



The quietness of electric deck machinery is appreciated on passenger ships

Electric deck machinery benefits tankers and passenger ships

Growing appreciation of Rauma Brattvaag AC-electric deck machinery from Rolls-Royce served by frequency converter systems is underlined by recent projects in cargo and passenger shipping sectors.

Two products tankers – *Purha* and *Jurmo* – commissioned from the Jinling Shipyard in China for Fortum Shipping of Finland represent a valuable reference for electric mooring/anchor handling systems in oil carriers. The proven safety, efficiency and reliability of Rolls-Royce electric deck machinery are complemented by its suitability for Arctic and very low temperature conditions, and its environmental friendliness (there is no hydraulic oil on deck, apart from a small amount in the remote-controlled anchor lowering system).

Another merit of electric deck machinery – its quietness – will be appreciated in the mooring/anchor-handling systems of prestigious passenger tonnage under construction at Finnish yards. Due for handover to Birka Line in autumn 2004 by Aker Finnyards, the 1,800-passenger *Birka Paradise* will feature Rolls-Royce frequency-controlled stepless drive deck gear comprising two combined mooring winch/windlasses and four auto-tension mooring winches. Rauma Brattvaag deck machinery has served the company's *Birka Princess* since delivery in 1985.

A similar but more powerful Rolls-Royce package is specified for the world's largest cruise ferry, a 74,600gt/2,770-passenger vessel building at Kvaerner Masa-Yards for operation on Color Line's Oslo-Kiel service from end-2004.

February 2004 sees the handover from Kvaerner Masa-Yards of *Carnival Miracle*, the sixth in a cruise ship series commissioned for Carnival group companies. All are equipped with Rauma Brattvaag frequency converter-controlled deck machinery outfits embracing two combined anchoring and mooring winches, two chain stoppers and five mooring winches.

Mooring system secures world's largest Spar

A powerful 'on-vessel mooring system' from Rolls-Royce will serve the Holstein Truss Spar in BP's Gulf of Mexico deepwater At water Basin Development, enabling the facility to be moved around its central position over the seabed well locations at any time.

With a diameter of 45.5m and a height of 227m (plus production, drilling and accommodation facilities on top), the world's largest Spar is moored in a water depth of 1,300m. The mooring system and fairleads are required to haul in and pay out the platform chain during mooring hook-up, to change the position of the Spar for drilling and well completion operations, and to shift the position of the link in the fairleads.

A 16-leg taut chain-wire-chain mooring system is specified, calling for 16 individual chain jacks, stoppers and turn-down sheave assemblies; each chain link has a length of 1.025m and weighs 400kg. An associated electro-hydraulic power unit with three independent hydraulic pumps was also supplied and installed on the open deck on top of the hull.

The 16 underwater rotary, pocketed whelp-type fairleads are designed for platform chain and a similarly-sized messenger chain, and to allow the passage of a special installation connector with the same main dimensions as the common chain link.

One of 16 chain jacks for 171mm chain with turn down sheave

