COASTAL CRAFT HISTORY VOLUME 1

VOSPER MOTOR TORPEDO BOATS

From 68ft PV boat to MTB 538 - 193X to 194X

Based on the drawings of John Lambert

Profiles & text: Mark Smith

Series Editor: Neil Robinson
Job 1763 - The Vosper Private Venture 68ft boat.

Portsmouth, May 1937.

Built at Vosper's Camber Yard, Portsmouth. Colours appear to be a medium grey on the hull sides and deck, with paler grey on the superstructure and deck fittings. These greys may well have been primers for later finishing coats. Black below the waterline. Note that no ‘trumpet’ vents were fitted at this time.

The first Motor Torpedo Boats to be ordered for the Royal Navy in the 1930s were MTBs 1 to 6. These were 60ft long boats, designed and built by Hubert Scott-Paine's British Power Boat Company (BPBCo). They were armed with two 18 inch torpedoes, stored in compartments under the rear deck. They were launched (tail first) through hatches in the stern. Once the torpedoes had left the supporting galleries which extended beyond the stern, the boat had to immediately turn hard to one side, to avoid the torpedoes as they began their run to the target. A similar launch method was used by the stepped hydroplane Thornycroft Coastal Motor Boats.

Vosper were aware of the trials undertaken at HMS Vernon on MTB 1. Informally, a few members of the Admiralty suggested that any subsequent MTBs would be larger boats, armed with 21 inch torpedoes. Vosper's Peter Du Cane had in any case thought that the 18 inch torpedo was too small to inflict serious damage on large vessels, and that the torpedoes should be fired forwards. The greater length and beam of the Vosper hull would, it was hoped, provide better sea-keeping and a more stable platform than the BPBCos.

The larger hull of the Vosper required around 25% more power than the 1500bhp provided by the 3 Napier Sea Lion engines in the BPBCo design. BPBCo had considerable design input into the Sea Lions they used, Napier modifying the engines for their customer. Vosper wished to install a maximum of 3 engines, and no marine engines offering around 1000bhp were available in the UK. They chose the Italian Isotta-Fraschini Asso 1000. Depending on the mark of engine and the number of revs, the Asso produced between 190 and 1150bhp. The 57 litre Isotta engine had 18 cylinders, with 3 banks of 6 arranged in a ‘W’ shape. The 3 engines in 1763 were originally designed to fire forward through a door in the bow, the engine from which the power was taken facing the rear of the boat. However, before launch, the centre engine was reversed and moved aft. The propeller shaft was effectively split in two, with a gearbox connecting the two halves, making a ‘Y’ shape. When BPBCo developed their own longer (70ft) MTB hull, they were unwilling to rely on 1000bhp-class foreign engines to power it. Instead, using their Sea Lion experience, they worked with Rolls-Royce to produce a marine Merlin engine, which had a similar power output to the Isotta, but from a displacement of only 27 litres.

In addition to the 3 main engines, 1763 was fitted with two small V-8 engines, each developing around 75bhp. These were based on a Ford design, but incorporating Vosper's own modifications for marine use. In addition to driving an electrical generator, these engines could be connected to the ‘wing’ propellor shafts via a gearbox. On their power alone, the boat could make a maximum speed of around 9 knots. With fewer revs on the clock, the boat could make a relatively quiet approach to a target. The main engines were unsilenced, and were incredibly loud at anything much above tickover. When the main engines were needed, the auxiliaries were declutched from the shafts, and the Isottas engaged. If the V-8s failed to disengage, they could be fatally over-revved by the main engines, and disintegrate.

1763 was launched in May 1937, beginning works trials later that month. Running very light, its maximum speed was nearly 48 knots, with 44 knots being attained with a more representative load. It was discovered early on in the trials that the hull needed to be strengthened, and the number of frames was approximately doubled. Vosper felt that 1763's performance was good enough to submit the boat to the Admiralty, who arranged an official trial. Part of this was a competition with one of BPBCo's 60 ft MTBs. It appears that Vosper's boat coped rather better than BPBCOs in the rough conditions they experienced. Following the trials, the Admiralty decided to purchase 1763. By December 1937, it was based at HMS Vernon for further trials, and in May 1938, it was commissioned as MTB 102.
MTB 466

British Power Boat Company 71ft 6ins design. Built by BPBCo at Hythe yard, and completed in March 1944.

29th MTB Flotilla, Mulberry Harbour, June 1944.

2 x 18ins torpedoes, and 2 depth charges.
1 x 2pdr Mk.VIII on Mk.VI (power) mount,
1 x manual twin 20mm Oerlikon (probably Mk.IX mount), 2 x twin 0.303ins Vickers G.0 guns on saddles over tubes. From top to bottom, the mast carries Type XXX radar (2 aerials), Type XXX IFF and TypeXXX IFF.

CSA carried aft.

Painted B15 on horizontal surfaces, and G45 on vertical surfaces, with large areas of White on hull sides. Other areas painted White include the interior of the gunner's compartment on the 2pdr, inside of the shield on the 20mm, facing gunner, the vertical surfaces of the rear of the deckhouse, outside the armoured doors, the foredeck under the Carley floats and the vertical surfaces of the deckhouse behind the Vickers G.0 ammunition drum stowage lockers.

Masts and stanchions are also White. Hull bottom is Black. A prominent Allied star was painted on a tarpaulin draped over the Carley floats, and a smaller one was painted on the 2pdr shield. Pennant numbers on the hull sides are G45, and that on the transom in B15.

When Operation Overlord commenced, 466 and her sisters patrolled off Juno beach, engaging with enemy S and R boats. Patrols lasted a few days, with the boats tying up against larger vessels of the invasion fleet. They came back across the Channel when low on fuel, or needing repair. The MTBs often moored against the 'Gooseberry' line of sunken ships which formed part of the Mulberry Harbour. Neger 'human torpedoes' were deployed against the invasion fleet, and the 29th's boats were among those keeping watch for these devices.

The 29th moved to the Belgian port of Ostend in January 1945, along with other units using BPBCo, Vosper and Fairmile boats. Around 4.30pm on the 14th February, a fire started on the water between boats moored closely together in part of the harbour behind a breakwater. Earlier that day, high octane fuel had been spilled into the water. MTB 462 exploded, shortly followed by MTB 465. This triggered a series of explosions of fuel tanks, torpedoes and ammunition in the surrounding boats. Over 60 people died in the inferno, both on the boats and on land. 5 of the 29th's boats were lost, including 466. The 29th essentially ceased to exist on this date, and the surviving boats were allocated to other units. Another 7 boats of various designs were lost.

If it had not been for desperate action taken by MTB crews and people on shore, the death toll and loss of boats would have been much higher. This disaster was the largest single loss of life and boats in Coastal Forces history.

(Reference: White Plumes Astern - The short, daring life of Canada's MTB Flotilla, C. Anthony Law, Nimbus Publishing Ltd, 1989.)

Thanks to Thomas Smart for showing us that an Allied star was also carried on the 2pdr mounting.
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