"FURIES OF THE NAVY"

Speed and Strength of British Destroyers

British destroyers, deadliest of all sea-craft in hunting U-boats and protecting convoys, are known as the "furies of the fleet." Propelled by engines of 40,000 h.p., they are capable of tremendous speed, cutting the water like a blade. In this article a British naval officer gives some idea of their power and performance.

THE Navy's "greyhound" varies in in type and size, the smallest being about 900 tons. But whereas a battleship like H.M.S. Rodney costs £7,600,000 to build, twenty destroyers of the crack Tribal class can be constructed for a like amount. So active is this small type of craft in wartime, however, that an annual expenditure of £60,000 is needed to keep a single destroyer on the job.

Her 150 officers and ratings live a more arduous life than those in a capital ship, which may remain at a safe base for weeks at a time. There is always work to be done, and in the event of a full naval action, the destroyer's duty is to help form a screen for battle squadrons, to scout for hostile craft and attack enemy patrols.

Because of the heavy expense of oil-fuel, a destroyer seldom proceeds at her full speed of nearly 40 knots—approaching fifty miles an hour. But emergencies arise, and I have had the thrill of crossing the North Sea in rough weather in a destroyer racing all out. Let me give an idea what it was like.

For an hour I remained on the bridge with the captain. Looking down on the high fo'c'sle-head, I saw the spray from the destroyer's knife-like cutwater rising like giant ostrich plumes on either bow. When I left the bridge, I went to the low after-deck and paused by the stern rail. Immediately in the wake of the racing destroyer, the threshing screws were raising a hillock of foam so high that it was impossible to see another destroyer in line astern.

Stupendous Power

To get down below, I had to open a circular steel hatch, and descend a short, perpendicular ladder into a compartment called an air-lock, where two men would have had difficulty in turning round. Reaching up, I closed the rubber-lined hatch and made it fast. Not until this had been done did I dare open a narrow steel door, also lined with rubber, that led on to a grating from which ran a ladder to the bowels of the ship. Once the inner door was shut, it was like being transplanted into another world—a world of heat and thundrous noise.

Outwardly, there was nothing sensational in this destroyer's engine-room—no giant pistons thumping, shafts whirring or wheels revolving eccentrically. I joined the Engineer-Commander and two artificers on the starting platform in a compartment remarkable for its neatness. Turbine engines of 40,000 horse-power were driving the ship on her homeward course, but this stupendous power could only be sensed.

The turbines, with their thousands of steel blades upon which the steam operated, where hidden from view within drum-like casings. Spinning at over 2,000 revolutions a minute, they could scarcely have been seen had the drums been open.

But this high speed could not be utilised directly for revolving the propellers, for there is a definite limit to the speed whereby ships' screws can get a grip on the water for propulsion. Therefore, a system of gears is used to "gear down" this high speed to cause the propeller shafts to revolve seven times less quickly than the turbines themselves.

One of the artificers stood alertly at the control wheels, ready to respond immediately to any signal from the bridge conveyed by the engine-room telegraph. The speed of the ship could be regulated quickly by a mere twist of these wheels.

Her tremendous engine-power makes the destroyer about the handiest craft on the seas. With the propellers reversed, she can pull up dead within a few chain-lengths; she can thresh up from slow to full speed in a minute and a-half. This destroyer, like all modern warships, was an oil burner, and these modern stokers wore natty overalls—and gloves.

Oil on Roaring Fires

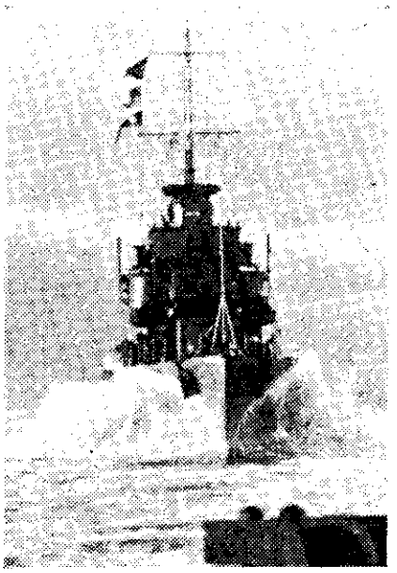
In an atmosphere of oily smell, the overalled stokers stood by the furnace valves whilst constant watch was kept on gauges and indicators.

The destroyer carried 500 tons of oil-fuel at full capacity — and 7 tons of drinking water, some of which was used for brewing the numerous cups of tea preferred by the stokers to either grog or limejuice. The oil was fed to the furnaces through pipes controlled by valves, and was pre-heated to a temperature of 180 degrees—before being sprayed in the form of vapour on to the furnace fires.

The air was compressed below, owing to the tremendous draught caused by the swiftly rotating fans, for the furnaces needed ample air besides oil-fuel. It was on account of this that everyone had to take similar precautions to my own when coming down through the air-lock from the open deck. One rubber lined hatch must always be closed. If both were opened at the same time the escaping air from the enclosed stoke-hold would cause the flames to leap outward from the furnaces, to the injury or death of the stokers.

These roaring fires boiled the water in three boilers, each fitted with nearly 3,000 tubes. The steam formed was then super-heated to nearly 700 degrees to form an invisible vapour. It was this vapour that operated directly upon the thousands of turbine blades to give the propulsive power to the ship.

A destroyer's speed is useful in launching lightning attacks on hostile craft and for her own defence. She has no special armour to resist high-explosive shells, but relies on speed and manoeuvring to escape shellfire and torpedo attack.



A "BONE" in her teeth: A British destroyer on convoy duty churns in the wake of her next-ahead

For U-boat hunting, the destroyer is the deadliest vessel that patrols the seas. She is the light-weight with the big punch. Her punch can be delivered by her 4.7-inch guns, of which she may carry four, six or eight, or by the battery of torpedo-tubes (from four to ten in number), or from the depth-charge throwers.

She has one other method of attack—a lightning dash through the sea to ram the U-boat before she can crash-dive. The sharp prow of a destroyer will cut through the thin plating of a submarine like a knife through soft tin.

Usually her torpedoes—they cost over £2,000 each—are reserved for bigger game. A cheaper and equally effective method of attack on a U-boat is by the depth-charge.

TREATMENT FOR UNFIT MEN

MANY men who have enlisted for service overseas and have been classed as temporarily unfit because they require medical attention in the way of minor operations will now receive that attention free of cost.

The Government has decided to bear the cost of any minor operations which may be necessary to make these men fit to begin their military training. Arrangements are being made with the various hospital boards throughout New Zealand to undertake the work of such operations.

A large percentage of the temporarily unfit men are in need of attention for adenoids, tonsils, and the like. It is such ailments as these which come under the classification of "minor operations."

ARTISTIC EFFORT AT TRENTHAM

Unit Names Outside Huts

A SPIRIT of competition combined with an outlet for artistic talent has produced some remarkable designs outside the huts of units in Trentham Camp.

Here, in the small space available at the door to each hut, the wags, wits, and more serious soldiers have laid out the names of the units in all manner of material, from tiny pieces of coal and brick to the tops of bottles and broken crockery.

Pride of place for artistic effort goes to a Hawke's Bay Company. Small circular pieces of cleanly-sawn manuka have been driven into the ground, and the exposed ends painted white. The whole design, spelling the number and name of the company, stands out conspicuously above its sandy bed.

The platoon of another Hawke's Bay unit has achieved an effect almost as imposing by inserting in a bed of bitumen hundreds of the crown tops from bottles of soft drinks—the name and number of the platoon and company gleam out from a shiny bed. For the next unit which occupies this hut when the present occupants leave there will be a problem to be solved with the aid of a pick.

Some of the designs are amusing. One of the most elaborate is said to illustrate "A bird's-eye view of a native pig by moonlight." The bird is a pukeko, constructed of tiny pieces of red and blue pottery and glass; the pig consists of fragments of broken beer bottles; the sickle moon has been made of tiny slivers of clear glass. Flanking this scene is a beer barrel made of more fragments of glass, complete with silver bands of paper from cigarette packets and the required number of X's in clear glass. Nearby is a beer mug, made of the same materials. At the other end is a kiwi, in pieces of broken pottery, pecking at an egg—a pebble wrapped in more silver paper.

Most of the designs have been made of tiny bits of shiny coal and broken brick, embedded in smooth sand. One of the units of the 2nd Training Battalion had achieved a shadowed effect by backing the red brick with coal.

White-washed pebbles and green painted pebbles have been used by other companies and units most effectively. Another design, not yet finished, has been made of small square blocks of wood left over by the carpenters.

Tiny pebbles, each one wrapped in silver cigarette paper, make an arresting place name for a 25th Battalion unit. Another is flanked by tiny pots, each flaunting a sprig of greenery.

Unit badges have been created by the use of minute fragments of any materials available — brick, coal, stone, pottery or glass. Hours of labour have evidently gone to the making of these designs, all of which combine interest with information.