

The earth moves for seismic support vessel

Turkish builder Cemre Shipyard delivered *Ocean Dolphin* to marine services company Norfield on 8 August, the contractual delivery date. It is the first of two seismic support vessels (SSV) ordered by Norfield, and will be operated by sister company Vestland Offshore.

The Salt 0046 design, BV-classed SSV is 69.8m in length and 17m in width, with a draft of 4.5m. The vessel has a heavy fuel oil/marine diesel oil cargo capacity of 2,000m³, and a working deck area of 500m². The deck load capacity is 1,000 tons, with a total area of approximately 500m². Other tank storage includes 100m³ for freshwater, 24m³ for slop, 65m³ for greywater, 9m³ for sludge and 2 x 25m³ for bilge water settling. An antiroll tank is positioned aft below the bridge.

The diesel-electric SSV is powered by four Yanmar 6EY22LW engines, delivering 1,080kW at 720 rev/min. A Scania generator is capable of providing 200kW of emergency power. Main propulsion is supplied by two Berg controllable pitch propellers operating in nozzles, plus a ZF 600kW azimuth thruster. *Ocean Dolphin*'s design speed is 13.5 knots, with a bollard pull of 55 tonnes.

As befitting its intended role, the SSV contains a variety of seismic equipment: six gun winches, six gun arrays, eight auxiliary winches, two seismic compressors, two superwide winches and wide tow arrangement, two Barovane lifting and storing systems, and a streamer reel with spooler. On deck is an ABAS



offshore crane with a lift capacity of 12 tonnes @10m outreach, or 10 tonnes @ 17m outreach.

Much of the bridge equipment, including the Navtex, radar, AIS and radio is supplied by Furuno. The full vessel classification is *1A1, Ice 1B, Clean Design, Comf V3/C3 E0, SF, BWM-T, dk(+), LFL*, TMON, RP SPS 2008.

Total accommodation capacity is for 60 people. There are two client cabins, four officer cabins and 18 crew cabins, all with enclosed WC/shower. Additional facilities

include a hospital, office, day room, mess room, TV room and gymnasium, all outfitted to offshore standards. The first deck also houses a seismic instrument room and a seismic workshop.

Ocean Dolphin is the 38th vessel delivered by Cemre Shipyard, which is based at a 70,000m² facility in the Altinova-Yalova region of Turkey. The company has a long track record in building PSVs and other specialised vessel types. **Chris Wraight**

Quartet deployed for varied harbour duties

Turkey's Arena Offshore has delivered a new shallow-draft harbour tug named *Dorade*, in addition to three smaller pushboats. The vessels will be used for towage, mooring and pushing operations, and are all classified by Bureau Veritas.

Dorade was designed by Alfa Marine Design, and is 22m in length with a moulded breadth of 7.7m and a draft of 2m. The vessel is powered by two Caterpillar C18 engines developing a total of 1,200bhp at 1,800 rev/min. Propulsion is delivered via two ZF fixed pitch propellers in Kort nozzles. Auxiliary power comes from two Caterpillar C4.4 generators, producing 65kVA at 1,500 rev/min. A VDL Klima box cooler is employed, as are two ZF W650 gearboxes. Bollard pull ahead is 15 tonnes, and the tugboat offers a top speed of 12 knots.

On deck, *Dorade* is equipped with a pair of electrically driven windlasses with a capacity of 200kg each, as well as a quick-release 15-ton towing hook. Two tugger winches positioned port and starboard have a 2-tonne capacity each. The vessel has fuel oil tanks of 56m³ and can carry 8m³ of freshwater.

Radar, echosounder, AIS and GPS are provided by Koden, while the VHF is a Sailor 6215 set. Accommodation on the main

deck comprises two single crew cabins with WC/shower, plus a mess room and galley. On the lower deck there are two double crew cabins, a store room and a WC/shower. The accommodation is air conditioned throughout, and caters for a maximum crew of six.

The pushboats, of which *Bikele* is the first example, are 16m LOA with a breadth of 6m and a 1.45m draft. The vessels are powered by two Caterpillar C12 engines delivering a total of 900bhp at 2,100 rev/min. Auxiliary Caterpillar C2.2 generators provide 22kVA at 1,500 rev/min, and propulsion comes via two ZF four-bladed fixed pitch propellers in Kort nozzles.

Bikele has a 10-tonne bollard pull and a top speed of 11 knots. Deck equipment includes an electrically driven windlass and a 15-tonne towing DTH 15-20 hook from Data Hidrolik. Bridge equipment is mostly provided by Koden, save for a Sailor 6210 VHF radio.

The pushboats have a free deck area of 23m², with a total deck load of 8 tonnes. Diesel oil capacity is 19m³, and 3m³ freshwater. Accommodation is provided for four crew members, and comprises two double cabins and a single mess room with galley, all air-conditioned and finished to a high standard. **CW**

