Damen leading the way on Lean Ships

PHOTO: DAMEN SHIPYARDS

Damen CNG tug concept

Damen Shipyards is coordinating a new European innovation project called Lean Ships, short for Low Energy And Near To Zero Emissions Ships, which aims to put innovations in the field of emissions reduction into practice by building eight demonstrator cases.

The company relished the chance to spearhead a 'hands on' project involving real prototypes, says Damen's Pieter Huyskens, responsible for the coordination of the project.'Innovation projects usually have a research-based format, but Lean Ships is about realising possibly viable solutions.'

'The target market is small and mid-sized vessels for the intra-European market, which is a perfect fit for us,' he continues. 'The timing is also great because we already had plans to develop a Compressed Natural Gas (CNG) driven harbour tug.'

The CNG tug is one of eight concrete demonstrators. Others are for example the retrofit of a shortsea vessel for SECA compliance, the development of a more efficient LNG-carrier and the design of efficient energy systems for passenger and cruise ships.

'Not all projects will necessarily be realised within the scope of this project', Huyskens says. 'In that case the pre-study will result in a 'Go' or 'No Go' decision.' Already an original 31 proposals have been whittled down to just eight.

Lean Ships is an EU project which runs for four years, with funding of €17m divided between the shortlisted eight different demonstrator cases. In all some 46 companies and bodies from 12 different member states are participating.

Damen is leading development of the CNG-driven tug, along with vessel operator Svitzer and engine manufacturer MTU.

'One of the challenges with direct gas driven tugs,' says Huyskens, 'is that gas engines traditionally do not have the strong power build-up of a diesel engine, but when towing ships such power is crucial. To overcome this challenge MTU has engineered a completely new gas engine. It will be the first high speed gas engine for marine application and will have the characteristics of a diesel engine but with a much lower level of pollution.'

CNG requires larger and more pressurised tanks than LNG but LNG propulsion was not selected because harbour tugs 'are often on standby' and with LNG you would have too much boil-off or fuel lost to evaporation, he concludes. 'Besides, the fuel system for CNG is much less complex.'

The aim is to start building the tug in 2016. Once finished in the first quarter of 2017 it will be operated by Svitzer and be tested for a full year.

De Hoop PSVs for Abu Dhabi

Dutch builder Shipyard De Hoop, which recently celebrated its 125th anniversary, successfully launched the second in a series of ten 70mtr Platform Supply Vessels for Abu Dhabi National Oil Company in early July. The first vessel had completed sea trials the previous month, and at presstime was awaiting delivery in late July.

The vessels will be operated by ADNOC subsidiary ESNAAD and are described by the yard as a true 'design of the future', meeting 'highest international class notations' for both operations and the environment. Construction of the series is being split between De Hoop yards in Lobith and Foxhol, with final deliveries slated for 2017.

The ADNOC vessels represent an evolution of previous De Hoop PSV designs and feature a 515sq mtr main deck, which can be used for work-cum-cargo operations and accommodate loads up to five tons per sq mtr. The below deck space between engine and thruster rooms is given over to large number of liquid cargo tanks.

Besides carrying out supply duties, the versatile design of the PSVs will allow them to be used in other roles such as emergency towing and other standby services as well as firefighting.

Firefighting ability

PTR Holland offers Marine Steel products made-to-measure

PTR Holland Group is best known as a supplier of diversified equipment for protection of life and property at sea, including pilot boarding ladders with associated clamping system, gangway and accommodation ladders, cargo and safety nets, anti-piracy equipment and transfer baskets – both its own Pegasus system and as European stockiest for Billy Pugh Co (BPC).

Based at Europort in Rotterdam, with other major centres in Singapore, the UK (Newcastle) and China (Qingdao), the group has 30 years' experience and a stocklist of some 11,000 different products in all.

The company is also at pains to point out that its Marine Steel unit in Rotterdam can supply steel raw materials or custom-made products, all produced to order in its own workshop, according to a client specifications.

'We strive to fully understand customers' requirements… and do whatever is necessary to fulfill their orders,' the company states, customers being 'an integral and important part' of the group's business.