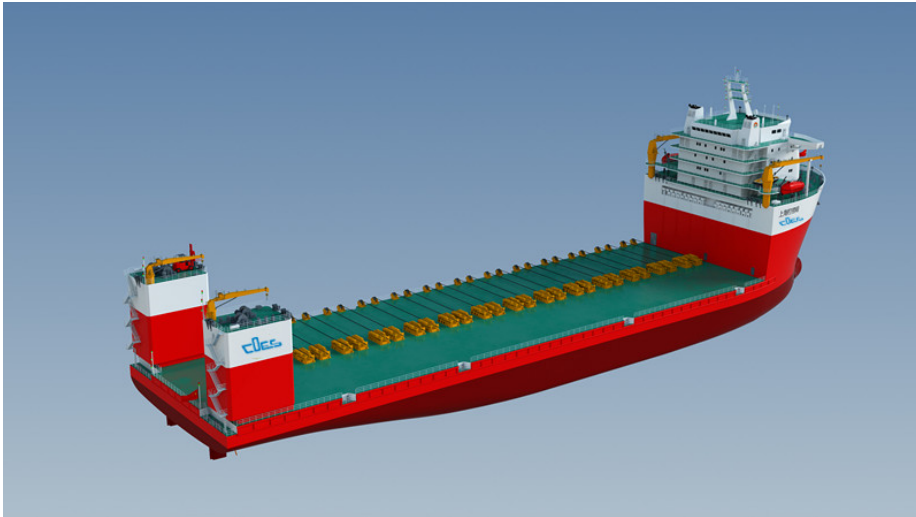


## *Semi-Submersible Heavy Lift Vessel - Features and Specifications-*



## ➤ Two New Semi-Submersible Heavy Lift Vessel—Introduction

*DP Class 2, Heavy Lift Vessel with 26,000t deadweight capacity and 12,000t lifting capacity for worldwide operations*



### *Key features for each vessel:*

- Deck area: 5,300m<sup>2</sup>.
- Deadweight: 26,000t.
- DP2 System with two stern tunnel thrusters and two bow tunnel thrusters.
- Designed Speed: ≥ 14knots

### *Salvage operations:*

- Lifting capacity for each vessel: 12,000t
- Total lifting capacity when two vessels working in pairs: 24,000t





## ➤ Two New Semi-Submersible Heavy Lift Vessel—Specifications

### *Main Dimensions*

Length overall:	169.00m
Breadth moulded:	39.80m
Depth moulded:	10.90m
Design draught:	7.50m
Summer full load draught:	7.90m
Submersible draught	21.40m
Water over deck, submerged	10.50m

### *Capability*

Endurance	15000n.mile
Duration	60Day
Accommodation	59p
Gross ton:	26000
Displacement:	43300t
Deadweight::	26000t

### *Working Deck*

Deck area:	5300m <sup>2</sup>
Deck load:	25t/m <sup>2</sup>
Line load bulkheads:	250t/m

### *Tank Capacity*

Fuel oil:	3700m <sup>3</sup>
LS Fuel oil:	400m <sup>3</sup>
Fresh water:	360m <sup>3</sup>
Drinking water	210m <sup>3</sup>
Ballast tanks:	57000m <sup>3</sup>

### *Speed*

Designed Speed:	14.0knots
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### *DP System*

DP2 system at Sig. wave height 2m, current 2knot and wind speed 13.8m/s

### *Generator*

Main generator sets:	4×4200kW
Harbor generator set:	1×760kW
Emergency generator set:	1×375kW

### *Propelling*

Main thruster	2×5500kW
Bow Tunnel thruster:	2×2400kW
Stern Tunnel thruster:	2×2400kW

### *Ballast System*

Four main ballast pump	4*3400m <sup>3</sup> /h
Three stripping pump	3*500m <sup>3</sup> /h
Two ballast treatment	2*500m <sup>3</sup> /h



## ➤ Two New Semi-Submersible Heavy Lift Vessel—Class Notations

★*CSA Salvage Ship, Semi-Submersible Heavy Lift Vessel, SPS, FTP, PSPC (B) , In-Water Survey, Ice Class B, GPR, Loading Computer (S,I,D) , Clean, Crew Accommodation(MLC), ERS*

★*CSM AUTO-0, BWMP, BWMS, DP-2, Electrical Propulsion System ;*





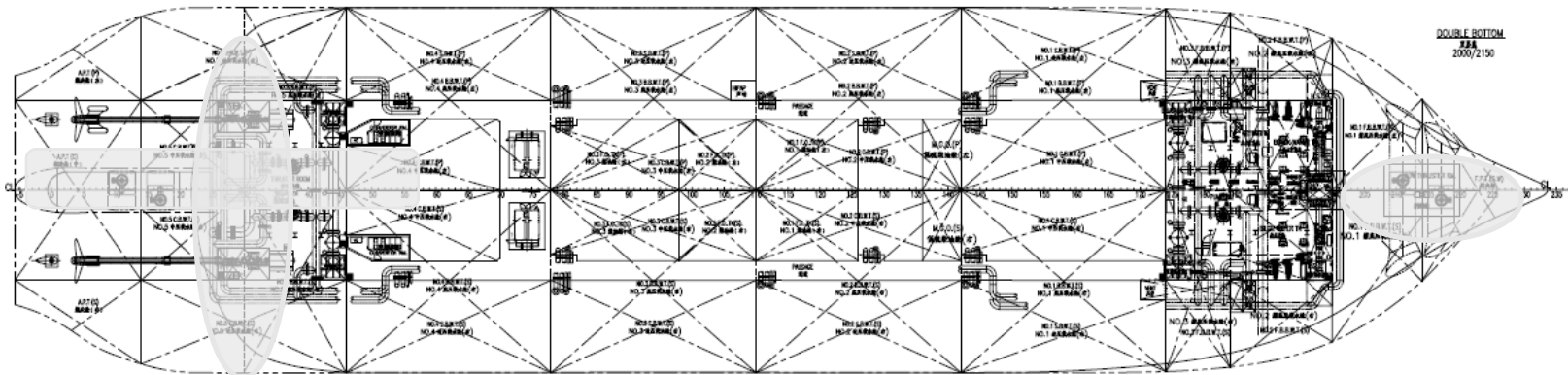
## ➤ Two New Semi-Submersible Heavy Lift Vessel– Power and Propulsion System

### *Power Generators 18,000kW*

- Four(4) 4,200kW-Main
- One (1) 760kW-Harbor
- One (1) 375kW-Emergency

### *Propelling*

- Propellers 2\*5500 kw
- Four (4) Tunnel Thrusters 4\*2,400 kW



*All thrusters be designed to operated on DP-2 model and be operated and monitored remotely from DP control console.*

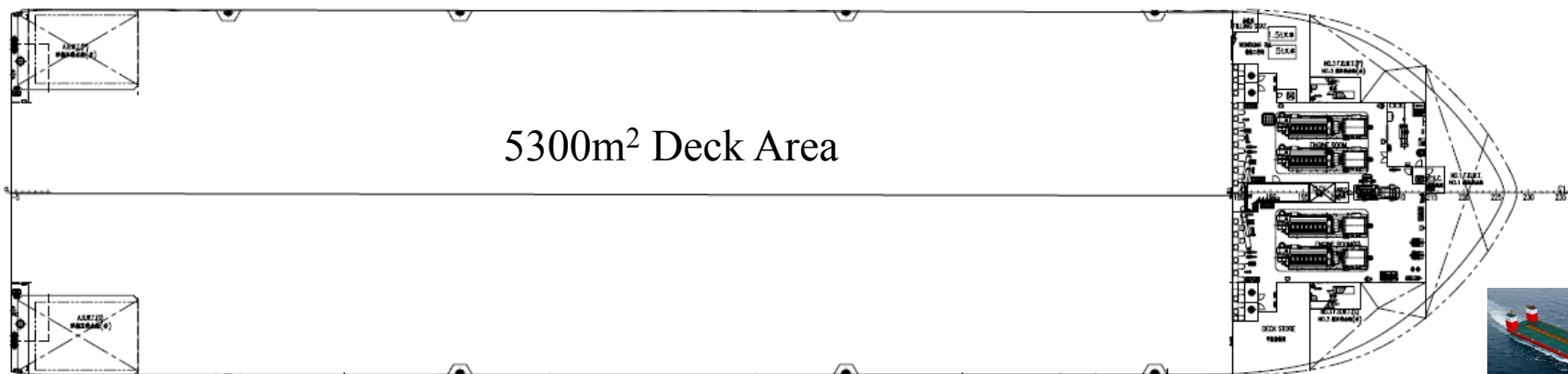




## ➤ Two New Semi-Submersible Heavy Lift Vessel– Working conditions

### ❑ *Heavy Cargo Transportation*

- Both semi-submersible heavy lift vessels are designed for carrying the large cargos up to **26,000t**, such as TLP's topsides, cranes, bridge sections and also other floating or non-floating structures.
- In order to create maximum free deck area, the aft buoyancy casings can be removed and positioned anywhere on the deck, to provide maximum flexibility of the deck arrangement.



## ➤ Two New Semi-Submersible Heavy Lift Vessel– Working conditions

### ❑ *Submerged: Float-on & Float-off Services*

- Both vessels are designed with submersible draught of 21.4m, which is 10.5m height water over deck when submerged.
- Allowing large floating cargoes such as other vessels to be floated over the submerged portion of the vessel which then de-ballasts and surfaces under the cargo. After the vessel is full afloat, the cargo is secured for transport. Float-off is the reversed process of float-on.

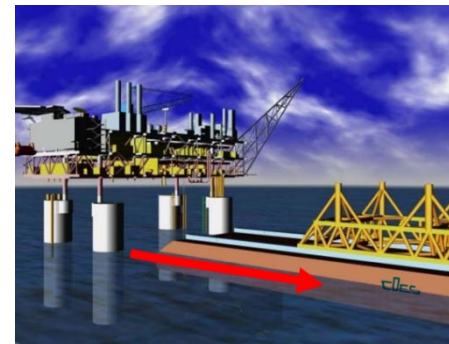
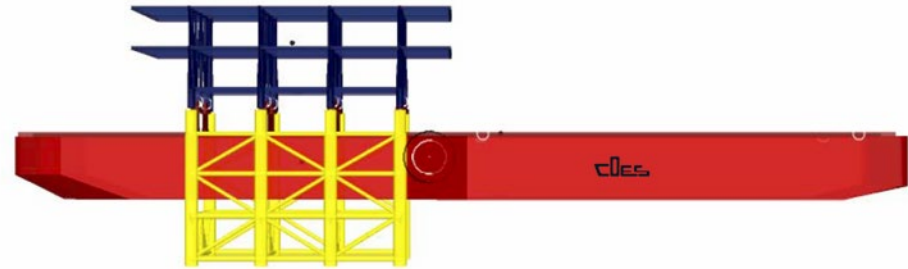




## ➤ Two New Semi-Submersible Heavy Lift Vessel– Working conditions

### □ *Float-over Installation and Decommissioning*

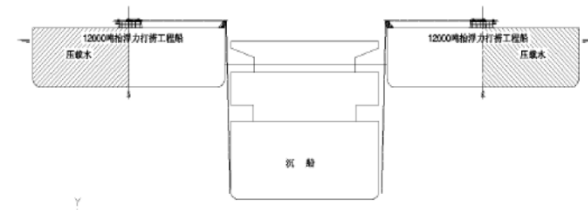
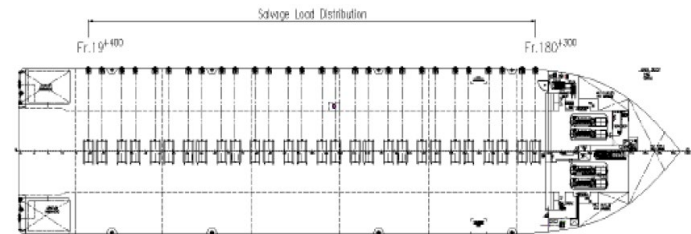
- Capable of float-over installation or decommissioning of the large platform topsides as a single integrated package without the use of a heavy lift crane vessel.
- Float-over technique can be applied for topside installation or removal of both fixed and floating platforms.



## ➤ Two New Semi-Submersible Heavy Lift Vessel– Working conditions

### ❑ *Salvage Lifting Operations*

- For each vessel, there are 28 linear winches located at the central line of the ship in the salvage lifting operation. Each winch with pulling capacity of 450t and is equipped with steel wire rope and a horizontal to vertical guide roller located at the side of the vessel.
- The total lifting capacity of each vessel during salvage operation is **12,000t** and when two vessels working in pairs, the total lifting capacity is **24,000t**.



## ➤ Two New Semi-Submersible Heavy Lift Vessel– Design Criteria

### **(1) Unrestricted Transit**

- Significant wave height 6.0m
- Surface current velocity 1.03m/s
- Wind velocity <51.5 m/s

### **(2) DP Working Condition**

- Significant wave height 2.0m
- Surface current velocity 2knots
- Wind velocity <13.8m/s

### **(3) Mooring Working condition**

- Max. water depth 100m
- Significant wave height <2.0m
- Surface current velocity 3knots
- Wind velocity <13.8m/s

### **(4) Submerged Working Condition**

- Significant wave height <2.0m
- Surface current velocity 2knots
- Wind velocity < Beaufort Scale 6



*Thank you for your attention!*

Q & A