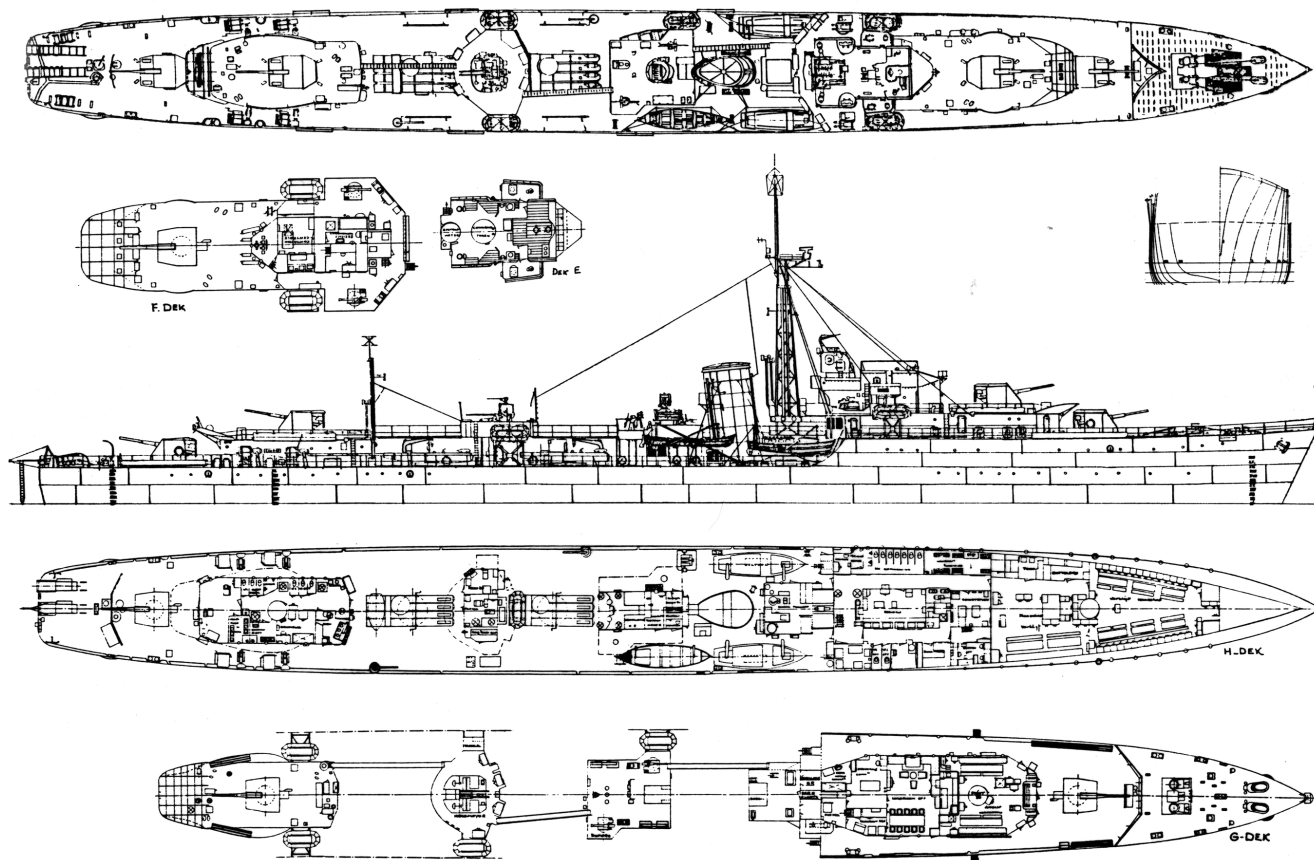


S-CLASS DESTROYER PIET HEIN

EX HMS SERAPIS



FLEET DESTROYERS



S-Class Destroyer Piet Hein.

Destroyers are small warships (defined in the London Treaty of 1930 as being no more than 1,850 tons), and armed with light weapons (guns of calibre no more than 5.1 inches (130 mm)).

In the Second World War a Royal Navy ship also had to be fitted with torpedo tubes to be classed as a destroyer. Usually, these ships were equipped for anti-submarine work, although some were equipped for minelaying operations.

Before the Second World War new British destroyers were generally designated as fleet destroyers, for work in support of the main fleet, which included cruisers and capital ships. Experience during the war led to older destroyers often being refitted and re-designated as escort destroyers (principally because older destroyers lacked the speed of modern warships) and used for less glamorous tasks such as convoy escort. The need for new specialist escort destroyers was recognised, however, and these were also built during the war.

The fleet destroyers, equipped for anti-submarine work. Each class was often fitted with improved anti-aircraft armament compared to previous British destroyers. Nevertheless, (as with all small ships) they were extremely vulnerable to air attack.

With the need for more destroyers quickly, the inability to build a prototype for testing, the difficulty of future modifications and the potential consequences of failure it can perhaps be understood why many subsequent fleet destroyers adopted a slightly simplified version of the same hull form. A new class incorporated hard-won war experience and was based on previous destroyers. With the same power plant, basic hull form, identical speed, and similar main weapons (generally, with slightly reduced guns to speed up construction and reduce costs). Anti-submarine capability along with anti-aircraft armament increased displacement and resulted in less freeboard).



Tribal class destroyer.



PIET HEIN

October 1952: Piet Hein passing a US Navy vessel in Shimonoseki Strait.

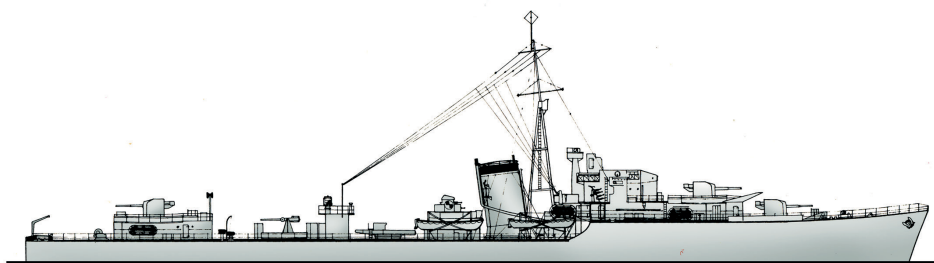


INTRODUCTION

The homeland was destitute. Not only had the fleet been greatly affected in quantity and quality by WWII, but the country had also suffered particularly badly. Cities and villages, factories and shipyards, harbours, canals, bridges, and locks were mostly destroyed or damaged.

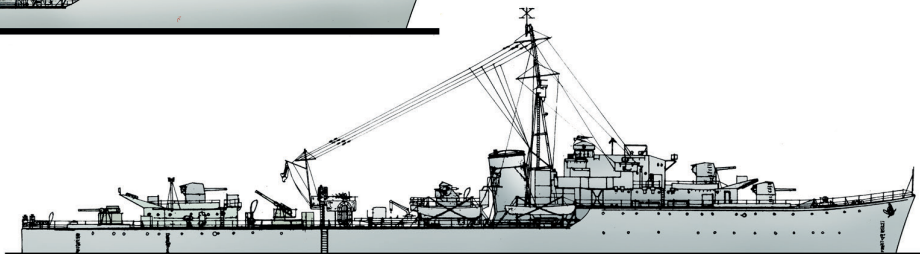
The reconstruction of the navy started with surplus warships from the war stocks of foreign navies. In September 1945, the Netherlands agreed to purchase four British destroyers to help to re-equip the Royal Netherlands Navy, the three S-class destroyers *Serapis*, *Scorpion* and *Scourge* and the Q-class destroyer *Quilliam*. *Serapis* was commissioned into service in the Netherlands on 5 October 1945, with the new name *Piet Hein*.





Left: HMS Jupiter in late 1940. Eight ships formed the J-Class Despite the heavy losses it was generally accepted that the design was sound, and formed the base for the 'emergency' designs that followed.

After WWII broke out the 'War Emergency' programme required a standard destroyer design to build in quantity, and this design was modified for the purpose. The main change was to go back to the simplicity of four single gun mounts, but the design was also modified to make the ships slightly smaller - and then the next groups had to be slightly enlarged - so some of the advantages of stabilisation were discarded.



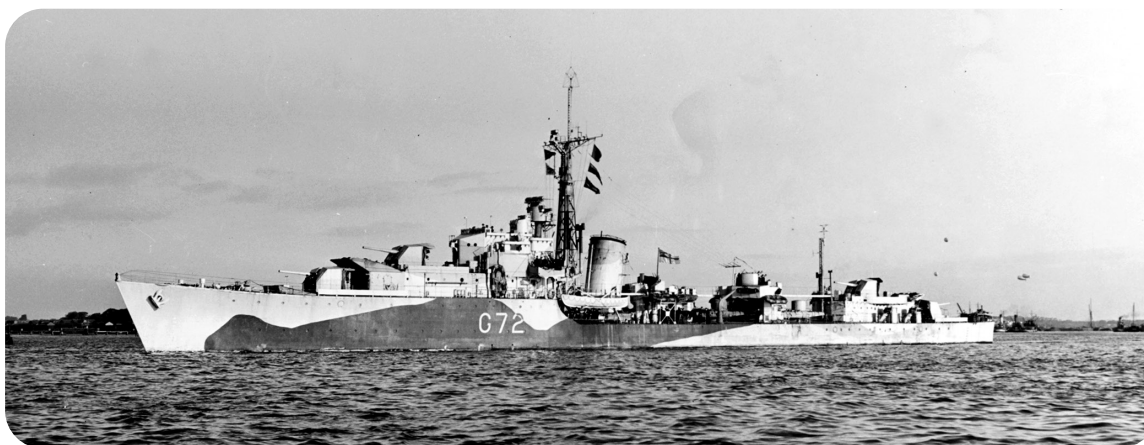
HMS Partridge one of the early War Emergency Programme destroyers in late 1941. The P-Class did incorporate war experience into their design from the start and had much improved air defence capabilities.

British Admiralty ordered the eight destroyers of the S class on 9 January 1941 as the 5th Emergency Flotilla. Generally similar to previous Q- and R-Class destroyers but with a Tribal-Class bow to make them less wet forward. Intended for general duties, including use as anti-sub-

marine escorts, they had to be suitable for mass-production. They were based on the hull and machinery of the pre-war J-class destroyers, but with a lighter armament (effectively whatever armament was available) in order to speed up production.

The S-Class destroyers consisted of 8 ships. The 4.7-inch guns were in improved mountings with 55° elevation and better ammunition supply, and most of the ships had a triaxial twin Bofors replacing the quadruple pompom. *Savage* had an experimental twin 4.5" gun turret in 'A' position.

S-Class Destroyers						
Name	Pennant	Builder	Laid down	Launched	Commissioned	Remarks
Savage	G 20	Hawthorn Leslie	7 Dec. 1941	24 Sep. 1941	8 June 1943	For the majority of her wartime career, <i>Savage</i> supported Arctic convoys. Scrapped in 1962
Saumarez	G 12	Hawthorn Leslie	1941	20 Nov. 1942	1 July 1943	Flotilla leader, heavily damaged by a mine on 22 October 1946. Written off as a constructive total loss and sold on 8 September 1950 for scrapping Broken up in Charlestown, Fife in October 1950.
Shark	G 03	Scott's & Co.	5 Nov. 1941	1 June 1943	11 Mar. 1944	Became Norwegian <i>Svenner</i> . The ship was hit by two torpedoes fired from one of two German torpedo boats, of the 5th Torpedo Boat Flotilla operating out of Le Havre.
Serapis	G 94	Scott's & Co.	14 Aug. 1941	25 Mar. 1943	23 Dec. 1943	Became Netherlands <i>Piet Hein</i>
Success	G 26	J.S. White	25 Feb. 1942	3 Apr. 1943	26 Aug. 1943	Became Norwegian <i>Stord</i> . She played an important role in the Battle of the North Cape sinking of the German battleship <i>Scharnhorst</i> . Officially purchased from the UK government in 1946 and scrapped in Belgium in 1959.
Swift	G 46	J.S. White	12 June 1942	15 June 1943	12 Dec. 1943	<i>Swift</i> participated in the Normandy landings providing fire support and was sunk off Sword Beach by a mine on 24 June 1944.
Scorpion	G 72	Cammell Laird	19 June 1941	26 Aug. 1942	11 May 1943	Ex: <i>Sentinel</i> . In October 1945, Netherlands <i>Kortenaar</i> where she saw action in the Korean War and the West New Guinea dispute. Scrapped in 1963.
Scourge	G 01	Cammell Laird	26 June 1941	8 Dec. 1942	14 July 1943	At sea during the Battle of North Cape in 1943, escorting the Russia-bound Arctic convoy JW 55B. Took no part in the fighting. Became Netherlands <i>Evertsen</i> where she saw action in the Korean War and the West New Guinea dispute.



In March 1944 Scorpion was assigned to the "Ocean Escort" force for Convoy JW 58, one of the largest Arctic convoys of the war. All ships arrived safely, and Scorpion returned with Convoy RA 58.



Centre: Scorpion covered Duke of York as she returned west to refuel in Akureyri in Iceland on 21 December 1943.

Scorpion at 28 knots moving to the rear of convoy R.A.64 in March 1945 to take over the rear guard as an air attack was threatened. The forward gun barrels, shields, breakwater, and deck are glistening with ice.



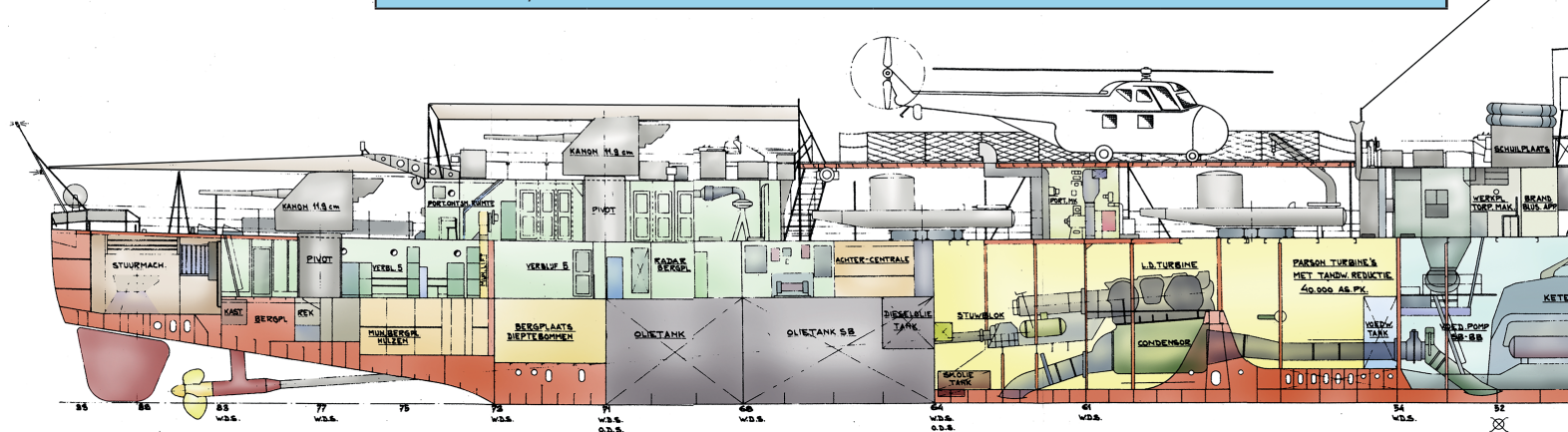
Model Plans

Plans are available at:

- 1- Netherlands Ministry of Defence: www.defensie.nl/onderwerpen/modelbouwtekeningen
- 2- NVM (Neth. Modellers Association): www.mod-elbouwtekeningen.nl

Sectional drawing of Serapis after reconstruction to fast frigate.

Technical Data Serapis / Piet Hein			
Displacement:	1710 BRT (standard) / 2505 (deep load)		
Length:	362 ft 9 in (110.56 m) oa		
Beam:	35 ft 8 in (10.87 m)		
Draught:	14 ft 2 in (4.32 m)		
Machinery:	Parsons geared turbines, 2 Admiralty 3-drums boilers, 2 shafts, 40,000 shp		
Speed:	36.75 knots		
Range:	2,800 miles at 20 knots		
Complement:	180 men*		
Armament:	As designed: 4x 4.5" guns (4x 1) 2x 40mm AA (1x 2) 6x 20mm AA (2x 2, 2x 1) 8x 21" torpedo tubes	Royal Neth. Navy 1946: 4x 4.5" guns (4x 1) 2x 40mm AA (6x 1) 8x 20 mm AA 8x 21" torpedo tubes	Royal Neth. Navy 1947: 4x 4.5" guns (4x 1) 4x 40mm AA (6x 1) 6x 20 mm AA 8x 21" torpedo tubes 2x depth charge throwers 2x depth charge rails
* Netherlands Navy: 233 men			



This was a turret in an enclosed 80° twin mounting designed to be fitted in the later 'Battle'-class destroyers. She had no single 4.5" gun fitted in 'B' position. So like her sisters she had also 4x 4.5" guns fitted. Initially *Scorpion* had Pompom instead of

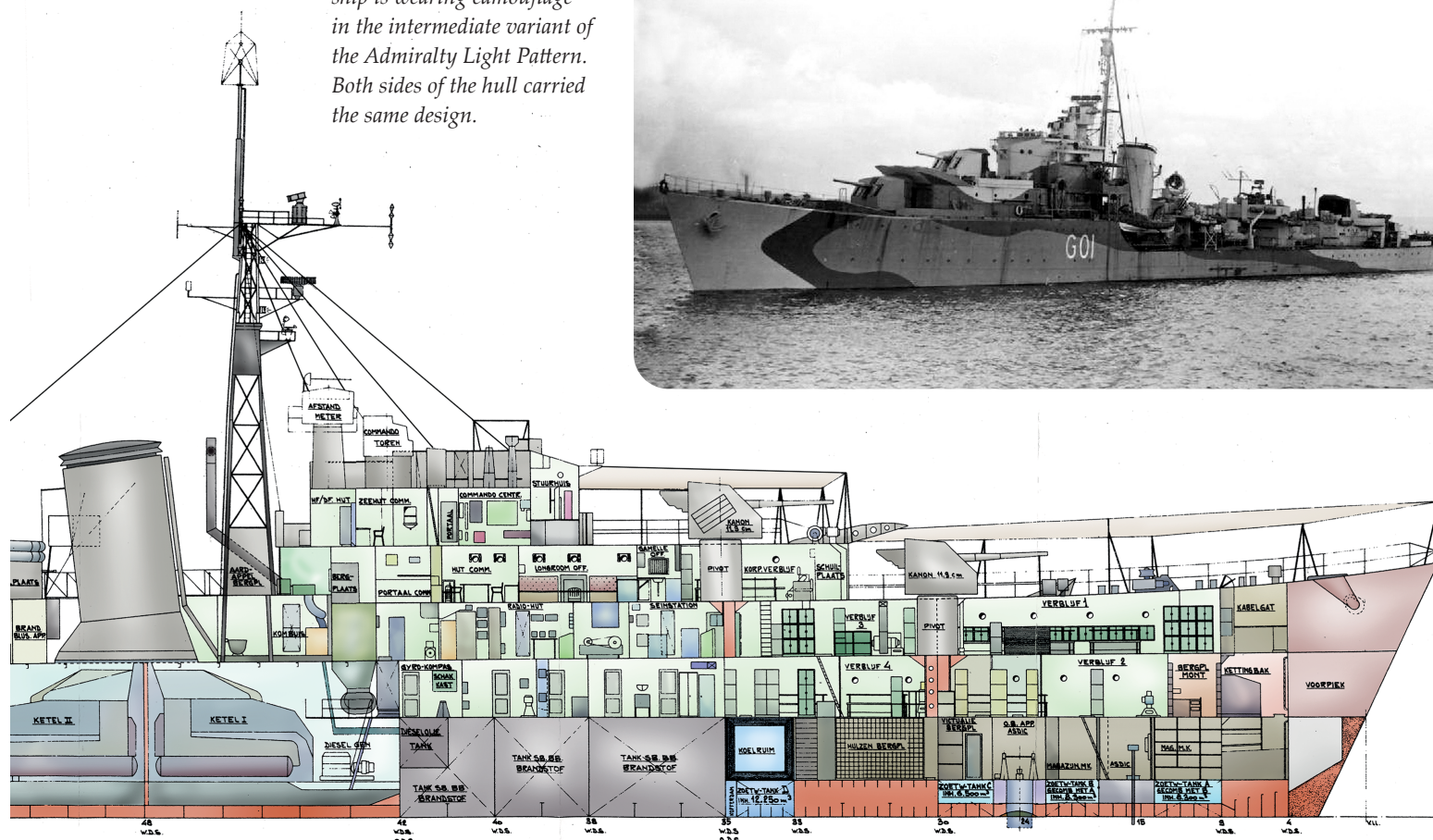
Bofors, whilst *Savage* and *Swift* had only 20 mm. The light AA armament at the end of the war was usually increased by one to five single Bofors and up to twelve 20 mm. And the depth charge outfit was 70 or 130. Delays in the delivery of guns, director

control towers, fuze keeping clocks and searchlights seriously affected the completion dates of the ships. The ships of the 5th Emergency Flotilla were fitted for Artic service the boat complement was reduced by one 27 ft whaler and davits, and the



After commissioning and workup, Serapis joined the 23rd Destroyer Flotilla of the Home Fleet based at Scapa Flow.

Scourge in 1943, still carrying her pole mast. The ship is wearing camouflage in the intermediate variant of the Admiralty Light Pattern. Both sides of the hull carried the same design.



motor cutter was resited at the break of the foremast owing to damage sustained in its original position when sea came on board.

Serapis was laid down at Scotts shipyard in Greenock on 14 August 1941 and was launched on 25 March 1943. She was completed on 23 December 1943, and assigned the pennant number G94.

Lattice mast

The ever-increasing additions of radar and other antennae had brought serious vibrations in tripod masts which were weakly cross stayed with a triangle of horizontal stays halfway between the base and top. The load at a height of some 12 metres made 'the mast sway like a Hawaiian dancer' necessitating extra stays. The short-braced lattice masts proved satisfactory, but were not popular with many C.O.s who thought they prevented sighting of aircraft attacking from astern. The mast weighted about 4.5 tons, rigging

and blocks a further 1.5 tons, a slight saving of weight resulted from placing the mast ladders on the fore side instead of after, enabling signalmen to go aloft from the top of the flag locker instead of going down to the upper deck.

By 1945 about 71¼ tons had been added since commissioning, necessitating at least 20 tons of ballast as soon as possible. In return some C.O.s ordered some minor weight savings to be carried out.

Camouflage

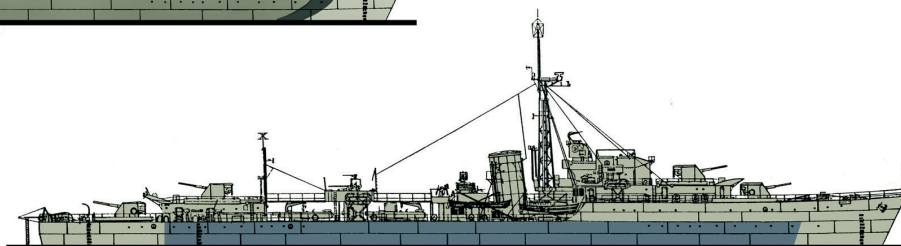
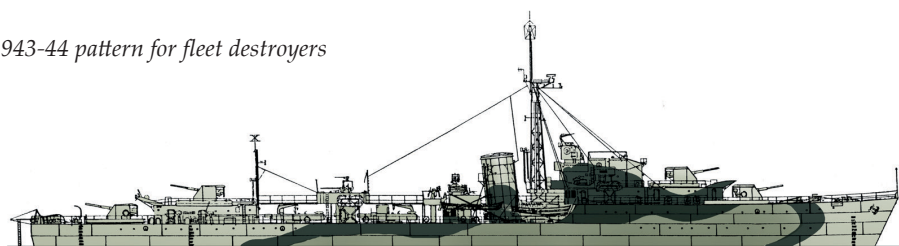
In WWII there was widespread use of camouflage on seagoing ships. Although eye catching it was generally felt to be one of the minor aspects of the many wartime efforts and its effectiveness was often impossible to quantify. The philosophy behind the multicolour disruptive schemes was that in any one condition of light and sea state at least one of the tones would blend in with the background while those

which did not would be sufficiently fragmented to either impede or delay recognition and judgement of bearing by breaking-up the ship's structure and interfering with the visual perception of key structural features.

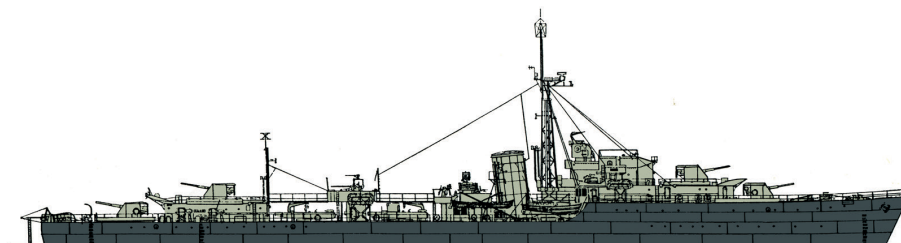
Initially the ships had the Admiralty Light Disruptive Pattern. A scheme that was introduced in 1942 and consisted of blues and greys applied in multiple combinations on hulls. (Decks were painted G20). The tops of masts and crow's nests were painted white. This scheme was designed for northern regions, where hazy and overcast conditions dominated. By 1944 the camouflage schemes were replaced by a standard simpler scheme (see bottom of Page 5). This scheme was designed to replace most of the existing schemes and was used until the end of the war.



1943-44 pattern for fleet destroyers



1944-45 standard scheme decks G 10



1945 Admiralty alternative style