

Innovative ship design and firm expansion plans

One thing the Danes will never be able to compete with the Chinese on is the cost of labour. So naval architect firm Knud E Hansen does not even try. Instead, it focuses its expertise on ship design projects that are often highly innovative.

By Andrew Draper

The Copenhagen-based firm is keenly involved in all aspects of design, including engineering, energy optimisation as well as research and development. Managing Director Finn Wollesen Petersen says the company usually manages 20-30 ship designs a year. "If two or three of them are realised, it's good business," he says. Much of the work is doing feasibility studies for shipowners, who are the typical customers. "We're very big in doing feasibility studies and conceptual design," he says.

Although Knud E Hansen often provides a basic design that is then handed over to a shipyard by the client for realisation, the company does sometimes work on a design throughout its duration to the end. In such cases, it works with partners in Croatia and

Northern Ireland, where wages are lower than in Scandinavia.

Knud E Hansen has worked on every type of ship there is, apart from submarines. They range from standard bulk carriers to passenger vessels, special purpose and offshore vessels. The most exotic have included a wind-powered vessel as part of an EU-funded

project and a luxury yacht for Saddam Hussein, the former Iraqi leader. Knud E Hansen works closely with nearby Force Technology. It designs the vessels and Force tests models of them in its tanks for stability and other considerations.

"Owners often come to us with an idea about something," says Wollesen Petersen. "It might be a new ferry route or they may have a customer that needs chemicals transported from A to B...From start to finish with designing and building a cruise ship for example, it takes five years. Ferries might take from a half to two years."

The blossoming wind energy industry is also generating business. Knud E Hansen designed a wind turbine installation vessel (TIV) for Blue Ocean Ship that is capable of lifting 1,200-tonne turbines into place. The offshore sector, a major industry in the North Sea, provides a second leg for the company to stand on. It currently derives 10% of its sales here.

Knud E Hansen was founded in 1937 and employs naval architects, engineers, navigators and technical assistants. It is embarking on a period of rapid growth after a new investor came in 18 months ago: Mogens Larsen of Southampton, England.

Recently the company opened an office in London, where it employs six people. This has proven a great success, says Wollesen Petersen. "The next step is Greece, and then we'll open in northern Germany - Hamburg or Rostock." A director has already been appointed for Germany and the Greece office is due to open in October 2008. The first staff out of 5-10 have been hired already. Miami is on the drawing board in order to tackle the cruise industry.

What are the main challenges facing a specialised company like Knud E Hansen? "It's probably to improve project management," Wollesen Petersen replies. "That's where the money is, managing projects better. If you drive your processes better you get a better flow and design."

He says the company plans to expand to 50-60 employees in the next 18 months. The new recruits will be engineers with project management experience. At the end of the year, Knud E Hansen will move to bigger offices in Elsinore, north of Copenhagen.