

DAMEN DELIVERS THE "KAIKOURA"

Damen Shipyards Hardinxveld has recently completed "Kaikoura", a Shoalbuster 3511 for the Tym Group (Thong Yong Marine). This well tried version of the shallow draft Shoalbuster design differs only slightly in its dimensions and equipment from other vessels of the same class.

The owners operate a growing fleet of marine plant including over a dozen tugs, plus four Shoalbusters, a variety of barges and other floating plant. The Tym Group has branches in the UAE, Singapore, Malaysia and Indonesia, chartering vessels and providing logistics support to the offshore dredging industry in the Middle East. They specialize in providing tugs and large barges for the transportation of armoured rocks for the offshore dredging industry. At the time of writing, Kaikoura's final destination had not been announced.

The Shoalbuster 3511 retains virtually the same configuration as its nearest relative the Shoalbuster 3612 but is just a little shorter due to the lack of the central 'push knee' in the bow. In keeping with its near sisters, this variant has the ability to undertake deepsea towage operations, carry out anchorhandling operations and provide a wide range of dredging support services. In addition to the



usual outfit of equipment, this new vessel has two high level fire monitors and significant pumping capacity.

Kaikoura measures 35.25 mtr in length overall, with a beam of 11.6 mtr and a draft aft of 4.22 mtr. The tug is classed by Bureau Veritas 1+ Tug Unrestricted Navigation +MACH AUT-UMS. Compared with the smaller vessels, the well established Shoalbuster hull form is retained but in order to increase the size of nozzles and propellers, the nozzles protrude slightly below the line of the keel. A 'scaled up' forecastle and superstructure afford a massive amount of additional space for accommodation and the wheelhouse is what one would expect aboard a powerful deepsea tug. The afterdeck has a large working area, protected by a timber covering, and is

configured for towing, anchorhandling and the transportation of equipment.

In order to undertake a wide variety of towage services a bollard pull of over 60 tonnes is specified, but on trials that figure was exceeded by a healthy margin. At engine MCR the result was 62.9 tonnes and, at maximum power, 65.3 tonnes. The free running speed achieved was 11.6 knots.

To achieve that performance, two Caterpillar 3516B TA/HD B main engines generate a total of 5,150 bhp at 1,600 rpm.

Power is transmitted to a pair of Promarin fixed pitch propellers via Reintjes WAF 873 – 7.455:1 reverse, reduction gearboxes. The propellers rotate within Van der Giessen Optima nozzles of 2,700mm diameter. Four rudders are fitted, two on each nozzle. To enhance manoeuvrability even further, a 400 hp Kalkman hydraulically powered bow thruster is installed.

Three Caterpillar auxiliaries are also installed. Two Caterpillar C9 TA auxiliary generator sets, delivering 150 kVA at 50 Hz -



220/400V, provide electrical power for the vessel's onboard systems. An additional Caterpillar C18 TA auxiliary diesel, rated 448 kW at 1,800 rpm, drives the hydraulic pumps for the deck machinery and bow thruster and,

when required, the fire pump delivering 1,200 m³/hr of water at 10.5 bar.

High capacity transfer pumps are installed to enable fuel and fresh water to be delivered to other plant. Dedicated internal tanks are capable of accommodating 380 m³ of fuel oil, 42 m³ of fresh water, 25.4 m³ of sewage and smaller tanks for lubricating oil, dirty oil, hydraulic oil and bilge water. The deck machinery outfit includes a Ridderinkhof, twin-drum, 'waterfall' style towing and anchorhandling winch.

The towing drum has a maximum line pull of 50 tonnes at 10m/min and a maximum brake holding capacity of 75 tonnes. The anchorhandling drum has a maximum pull of 100 tonnes at 5 m/min and maximum brake load of 150 tonnes. Steel wire rope of 56 mm diameter is used on both drums, a 1,000 m towline on one drum and a 500 m 'work-wire' on the other.

Also installed on deck is a single set of Karm towing pins and a line handling fork, with a safe working load of 200 tonnes, along with a 2m diameter stern roller with a SWL of 100 tonnes and a 12 tonne tugger winch. A remotely controlled Heila HLRM 170-4 SL deck crane is mounted on the usual cylindrical column on the starboard side.

The fire-fighting equipment fitted has a capacity equivalent to approximately half that of a full FiFi 1 system but the output from the two Innovfoam FWM-6-EL monitors mounted above the wheelhouse roof is impressive. The monitors are remotely controlled from the wheelhouse.

Kaikoura has an extensive outfit of navigational and communications equipment comprising predominantly Furuno and Sailor units. Along with the propulsion, winch and machinery controls, the foregoing instrumentation is arranged on typical Shoalbuster style consoles. Fully heated and air conditioned accommodation is provided for a maximum of 15 persons in three single cabins and six double berth cabins. A large mess room, well equipped galley, a laundry, and extensive storage facilities are also provided.



Technical specification: length overall: 35.25 mtr, beam: 11.6 mtr, draft aft: 4.22 mtr, bollard pull: 65.3 tonnes, speed: 11.6 knots.