



This floating dock, "launched" on March 31, is intended for use in fitting out nuclear-powered submarines and for routine maintenance. Accommodation and living facilities are of particularly high quality

## Admiralty Floating Dock

By OUR NAVAL CORRESPONDENT

**A**FTER building for fifteen months in a dry dock at Portsmouth Dockyard, a virtually new type of floating dock was "launched" on March 31 by the Lady Carrington, wife of the First Lord of the Admiralty. The procedure of "launching" the floating dock entailed the setting in motion of the machinery for flooding the dry dock where she was built and thus floating her out. This was done by Lady Carrington immediately after the ceremony. Though capable of lifting all existing destroyers and frigates, the new dock was specifically designed to deal with nuclear-powered submarines. Until we have more knowledge of the risks entailed in installing nuclear reactors and changing fuel elements, it is essential that a vessel, while they are being installed, should be in a safe place, far removed from the wharf or jetty in a populated shipbuilding yard. Hence, it has been necessary to provide quarters for the ship's company of the vessel in hand, in addition to the normal accommodation required for the dock's crew. It will thus not only be fully equipped to carry out routine maintenance and repairs of ships docked in it but will be provided with accommodation and living facilities to the latest habitability standards, including air conditioning and fluorescent lighting in all cabins messes, for about 200 hundred officers and men.

In view of the heavy additional cost of pro-

viding a floating dock of this nature, Admiralty Floating Dock No. 59 is a clear indication that Britain is no longer to be content with one, or even two nuclear-powered submarines and that in due course, when finances permit, we may expect a flotilla of "Dreadnoughts." It might also be more economical to use her for the refits of destroyers, frigates and submarines in ports where there are no naval barracks available.

The dock is 400ft long, 77ft wide and 65ft high, and seems capable of docking larger submarines than the "Dreadnought," which is based on the United States "Skipjack"—a vessel of 2850 tons, 250ft in length and 31ft 6in beam, and with a ship's company of eight officers and seventy-five men. But it is not clear whether, in stating that "the dock is capable of lifting submarines of the latest types," the Admiralty include the United States rocket launching submarine, "George Washington"—a vessel of about 5600 tons and 380ft in length. Extensive use has been made of prefabrication, and the completion of the structure within fifteen months represents a considerable achievement, more particularly as the work was carried out in a dry dock which lacked many of the facilities normally associated with a building slip. Assistance in fabrication of certain fittings was given by Chatham and Rosyth dockyards. A push-button control system will be installed for the operation of the

dock and the main pumps for controlling the raising and lowering of the dock will be capable of dealing with over 200 tons of water per minute. Instruments will be fitted to record for the Dock Master's information the strains coming on the structure during the docking operation. Four main generators and two auxiliary generators supply 1320kW for the main pumping machinery, lighting, &c. This power supply is sufficient for the domestic load of a vessel in the dock and power and lighting for repairs in addition to the dock services. The dock will be equipped with special sliding keel blocks for the docking of submarines. A 7½-ton travelling crane is situated on, and runs the full length of, each dock wall.

### Ship Auto-Pilot

SEA trials, while sailing from Glasgow to Liverpool, have been carried out by the M.V. "Ajax," a cargo liner of the Blue Funnel Line, which has been equipped with an Arkas J.O.3 Automatic Helmsman supplied by The Decca Navigator Company, Ltd. During the voyage the Auto-Pilot was subjected to stringent tests, including a simulated power failure when manual control of the ship was regained in sixteen seconds. The equipment enables the ship to steer a more precise course, and can operate from either a magnetic or gyro compass while the control unit electronically applies automatic counter-rudder to hold the ship on her course with only three or four rudder movements per minute. The equipment is to undergo extensive evaluation trials during a voyage to the Far East.