



↓ **MAIN FEATURES**

Our HSOV is future-proof with a strong build and deliver strategy, using a high quality PSV platform together with designed-for-purpose accommodation modules, walk-2-work system and a daughter craft.

With modern, comfortable, hotel standard accommodation there are up to 100 personnel with 25 single and 25 double cabins. Boardrooms and a range of offices to accommodate the work environment. The wellness and downtime facilities will enhance the OTs work capability and wellbeing whilst providing the highest level of comfort.

The W2W system combined with the daughter craft will avoid restrictions in OTs working capability by allowing them to access many turbines at the same time, therefore maximizing operability.

Using contemporary low or carbon-free fuels, the HSOV Castle range are fully up to date Hybrid SOVs.

- **Vessel Details**

DP2, 850m², 4000te dwt

- **Accommodation**

High quality comfortable rooms for up to 100 personnel incl PSV accommodation

- **Access**

W2W system and 1 daughter Craft are crucial to a robust access strategy.

- **Power and Propulsion**

Methanol, Ammonia, Battery Storage ready.



HSOV Specification

DP2 Diesel Electric Hybrid

Length	78.7 m
Beam	16.00 m
Draft (max)	5.8 m
Depth	7.0 m
Speed	14.5 knots
Deadweight:	3266 tonnes
Deck Cargo:	1450 tonnes
Deck Area:	700 m ²
DP	DP2
Propulsion	2 x 1470 kW e-motors 1200rpm 2 x 1470 kW Azimuth thrusters
Main Machinery	Diesel Electric Hybrid Methanol & ammonia ready
Bow Thruster:	2 x 590 kW





ACCOMMODATION

75 Single Occupancy and High Quality Offshore Living

25 x 1-man cabins

25 x 2-man cabins

Theatre

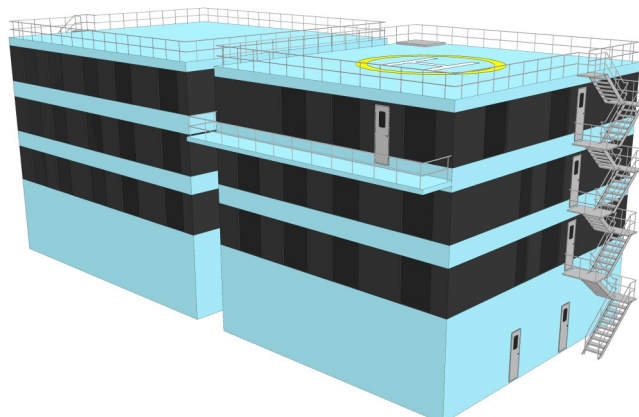
Lounge/Café System break out room

50-seater restaurant

Gym and wellness centre

Sauna and relax area

Office spaces and 2 boardroom





ACCESS

W2W

A fully integrated walk-to-work system is part of the modularised solution. A W2W system enables developers to improve on operability by allowing OTs to safely access the tower and turbine in greater sea states than a traditional CTV.

The selected W2W system is important, in that the OTs must have the ability to safely access the tower with a “no-step” solution, allowing the efficient transfer of tools and equipment.

ACCESS

Daughter Craft

When sea states allow, turbine access rates are further increased by the utilisation of a daughter craft. This vessel is a light and fast CTV which allows OTs to be transferred from the HSOV to a further turbine tower, while the HSOV is also attending the current tower.

Incorporating a daughter craft into the service allows the OT managers to further develop the attendance strategy by prioritising appropriate work to either daughter craft or W2W.





HYBRID

Diesel Electric Hybrid

Working every day on decarbonising the world's power supply means that the SOV fleet must also be decarbonised. As a transition solution, battery-hybrid propulsion fits that need well: The main propulsion diesel engines give enough range for transits to and from the site, and stored battery power is used for station-keeping and idling, saving fuel and reducing wear and tear while idling or operating under low power demand.

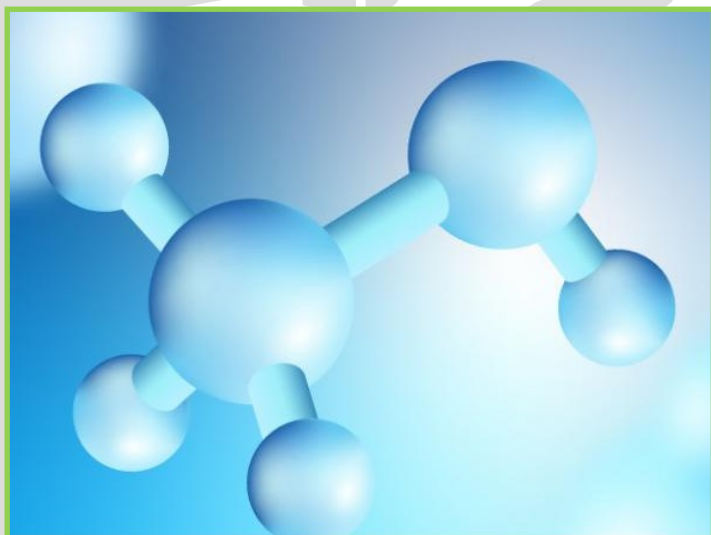


LOW CARBON

Methanol

While methanol is a carbon based molecule, if it is produced as green methanol or e-methanol, it is considered carbon neutral in terms of well to wake emissions.

Furthermore, ethanol can be readily burned in standard diesel combustion engines with only minor modifications, which makes methanol an attractive short to medium term choice for propulsion.



ZERO CARBON

Ammonia

An easily transported fuel which exists in a liquid state at ambient conditions and when produced using renewable energy, ammonia becomes "green ammonia," a zero-carbon fuel from production to use.

- Zero carbon: Ammonia is NH_3 , thus has zero-carbon status as a fuel
- Widely and freely available
- Already has a well developed global trade and storage infrastructure





OPERATIONS OPTIONS

ROV/Drone Operations

An Inspection ROV will be kept onboard for emergency subsea inspections.

Air Drone Operations will be available for emergency inspection or HSE situations.

Diver operations can be included if requested.

Deck area capacity to carry up to 6 x 20' containers.



Vessel

Builder:	Nam Cheong Dockyard S/B
Year Built:	2015
Port of Registry:	Port Kelang
Flag:	Malaysia
Class:	DNV ✕1A1 Fire Fighter(I) BIS BWM(T) Supply Vessel Clean (Design) COMF(C-3, V-3) DK (+) DYNPOS(AUTR) E0 HL(2.8) LFL (*) NAUT(OSV(A)) OILREC SF

Dimensions

L.O.A.:	78.70m
Beam:	16.00m
Depth:	7.00m
Draft (Max):	5.80m
GRT:	3129
NRT:	984

Performance

Speed:	14.5 knots
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Cargo Capacities

Deadweight:	3266 Tonnes
Deck Cargo:	1450 Tonnes
Deck Loading:	5 Tonnes/m ²
Deck Area:	700 m ²
Fresh Water:	465 m ³
Drill/Bal Water:	1386 m ³ / 1599 m ³
Fuel Oil:	884 m ³
Base Oil:	160 m ³
Mud:	818 m ³
Brine:	818 m ³
Methanol:	135 m ³
Dry Bulk:	251 m ³
Recovery Oil:	1101 m ³

Propulsion & Power Plant

Propellers:	2x 1470KW Azimuth Thrusters
Bow Thruster:	2x 590KW, 10T Thrust each
Propulsion Motor:	2x 1470KW 1200 rpm, 440V3Ph60Hz
Main Generator:	4x 994KW, 440V3Ph60Hz
Emerg Generator:	1x 99KW, 440V3Ph60Hz

Deck Machinery

Tugger Winch:	2x 10 Tonnes SWL
Capstan:	2x 9 Tonnes SWL
Provision Crane:	1x 3 Tonnes SWL @ 16 m radius

Accommodation

1 Man Cabins:	8x 1 (8)
2 Man Cabins:	8x 2 (16)
4 Man Cabins:	1x 4 (4)
Total:	28 berths
Hospital:	1 berth

Navigation Equipment

Radars, Magnetic Compass, Gyro Compasses, DGPSs, AIS, Autopilot, Echo Sounder, Speed Log, Navtex, Weather Fax, SSAS, BNWAS, (ECDIS)



Cargo Handling Capacity

Fresh Water:	1x 150 m ³ /hr @ 90 m head
Drill Water:	1x 150 m ³ /hr @ 90 m head
Fuel Oil:	1x 170 m ³ /hr @ 90 m head
Base Oil:	1x 100 m ³ /hr @ 90 m head
Mud:	2x 100 m ³ /hr @ 180 m head
Brine:	1x 75 m ³ /hr @ 180 m head
Methanol:	2x 80 m ³ /hr @ 90 m head
Dry Bulk:	2x 22.8 m ³ /min @ 5.6 bar

Fire Fighting Equipment

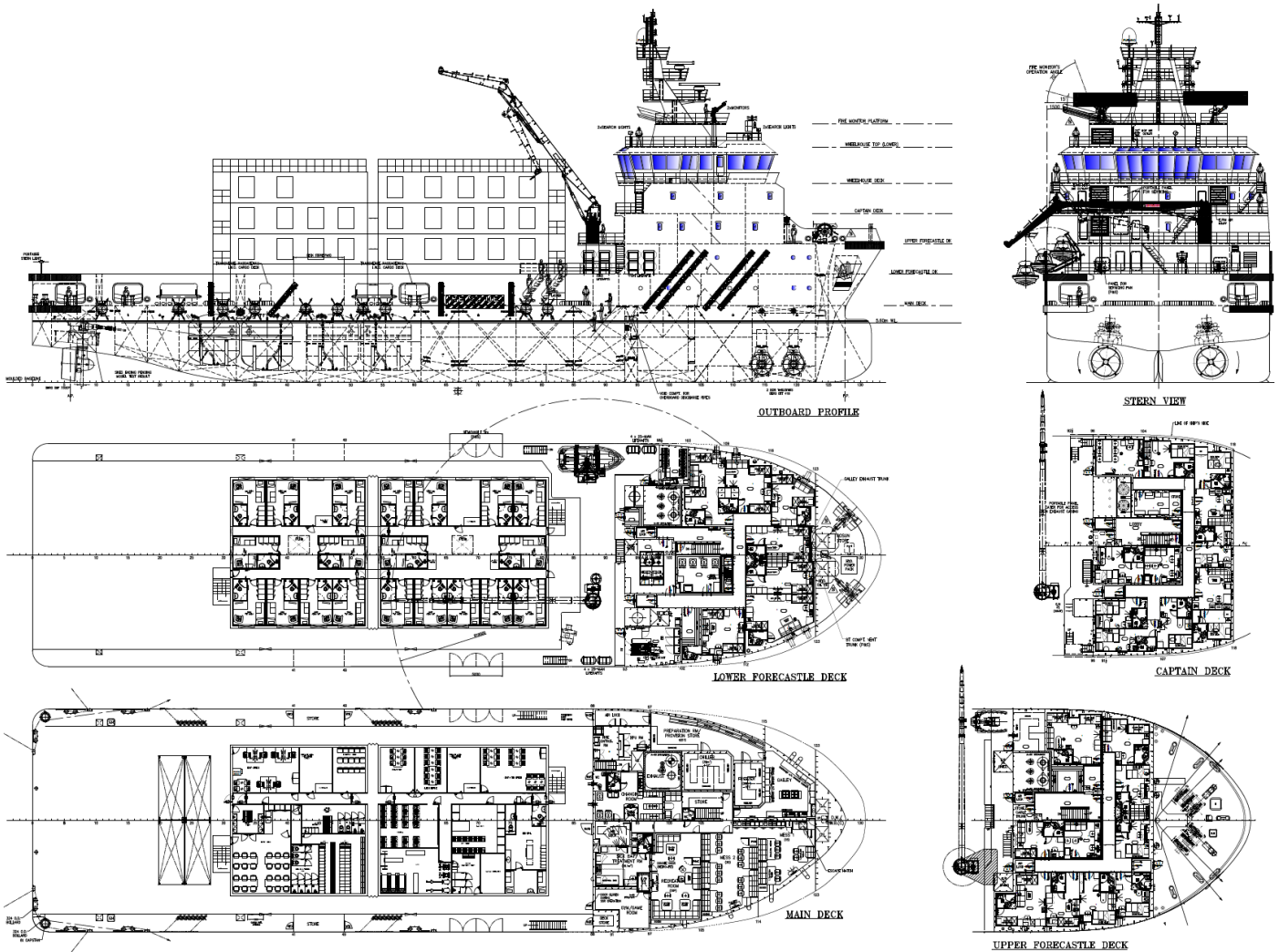
Pump:	2x 1600 m ³ /hr @ 135m
External FiFi:	Monitor: 2x 1200 m ³ /hr (water)
Oil Dispersant:	2x 6m spray booms with nozzles

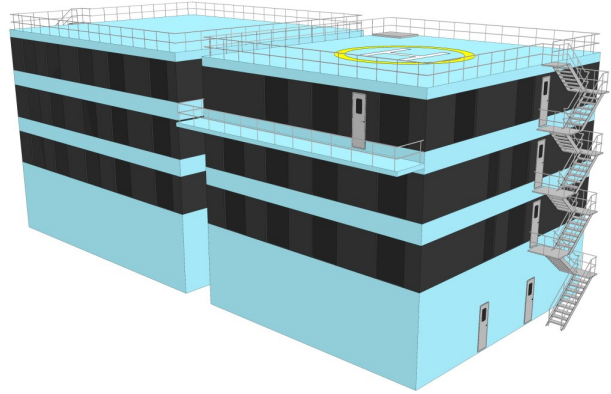
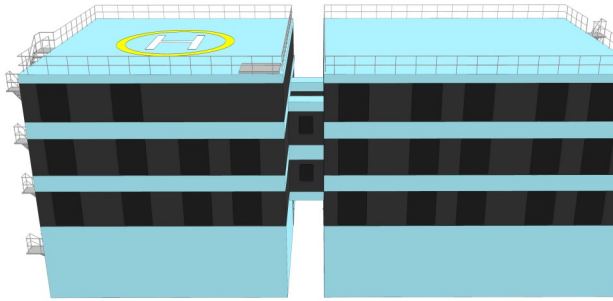
Safety Equipment

Rescue Boat:	1x 6 man Rescue Boat
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Communication Equipment

GMDSS A1+A2+A3, VSAT







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