

FLOAT RAISER

Semi-submersible spud barge

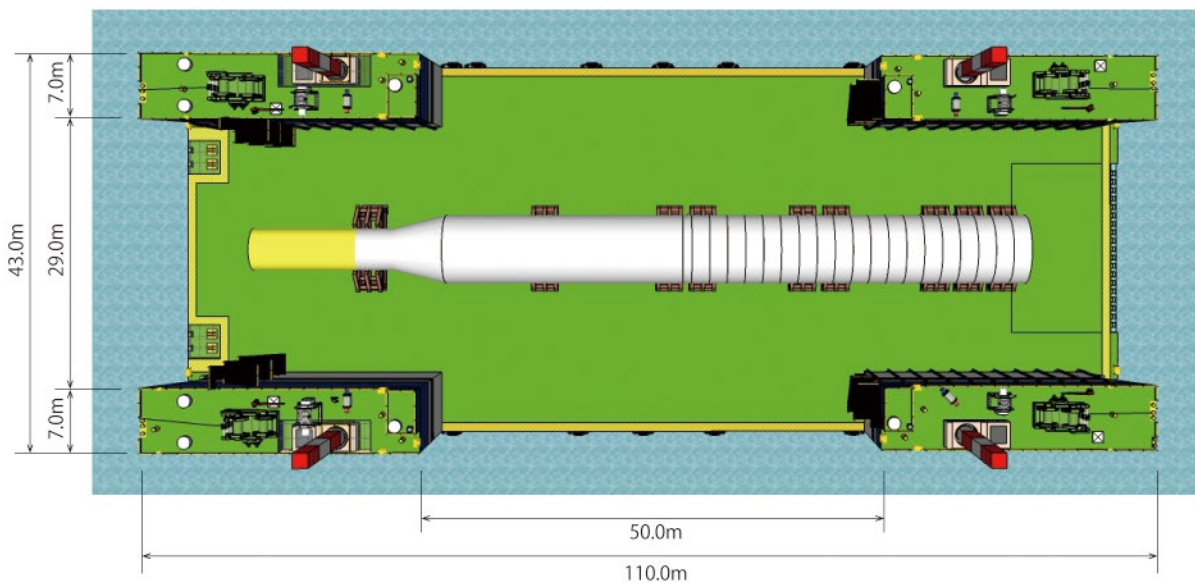


Overview of FLOAT RAISER

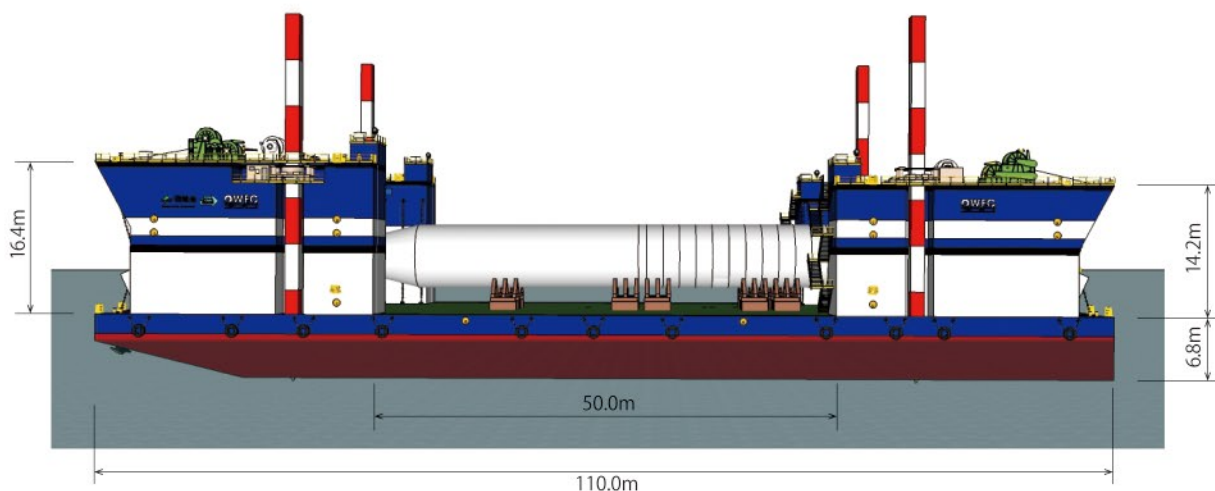
This barge is constructed to establish a low-carbon and efficient method to promote the offshore wind turbine which has the largest potential for introducing renewable energy in Japan and to reduce greenhouse gas emissions under the support of the Cost Reduction and Promotion Project of the Low Carbon Type Floating Offshore Wind Turbine led by the Ministry of the Environment from FY 2016 to FY2018.

Characteristic of FLOAT RAISER

- It is possible to load the hybrid spar for floating offshore wind turbine built on shore could be loaded (Roll-On) with multi-axial dolly while adjusting the barge condition by the ballast, and float it off under semi-submersible condition at offshore.
- It is also applicable to launch heavy structures such as caisson which built at a quay, and also applicable not only for installation of floating offshore wind turbines but also for bottom fixed offshore wind turbines.
- It can be loaded (Roll-On) both from longitudinal and lateral of the barge and can handle heavy structures up to approx. 5,000t
- It is possible to submerge at 7.4m height from deck with trim



Plan view
image of loading floater for 2MW wind turbine on the deck



Side view

Construction of semi-submersible spud barge



01 Hull part construction



02 Island part construction



03 Launching



04 Spud installation



05 Submerging test



06 Completion

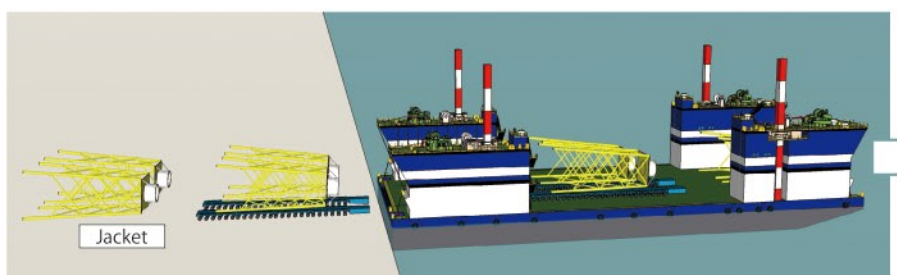
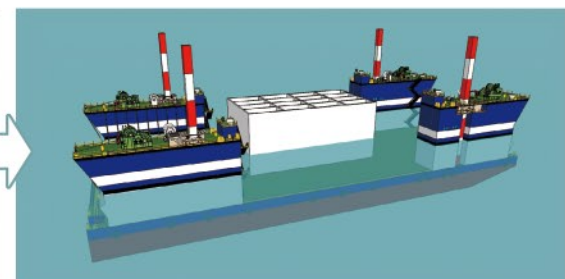
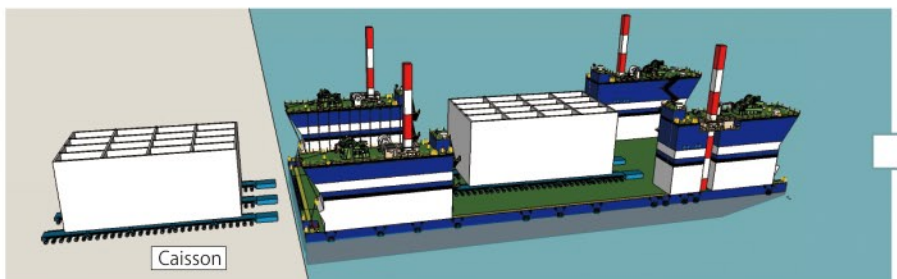
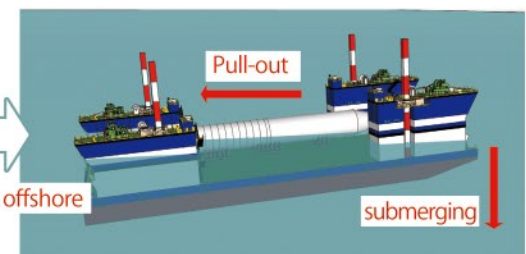
Procedure of Roll-On and Float-Off

In addition to installation of the hybrid spar floating body, this barge can utilize for Roll-On and Float-Off of conventional spar, caisson, jacket and work boat.

■ Roll-On



■ Float-Off



Principle Particulars

Name of barge : FLOAT RAISER

FLFLOAT RAISER means the ship that upends (raises) floater.

Dimensions : Length:110.0m Breadth:43.0m Depth:6.8m Gross tonnage:12,300T

Island : FORE:27.0~31.0m Breadth:7.0m Height:16.4m

AFT:25.0~29.0m Breadth:7.0m Height:14.2m

Deck area : Approx. 3,890 m²

Dead weight : Approx. 13,500 t

Submerging 1.2~6.7 m/h (Ballast pump:2,000m³/h ×4 units, electric motor driven)

capability : Spud:40.0m (1.5m×1.5m square) ×4 units

Mooring facilities : Anchor:7t stockless × 4units

Wire cable × 4 sets (50t type winch)

× 4 sets (25t type winch)

Generator : Main generator 750kW × 2 units, Auxiliary generator 160kW × 1 unit

Company overview

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