

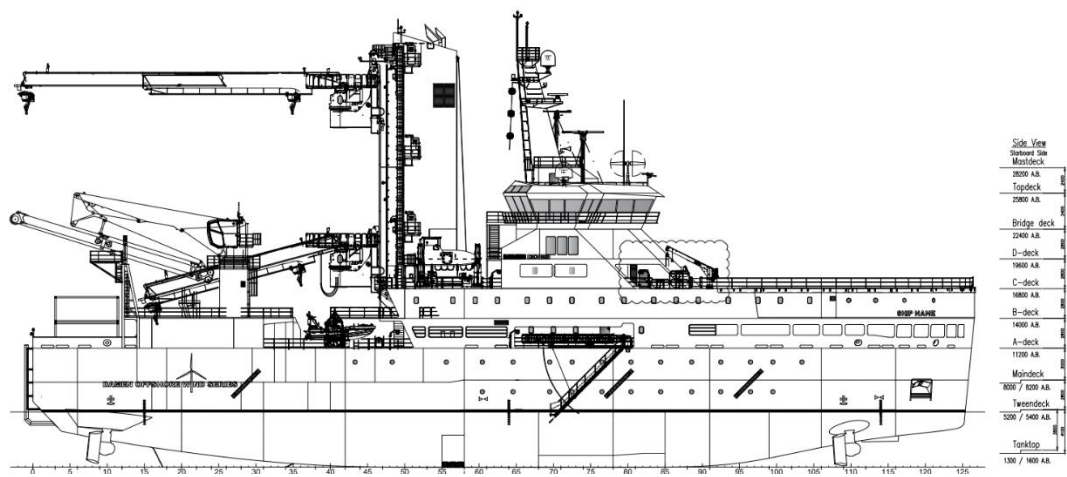
TECHNICAL SPECIFICATION

TSS Challenger



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MAIN PARTICULARS

Name	TSS Challenger (Delivery December 2026)
Ship Type	Construction Service Operation Vessel (CSOV)
Shipyard	Damen (Ha Long, Vietnam)
Flag State	Taiwan
Classification Society & Notation(s)	CR100X E OSV, NR-I, IWS, DPS-II, LCS, Fuel Ready-I, Walk-to-Work, SEEMP, SRE CMS(CAU)X CLB, SCR DNV X1A Offshore Service Vessel, Strengthened(DK), E0, Battery(Power), DYNPOS(AUTR), WALK-2-WORK, CRANE, COMF(V-2, C-2), ER(SCR), Clean (Tier III), BIS, Fuel ready(LFL, Tc, P, MEc), LCS

VESSEL DIMENSIONS

Length Over All (LOA)	88 m
Beam Over All	19.7 m
Draught	5.4 m
Gross Tonnage	6700 t

PROPULSION SYSTEM

Power Generation	1x 2390 kW MGO generator & 2 x 1670 kW MGO generators.
Battery	1x 1700 kW, 700 kWhr for spinning reserve and power- backup. The battery allows for optimal engine loading.
Propulsion	4x 1800 kW azimuth thrusters in Damen's DPX-DRIVE arrangement for optimal maneuvering.

MISSION EQUIPMENT

Motion Compensated Gangway	<p>SMST 3D MCG 30m length, mounted on a tower with integrated elevator. Vertical motions are electrically driven with regeneration. The gangway is able to work on both sides of the vessel, adjustable to a working height of 15m to 30m above sea level.</p> <p>Gangway includes cargo hoist to allow for 3D motion compensated hoisting operations, SWL 3 ton.</p> <p>Electric power cable, to supply power to an offshore structure. The power cable terminates in a 3x 440V, 32 A socket at the gangway tip.</p> <p>Refueling system with fuel supply line terminated at the gangway tip to transfer fuel from vessel to an offshore structure.</p>
Motion Compensated Offshore Crane	SMST 3D MCC offshore crane. SWL 10 ton MCC at Moderate Sea State; SWL 20 ton in harbor.
Boat Landing Facilities	Boat landing at stern with height-adjustable platform and walkway, adjustable between 1m and 4m above service waterline, providing direct access into warehouse without the need for fall arrestors.

ACCOMMODATION

Cabins	Accommodation for up to 120 pax in 90 cabins. Single & double cabins available. Noise, Vibration and indoor climate meets DNV Comfort Class V-2, C-2.
Recreation	Entertainment systems with variety of choices available at public areas and cabins. Cinemas, Games Rooms, Large Gymnasium, Mess Room, cafe area and chillout room.

CLIENT FACILITIES

Offices Meeting Rooms	<p>2 offices & ample desk space. Large windows providing a proper view on operations on the aft deck.</p> <p>1 x meeting room next to clients offices. 1 x Large Conference Room (Cinema) to accommodate 30 people</p> <p>1 x Storekeeper office next to warehouse</p> <p>Briefing area close to changing rooms and equipped with flat screen TV.</p>
Change Rooms	<p>Men changing room with 60 lockers for separate storage of working clothes. Toilet and showering facilities next to men change rooms. A separate female changing room with toilet facility.</p>
Drying facilities	<p>A room next to change rooms with drying capacity for 80 persons for rinsing/drying/handling harnesses and other PPE equipment.</p>

STORAGE AREA

Containers	<p>Maximum storage capacity of 14 x 20' ISO containers at weather deck and 5x 20' ISO containers at warehouse.</p>
IMDG Store	<p>An IMDG store room at weather deck for storage of packaged dangerous goods.</p>
Humidity control room	<p>A climate controlled room at warehouse with dehumidifier to ensure a relative humidity around 40%.</p>
Weather deck space	<p>550 m2 at wooden deck area</p>
Warehouse space	<p>500 m2 open space at warehouse area with adjustable shelves and containers handling system</p>

DECARBON

Hybrid battery	Battery pack which allows to have fewer diesel engines running simultaneously, also while operating in DP-2 mode.
Methanol	The vessel can be converted for green methanol as a fuel in the future. Tanks, cofferdams, fuel preparation spaces and ventilation ducts are already provided to allow for a future retrofit which can be performed without major reconstructions to the Vessel.
Harbour Generator	1x 800 kW MGO generator is provided so that the main generators can be switched off while in port or at sea during loitering with a low power demand.

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