FAIRMILE B TYPE MOTOR LAUNCH

BRIEFING

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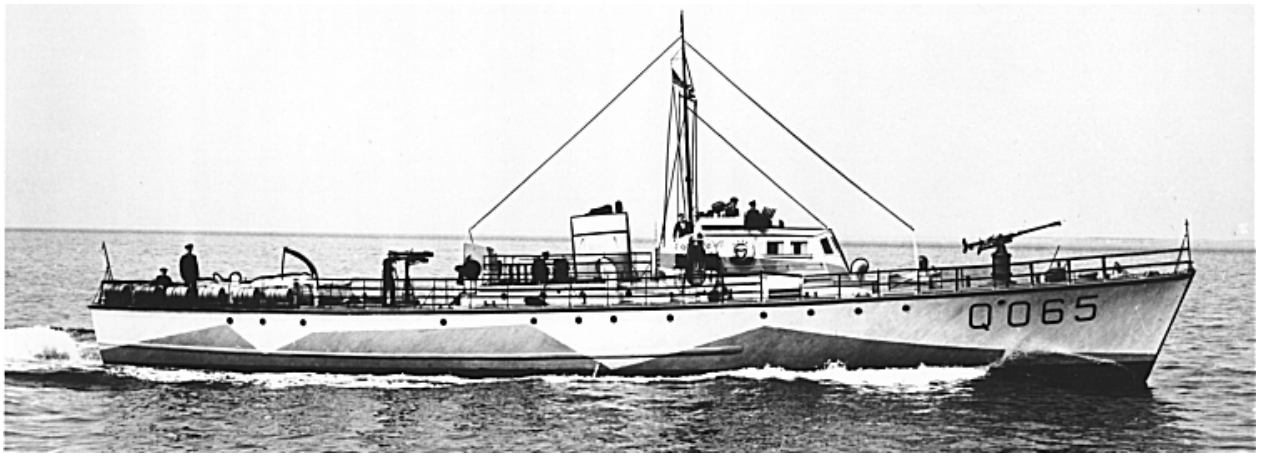

Key Information

Country of Origin:	Great Britain
Manufacturers:	*Australia*: Green Point Boatyard; Halvorsen; Norman Wright. *Bermuda*: C L Burland. *Burma*: Irrawadi Flotilla Company. *Canada*: Benson; Greavette; Grew; Hunter; Le Blanc Shipbuilding; Mac Craft; Midland Boat Works; Minette Shields; Star (Mercers); Taylor; Vancouver Shipyard. *Egypt*: Alexandria Boatyard; Anglo-American Nile Tourist Co; Beheral Co; Thomas Cook; Egyptian Motors and Marine. *Hong Kong*: Taikoo Dockyard. *Tanzania*: Task Railway and Port Service. *India*: Alcock Ashdown; Bombay Dockyard; Burn & Co; Garden Reach; India General Navigation; H Mohatta. *Jamaica*: Belmont Dock. *Malaya*: Singapore Harbour Board; Thorneycroft. *New Zealand*: Associated Boat Builders; Bailey; Shipbuilders Ltd; Voss Ltd. *South Africa*; Cape Province; Louw & Halvorsen; South African Railways; Thesen; Williams. *United Kingdom*: Aldous Successors; Alexander Robertson; Austins; Bay Yacht; Boat Construction Co; Brook Marine; Camper & Nicholson; Cardnel L; Collins; Curtis; Dickie; Diesel Constructors; Doig; Dorset Yacht; H J Percival; Harris; Itchenor Shipyard; J W & A Upham; Jas Miller; Jas Silver; Jas Taylor; John Sadd; Johnson & Jago; King; Kris Cruisers; Lady Bee; Leo Robinson; Mashford Bros; Risdon Beazley; Sheerness Dockyard; Solent Shipyard; Southampton Steam Joinery; Sussex Shipbuilders; Thomson and Balfour; Thorneycroft; Tough Bros; Vosper; Wallasea Bay Yacht Yard; William Osborne; William Weatherhead; Woodnutt; Woods.
Major Variants:	British B Type; Canadian B Type Q050 to Q111; Canadian B Type Q112 to Q129
Role:	Escort vessel, Convoy attack, Minesweeper, Minelayer, Navigation leader, Coastal raider, Patrol boat, Ambulance launch, Rescue launch
Operated by:	Royal Navy, British Army, Royal Indian Navy, Royal Australian Navy, Royal Canadian Navy, Royal New Zealand Navy, Royal Norwegian Navy, Free French, US Navy; South African Navy
First Laid Down:	5 March 1940 **Last Completed:** 9 August 1945 **Units:** 668 kits issued

Overview

Noel Macklin founded the Fairmile Marine Company shortly before the outbreak of the Second World War. Based on his experiences in the First World War, and believing that war with Germany was imminent, Noel was convinced that the UK would need large numbers of small craft to protect British coastal waters against submarines. Despite apparent disinterest by the Admiralty, he used his own money to pay for the design and initial construction of a prototype boat before the Admiralty stepped in to fund the programme. These boats (which became known as the Fairmile A Type Motor Launch) were conceived as wooden kit boats, with the parts made at the Fairmile factory and delivered to local boatyards for assembly.

The design of the Fairmile A was unsatisfactory in a number of ways, mainly related to their hard chine hull form, but a design existed within the Admiralty for a similar sized vessel with round bilges. This vessel was known to have better seakeeping qualities, and as the Admiralty was impressed with the feasibility of the Fairmile concept of wooden kit boats assembled locally, the contract to produce the boat kits was awarded to them. The new boat became known as the Fairmile B Type Motor Launch, and like the A Type, the kits were delivered to boatyards around the UK (and later around the world) for assembly. Each kit was made up of six packages, and each package was designed to fit in a standard 15-ton lorry. The planners at the Fairmile yard staggered delivery of packages to local boatyards to make sure that production was not interrupted by late arrival, and conversely to make sure that a backlog of parts did not build up. Today, this approach forms the basis of many manufacturing processes, where 'just in time' delivery keeps costs to a minimum and makes maximum use of resources.

Like the A Type, the B Type was intended as a submarine chaser (to protect coastal convoys, port approaches and coastal waters against submarines), and so all the boats were fitted with asdic (sonar) as standard. Their main armament reflected their anti-submarine focus, with 12 depth charges, a single 3-lb gun aft, and one set of twin 0.303-in machineguns.

The initial design of the B Type called for three engines, but it was soon realised that the American Hall-Scott engines could not be produced quickly enough to satisfy demand, and so they were reduced to two. Despite disappointment at this loss of speed, it was recognised that the reduction in power did not materially affect the boats ability to perform its designated role of protection against submarines. Petrol engines were chosen because pre-war searches for suppliers of high power diesel engines suitable for marine use had proved fruitless. Petrol engines imposed a much greater fire hazard than diesel engines, although the fire extinguisher provided on the boats proved its effectiveness. The fuel capacity of 2305 gallons was sufficient to give the boat a range of 1500 miles at 12 kt, and had a top speed of 20 kt. On occasion, extra fuel tanks were fitted to the deck to significantly extend their range, and in this configuration they carried out long sea passages.

The boats proved themselves to have excellent seakeeping qualities in most weather conditions, although there was a tendency towards broaching in seas of Force Eight or above from the stern or stern quarters. Once the seas got up to Force Ten the boats had to heave to, by steering just off the wind at minimum speed. In such weather conditions the boats showed themselves to be more durable than their crews, who suffered badly in such severe weather as the small boats were thrown about by the sea and covered continually in spray.

Later in the war Canada began to produce Fairmile kits. These boats were narrower, with a greater draught, and their slightly more powerful engines gave them a two knot speed advantage over the British boats.

A far-sighted specification was that the boats could be reconfigured for different roles with 48 hours notice. To meet this requirement the boats were fitted with steel strips, with tapped holes. Armament was bolted to the strips, and to change roles the unwanted armament had simply to be unbolted and new armament fitted in its place. In this way the boats could be fitted with a multitude of different equipment, including torpedo tubes, mines, depth charges, various guns and other specialist gear. It was also common to carry hand grenades on the bridge.

The Fairmile B Type Motor Launch was a great success. Although they lacked the speed of the Motor Torpedo Boats and Motor Gun Boats, they proved their worth again and again with their versatility and ability to operate in heavy weather. Their speed limited them primarily to less glamorous defensive operations, with the faster MTBs and MGBs conducting the offensive sweeps. The B Type led eventually to Britain's most heavily-armed Motor Gun Boat, the much faster Fairmile D Type, or "Dog-Boat", produced to directly compete with the German S-boote.

Operational Use

The Fairmile B Type Motor Launch began life as a submarine chaser, protecting coastal shipping and waterways from submarine threats. In this role it provided good service, escorting many convoys and patrolling the approaches to ports. Later in the war their armament was upgraded on some boats to include a cut-down version of the Hedgehog anti-submarine mortar.

One of the first conversions from their intended role was their use as anti-invasion boats in 1941. Britain had spare torpedo tubes and torpedoes (taken from the 50 American lend-lease destroyers transferred to Britain), and these were fixed to 50 Fairmiles (two per boat), whilst their depth charges were eliminated. Despite their low speed, these boats were intended to act as torpedo boats in the event of a German invasion. Once the threat had passed they were converted to other uses.

With the rise in the threat from German attack boats many Fairmiles were upgunned and the number of depth charges reduced. Although they lacked the speed to deal decisively with the fast S-boote, the Fairmiles packed heavy firepower and provided a significant deterrent to the German convoy raiders.

The minesweeper variant provided especially good service in Malta after the regular minesweepers were prevented from operating by the heavy air threat. After the first experiment, where the boats swept 100 moored mines, the Fairmiles largely replaced the specialist boats in this role until the siege was lifted. Some modification to the minesweeping equipment was soon necessary, however, as it was found that standard minesweeping gear could only be used in good weather. 20 boats swept in the British forces during the invasion of Normandy, and 16 swept in the American forces. Several boats were also modified to sweep acoustic mines, and other specialised in magnetic minesweeping.

The raid on St Naziere provided another example of the boats versatility. Fairmiles made up the bulk of the force (providing 15 of the 17 attacking boats), and deck fuel tanks were used to extend their range to make the trip possible. Armour plate was fitted to the decks of these boats to give the embarked assault teams some protection from small arms fire, although losses were heavy and the flammability of the fuel proved fatal for many of the boats. Only eight Fairmiles managed to escape the harbour, and of these only five managed to return to the UK.

When the time came to invade France, several boats were fitted out with extra navigation gear and allocated the task of “Navigation Leader”. These boats led assault craft to the correct beaches, performing a vital but largely unheralded function.

Despite their low speed they were pressed in to service in a number of roles which properly demanded much faster vessels. For example, they were used in clandestine operations, working with the Special Operations Executive to insert and remove agents, although faster motor boats were preferred. Similarly, they also acted as minelayers and rescue boats.

In Britain, the boats saw service outside the Navy too, as thirteen were transferred to the British Army to act as ambulance launches. In this case the boats were accepted from the builders and checked by the Royal Navy before being transferred to their new owners.

The boats also served with many other nations, with some being sent to the US under lend-lease to provide assistance during the German attack on the US East Coast in 1942, others serving with the Royal Indian Navy, Royal Australian Navy, Royal Canadian Navy, Royal New Zealand Navy, Royal Norwegian Navy, Royal Netherlands Navy, Free French, and the South African Navy. Finally, other nations purchased these boats post-war.

Specifications

	British B Type	Canadian B Type (Q050 to Q111)	Canadian B Type (Q112 to Q129)
Displacement	85 long tons	79 long tons	79 long tons
Length (OA)	112 ft 0 in	112 ft 0 in	112 ft 0 in
Beam	18 ft 3 in	17 ft 0 in	17 ft 0 in
Draft	3 ft 8 in	4 ft 9 in	4 ft 9 in
Propulsion	1200 bhp	1260 bhp	1400 bhp
Speed	20 kts	20 kts	22 kts
Armour	Wheelhouse plated	Unknown	Unknown
Complement	16 (later increased)	Unknown	Unknown

Armament [1]	**1940 Sub Chaser**	**Upgunned Sub Chaser**	**Torpedo Boat**
Aft	1 x 3-lb Mk I gun	1 x twin 20-mm Oerlikon	-
Amidships	1x twin 0.303-in Machineguns	1 x single 20-mm Oerlikon	-
Bridge wings	-	2 x twin 0.303-in Machineguns	2 x twin 0.303-in Machineguns
Forward	-	1 x 3-lb HA/LA gun	1 x 3-lb HA/LA gun
Other	12 Depth charges	12 Depth charges	2 x 21-in Torpedo tubes
		1 x Holman projector	1 x Holman projector
		1 x Y-gun (4 reloads)	
Armament [1]	**Gunboat**	**Acoustic Minesweeper**	**Moored Minesweeper**
Aft	1 x 2-lb 40-mm Vickers gun	1 x twin 20-mm Oerlikon	1 x twin 20-mm Oerlikon
Amidships	1 x twin 20-mm Oerlikon	1 x single 20-mm Oerlikon	1 x single 20-mm Oerlikon
Bridge wings	2 x twin 0.303-in Machineguns	2 x twin 0.303-in Machineguns	2 x twin 0.303-in Machineguns
Forward	1 x 6-lb Mk VI HA/LA Gun	1 x 3-lb HA/LA gun	1 x 3-lb HA/LA gun
Other	2 Depth charges	14 Depth charges	6 Depth charges
			1 x Y-gun (0 reloads)
Armament [1]	**Navigation Leader**	**Rescue Boat**	**Canadian B Type (Final)**
Aft	1 x twin 20-mm Oerlikon	1 x single 20-mm Oerlikon	1 x single 20-mm Oerlikon
Amidships	1 x single 20-mm Oerlikon	-	1 x single 20-mm Oerlikon
Bridge wings	2 x twin 0.303-in Machineguns	2 x twin 0.303-in Machineguns	-
Forward	1 x 3-lb HA/LA gun	1 x 2-lb Gun	1 x single 20-mm Oerlikon
Other	12 Depth charges	6 Depth charges	14 Depth charges
			1 x Y-Gun (7 reloads)

[1] These are typical examples only. Many variations existed, as the armament could be easily changed at short notice