THE NEW BRITISH SURVEYING SHIP H.M.S. « VIDAL »

The first surveying ship for the British Royal Navy to be equipped with a helicopter flight deck, was launched at His Majesty's Dockyard, Chatham, on 31st July, 1951, and named H.M.S. *Vidal.*

Since the war, frigates have been converted during the building stage into surveying ships, but the new vessel is the first of a new type and has from the start been designed by the Admiralty for hydrographic surveying and chart production. H.M. Dockyard, Chatham, is responsible for both her hull and main machinery.

With a length of 315 feet overall and beam of 40 feet, she has a hangar and deck arrangement designed to make possible the flying off and flying on of a helicopter, the purpose of which would be for limited air survey photography and the transport of parties and equipment to shore observation stations. She will carry three 29 ft. surveying motor boats equipped with echo sounding apparatus.

The latest electronic aids to surveying and navigation will be incorporated. There will also be a photo-lithographic printing plant comprising a Process Camera maximum negative size 36" × 24", and ancillary equipment for the production of printing plates in sizes up to 48 1/2 × 40 1/2" a Quad Demy Offset Printing, Proofing and Duplicating Press, maximum printing surface 48" × 36", and a Demy folio Printing Machine, maximum printing surface 17" × 12", which will enable the results of surveys to be reproduced on board.

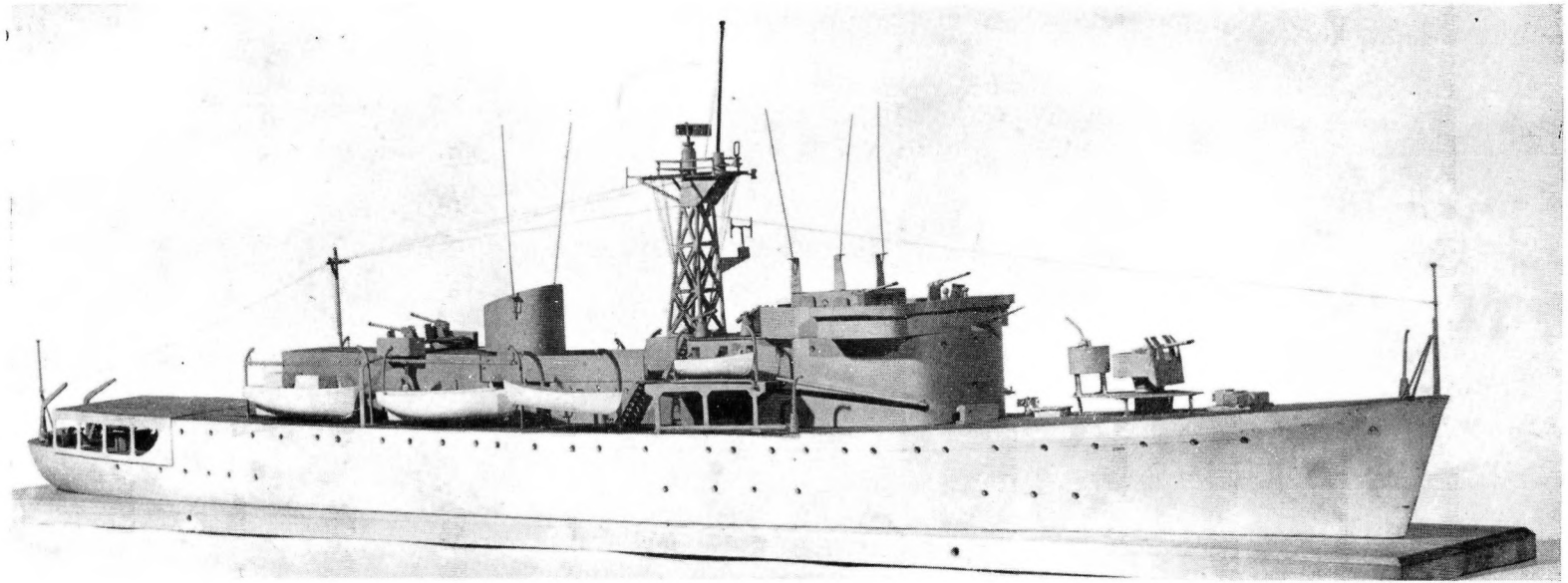
The main propelling machinery consists of four diesel engines, driving two shafts through reverse and reduction gear boxes. The engines have been designed and manufactured at H.M. Dockyard, Chatham, in conjunction with the Admiralty Engineering Laboratory and the Engineer-in-Chief's Department of the Admiralty.

Electrical power is provided from 360 kw. 220 volt direct current diesel driven generating sets.

Among the special features of the ship is her air conditioning plant installed to make her living spaces, working spaces and offices comfortable in all climates from the Equator to Polar regions. Operating on the reversible heat pump principle, this 750,000 B. Th. U/hr. plant is capable of heating or cooling the ship. When used for heating, it extracts heat from the sea and this it can do even when the sea is at arctic temperature. This method saves considerable electrical load. Only 120 kw. are required to do the work which would be done by 220 kw. in a direct heating plant.

On completion of fitting-out, H.M.S. *Vidal* will join the Admiralty's present surveying fleet, which consists of H.M. Ships *Challenger, Cook, Dalrymple, Dampier, Franklin, Owen, Scott* and *Sharpshooter.*

The accompanying photographs give an impression of the appearance of the ship on completion.



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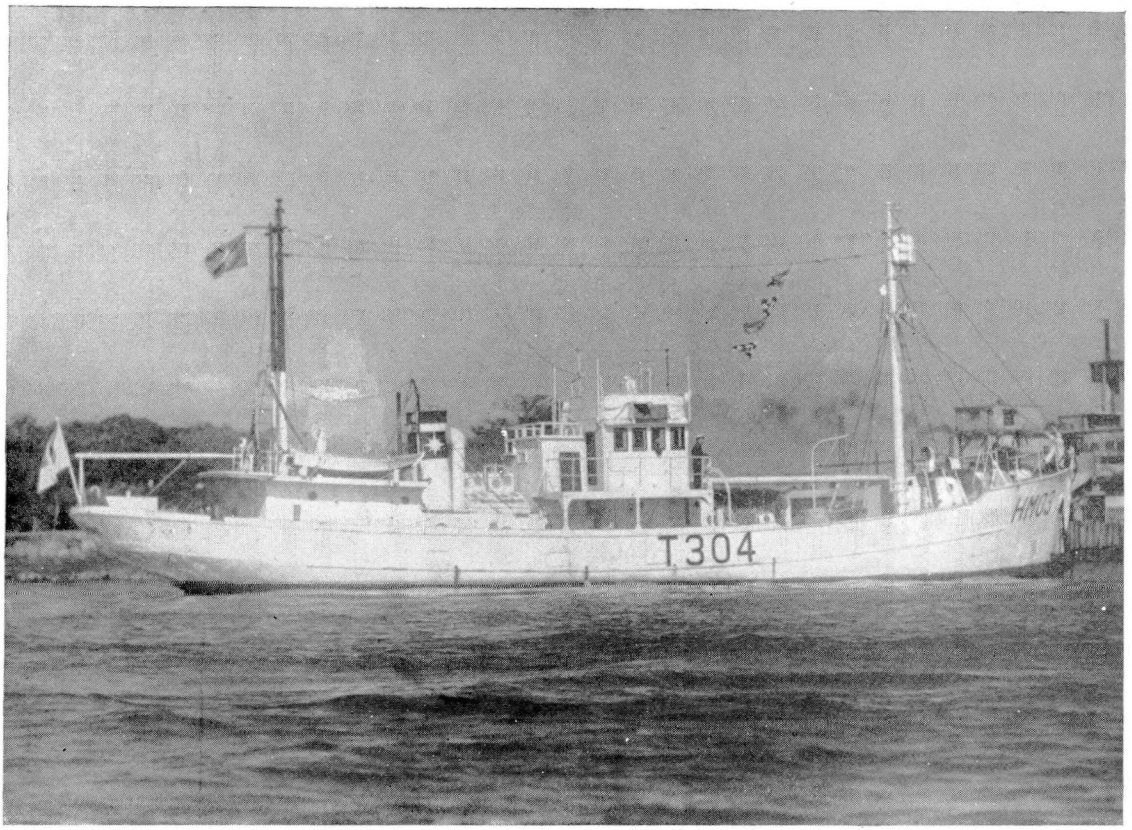

Fig. 1. — Japanese Surveying Vessel *Daiichi Tenkai-Maru*

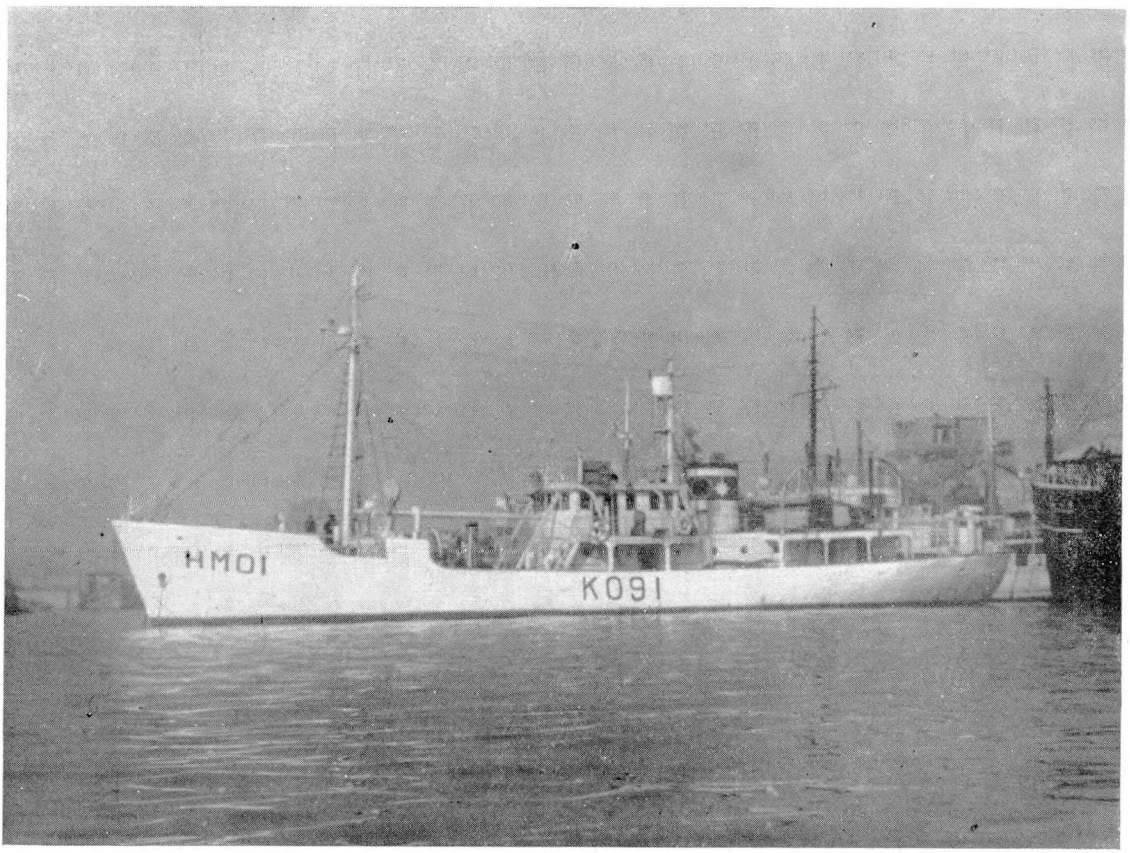

Fig. 2. — Japanese Surveying Vessel *Daiyon Kaiyō-Maru*