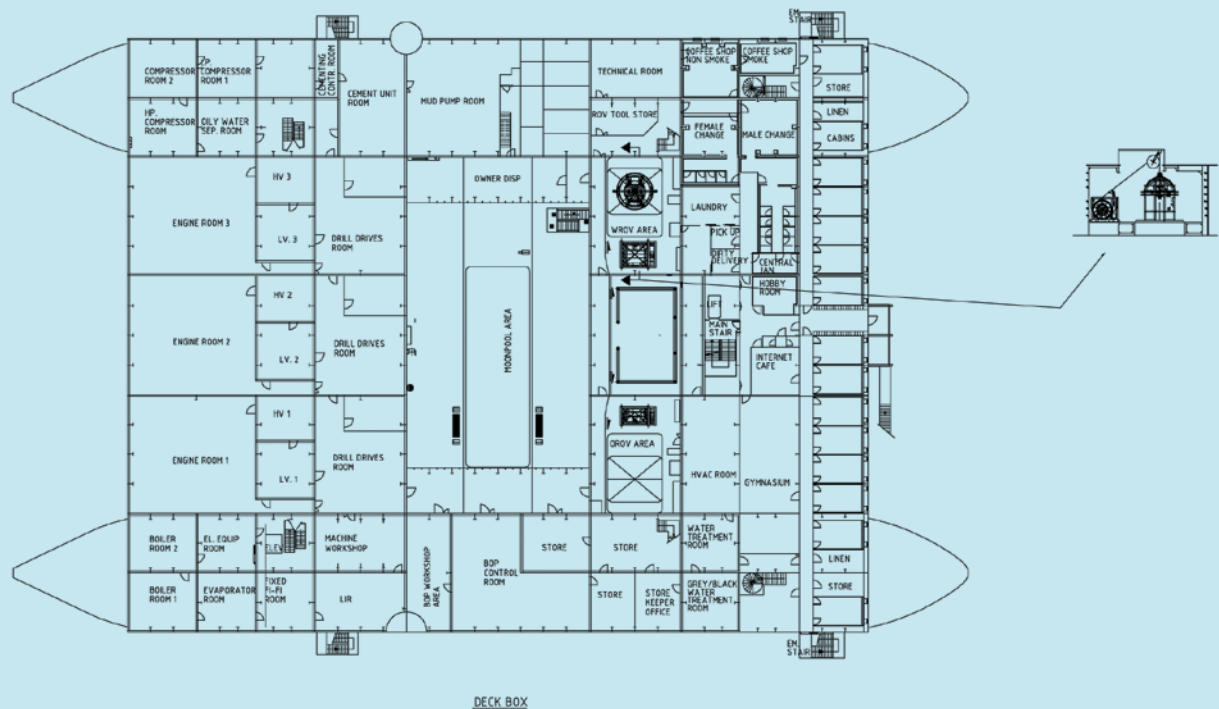
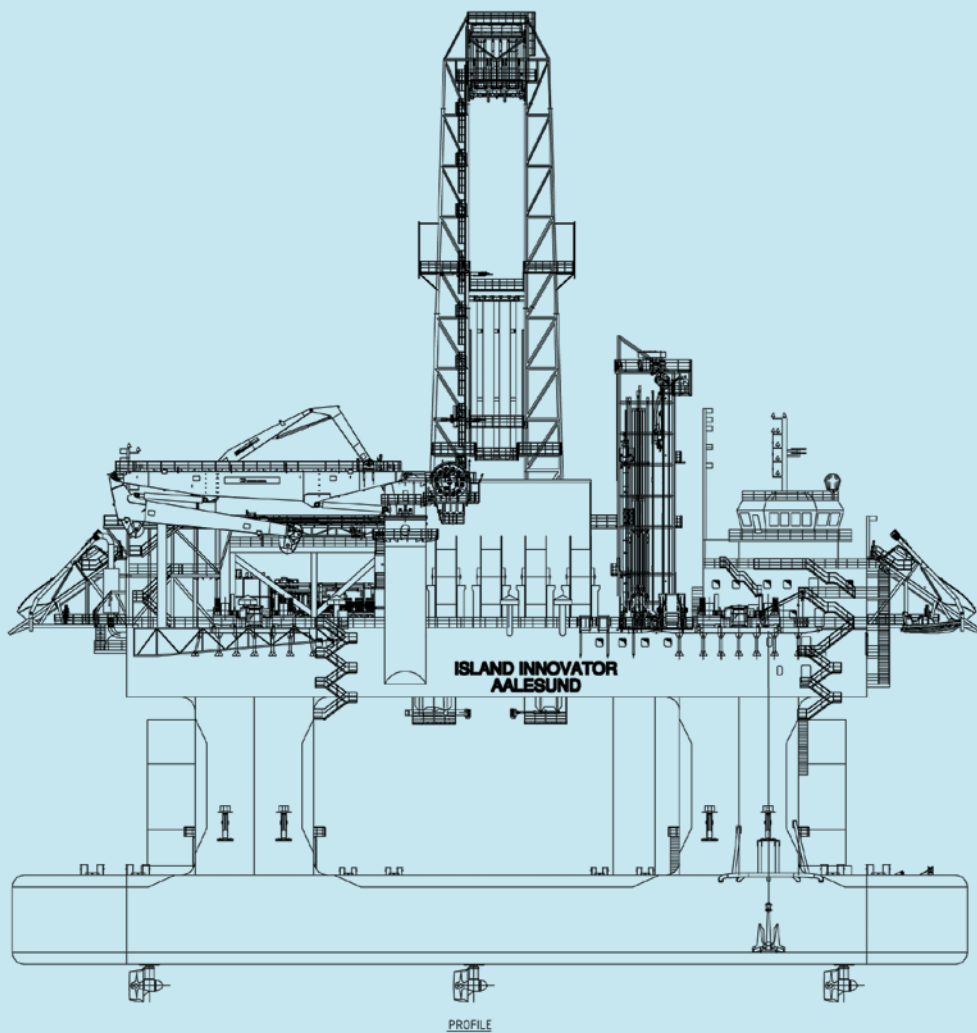


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Island Innovator

- Complete Hull and Deck by Cosco Shipyard Group, China
- Power by Siemens Oil and Gas, Norway
- Engines and Thrusters by Wartsila, Finland
- DP Controls by Kongsberg Maritime, Norway
- Topside by National Oilwell Varco, Norway
- Topside Module by Nymo AS, Norway
- Mud module by Wison Heavy Industry, China
- Accommodation by Markhus, Norway

Island Offshore

The Island Offshore Group is a leading provider of services to the offshore industry ranging from platform supply and anchor handling to advanced subsea operations including increased oil recovery (IOR) and light well intervention (LWI). The fleet consists of high quality vessels with an average age of less than 2 years. 15 vessels are currently operating in Brazil, Mexico, USA and in the North Sea.



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