

GREATSHIP RACHNA

The Global Force with a Personal Touch



Greatship Rachna is a 78m long, SPS compliant, DP2 geotechnical vessel built in 2012 and fitted with EGS's latest heave compensated geotechnical drilling rig. The Greatship Rachna is capable of carrying geotechnical investigations in 300m of water.

EGS opted for a twin derrick design with innovative safety features to provide a safer environment on the drilling floor. The various tooling available onboard have been specially selected to tackle challenging geological conditions on offshore windfarm sites around the world.

- Twin derrick type construction with overall height 25m allowing the use of "Range 1" (5Mtr) drill pipe
- Compensator carriage (Travelling block) giving a SWL load of 25,000KG below the power swivel
- Main Drilling Heave Compensator with a passive air over oil system which working stroke of 3m
- Dando Model 1000 Power Swivel
- "Rooster Box" man riding platform which allows the safe deployment of wire line sampling and testing tools through the center of the drill string
- Equipped with a full set of Wison-APB Classic Wireline CPT, Wison-APB S&P Waves Offshore Seismic Source and Wison-APB 50kn Iconc
- Push sampling tooling for continuous or spot PQ coring and QD Tech "Alien" Rock Sampler
- Onboard Soil Testing Laboratory

The EGS Group - Global Survey Specialists

*Australia, Brazil, Hong Kong, Indonesia, Malaysia, Philippines,
Singapore, Taiwan, Timor-Leste, United Kingdom, United States, Vietnam*

GREATSHIP RACHNA

NAME	Greatship Rachna	FLAG STATE	India
TYPE	DP2 PSV	OFFICIAL NO.	2503
CLASSIFICATION	Lloyd's Register Indian Register of Shipping Taiwan CR Class	CALL SIGN	AVXE
BUILT	2012	IMO NO	9607332

Dimensions

Length Overall	78.0m
Beam	17.0m
Draught	6.3m
Gross Tonnage	3,306 tons

Accommodations

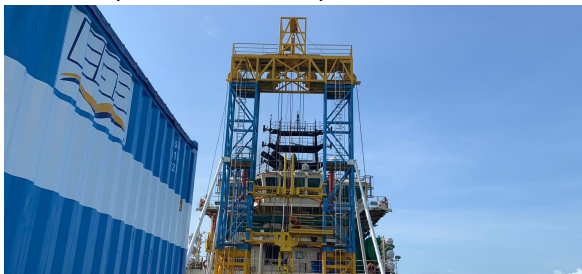
Total Berths	50 berths 8x 1 man 21x 2 man
Hospital	1 bed
Working Spaces	Soil Laboratory Representatives Office Party Chief's Office Workshop Sample Storage
Recreation	Lounge/Video/Gym

Machinery

Main Engines	2x 2,360kW
Auxiliary Engines	2x 600kW
Emergency Generator	1x 99kW
Shaft Generators	2x 1,800kW
Spare Generators	2x 500kW
Bow Thrusters	2x 800kW (Tunnel)
Stern Thrusters	2x 600kW (Tunnel)
Propellers	2x CPP

Capacities

Fuel Capacity	1,254m ³
Fuel Consumption	14MT/Day (DP)
Water Capacity	814m ³
Water Making	25m ³ /Day
Autonomy	35 Days



Communications

V-Sat	Sailor 900 KU Band
Inmarsat	FB250
Internal Coms	EPABX VHF Public Address System

Navigation

DP System	Kongsberg K-POS DP-22
PMEs	2x Fugro 110 & 112 DPS 1x Cyscan
USBL	Sonardyne Ranger Pro
Echosounder	Kongsberg EA400
Others	CJoy Joystick Remote Diagnostics 2x Veripos LD8 DGPS 1x Seatex MRU5 2x Seatex MRU2
Bridge Design	Complies with periodic one-man operations
Electronic Charts	Dual ECDIS
Propulsion Control	Kongsberg AutoChief C20
Automation	Kongsberg K Chief 500

Deck Equipment

Capstans	2x 8 tons
Tugger Winches	2x 10 tons
Deck Crane	3.2 tons SWL @ 18m radius
Moonpool	4.8m x 4.8m

Regulatory Compliance

SPS Code 2008	Compliant
Sewage Treatment	Suitable for 50 persons
Crew Comfort	Complies with Class& regulations for noise & vibrations

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Drilling Equipment

Derrick	25m Twin Derrick Lattice SWL 25 tons
Drill Pipe	Range 1: 5m
Hoist System	Braden. Drum line pull of 5 tons
Compensator Carriage	SWL of 25 tons below the power swivel
Hydraulic Power	2x 70kW 2x 75kW 2x 20kW
Heave Compensator	Passive air over oil system with 3m working stroke
Power Swivel	Dando model 1000 mounted under rooster box
Mud System	NOV Gasco 8x 5 Duplex design, 595psi
Wireline CPT	Wiscon-APB Classic Wiscon-APB Icone 50kN
Seismic CPT	Wiscon-APB Seismic Module Wiscon-APB Offshore Seismic Source (S&P Waves)
Push Sampling	IDS Multi-tool BHA for continuous or spot PQ coring
Rock Sampling	QDTech "Alien" Rock Corer
Pressuremeter	(Optional) Cambridge In-Situ Reaming Pressuremeter

Onboard Laboratory

- Triple Beam Balance
- U1/F 53 litres Universal Drying Oven
- Liquid limit cone penetrometer with fall cone
- Pocket torvane set & Durham Geo Pocket Penetrometer
- Motorized laboratory vane apparatus
- UU Triaxial tester
- TriSCAN standard load frame
- Triaxial cell for 75mm specimen up to 3500kPa

Deep Push Seabed CPT (Optional)

Model	Geomil MANTA-200
Weight	5 to 28 tons
Thrust Capacity	Up to 200kN
Max. Push Depth	>40m bsb
Depth Rating	500m WD
Penetration Speed	0-45mm/s
Retraction Speed	0-80mm/s
Cones	5, 10 & 15cm ²
Cone Type	Subtraction Cone
Parameters	Cone Resistance Sleeve Friction Pore Pressure Inclination
Deployment	Moonpool

Deep Push Seabed CPT (Optional)

Model	Datem Neptune 5000
Weight	3 tons
Trust Capacity	Up to 35kN
Max. Push Depth	18m bsb
Depth Rating	3,000m WD
Penetration Speed	20mm/s
Retraction Speed	50mm/s
Cones	5, 10cm ² & T-Bar Cone
Frame Sensors	Altimeter & Tilt
Cone Type	Subtraction Cone
Parameters	Tip Resistance Sleeve Friction Pore Pressure Inclination
Options	Magnetometer Cone Thermal Conductivity Cone



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