

First PSV of ten-ship series delivered

SHIPYARD DE HOOP | The first platform supply vessel (PSV) in a ten-ship series, ordered in 2013 by Esnaad, a wholly owned subsidiary of the Abu Dhabi National Oil Company (ADNOC), was recently delivered from Shipyard De Hoop. Built at the yard's facilities in Foxhol, the Netherlands, the 70.4m-long and 15.8m-wide *Esnaad 221* has a deadweight of 2,050 tonnes.

The Esnaad series of vessels are designed to operate at maximum efficiency and optimised costs with a minimised ecological footprint, the shipyard said. An optimised bow to reduce wave resistance is one of the features, it added.

Most of the vessels' hull volume is dedicated to a large number of high-capacity tanks for various dry bulk and liquid cargoes such as brine, cargo fuel oil, drilling water and liquid mud. In the forward hull, where the fuel oil, fresh water, sewage, sludge and bilge wa-



The *Esnaad 221* is the first PSV in a series of ten

ter tanks are integrated, foam and dispersant tanks for fire-fighting and oil spill rescue actions are also installed. In addition to the liquid cargo, the PSV will transport cargo on its 515m² deck, which permits large quantities of various offshore requisites of up to 5t/m². For loading and unloading duties, a fully hydraulic telescopic boom-type crane, with a lift capacity of 15 tonnes at 2.5m or

0.5 tonne at 25m outreach, is fitted to the starboard side.

External fire-fighting tasks can be performed with two remotely controlled monitors on the top deck, capable of spraying a water/foam mixture. Furthermore, the PSV is fitted with two 6m spray booms, enabling the crew to apply dispersant to the water surface in case of an oil spill.

In close consultation with the yard, ADNOC said it had opted

for diesel-electric propulsion to achieve enhanced flexibility along with economical and environmental superiority. The three main generators, feeding the diesel-electric propulsion units and other consumers, are located below deck, in the fore ship underneath the superstructure. This was done to accommodate the preferred generators with the relatively large medium-speed engines. The propulsion components comprise three tunnel bow and two azimuthing stern thrusters, allowing a transit speed of 13.5 knots.

The superstructure offers accommodation for 28 people, all in cabins with en-suite bathrooms, individually controlled air treatment units, radio, television and Internet access.

Production of the ten vessels is equally split between the shipyard's two Dutch facilities, in Lobith and Foxhol, and the last PSV is to be handed over in 2017.

Comprehensive propulsion system for TSHDs

MAN | The two trailing suction hopper dredgers (TSHDs) ordered by Rotterdam-based dredging and marine contractor Van Oord earlier this year

will be equipped with complete MAN Diesel & Turbo propulsion packages. They will comprise

- › MAN 6L48/60CR engines,

- › Renk gearboxes with PTO,
- › MAN Alpha CP propeller systems,
- › AHT (Alpha High Thrust) propeller nozzles,
- › MAN Alpha AT 3000 propulsion-control systems.

The vessels will be constructed at CNN LaNaval Shipyard in Sestao, Spain, with deliveries scheduled for 2017. The order is part of Van Oord's continuous investment programme.

The new dredgers will have a hopper capacity of approximately 17,000m³, a length of 158m and beam of 36m. They will be equipped with two

suction pipes with submerged e-driven dredge pumps, two shore-discharge dredge pumps, six bottom doors and a total installed power of 23,680 kW. The newbuildings will each have accommodation for 38 persons. Special attention was paid to the energy efficiency of the vessels. The design includes several aspects that result in substantial reductions in fuel consumption and consequently a fall in CO₂ emissions. The vessels will be equipped with innovative and sustainable systems and will both obtain a Green Passport and Clean Ship notation.



Graphical rendering of the new trailing suction hopper dredger

Source: Van Oord