



HARSTAD: New coastguard vessel for management roles

Builder's name.....Aker Brattvåg, Søviknes
 Designer.....Rolls-Royce Marine, Ulsteinvik, Norway
 Design type.....UT 512
 Vessel's name.....KV Harstad
 Owner/Operator.....Remøy Shipping/Norwegian Coastguard
 Country.....Norway
 Flag.....Norway
 Total number of sister ships already completed.....0
 Total number of sister ships still on order.....0
 Contract date.....September 2003
 Delivery date.....February 2005

A new Norwegian Coastguard multi-role vessel *Harstad*, built by Aker's Søviknes yard, in western Norway, based on steelwork from Aker Tulcea in Romania was designed by Rolls-Royce. The vessel is owned by Remøy Shipping, which operates it on long term charter to Kystvakten.

Harstad undertakes a variety of coastguard and EEZ (Exclusive Economic Zone) management roles. These include offshore standby and rescue, firefighting, salvage, general law enforcement operations, and fishery control. One important duty is pollution prevention. There is concern over the rapidly increasing oil tanker traffic from Russian ports along the coastline of northern Norway, with the risk of a disabled vessel grounding and causing an oil spill. *Harstad* is therefore fitted for emergency towing of tankers up to about 200,000dwt and spill clean-up. The vessel will be manned, as are other Norwegian coastguard vessels, by a combined military and civilian crew.

A new Rolls-Royce design, the 83m long UT512, was developed to meet the challenging requirements. A bollard pull of about 110tonnes is combined with a speed of about 18.5knots to enable the vessel to reach the scene of an incident quickly and then tow a stricken vessel to safety.

Operation along the full length of Norway's coastline and throughout the country's exclusive economic zone will involve much time spent in the Barent's Sea, so ICE 1B class has been specified, along with anti-icing measures such as heated shelters for the two MOB/boarding boats.

For towing and emergency work, this UT 512 design has TUG notation and includes an optimally located towing winch, a reinforced pushbow, FiFi 1 firefighting

capability, a hospital, and extensive equipment including line throwing gear, a harpoon system for attaching the tow wire to stricken vessels, oil spill booms and skimmers, and 1000m³ of tankage for recovered oil. For its patrol boat role it has a foredeck mounted gun and it is equipped with fast rescue/boarding boats and a full military and civilian communications system.

As well as the design, Rolls-Royce has provided a complete package of equipment. The main propulsion engines will be two 8-cylinder Bergen B32:40L diesels, each developing 4000kW, turning Kamewa Ulstein CP propellers in nozzles. Independent Tenford steering gears operate the high lift rudders, and there are two electrically driven thrusters at the bow. One is a 736kW Kamewa Ulstein tunnel thruster and the other is an Ulstein Aquamaster swing-up azimuth thruster rated at 883kW. Fire pumps are driven from the main engines through power take-offs.

A Rauma Brattvaag deck machinery package has been specified, comprising a main low pressure hydraulic towing winch with a 50tonne pull and 250tonne brake holding load, anchor windlass, capstan, and tugger winch. Towing pins and a hydraulic deck crane are also provided.

This coastguard vessel is the first to be fitted with the new Rolls-Royce Poscon2 DP system (AUTS notation), and it has a full UMAS automation system.

Accommodation is provided for up to 35 people in single and twin berth cabins with full facilities. The superstructure is placed near amidships to reduce motions, and *Harstad* is also equipped with a passive roll reduction system.

PRINCIPAL PARTICULARS

Length, oa.....83m
 Length, bp.....70.9m
 Breadth moulded.....15.5m
 Depth, moulded.....7.2m
 Gross tonnage.....approx 3120tonnes
 Max draught.....6m
 Bollard pull.....110tonnes
 Design, deadweight.....1500tonnes
 Speed, service.....16knots
 Max speed.....18.5knots
 Classification Society and Notations.....Det Norske Veritas +1A1, E0, Ice 1B, TUG, ORO, DYNPOS AUTS, FIF1, CLEAN

Main engines
 Make.....Bergen
 Model.....B:32:40L8P
 Number.....2
 Output of each engine.....4000kW
 Gearboxes
 Make.....Ulstein, Rolls-Royce
 Model.....1500 AGHC
 Number.....2
 Output speed.....205rev/min
 Propellers
 Material.....Br
 Manufacturer.....Kamewa Ulstein, Rolls-Royce
 Number.....2
 Pitch.....Controllable
 Speed.....205rev/min
 Open or nozzled.....Nozzled
 Alternators
 Number.....2
 Make/type.....Shaft alt PTO/PTI 1800kW
 Speed of each set.....1800rev/min
 Bow tunnel thruster
 Make.....Kamewa Ulstein, Rolls-Royce
 Number.....1
 Output of each.....736kW
 Bow swing up Azimuth thruster
 Make.....Ulstein Aquamaster, Rolls-Royce
 Number.....1
 Output of each.....883kW
 Deck machinery.....1 windlass, 1 tugger winch, 2 capstan, shark jaw/towing pins, 1 towing winch, supplied by Rauma Brattvaag/Rolls-Royce; 1 deck crane 5tonne-15m
 Bridge electronics
 Engine monitoring/fire detection system.....UMAS
 Rolls-Royce
 Complement
 Crew.....26
 Number of cabins.....21
 Other significant or special items of equipment.....1000m³ recovered oil ORO; push bow arrangement; prepared for installing Nato submarine rescue system

