Wind Installation Vessel (WIV)

Maersk WIV

Maersk Supply Service has designed and commissioned a first-of-its-kind Wind Installation Vessel (WIV) that will make the installation of bottom-fixed offshore wind turbines up to 30% faster than the conventional jack-up method.
Developed inhouse, this innovative new methodology will see the WIV stationed permanently at a windfarm to carry out successive installations, while tugs and barges ferry the turbine components out to the installation site. These will be delivered to the WIV using a patented load transfer system that will enable safe transfer of cargo.
The key to efficiency lies in fact that the Wind Installation Vessel stays on-site for assembly, while only the tugs and barges shuttle back and forth with the turbine components. There are four steps to the new methodology: (1) Barge docks at our new on-location Wind Installation Vessel; (2) Locking system engages to stabilise the barge; (3) Tray with turbine components is elevated off the barge and locking system retracts, releasing the barge; (4) Tower, nacelle and blades are assembled using a standard method.

Key Features:

- Bespoke offshore feeding jack-up: Purpose-built barges designed to fit with the WIV
- Jones Act approved concept
- 180m lifting height above the deck, designed to install 20 MW+ WTGs
- 1900t @35,8m leg encircling crane with a lattice boom
- All main engines Tier III compliant and can be operated on biofuels

MAERSK SUPPLY SERVICE

TECHNICAL SPECIFICATIONS

General

Delivery	2025
Shipbuilder	Seatrium Singapore
Ship design	Seatrium
IMO	9972309
Call sign	02A02
Engine builder	HiMSEN
Flag	Danish
Class	ABS
Class notation	✠A1 SELF ELEVATING UNIT, ✠AMS, ✠ACCU ✠DPS-2, HELIDK, CRC(HC, OC-PL), OHCM, Wind IMR, UWILD, E
Notation	IHM; Comply with DNV : CLEAN DESIGN & COMF V(2) & C(2); Green Passport EU (Recycling); Compliance – Hongkong convention for ship recycling; EU (SRR)

Dimensions

Overall length	145,0 m (without Heli Deck)
Breadth	83,2m
Moulded depth	11,0m (main hull)
Max. Draft	6,5m (hull) / 13,5m (appendage)

Main Engines & Propulsion

Main generators	Diesel electric,6 pcs @ 4.300 KW
Main propulsion	6 pcs Azimuth thrusters – 4.500 kW 2 pcs Tunnel thrusters – 900 kW, DP2
Dynamic positioning	DP2
Max speed	7 knots
Emissions	Imo tier III, LP-SCR

Jacking System 6 Deck

System (NOV)	Rack & Pinion, VFD
Max elev. weight	47.335t (jacking), 80.000 t (holding)
Deck	4.000m2 + 875m2 in cargo frame
Leg length incl. spudcan	118m; max. 87,5m /b hull; 80,0m /b appen.
Spud cans	4 @ 315 m2
Max. Spudcan load	75 t/m2
Cargo Deck	4.000m2
Max. Variable deck load	12.000t
Max. Deck load	7,5 t/m2

Crane

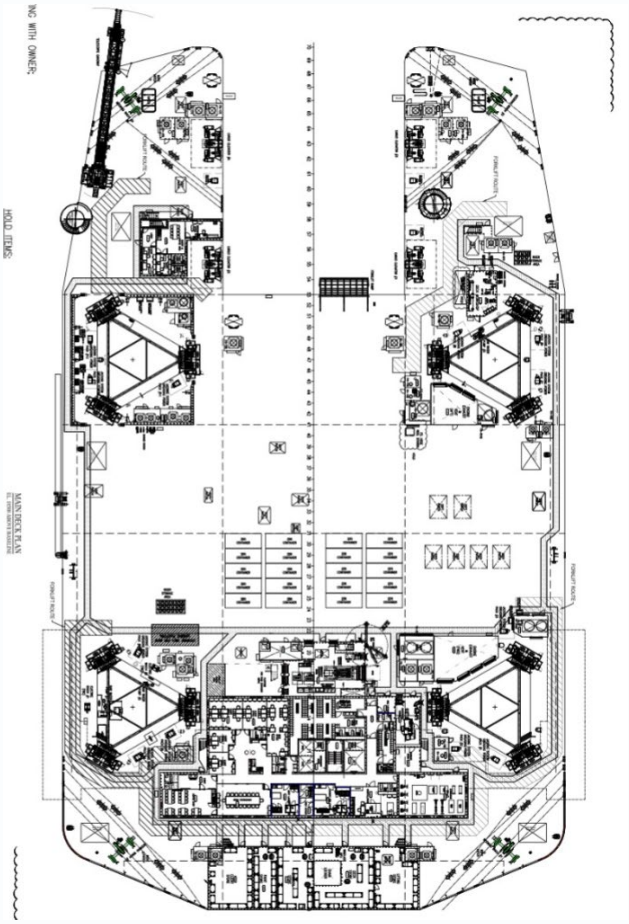
Make	NOV
Capacity	1.900t
Lifting Height above deck	180m
Radius at max. capacity	35,8m
Whip hoist (above deck)	300t@190m
Aux cranes (#3)	2x25mt@40m, 1x15mt@55m

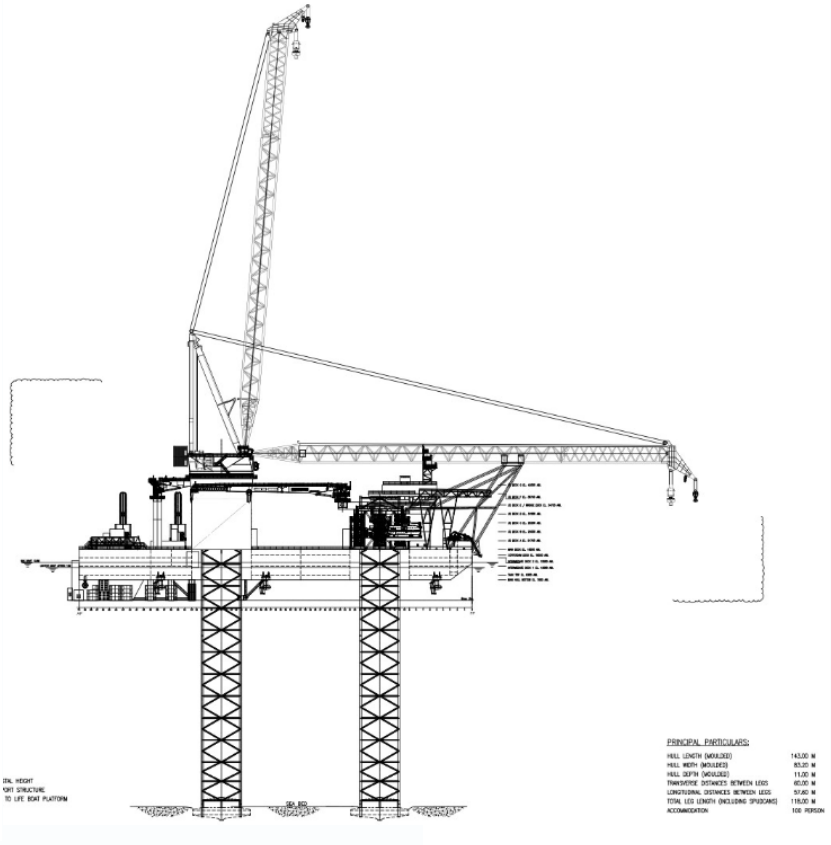
Cargo pushdown/Elevation system

Max. Cargo weight for elevator:	5.000t (3.000t payload)
Push-down of barge:	2m (normal operation)
Total pushdown capacity	9.200t active / 14.400t passive
# jacking pistons	4

Accommodation & Access

POB	100 single cabins
Office	5 client office, 24 pax in 2 conference rooms
Heli Deck	Yes
Walk-to-work	40m gangway (self-deployed)





*All figures and data believed to be correct, but not guaranteed
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