

H.M.S. 'CONISTON'—COASTAL MINESWEEPER, TYPE I

A SEA TRIAL IN THE FIRST COASTAL MINESWEEPER

BY

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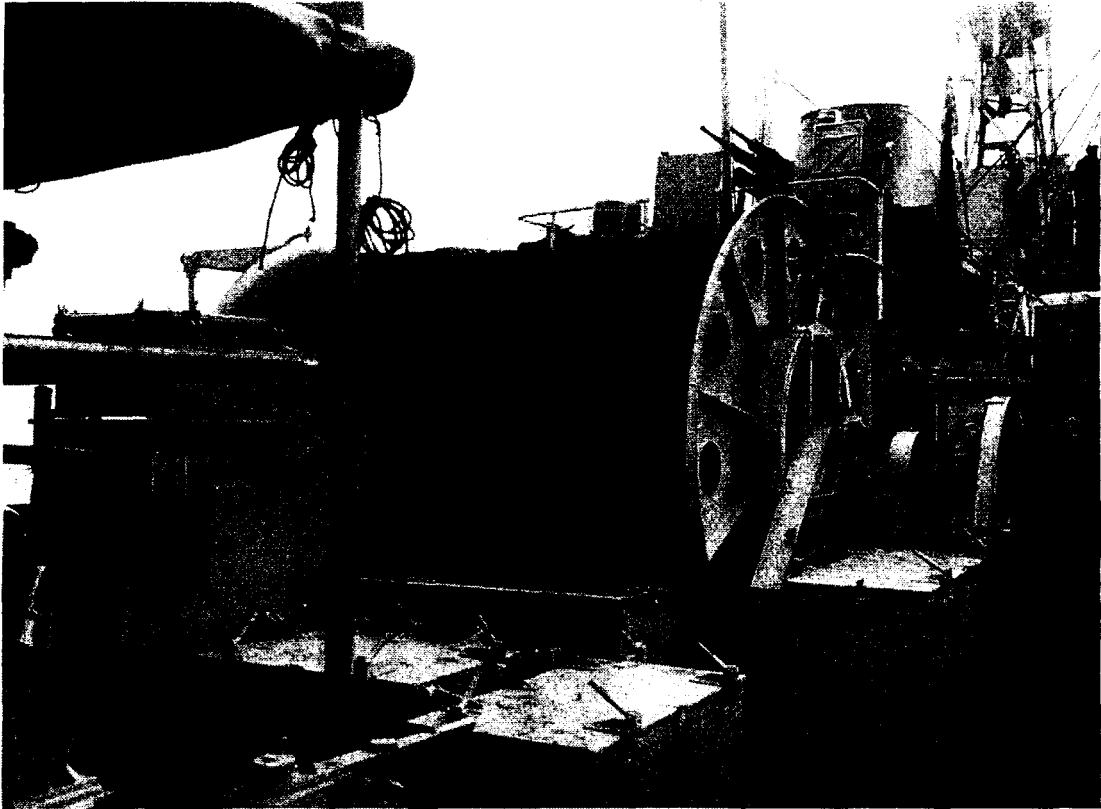
General Description

H.M.S. *Coniston* is the first of the new class of coastal minesweepers designed to operate all types of present day minesweeping equipment, for long periods, in all but the worst weather, in waters from 10 down to 30 fathoms. She is a 450-ton ship, 140 ft long, of wood planking on light alloy frames. There is a complement of about 30 officers and ratings, of which the engine room department has one E.R.A., two P.O.S.M., one L.S.M., and three S.M., and the electrical department has one P.O. Elect. and one L.E.M.

The main engines, which are intended to give a sweeping speed in the region of 14 knots, are Admiralty type Mirrlees V.12 Diesels with a speed of 750 r.p.m., designed to give 1,250 s.h.p. Each engine has two Napier superchargers and drives through a fluid clutch to an oil-operated reversing gear box: the shafts pass outboard through oil packed stern glands. In the engine room, there is a sound-proof booth from which the watch-keeper normally controls both engines.

The auxiliary engine room contains the Mirrlees-Brush minesweeping Diesel generator. The engine is an unsupercharged V.8 running at 750 r.p.m. and the power output has a maximum of 375 kW. Also in this compartment are three Maudsley Foden Diesel generators for ship's services. They are two-stroke 6 cylinder engines giving 60 kW at 1,800 r.p.m. All engines, with their lubricating oil systems, are cooled by closed fresh water systems with salt water intercoolers.

The minesweeping equipment carried consists of several types of acoustic sweeps, a wire sweep for moored mines, and a magnetic mine loop sweep. The acoustic sweeps are handled by a pair of 2 ton derricks; the wire sweep and the magnetic loop sweep are handled over the stern with the aid of a 40 h.p. Clark Chapman electrically driven winch. The davits, floats, diverters, kites, etc.,



THE CABLE REEL FROM AFT

which are needed with these two sweeps are kept on the sweep deck, and leave very little clear space. The cable reel driven from the winch motor takes about 900 yards of cable. This cable, which is opened into a loop by diverters, is partly buoyant and partly supported by floats. The illustrations give some idea of the equipment fitted.

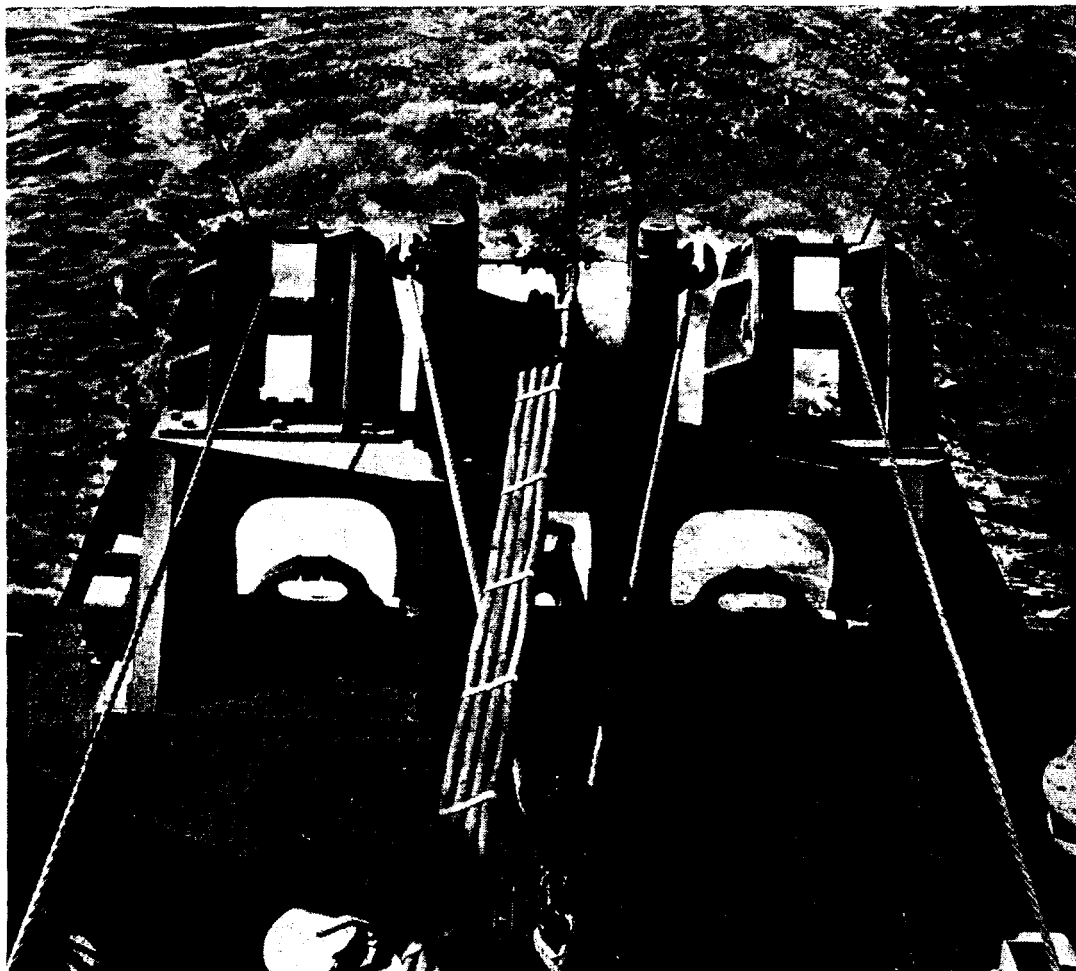
The ship carries 17 tons of fresh water and 45 tons of Diesel fuel, which is sufficient for 10 days at sea, a single Bofors Mark 7 and a twin Oerlikon, as well as radar type 974, W/T, and Decca. A 16-ft motor dinghy is carried in the waist. There are good washing and cooking facilities for all on board.

From the foregoing description, it is obvious that there is a great deal of complicated equipment in these ships for the space available, and even though they would normally work in groups with a mother ship, the maintenance staffs have a great deal to do in cramped conditions, and it should be clear that the ship must be an efficient and well trained unit, able to carry out all types of minesweeping operations at night and in all weathers, navigating accurately in company.

To see how far the staff requirement for endurance, reliability, and the working of equipment had been met, H.M.S. *Coniston* was taken to sea during August 1953 for ten days, under operational conditions. The ship was stored and manned as for wartime. It was hoped to find during the ten days a variety of weather conditions, and to be able to operate all minesweeping gear fully. Engine performance, turning circles and the general habitability and sea keeping qualities were also to be checked. The trial was planned to give a thoroughly realistic test of the ship and all its gear.

The Acquaintance Trial

This trial was a commitment of the Sea Trials Department of H.M.S. *Vernon*. This department is the representative of the Director of Underwater Weapons,



THE SWEEP DECK SECURED WITH LOOP SWEEP STREAMED

and carries out the acceptance trials of all new designs of torpedo, anti-submarine, mine and mine countermeasures equipment. The routine trials of standard production equipment on installation are also carried out by Sea Trials officers. The author is one of the small number of Ordnance Engineer officers in the department, and is usually concerned with A/S mortar trials. As it was felt that the trials party for H.M.S. *Coniston* should include an engineer officer because a number of technical problems of both engineering and minesweeping gear might arise, the author was included.

We left Portsmouth in fine weather, and when it appeared that a R.N.V.R. doctor and an engineer were to take watch and watch on the bridge for 16 hours out of the 24, there was some alarm but no despondency. There followed six days of force 6 and 7 winds, from which no shelter could be found in the western channel, and these two amateurs found the duties of the officer of the watch, weaving through shipping lanes in the dark in bad weather, with sweeps streamed, left little time to relax. Later, the weather improved and apart from a few incidents, such as missing drift nets off St. Austell by inches, having the sweeps run over by fishing boats, and disagreeing with a tanker as to who was on the measured mile, the voyage was calm, and the ship cruised off the English and French coasts, working sweeps, checking engine speeds, and turning circles.

The magnetic sweep was reeled in every evening for lights to be fitted on the diverters and floats, and every morning for them to be removed. This had to be done in all weathers and not only gave the equipment a very exhaustive trial, but gave practice to the sweep deck party and thus enabled them to halve their handling time.

This party consisted in fact of practically everyone on board, and the necessity in a team of each member knowing his job became clear as the time of the operation was progressively and safely reduced. Certainly, during those ten days, both men and equipment were very thoroughly tried, and although no serious trouble occurred, a number of minor defects were discovered. The trial was intended to expose these, and the report dealt with them in detail, and also included criticisms of maintenance facilities, communications, living conditions, and all aspects of operation which could be brought to light. There was no doubt that in H.M.S. *Coniston* the trials party found a good sea boat which handled well and which was fitted with reliable machinery. In general, the staff requirement has been met and only minor details remain to be sorted out. Naturally, as with all smaller vessels, first class base facilities are vital; with these and a reasonably trained crew, it can be said that any coastal minesweeper of this class in commission can fulfil its operational role very well.

When it is realized that operation of minesweepers in wartime involves the continuous running of groups of such craft as these, with largely inexperienced crews, navigating extremely accurately and in company in all but the very worst weather on difficult coastlines, it is obviously essential that these new vessels now coming into service must be as simple, reliable, and safe as good design and comprehensive trials can make them.

The Suggested Use of Minesweepers for Artificers' Sea Training

Although it is absolutely vital in wartime, the minesweeping service tends to be overlooked in time of peace, and it seems that the majority of naval officers do not appreciate the great value of these small ships as a means of knowing the sea. It is unfortunate that a great many minesweepers are being built but very few are being commissioned, the rest being put into reserve at H.M.S. *Diligence* and elsewhere, when it would be so worthwhile commissioning these small ships for general sea training. In his very interesting article in Vol. 6, No. 2 of the *Journal* Captain (E) D. J. Hoare used the analogy of a ship and its cargo to illustrate the training problems of aircraft artificers. If this analogy may be taken a little further, the essence of a ship is seagoing and this starts at trials before cargo is ever loaded. This suggests a serious omission in the present training of an artificer; young artificers would gain enormously in their understanding of the sea and ships—the reason behind their very existence—from even a few weeks of sea training in vessels such as these coastal minesweepers. This should be at the start of their training and they should take the place of S.M. watchkeepers or even of ordinary seamen. They would learn something of the really interesting and arduous side of life at sea; they should take part in the general work about the ship, and they would soon learn in this way that there is no room for passengers in such a community. This would help to give them a sense of proportion which they must find difficult to maintain during their long period of training ashore, in huts. This sense of proportion is not helped by going to sea for the first time in a superior rate.

I would like to propose that one or two of these ships should be attached to artificer training establishments with a skeleton crew and that the young artificer apprentice should take turns in classes at going to sea and carrying out the duties of the majority of engine-room and upper deck working hands.

If the young artificer apprentices were to begin their service careers with a close acquaintance with the sea, in this way, and were, if possible, to carry out this training and to continue for at least part of their subsequent training ashore as 'men dressed as seamen', I suggest that they would gain a clearer idea of the navy as a whole and their position in it, and would be better able to appreciate the ideals and the discipline of a sea service.

After all, should we not train ourselves 'to be all one Company'?