

## TUG DELIVERIES

# Four terminal escorts for French owner

Dubai-based Grandweld, part of the GMMOS Group, has successfully delivered *Bourbon Yack* – the lead vessel of four Robert Allan Ltd designed escort tugs for Bourbon Supply Investissements, France. This first of the RAstar 3800 Class will be followed by *Bourbon Ox*, *Bourbon Auroch* and *Bourbon Bison*, later this year.

These vessels are high-performance ASD terminal escort tugs, designed for handling oil and LNG tankers at exposed terminals. In addition, they have emergency response and fire-fighting capabilities. They are classed by Bureau Veritas for UMS, FiFi1 and unrestricted navigation.

Measuring 38.00m x 14.5m with a draft of 4.65m, the tugs are powered by two Mak 9M25 engines, each developing 2970kW at 750 rev/min. These turn Schottel type SRP 3030CP Rudderpropellers. To enhance manoeuvrability, there is a tunnel thruster at the bow from Thrustmaster of Texas Inc.

The vessel achieves a minimum of 100 tonnes bollard pull and 13.5 knots free-running speed.

Auxiliary power is provided by a pair of Cummins 250kW gen sets and these and the main engines are cooled by NRF boxcoolers. The Kvaerner fire-fighting pumps, each delivering 1630m<sup>3</sup>/hr, are driven off both main engines via Kumera Norgear step-up gearboxes.

Between the engine room and thruster room is a large workshop area, whilst steps forward lead up to the lower accommodation



deck. This is separated from the machinery by a lobby, the silent/control room, with a sophisticated MAX II machinery alarm and control system from the Canadian Techsol concern, and the HVAC equipment room.

On this level there are four twin berth crew cabins, one of which has en-suite facilities, two communal toilet/shower rooms, a laundry and what is described as a watch room – a small mess with refrigerator, TV and sink.

The captain and chief engineer each have en-suite single cabins on main deck on the starboard side opposite the galley and mess/lounge. There is an additional head on this level with easy access from the decks.

A full walk-round boat deck gives access to the emergency generator compartment in the void beneath the raised wheelhouse. An extension aft

supports the davit launched rescue boat which is a 6-person capacity Zodiac.

The wheelhouse has control consoles either side of tracked chairs both fore and aft. The electronics fit-out includes two Manta digital radars from Kelvin Hughes, a Navitron autopilot, Kodon GPS and plotter, Furuno AIS and weatherfax, JRC sounder and Sailor Fleetbroadband 500 and GMDSS system.

MacGregor Plimsoll supplied the deck machinery, which includes a 250-ton brake holding split drum unit forward, a 150-ton brake holding unit aft and a 120-ton SWL towing hook. There are tow pins ahead of the stern roller and a Palfinger knuckle boom deck crane, capacity 7.5 tons at 7.7m, is located to starboard of the main winch whilst a 5-ton tugger winch is to port. The aft

deck is wood clad and has a 100 ton cargo carrying capacity.

According to Mike Fitzpatrick, RAL's vice president, projects, one of the advantages of being a custom design shop is that it is always possible to come up with variations to optimally meet an owners requirements.

"In this case, the tug started out as a RAstar 3600 but Bourbon's request for additional power and tank capacity drove us up to the 38m length, he explained." These include 316m<sup>3</sup> of fuel oil, 109m<sup>3</sup> of freshwater and 135m<sup>3</sup> of water ballast.

The addition of this size to the Class range seems fully warranted because, according to Fitzpatrick, in addition to the four being built at Grandweld, there are also two under construction for Bakri Navigation/Saudi Aramco at NGV Tech in Malaysia, the first of which is just about to go on trials.