

Trawler designs target safety, efficiency and economy



Challenge is a 65m-long NVC 329 design trawler

Four recent pelagic trawlers highlight Rolls-Royce as being a leader in designing and equipping fishing vessels

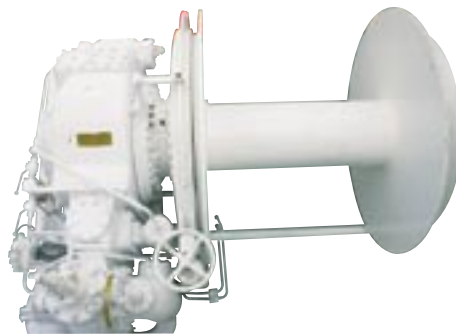
To date, 116 NVC-Design fishing vessels are either in service or on order. New designs are continually being developed to meet owners' specific needs and among noteworthy vessels to go into service recently are four pelagic trawlers.

Key requirements were safe working conditions, and good speed characteristics, fuel consumption and seakeeping

Challenge is a 65m-long vessel to the NVC 329 design, optimised for pelagic trawling, primarily herring and mackerel, and equipped with two separate trawl slipways, two main trawl winches rated at 80 tonnes each and refrigerated sea water tanks to hold the catch. *Challenge* was built in Spain for its Scottish owners, Klondyke Fishing Co.

"Safe working conditions, good speed characteristics, reduced fuel consumption and excellent sea keeping were among the owner's key requirements," says Monrad Hide in the Rolls-Royce NVC-Design office. "*Challenge* provides these and has a top speed of about 17.5 knots and the high economic transit speed of 14-15 knots."

Rolls-Royce developed the design, tank-tested the hull to confirm calculations and supplied a comprehensive systems package. Included in this is the Bergen PVM-12 main engine producing 5,100kW, propeller, rudder, steering gear and bow and stern tunnel thrusters. Apart from the main trawl winches, *Challenge* is equipped with a full set of Rauma Brattvaag 64 bar hydraulic deck machinery.



Hydraulic deck machinery working at 65 bar has been specified for a number of fishing vessels

Two Irish owners are now operating recently delivered identical vessels built to the NVC 321 design. They are working together pair-trawling initially for mackerel. Although they are to the same design one vessel, named *Pacelli*, was built in Norway by Larsnes Mek Verksted for Mullglen Limited while *Olgarry* was built for Noel McGing in The Netherlands. Fractionally over 40m long, the hulls are ice-strengthened and the catch is carried in six refrigerated seawater tanks.

Once again, a good balance of speed, fuel consumption and seakeeping have been combined with optimal trawling efficiency in a safe working platform for the crew of up to 10 people.

Hydraulic deck machinery working at 65 bar pressure has now been specified for a number of fishing vessels. The first to take the equipment to sea was the trawler *Kvalskjaer* built in Norway for Rederiet Kvalskjaer AS. This 53m-long NVC-Design boat can carry out both pelagic and bottom trawling. The increased operating pressure of the hydraulic system allows compact and powerful direct driven winches to be made with extremely sensitive control. Weight is substantially reduced, by about 25 per cent, and installation is greatly simplified because pipes are smaller in diameter and can be assembled without welding, reducing commissioning time.

The Irish trawler *Pacelli* was built in Norway to an NVC 321 design

