



Designed & built in Norway for France

Abeille Bourbon is the first of two identical protection vessels for the French Coast designed and equipped by Rolls-Royce. These multi-purpose UT 515 vessels will be operated by Les Abeilles International of Groupe Bourbon on long term charter to the French Navy. The ship was built by Myklebust Verft (part of the Kleven Maritime Group) on the west coast of Norway, and the hull was fabricated in Poland. The second vessel is scheduled for delivery late 2005.

The ships will be stationed at Brest and Cherbourg. For more than 25 years coast protection has been provided by two well-known ocean-going salvage tugs, *Abeille Flandres* and *Abeille Languedoc*, of type UT 507, which were designed and built in Ulsteinvik, Norway, in 1978 and 1979 respectively. These old tugs have successfully undertaken many difficult rescue operations over the years and will remain in service, moving to other locations.

The UT 515 design was developed to meet a tough set of requirements imposed by the

owner. The vessels are multi-purpose salvage, coastguard and standby vessels. Among their principal roles will be assistance to vessels at sea, deep sea towing, salvage of vessels in distress, fire and flooding control and anti-pollution activity. On trials, a bollard pull of just over 200 tonnes was achieved, together with a speed of 19.8 knots at maximum continuous engine rating.

Measuring 80.0m long, with a beam of 16.5m and a service draught of around 6.0m, each vessel is powered by four MaK 8M32C main engines, developing a total of 8,000kW. Two Kamewa Ulstein CP propellers in nozzles are driven via Renk combining gearboxes with power take-offs for the two 2,400kVA shaft generators. Additional electrical power is provided by three 662 kVA diesel driven generators and 204 kVA emergency set.

For steering and manoeuvring there are two Rolls-Royce classic rudders with independent Tenfjord steering gear. Two Kamewa Ulstein TT 2200 tunnel thrusters are located at the bow, each rated at 883kW.

OWNER
Groupe Bourbon, France.

BUILDER
Myklebust Verft, Norway.

DESIGNER
Rolls-Royce, Norway (UT 515).

DIMENSIONS

Length overall	80.00m
Beam	16.50m
Draft	6.00m

MAIN ENGINES
Four MaK 8M32C engines, each developing 2,000kW.

PROPULSION
Two Rolls-Royce Kamewa propellers via Renk TISO gearboxes.

PERFORMANCE

Bollard pull	200 tonnes
Maximum speed	19.8 knots

EQUIPMENT
Rolls-Royce winches.

There are two smaller tunnel thrusters type TT1650 of 515kW located in the skeg aft. The system is controlled and monitored by a UMAS V system.

The main towing winch is a Rauma Brattvaag two drum hydraulic unit. It has a 250-tonne pull on the first layer and can hold 500 tonnes on the brake. Each winch drum can hold 1600m of 80mm wire rope. Two low pressure hydraulic motors power the winch and each of these has three chambers. By altering the number of motors and chambers under pressure, the line hauling and paying out speeds can be varied within wide limits.

Winch wires are led over a towing arch across the aft deck and below the arch is a deck house containing four powered rope reels. Towing pins and shark jaws are located on the stern bulwarks, which are rounded over to give a clean lead for the tow wires. Also located on the aft deck are two Rauma Brattvaag capstans and a tugger winch. Up to 300 tonnes of cargo or equipment can be carried on the aft deck, which has an area of 350m². A Hydramarine deck crane rated at 23t/11m serves the working area aft and there is another crane of the same make further forward for handling stores and provision.

External fire-fighting to FiFi II standard is provided. There are three monitors on the upper platform, two of which can handle

foam. A total of 7,200m³/h of water can be supplied by two Kvaerner fire-fighting pumps driven by Kumera step-up gears from the forward end of the two inner engines.

Accommodation caters for a total of 25 people spread over four decks. At main deck level are the crew and officers' messes and a hospital with a four berth sick bay. On A-deck is the recreation room, a block of two and four berth cabins and the salvage operations control room. On B-deck above are single berth cabins with facilities and at C-deck level are the suites for the master and chief engineer, the officers' lounge and the ship's office.

The wheelhouse is arranged to suit various operations. A forward facing console has a single chair moving side to side on rails. To starboard is a free standing console mainly dedicated to safety systems and communications. The aft control station overlooking the working deck has three consoles with two chairs sliding fore and aft on rails between them. Manoeuvring controls are additionally available at stations on each bridge wing.

Large store spaces for salvage equipment are provided either side of the main winch house, in the forward end of the aft deckhouse and in the hold. Two 20ft equipment containers can also be located on deck, one on

either side of the hatch. A selection of rescue craft is carried including two MOB boats of the Springer 741 design beneath single point Hydramarine davits.

Currently under construction, sistership, *Abeille Liberté*, will arrive in Cherbourg during the course of this summer (2005).

Groupe Bourbon has specified UT-Design vessels for many years. As far back as 1982, three type UT 711 anchor-handlers were built in France for SURF. The Bourbon offshore fleet includes vessels designed and equipped by Rolls-Royce that meet different roles worldwide. Examples are the two powerful UT 721 anchor-handling tugs/supply vessels, *Ulysse* and *Luzolo*, active off west Africa. Variants of the multi-functional UT 722 design include the first two of this kind to be built in Brazilian shipyards for the Bourbon joint venture, Delba.

Altogether eight offshore service vessels of UT-Design have been built at French shipyards for Groupe Bourbon, and deliveries in recent years have comprised four ships from Chantiers Piriou and one from CMN. The group has also invested in the latest PSV designs, in the shape of four UT 745E diesel electric units. There are 32 UT-Designs in the Bourbon fleet and other vessels are under construction.