OSPREY
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German Destroyers 1939–45

Gordon Williamson • Illustrated by Ian Palmer

New Vanguard · 91

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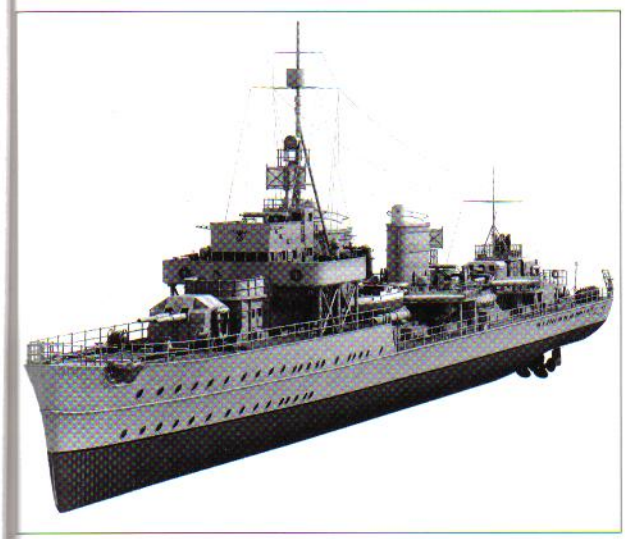

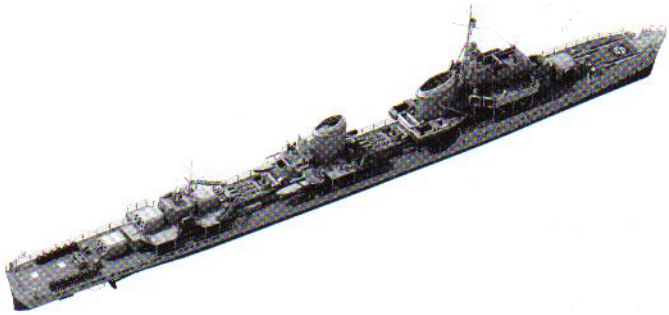

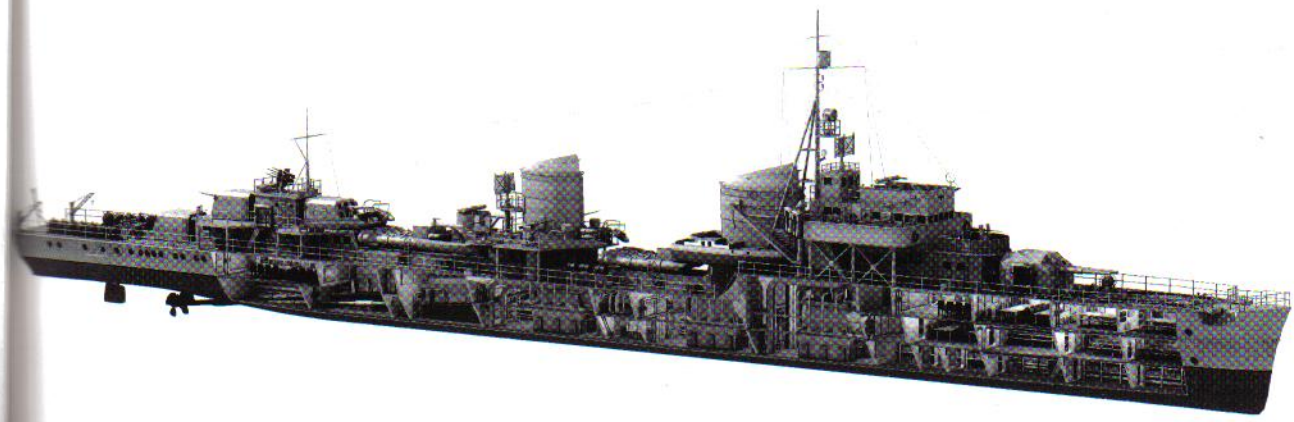

Gordon Williamson · Illustrated by Ian Palmer

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Unless otherwise specified, the photographs used in this work were provided by the U-Boot Archiv in Cuxhaven-Altenbruch, and I would like to express my gratitude to the Director of the Archiv, Horst Bredow, for his permission to reproduce these photos. Whilst the U-Boot Archiv might to some seem an unlikely source of photos of surface ships, it should be remembered that many U-boat men were former crew members of surface vessels. In particular, many of the crews of the destroyers that were sunk at the battle of Narvik subsequently transferred to the U-boat arm. Many of their personal photos have been donated to the Archiv. The Archiv also benefited from the donation of a huge number of photographic negatives from a former war correspondent, Walter Schoppe, including many photos of surface ships.

Artist's note

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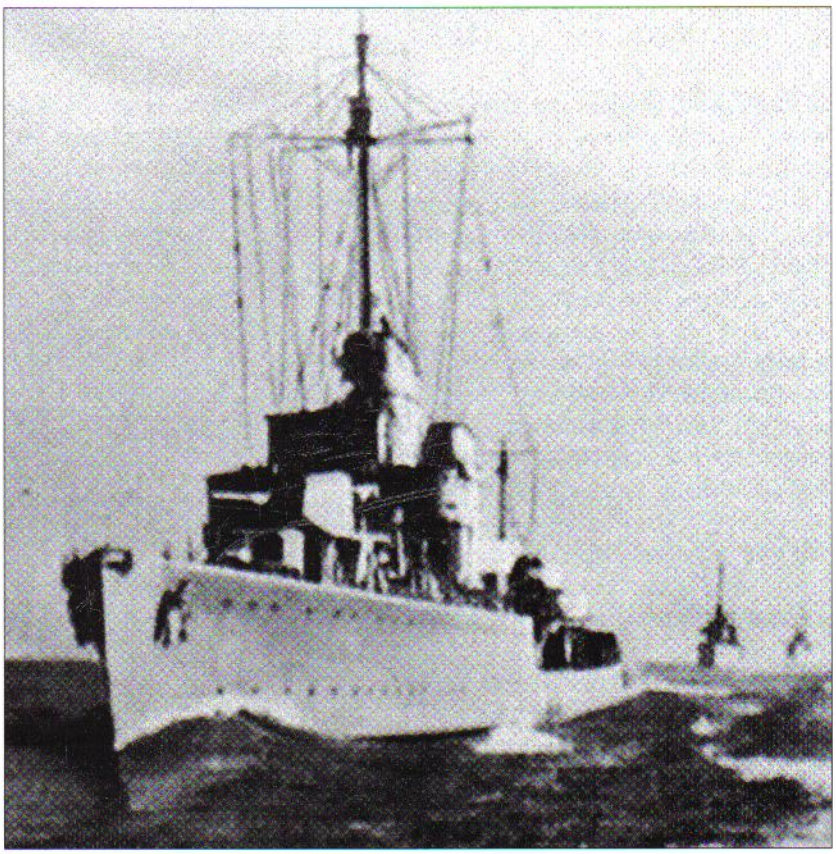
INTRODUCTION

In April 1919, the German government passed legislation governing the creation of a new navy, the Reichsmarine, which would replace the Imperial German Navy of the Kaiser's era.

The pride of the German navy, the High Seas Fleet, had been ordered by the Allies to sail into the British base at Scapa Flow. There, after hearing the final terms of the Treaty of Versailles on 21 June, the German commanders had been ordered by Admiral Reuter to scuttle their vessels, preventing their subsequent use by the Allies. Enraged by the scuttling of the fleet at Scapa Flow, the Allies simply seized most of the remaining German ships in reprisal, thus reducing the once powerful German naval force, boasting some of the most modern and powerful warships in existence, to a motley collection of light cruisers and obsolete pre-dreadnoughts.



A typical pre-war propaganda shot shows three destroyers on a training exercise. The three-quarter bow-shot shows the sleek lines of this type of ship to good advantage. Leading the trio in line-astern formation is Z13, *Erich Koellner*.

The Treaty of Versailles, signed by Germany on 28 June 1919, severely restricted the size and number of warships permitted to Germany. Germany was restricted to six old pre-dreadnought battleships, six light cruisers, 12 destroyers and 12 torpedo boats. No submarines were permitted. Naval manpower was to be restricted to a total of 15,000, of which only 1,500 were to be of officer rank.

Germany, having lost her best and most modern warships, was now in the position of being able to rebuild her fleet with ultramodern new vessels, making use of the most up-to-date technology. Thus, although small in size, the Reichsmarine would possess some of the world's most modern warships.

The Kaiserliche Marine had possessed a substantial number of 'torpedo boats'. The designation brings to mind the small motor torpedo boats or MTBs used by the British Navy, or the American PT boat. However, Germany's Torpedoboote were large vessels, not much smaller, in fact, than a destroyer. Many of these vessels continued to serve with the Reichsmarine and Kriegsmarine, which continued to build additional, improved examples of the class.

In 1934, the keel was laid for the first in a new class of ship, fast, powerful destroyers (the term Destroyer is in fact a contraction, the original title being 'torpedo boat destroyer') that would be larger and more powerfully armed than most of their contemporaries.

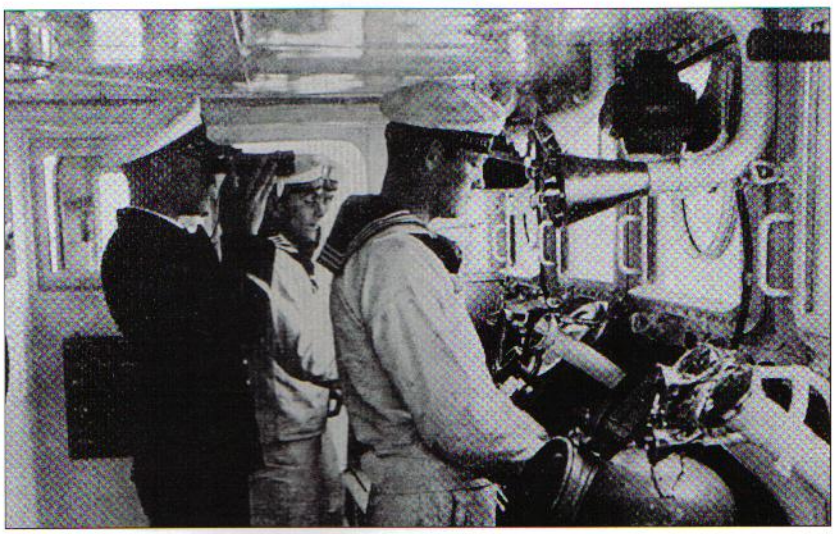
It was not until the conclusion of the Anglo-German Naval Treaty of June 1935 that many of the restrictions on warship construction were set aside. The new terms simply set the German Navy's total strength at 35 per cent of that of the Royal Navy, but no longer with any restriction of the numbers of individual warship types.

ARMAMENT

Firepower

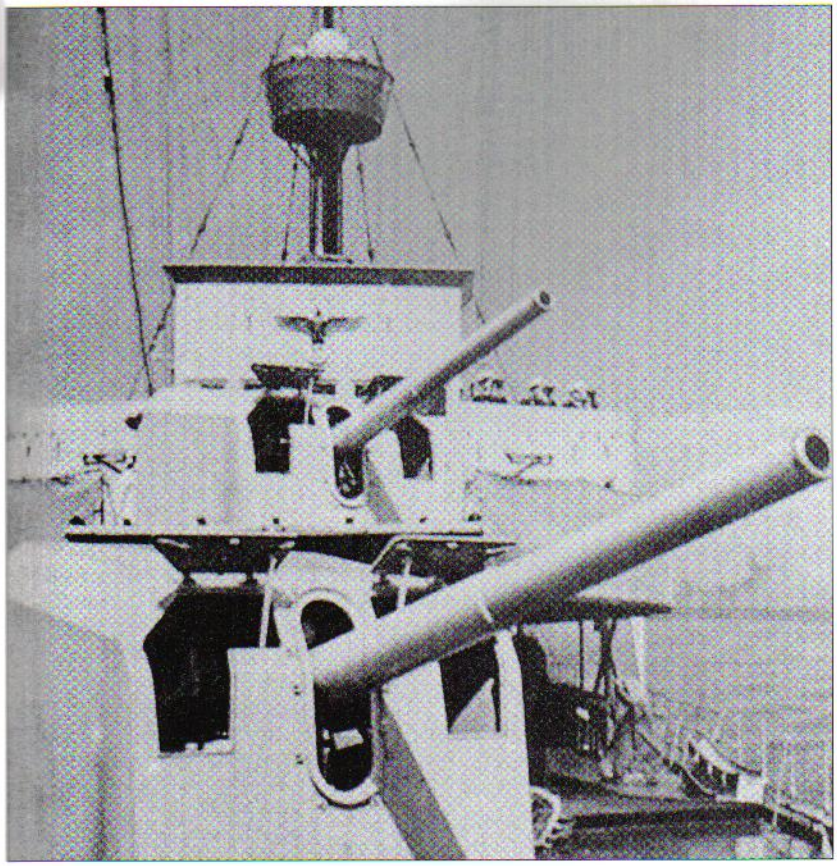
There were three main weapon types used by the German destroyer fleet. The most commonly used was the 12.7cm calibre gun mounted in single-barrelled turrets. Layout differed somewhat amongst the various types, but generally consisted of one or two turrets forward, and three turrets aft. On German warships, main armament turrets were identified alphabetically, from bow to stern, thus 'Anton', 'Bruno', 'Caesar' etc.

A fine interior shot of the enclosed bridge of a German destroyer. Unfortunately it is not possible to identify which ship from the sailor's cap ribbons. Note the binnacle at bottom right and the numerous speaking tubes.



The 12.7cm main gun

The 12.7cm gun had a muzzle velocity of 830mps and fired a 28kg shell for a maximum range, depending on trajectory, of up to 17,400m. Each barrel, including its breech-



Looking back from the bow of a destroyer, we have a fine view of the forward turrets. Note the opened vision flaps and the fact that no blast bags are fitted where the barrel enters the turret. Note also the large cast bronze eagle mounted on the front of the bridge, a common pre-war feature.

mechanism, weighed around 3.65 tons. It was a quick-firing weapon, capable of a maximum theoretical rate of fire of 18rpm, though this depended on a well-trained crew and good weather conditions. (As the turret was open, severe weather could adversely affect the efficiency of the gun crew.) Barrel life was estimated at around 1,950 rounds, after which it would require to be replaced. Normally around 120 rounds of ammunition were carried for each gun.

Some of the later wartime-commissioned destroyers carried a heavier 15cm main armament. These weapons fired a 45-kilo shell with a muzzle velocity of some 835mps, maximum range being around 23,500m. This was a much heavier gun, and could manage a maximum rate of fire of only around seven or eight rpm, less than half that of the 12.7cm. Barrel life was around 1,600 rounds.

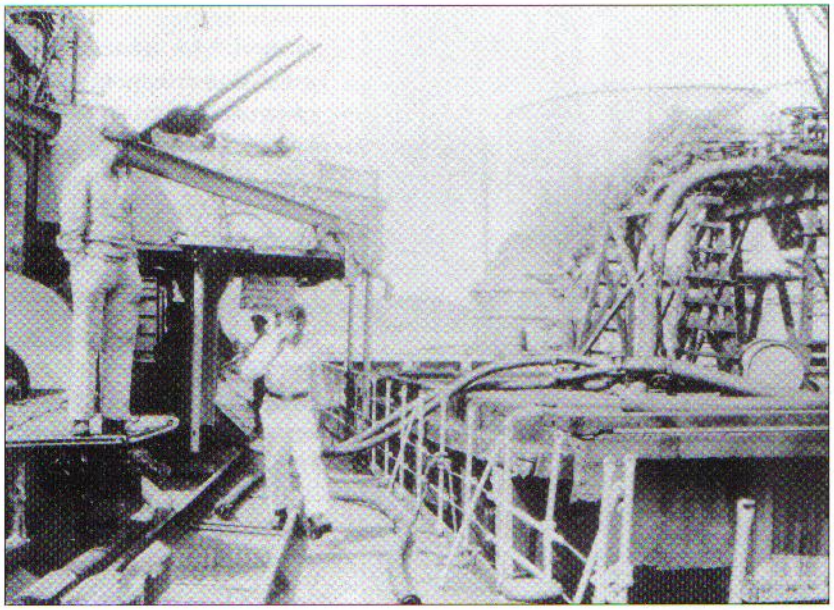
During the course of the war, a number of destroyers were fitted with a single large twin turret rather than a single-barrelled turret forward. This gave the ship considerably enhanced firepower, but adversely affected its handling characteristics by adding so much extra weight to the forward part of the ship.

The 3.7cm flak gun

The secondary armament on the destroyer was the 3.7cm twin flak gun. This weapon, also carried on most larger warships as a secondary anti-aircraft weapon, fired a 0.74kg projectile at a muzzle velocity of 1,000mps and had a range of around 8,500m against surface targets and 6,800m against aerial targets. Barrel life was around 7,500 rounds. Practical rate of fire was around 80rpm, though as much as double this was possible in theory. The total number of 3.7cm guns carried could and did vary during wartime, and around 4,000 rounds of ammunition per barrel were carried. The normal complement was four twin 3.7cm flak guns per vessel.

The 2cm flak gun

This prolifically produced weapon was installed on all types of vessel from U-boats to battleships. They were used in single, twin and quadruple configuration. The 2cm flak gun fired a 39.5g projectile with a muzzle velocity of 835mps with a range from 4,900m against surface targets to 3,700m against aerial targets. A maximum rate of fire of up to 280rpm per barrel was theoretically possible, but around 120rpm was



Midships view of a destroyer during a refuelling operation. The twin barrels of the 3.7cm flak are seen to good advantage.

usual. This meant that the four-barrelled *Flakvierling* would put up at least 480rpm and usually nearer to 800, and with several such weapons in place a substantial hail of fire could be put up against low-flying aircraft that came too close. Approximately 3,000 rounds of 2cm ammunition were carried for each barrel.

Towards the end of the war, flak armament on most German warships was considerably enhanced. In addition, a limited number of 4cm Bofors flak guns were also installed on German vessels (again ranging from small E-boats up to capital ships) in the latter stages of the war. These fired a 0.96kg projectile with a muzzle velocity of 854mps and had a range of up to 7,000m.

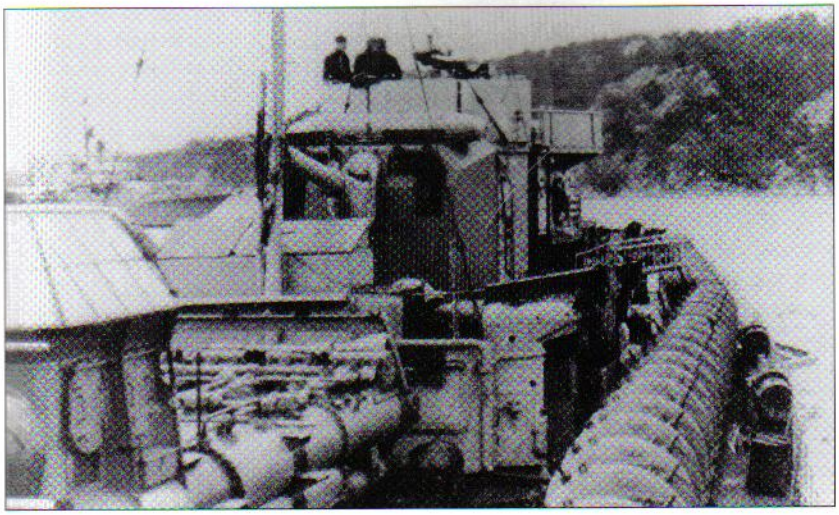
Torpedoes

The destroyers each carried two quadruple-torpedo-tube rotating mounts, one between the funnels and one to the rear of the aft funnel. The torpedoes carried were the G7a type, some 53cm in diameter and weighing just over 1.5 tons. They were capable of speeds up to 44 knots. 12 torpedoes were carried, eight loaded in the tubes and four spares.

Depth charges

Somewhat surprisingly, the depth charge complement of the average German destroyer was rather modest. Four depth charge launchers were placed two either side of the aft superstructure, and two depth charge racks, each with three charges, on the quarters. Before the outbreak of war, only 18 charges (*Wasserbomben* to the Germans) were carried. Even during wartime, the number of depth charges carried would rarely have exceeded 30.

Looking forward from the side of the aft superstructure. Note the depth charge throwers (two were fitted each side). Also visible are the rails running along the deck, along which ran the complement of mines when these were carried.



A number of interesting features may be seen in this view. Particularly evident are the many mines, their cradles running along the rails as pointed out in an earlier photograph. At left is one of the quadruple torpedo tube sets with its screened control position. Note also the third aft turret, normally trained forward and thus only used against targets to port or starboard.

Mines

Minelaying formed a major part of the duties of the German destroyer fleet. Two types of mine were used. The basic mine used was the EMC type (Einheitsminen 'C'). This was a standard moored mine, just over 1m in diameter with seven contact detonators. It weighed 1,100 kilos and carried a 300kg explosive charge. The EMC was normally set at a depth of between 3 and 6m.

The second type commonly used was the EMF (Einheitsminen Fernzundung). This was also a moored mine, but detonated by the magnetic field generated by a passing ship. It was 1.1m in diameter, and carried a 350kg explosive charge. The EMF was normally set for a depth of up to 15m. Some 81 Allied ships were lost to mines laid around the British coast by German destroyers and a further five damaged.

Fire control

Main armament

The main armament of each ship was controlled by two optical rangefinders linked to a fire control computer station.

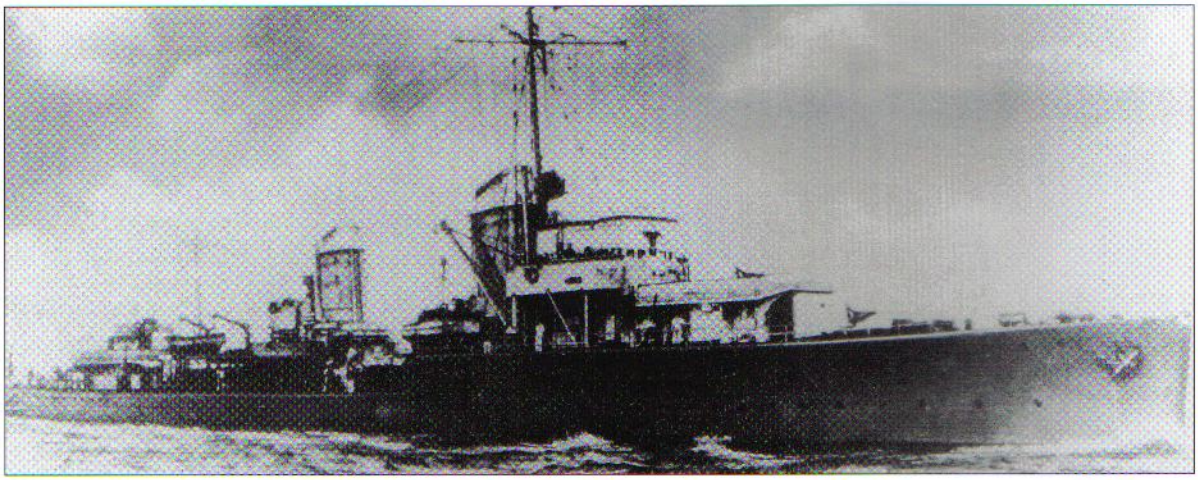
Flak guns

Main fire control for the 3.7cm flak guns was provided by a 1.25m optical rangefinder, backed by a portable hand-held 0.7m optical rangefinder for the 2cm flak guns.

RADAR

The German navy played a leading role in the development of military radar systems. The Nachrichten Versuchsabteilung (NSV) had begun work on the development of sonar-type systems capable of detecting underwater targets as early as 1929. Using similar principles for operating above the surface, a rather primitive system was developed in 1933 that could pick up echoes using 13.5cm short-wave transmissions. In 1934, a new organisation, the Gesellschaft für Elektroakustische und Mechanische Apparate (GEMA), was founded to continue development in this area. The two organisations now strove to outdo each other in the attempt to produce an effective radio detection apparatus. By September 1935, a 48cm wavelength (630MHz) set was tested before the C-in-C Navy, Admiral Raeder, and produced positive results using the training ship *Bremse* as a target (admittedly a rather large one).

The set was then installed for a time on the *Welle*, this small and rather unimposing vessel becoming the first German navy ship to carry functioning radar equipment. The set was tweaked somewhat to improve



Z10, *Hans Lody*. Note the canvas dodgers over the railings around her second turret. On this early wartime shot, her pennant number has been removed, but she still carries the bronze eagle affixed to the face of the bridge structure.

efficiency, settling on a wavelength of 82cm (368MHz) which became the standard for all naval radar sets. German naval radar sets produced during this period and through to 1945 were predominantly developed by GEMA along with well-known firms such as Telefunken, Siemens, Lorenz and AEG.

German naval radar used a bewildering range of designations. In some cases this was deliberate and intended to confuse enemy intelligence. Early sets, for example, were referred to as DeTe (Dezimeter-Telegraphie) in an effort to disguise the true intent of the equipment.

Early operational radar sets were referred to as FMG (Funkmess-Gerät), or radar equipment, with suffixes indicating the year of manufacture, manufacturing company, frequency code letter and location on board ship.

Thus, the set FMG 39G (gO), first installed on the *Admiral Graf Spee* indicated: FMG – Funkmess-Gerät; 39 – 1939; G – GEMA; g – code for 335 to 430MHz; and O indicating its position as being mounted on the foretop rangefinder.

To confuse matters further, as radar developed, even more classification terminology was introduced including names as well as numbers. The FuSE 80 *Freya*, for instance, indicated: Fu – Funkmess or radar; S – Siemens, the manufacturer; E – Erkennung, search or reconnaissance radar; 80 – the development number; and *Freya* – the code name.

Fortunately, in 1943, a new, simplified designation system was introduced, in which the sets employed by the navy bore the designations FuMO (Funkmess-Ortung) active search radar, or FuMB (Funkmess-Beobachtung) passive detecting radar. This was then followed by a specific numerical type code. The predominant types used on the destroyers were the FuMO 21, FuMO 63, FuMO 24/25, FuME *Wespe-G*, FuMB 6 *Palau* and FuMB 3 *Bali*.

Initially, the standard radar equipment installed on German destroyers was the FuMO 21, the 4m x 2m mattress antenna being installed on a special housing on the bridge deck area just forward of the foremast.

From mid-1943, the FuMO 25 with a 6m x 2m antenna, began to be fitted and was also retro-fitted to all older vessels. The positioning of the antenna meant that the foremast immediately behind it prevented

full rotation. To circumvent this problem, a number of destroyers had an apparatus looking somewhat like a set of goalposts, with the mast fixed to the centre of the crossbar. The gap thus created allowed the radar antenna to rotate. A year later, a number of boats began to receive the FuMO 63 (*Hohentweil-K*), installed on the platform that previously accommodated the aft searchlight. At the same time, these boats received a FuMB 6 *Palau* antenna, fitted to one of the yardarms on the foremast. Antennae for the passive radar systems FuMB 3 *Bali*, FuME 2 *Wespe-G* and FuMB *Tunis* were also fitted onto the foremast.

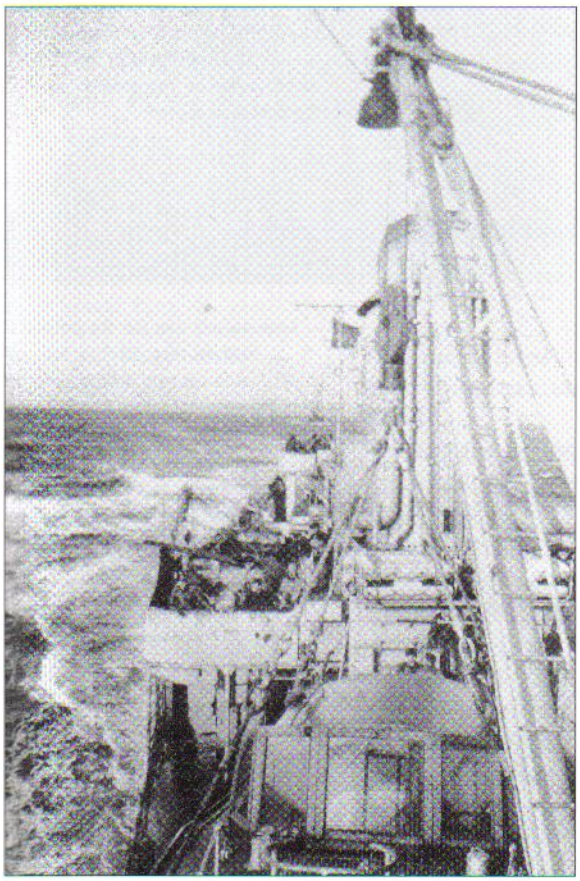
COLOUR SCHEMES AND CAMOUFLAGE

The standard livery of German destroyers prior to the outbreak of war was the same pale grey colour scheme as on larger warships. Ships built before the outbreak of war usually featured a large cast metal eagle and swastika emblem in bronze mounted on the face of the bridge. These were removed after the outbreak of war and never fitted to those ships built in wartime. In peacetime, the destroyers also carried their pennant number in white on the hull side.

During wartime, various splinter camouflage schemes were adopted. These generally consisted of broad or narrow bands of medium or very dark grey over the standard pale grey livery, sometimes also with white false bow or stern waves added.

Decks and other horizontal surfaces were generally finished in a dark grey anti-slip surfacing, destroyers lacking the planked wooden decking found on capital ships. Many destroyers had a large white disc with black swastika painted on the forecastle to aid recognition by friendly aircraft.

Looking astern from the starboard side of the bridge structure. The ship's cutter can be seen as can the derrick for lowering and recovering the boat. Looking further astern the twin 3.7cm flak guns can be seen on their platform at the side of the forward funnel.



SHIP'S NAMES

The practice in the pre-war German Navy had been to name its destroyers for naval officers who had commanded torpedo boats in the Kaiserliche Marine and had been killed in action during World War One. This practice continued from Z1 through to Z22, thereafter only numbers being used. Each of the first 22 ships' crews were issued with a cap ribbon bearing their ship's name, these subsequently being replaced by a general ribbon *Kriegsmarine* for security reasons on the outbreak of war. Those first 22 named destroyers commemorate the following German officers.

Z1 *Zerstörer Leberecht Maas* Leberecht Maas was a Konteradmiral, commander of a light cruiser squadron. He died when his ship, the *Köln*, was sunk on 28 August 1915.

Z2 *Zerstörer Georg Thiele* Korvettenkapitän and commander of a Torpedoboot Flotilla. Killed in action 17 October 1917.

Z3 ***Zerstörer Max Schultz*** Korvettenkapitän. Killed 23 January 1917 when his ship, the Torpedoboot V69, was sunk.

Z4 ***Zerstörer Richard Beitzen*** Kapitänleutnant. Seriously wounded fighting a fire in the magazine of his ship.

Z5 ***Zerstörer Paul Jacobi*** Korvettenkapitän. Killed in action aboard Torpedoboot V25 on 2 December 1915.

Z6 ***Zerstörer Theodor Riedel*** Korvettenkapitän. Killed in action 31 May 1916.

Z7 ***Zerstörer Hermann Schoemann*** Kapitänleutnant. Killed in action 1 May 1915 aboard Torpedoboot A2.

Z8 ***Zerstörer Bruno Heinemann*** Korvettenkapitän. First officer on the battleship *König*. Murdered 5 November 1918 during the communist mutiny.

Z9 ***Zerstörer Wolfgang Zenker*** Leutnant. Murdered along with Bruno Heinemann on 5 November 1918.

A crew member from Z5 proudly sports the cap ribbon of his ship, *Zerstörer Paul Jacobi*. These ribbons were a major factor in fostering *esprit de corps* and pride in the sailor's assigned ship, but were withdrawn on the outbreak of war and replaced by a ribbon bearing the single word *Kriegsmarine*.

Z10 ***Zerstörer Hans Lody*** Oberleutnant zur See. Executed 6 November 1914 in the Tower of London on charges of espionage.

Z11 ***Zerstörer Bernd von Arnim*** Kapitänleutnant. Killed in action 27 July 1917 aboard Torpedoboot G42.

Z12 ***Zerstörer Erich Giese*** Kapitänleutnant. Killed in action 5 June 1917 aboard Torpedoboot S20.

Z13 ***Zerstörer Erich Koellner*** Kapitänleutnant. Killed in action 20 April 1918 aboard minesweeper M95.

Z14 ***Zerstörer Friedrich Ihn*** Kapitänleutnant. Killed in action 31 May 1916 aboard Torpedoboot S35.

Z15 ***Zerstörer Erich Steinbrinck*** Kapitänleutnant. Killed in action 31 May 1916 aboard Torpedoboot V29.

Z16 ***Zerstörer Friedrich Eckoldt*** Kapitänleutnant. Killed in action 31 May 1916 aboard Torpedoboot V48.

Z17 ***Zerstörer Diether von Roeder*** Kapitänleutnant. Killed in action 10 July 1918 as commander of 13 Torpedobootflotille.

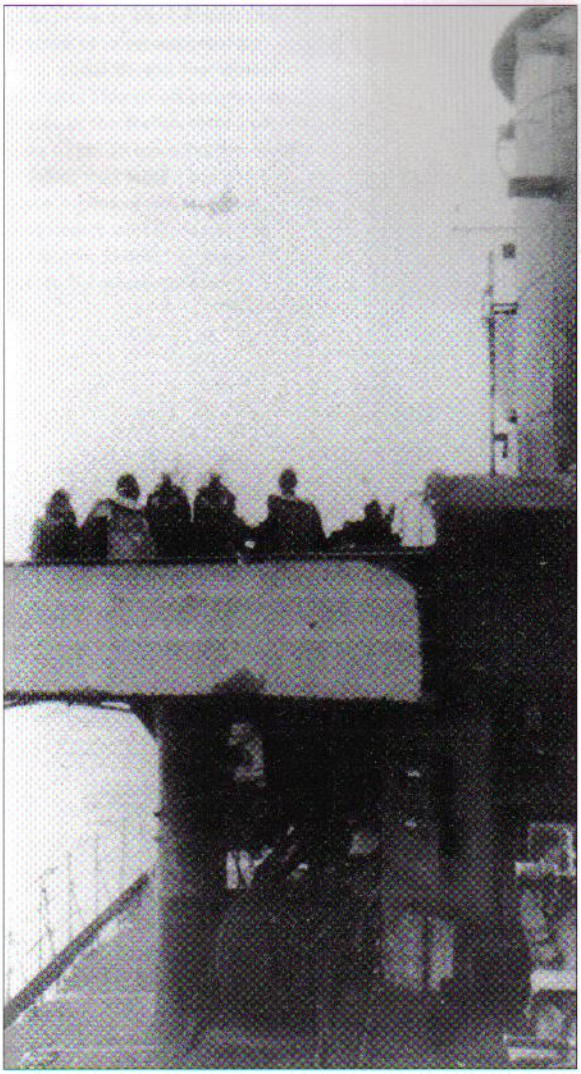
Z18 ***Zerstörer Hans Lüdemann*** Marineingnieur Aspirant, severely injured acting to prevent a high-pressure steam cylinder from exploding and thus saving the lives of many of his shipmates.

Z19 ***Zerstörer Hermann Künne*** Matrose. Killed in action 23 April 1918 in hand-to-hand fighting in Zeebrugge as leader of an assault troop of Marinekorps Flandern.

Z20 ***Zerstörer Karl Galster*** Kapitänleutnant. Killed in action 25 March 1916 as commander of Torpedoboot S22.

Z21 ***Zerstörer Wilhelm Heidkamp*** Maat on board SMS *Seydlitz*. Instrumental in preventing his ship from exploding by flooding the magazines, despite his serious injuries, 24 January 1915. Heidkamp survived the war but later died of his injuries.

Z22 ***Zerstörer Anton Schmitt*** Bootsmannsmaat. Gun commander on the light cruiser *Frauenlob*. Displayed conspicuous gallantry in refusing to leave his post, maintaining fire until the last moment while under heavy enemy fire despite being up to his waist as his ship took on water.



Looking aft we see the second funnel with its anti-aircraft platform. The gun crew is closely observing an aircraft passing astern of the ship. Note the canvas dodgers fitted to the rails around the gun platform, giving some protection from heavy spray.

ORGANISATION

The Destroyer Fleet was distributed across a number of flotillas. Prior to the outbreak of war, the flotilla number of the individual boat was reflected in its pennant number, painted in large white numerals on the side of the hull.

This was a two-digit number, the first reflecting the flotilla number and the second the ship's number. Thus, with the *Paul Jacobi*, the number 21 indicated second flotilla, ship number one.

1. Zerstörer Flotille

Z2 (*Georg Thiele*), Z3 (*Max Schultz*), Z4 (*Richard Beitzen*), Z14 (*Friedrich Ihn*), Z15 (*Erich Steinbrinck*), Z16 (*Friedrich Eckoldt*)

2. Zerstörer Flotille

Z5 (*Paul Jacobi*), Z6 (*Theodor Riedel*), Z7 (*Hermann Schoemann*), Z8 (*Bruno Heinemann*), Z1 (*Leberecht Maas*)

3. Zerstörer Flotille

Z17 (*Diether von Roeder*), Z18 (*Hans Lüdemann*), Z20 (*Karl Galster*), Z22 (*Anton Schmitt*)

4. Zerstörer Flotille

Z9 (*Wolfgang Zenker*), Z11 (*Bernd von Arnim*), Z10 (*Hans Lody*), Z12 (*Erich Giese*), Z13 (*Erich Koellner*)From 1942: Z31, Z32, Z33, Z34, Z37, Z38, Z39

5. Zerstörer Flotille

Z15 (*Erich Steinbrinck*), Z5 (*Paul Jacobi*), Z16 (*Friedrich Eckoldt*), Z6 (*Theodor Riedel*) From 1942: Z29, Z25, Z4 (*Richard Beitzen*), Z5 (*Paul Jacobi*), Z14 (*Friedrich Ihn*), Z7 (*Hermann Schoemann*)

6. Zerstörer Flotille

Z33, Z36, Z43, Z5 (*Paul Jacobi*), Z7 (*Hermann Schoemann*), Z8 (*Bruno Heinemann*), Z6 (*Theodor Riedel*), Z10 (*Hans Lody*), Z20 (*Karl Galster*)

8. Zerstörer Flotille

Z23, Z24, Z25, Z26, Z27, Z28, Z29, Z30.

Note that attachment of any particular destroyer to a specific flotilla was not necessarily permanent.

TYPE 34 *LEBERECHT MAAS* CLASS

Four examples (Z1–Z4) of this type were manufactured. All were constructed at the Deutsche Werke yard in Kiel.

Z1 Keel laid 15/10/34; launched 18/8/35; commissioned 14/1/37. This ship, the *Leberecht Maas*, ran on to a mine and was sunk whilst attempting to evade an Allied air attack, 22 February 1940, in the North Sea.

Z2 Keel laid 25/10/34; launched 18/8/35; commissioned 27/2/37. This ship, the *Georg Thiele*, was run aground and scuttled, Narvik, 13 April 1940.

Z3 Keel laid 2/1/35; launched 30/11/35; commissioned 6/4/37. The *Max Schultz*, with *Leberecht Maas*, ran on to a mine evading enemy air attack in the North Sea, 22 February 1940.

Z4 Keel laid 7/1/35; launched 30/11/35; commissioned 13/5/37. *Richard Beitzen* was the only destroyer of the *Leberecht Maas* class to survive the war. She was allocated to Great Britain and ultimately scrapped in 1947.

TYPE 34 SPECIFICATIONS	
Length:	119m
Beam:	11.3m
Draught:	4m
Maximum displacement:	2,619 tons
Fuel oil carried:	715 tons max.
Maximum speed:	38 knots
Maximum endurance:	1,825 nautical miles
Main armament:	5 x 12.7cm guns in single turrets
Flak armament:	8 x 3.7cm guns in four twin mounts 6 x 2cm guns on single mounts
Torpedoes:	8 x 53.3cm torpedo tubes in two quadruple mounts
Depth charges:	4 launchers
Mines:	Up to 60 carried
Complement:	325 officers and men

Ship's commanders

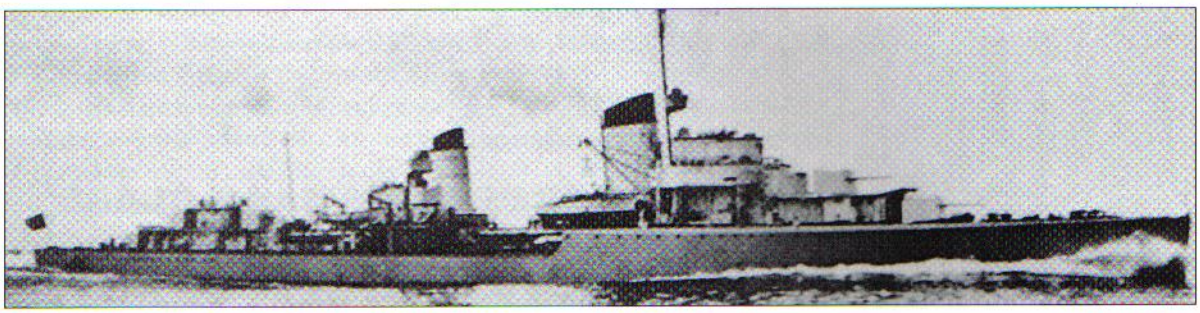
Z1

Jan 1937 to Sep 1937	Korvettenkapitän Schmidt
Oct 1937 to Apr 1939	Korvettenkapitän Wagner
Apr 1939 to Feb 1940	Korvettenkapitän Bassange

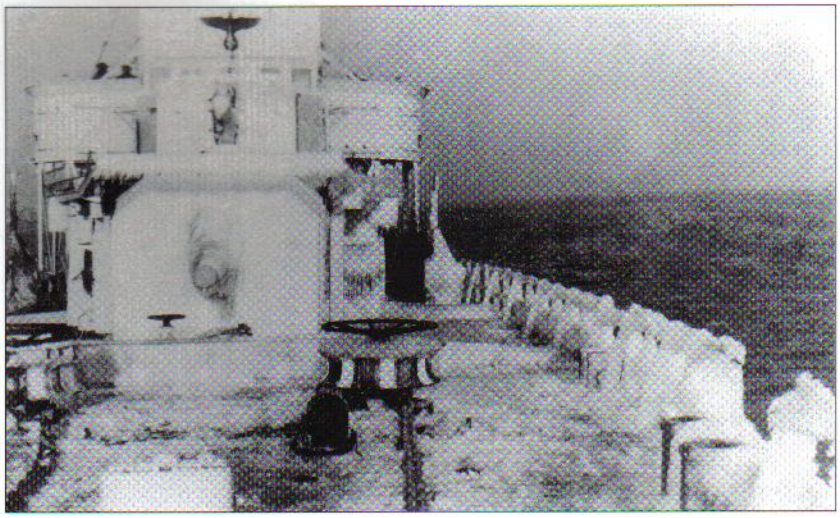
Z2

Feb 1937 to Aug 1938	Korvettenkapitän Hartmann
Aug 1938 to Oct 1938	Korvettenkapitän von Pufendorf
Oct 1938 to Apr 1940	Korvettenkapitän Wolff

Z1, *Leberecht Maas*, the first of Germany's new generation of large, powerful destroyers. This photo shows how the Type 34 appeared as built, with straight stem and very high funnel caps. As seen here she also still features the rounded face to the bridge.



This pre-war shot shows the degree of icing suffered by such ships during the winter months. This photograph was taken in the Baltic. One can only begin to imagine the level of icing that would have been experienced by those destroyers on service in the far north, inside the Arctic Circle, in wintertime.



Z3	
Apr 1937 to Oct 1938	Korvettenkapitän Baltzer
Oct 1938 to Feb 1940	Korvettenkapitän Trampedach
Z4	
May 1937 to May 1938	Korvettenkapitän Gadow
May 1938 to Oct 1939	Korvettenkapitän Schmidt
Oct 1939 to Jan 1943	Korvettenkapitän von Davidson
Jan 1943 to Jan 1944	Korvettenkapitän Dominik
Jan 1944 to Apr 1944	No allocated commander
Apr 1944 to Jun 1944	Korvettenkapitän Lüdde-Neurath
Jun 1944 to Sep 1944	Korvettenkapitän Gade
Sep 1944 to May 1945	Korvettenkapitän Neuss

Modifications

The first three of the class, having been destroyed early in the war, had no major modifications. Z1 to Z3 were built with a straight stem, but Z4 had her bows modified to give a slight rake, and also had FuMO radar installed. She also had a single 2cm flak gun mounted immediately forward of turret 'Bruno' and one either side of her bridge. The two single 2cm flak guns mounted on the roof of the deckhouse of her aft superstructure were also replaced by a single *Flakvierling*.

All of this class were constructed with a curved face to the bridge. However, this feature in all cases was altered to a square structure during refitting in 1938, this gave considerably more space in the bridge.

Powerplant

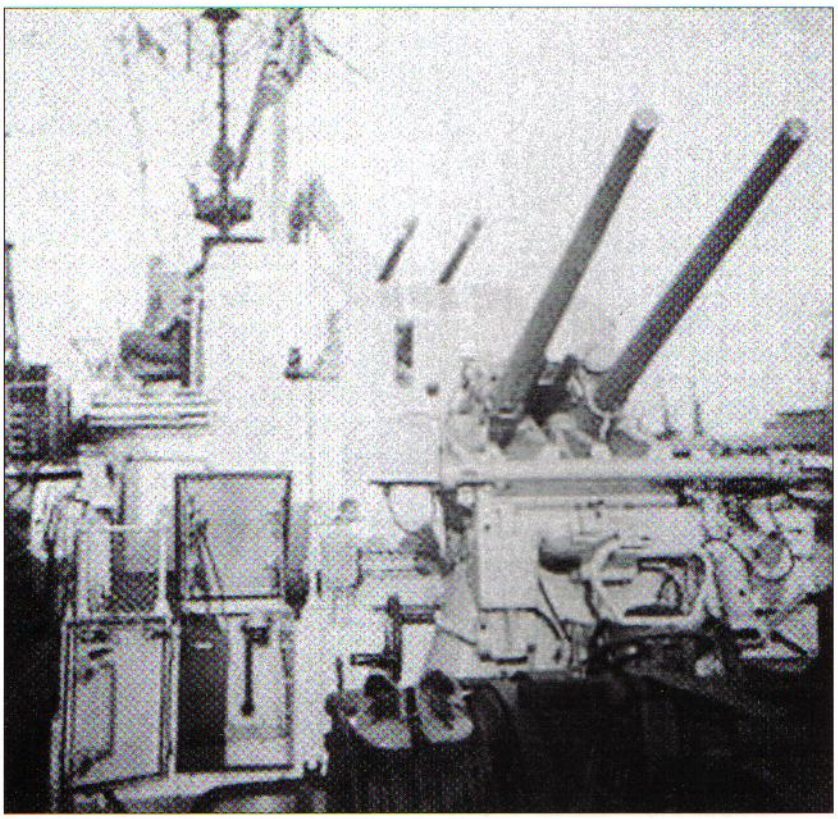
The Type 34 destroyers were driven by twin propeller shafts, powered by two Wagner turbines and six Benson boilers. Auxiliary power was provided by three 60kw diesel generators and two 200kw turbo-generators.

TYPE 34A *PAUL JACOBI* CLASS

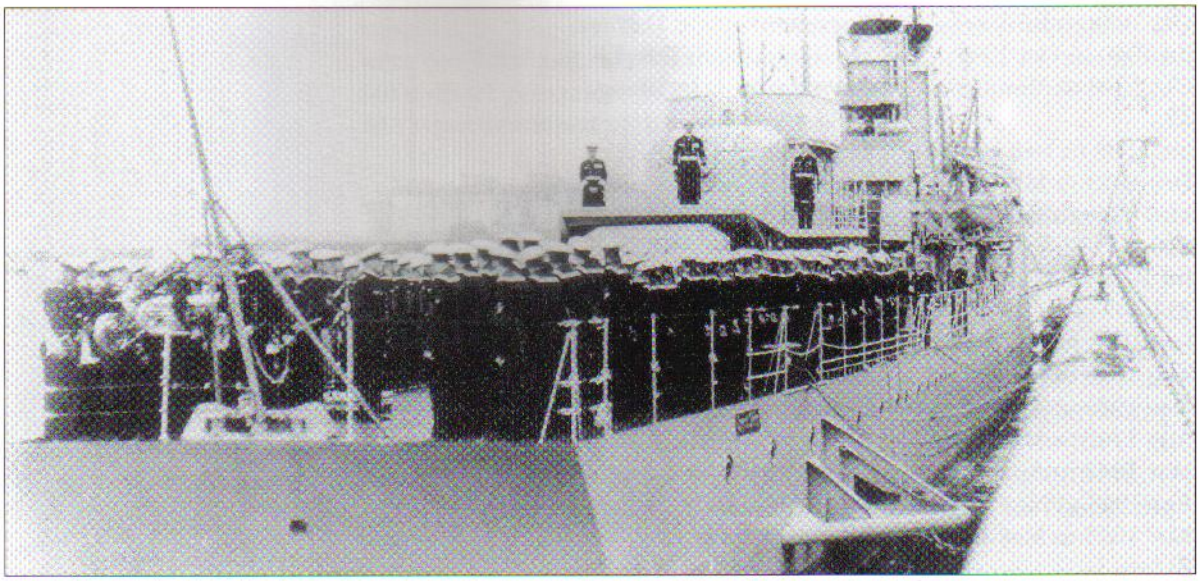
A total of 12 vessels in the 34A class were constructed.
Z5 Keel laid 15/7/35; launched 24/3/36; commissioned 29/6/37.

The *Paul Jacobi* survived the war and was taken over initially by the Royal Navy and then passed to France. She was scrapped in 1951.
Z6 Keel laid 18/6/35; launched 22/4/36; commissioned 2/7/37.
Theodor Riedel survived the war and was taken over by the French Navy, where she served as the *Klebar*. She was finally scrapped in 1958.
Z7 Keel laid 7/9/35; launched 16/6/36; commissioned 9/9/37.
Hermann Schoemann was sunk on 2 May 1942 after a naval engagement with British destroyers and the cruiser HMS *Edinburgh*.
Z8 Keel laid 14/1/36; launched 15/9/39; commissioned 9/1/38.
Bruno Heinemann ran on to a mine in the English Channel and sank on 25 January 1942.
Z9 Keel laid 22/3/35; launched 27/3/36; commissioned 2/7/38.
Wolfgang Zenker was damaged beyond repair during the battle for Narvik and was run aground and scuttled on 13 April 1940.
Z10 Keel laid 1/4/35; launched 14/5/36; commissioned 17/9/38.
Hans Lody survived the war to be taken over by the Royal Navy. She was finally scrapped in 1949.
Z11 Keel laid 26/4/35; launched 8/7/36; commissioned 6/12/38.
Bernd von Arnim was run aground and scuttled after being mortally damaged in the battle for Narvik, 13 April 1940.
Z12 Keel laid 3/5/35; launched 12/3/37; commissioned 4/3/39.
Erich Giese was sunk during the battle for Narvik, 13 April 1940.
Z13 Keel laid 12/10/35; launched 18/3/37; commissioned 28/8/39.
Erich Koellner ran aground and was subsequently blown apart by heavy fire from the battleship *Warspite*, Narvik, 13 April 1940.
Z14 Keel laid 30/3/35; launched 5/11/35; commissioned 6/4/38.
Friedrich Ihn survived the war to be handed over to the Soviet Navy.
Z15 Keel laid 30/3/35; launched 24/9/36; commissioned 31/5/38.
Erich Steinbrinck survived the war to be handed over to the Soviet Navy.
Z16 Keel laid 9/11/35; launched 21/3/37; commissioned 28/7/39.
Friedrich Eckoldt was sunk in action with the cruisers HMS *Sheffield* and HMS *Glasgow*, 31 December 1942.

Of these 12 vessels, Z5–Z9 were built at the Deschimag in Bremen, Z10–Z13 at the Germaniawerft in Kiel and Z14–Z16 at the Blohm & Voss yard in Hamburg.



Close-up of one of the twin 3.7cm flak guns on Z5, *Paul Jacobi*. This vessel was one of only a handful of destroyers to receive a full complement of six twin 3.7cm mounts.



Z10, *Hans Lody*, during her commissioning ceremony, with the ship's band mustered on the quarterdeck. Notice the fender extending from her rear hull, preventing the ship swinging against the quayside.

TYPE 34A *PAUL JACOBI* SPECIFICATIONS

Length:	119m
Beam:	11.3m
Draught:	4.23m
Maximum displacement:	3,510 tons
Fuel oil carried:	715 tons max.
Maximum speed:	38 knots
Maximum endurance:	1,825 nautical miles
Main armament:	5 x 12.7cm guns in single-barrelled turrets
Flak armament:	8 x 3.7cm guns in four twin turrets 6 x 2cm guns on single mounts
Torpedoes:	8 x 53.3cm torpedo tubes in two quadruple mounts
Depth charges:	4 launchers
Mines:	Up to 60 carried
Complement:	325 officers and men

Ship's commanders

Z6

Jun 1937 to Oct 1938	Korvettenkapitän Peters
Oct 1938 to Feb 1941	Korvettenkapitän Zimmer
Feb 1941 to Jul 1944	Korvettenkapitän Schlieper
Jul 1944 to May 1945	Korvettenkapitän Bülter

Z7

Jul 1937 to Oct 1938	Korvettenkapitän Fechner
Oct 1938 to Nov 1940	Korvettenkapitän Böhmig
Nov 1940 to Apr 1941	No allocated commander
Apr 1941 to Sep 1943	Korvettenkapitän Riede
Sep 1943 to Jan 1944	Korvettenkapitän von Hausen
Jan 1944 to Jun 1944	Korvettenkapitän Menge
Jun 1944 to May 1945	Kapitänleutnant Blöse

Z8

Sep 1937 to Oct 1938	Korvettenkapitän Schulte-Mönting

Oct 1938 to Jul 1940	Korvettenkapitän Detmers
Jul 1940 to Oct 1940	Kapitänleutnant Loerke
Oct 1940 to May 1942	Korvettenkapitän Wittig
Z9	
Jan 1938 to Dec 1939	Korvettenkapitän Berger
Dec 1939 to May 1940	Korvettenkapitän Langheld
May 1940 to Jan 1942	Korvettenkapitän Alberts
Z10	
Jul 1938 to Apr 1940	Korvettenkapitän Pönitz
Z11	
Sep 1938 to Aug 1939	Korvettenkapitän von Pufendorf
Aug 1939 to Oct 1940	Korvettenkapitän von Wangenheim
Nov 1940 to Aug 1942	Korvettenkapitän Pfeiffer
Aug 1942 to Mar 1943	Korvettenkapitän Zenker
Mar 1943 to Apr 1943	Kapitänleutnant Vorsteher
Apr 1943 to Nov 1943	Fregattenkapitän Marks
Nov 1943 to May 1945	Korvettenkapitän Haun
Z12	
Dec 1938 to Apr 1940	Korvettenkapitän Rechel
Z13	
Mar 1939 to Apr 1940	Korvettenkapitän Schmidt
Z14	
Aug 1939 to Apr 1940	Fregattenkapitän Schulze-Hinrichs
Z15	
Apr 1939 to Oct 1939	Fregattenkapitän von Pufendorf
Oct 1939 to Nov 1942	Korvettenkapitän Wachsmuth
Nov 1942 to Apr 1944	Korvettenkapitän Fromme
Apr 1944 to May 1945	Korvettenkapitän Richter-Oldekop
Z16	
Jun 1938 to Jan 1942	Fregattenkapitän Johannesson
Jan 1942 to Dec 1942	Korvettenkapitän Freytag von Löringhoven
Dec 1942 to Nov 1944	Korvettenkapitän Teichmann
Nov 1944 to May 1945	Fregattenkapitän Röver

Modifications

Z5, like her four predecessors, was completed with a curved face to the bridge, this later being modified during refitting. All subsequent destroyers were completed with a squared face to the bridge.

Z9, Z11, Z12 and Z13 were all lost early in the war, in the battle for Narvik, and saw no major modifications. Z5, Z10 and Z15 all had the third main armament turret removed and additional flak armament substituted. All had their flak armament significantly increased from the basic complement of 4 x 3.7cm units. Z5 ultimately had ten 3.7cm guns, Z10 had 12 and Z15 had 14 of them.

Powerplant

The Type 34A featured a similar powerplant layout to the Type 34. Z5 to Z8 were fitted with six Benson boilers whilst Z9 to Z16 had boilers

Here we see the crew of one of the quadruple torpedo tube mounts. Note that the control position has a lightly armoured screen to protect the crew from shell splinters.

supplied by Wagner. Two 200kw turbo-generators were supplied, as were two 60kw and one 50kw diesel generators in Z5 to Z8, and three 50kw diesel generators in Z9 to Z16. Powerplant in both the 34 and 34A types developed in the region of 70,000hp.

TYPE 36 *DIETHER VON ROEDER* CLASS

A total of six vessels of this class were completed.
Z17 Keel laid 9/9/36; launched 19/8/7; commissioned 29/8/38. *Diether von Roeder* was scuttled after being seriously damaged during the battle for Narvik, 13 April 1940.
Z18 Keel laid 9/9/36; launched 12/12/37; commissioned 8/10/38. *Hans Lüdemann* was severely damaged during the battle for Narvik and was scuttled by a British boarding party.
Z19 Keel laid 5/10/36; launched 22/12/37; commissioned 12/1/39. *Hermann Künne* was run aground and scuttled during the battle for Narvik, 13 April 1940.
Z20 Keel laid 14/9/37; launched 15/7/38; commissioned 21/3/39. *Karl Galster* survived the war to be handed over to the Soviet Navy. She was scrapped in 1958.
Z21 Keel laid 15/12/37; launched 20/8/38; commissioned 10/7/39. *Wilhelm Heidkamp* was sunk by torpedoes from a British destroyer at Narvik, 11 April 1940.
Z22 Keel laid 3/1/38; launched 20/9/38; commissioned 24/9/39. *Anton Schmitt* was sunk by torpedoes from a British destroyer 10 April 1940.

TYPE 36 SPECIFICATIONS	
Length:	123m
Beam:	11.7m
Draught:	4.5m
Maximum displacement:	3,469 tons
Fuel oil carried:	715 tons max.
Maximum speed:	38 knots
Maximum endurance:	1,825 nautical miles
Fuel oil carried:	760 tonnes max.
Maximum speed:	40 knots
Maximum endurance:	2,020 nautical miles
Main armament:	5 x 12.7cm guns in single-barrelled turrets
Flak armament:	8 x 3.7cm guns in four twin turrets
	7 x 2cm guns on single mounts
Torpedoes:	8 x 53.3cm torpedo tubes in two quadruple mounts
Depth charges:	4 launchers
Mines:	Up to 60 carried
Complement:	323 officers and men

Ship's commanders

Z17

Aug 1938 to Apr 1940	Korvettenkapitän Holtorf

Z18

Oct 1938 to Apr 1940	Korvettenkapitän Friedrichs

Z19	
Jan 1939 to Apr 1940	Korvettenkapitän Kothe
Z20	
Mar 1939 to Aug 1942	Korvettenkapitän von Mauchenheim
Aug 1942 to Jan 1945	Fregattenkapitän Harmsen
Jan 1945 to May 1945	Fregattenkapitän Schmidt
Z21	
Jun 1939 to Apr 1940	Korvettenkapitän Erdmenger
Z22	
Sep 1939 to Apr 1940	Korvettenkapitän Böhme

Midships view looking forward on Z22, *Anton Schmitt*. The second funnel can be seen, and one of the ship's boats has been swung out ready for lowering. Just inboard of the davits can be seen the cradle in which the boat would normally sit.

Modifications

Z17, Z18, Z19, Z21 and Z22 were all lost in the early part of the war and had no major modifications. Z20 survived the war, but saw little in the way of modifications, though her flak armament was beefed up with the addition of a *Flakvierling* on the roof of the deckhouse on her aft superstructure and to either side of her bridge. A single 2cm flak gun was also mounted immediately forward of turret 'Bruno'.

The Type 36 destroyers had funnels which were reduced somewhat in size from those of the Type 34 and Type 34A. Z20, Z21 and Z22 were all completed with sharply raked clipper-type bows.

Powerplant

The Type 36 was powered by two Wagner turbines and fitted with six Wagner boilers, developing some 70,000hp in total. This type had greater capacity for electrical power generation, with two 80kw and one 40kw diesel generators, and two 200kw turbo-generators.

TYPE 36A Z23 CLASS

Eight vessels of this class were completed, all being built by Deschimag.
Z23 Keel laid 15/11/38; launched 15/12/39; commissioned 15/9/40. Decommissioned by the Germans in August 1944, she survived the war and was taken into the French navy in 1946, where she served as the *Leopard*. She was scrapped in 1951.
Z24 Keel laid 2/1/39; launched 7/3/40; commissioned 26/10/40. Sunk by Allied aircraft on 25 August 1944.
Z25 Keel laid 15/2/39; launched 3/3/40; commissioned 30/11/40. Survived the war and was taken over by the Royal Navy until given to France in 1946, serving as the *Hoche*, until finally scrapped in 1959.
Z26 Keel laid 1/4/39; launched 2/4/40; commissioned 11/1/41. Sunk in action against British warships in the Barents Sea, March 1942.
Z27 Keel laid 27/12/39; launched 1/8/40; commissioned 26/2/41. Sunk in action against British warships in the Bay of Biscay, 28 December 1943.

Z17, *Diether von Roeder*, giving an excellent view of the bridge area and forward main armament. This destroyer was sunk during the battle of Narvik, and many of her crew transferred to the U-boat arm.

Z28 Keel laid 30/11/39; launched 20/8/40; commissioned 9/8/41. Sunk by British aircraft, 6 March 1945.
Z29 Keel laid 21/3/40; launched 15/10/40; commissioned 25/7/41. Survived the war, and was taken over briefly by the Royal Navy before being passed to the USA. Sunk in target practice, December 1946.
Z30 Keel laid 15/4/40; launched 8/12/40; commissioned 15/11/41. Survived the war. Taken over by the Royal Navy, and used as a target hulk, before being scrapped in 1949.

TYPE 36A SPECIFICATIONS

Length:	127m
Beam:	12m
Draught:	4.5m
Maximum displacement:	3,691 tons
Fuel oil carried:	825 tons max.
Maximum speed:	38 knots
Maximum endurance:	2,500 nautical miles
Main armament:	4 x 15cm guns in single-barrelled turrets
Flak armament:	8 x 3.7cm guns in four twin turrets 5 x 2cm guns on single mounts
Torpedoes:	8 x 53.3cm torpedo tubes in two quadruple mounts
Depth charges:	4 launchers
Mines:	Up to 70 carried
Complement:	332 officers and men

Ship's commanders

Z23

Sep 1940 to May 1942	Fregattenkapitän Böhme
May 1942 to Mar 1944	Fregattenkapitän Wittig
Mar 1944 to Aug 1944	Korvettenkapitän von Mantey

Z24

Oct 1940 to Aug 1943	Korvettenkapitän Saltzwedel
Aug 1943 to Sep 1943	Kapitänleutnant Burkart
Sep 1943 to Aug 1944	Korvettenkapitän Birnbacher

Z25

Nov 1940 to July 1941	Korvettenkapitän Gerlach
July 1941 to Aug 1943	Fregattenkapitän Peters
Aug 1943 to Sep 1943	Korvettenkapitän Birnbacher
Sep 1943 to May 1945	Fregattenkapitän Gohrbandt

Z26

Jan 1941 to Mar 1942	Korvettenkapitän Ritter von Berger

Z27	
Feb 1941 to Aug 1942	Fregattenkapitän Schmidt
Aug 1942 to Dec 1943	Korvettenkapitän Schultz
Z28	
Aug 1941 to Feb 1943	Fregattenkapitän Erdmenger
Feb 1943 to Mar 1943	Fregattenkapitän Reinicke
Mar 1943 to Jan 1944	Korvettenkapitän Zenker
Jan 1944 to Oct 1944	Fregattenkapitän Gerlach
Jan 1945 to Mar 1945	Fregattenkapitän Lampe
Z29	
Jun 1941 to Mar 1943	Fregattenkapitän Rechel
Apr 1943 to May 1945	Korvettenkapitän von Multius
Z30	
Nov 1941 to Mar 1943	Fregattenkapitän Kaiser
Mar 1943 to Dec 1944	Fregattenkapitän Lampe
Dec 1944 to Apr 1945	Korvettenkapitän Hoffmann
Apr 1945 to May 1945	Korvettenkapitän Erdmann

Modifications

All of this class were completed with four turrets, each bearing a single 15cm gun. During 1942–43, Z23, Z24, Z25 and Z29 all had the forward single-barrelled turret removed and a large twin-barrelled turret fitted. Flak armament was also upgraded. In Z28, for instance, the aft deckhouse roof initially featured a single 2cm weapon. By 1944, this had been upgraded to a single *Flakvierling* and by the war's end, two *Flakvierlinge*.

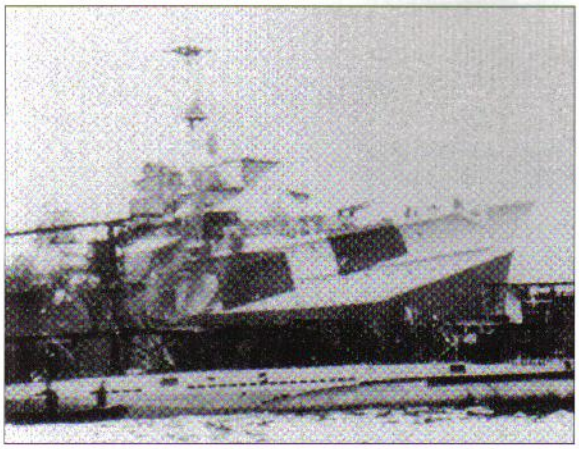
As completed, Z30 featured a walkway between the aft superstructure and the midships superstructure and again between the midships superstructure and the base of the forward funnel, effectively bridging the area above the torpedo tubes.

Powerplant

The Type 36A was also powered by two Wagner turbines and provided with 6 Wagner boilers. Two 200kw turbo-generators were fitted along with four 80kw diesel generators providing auxiliary power.

TYPE 36A (MOB) SPECIFICATIONS

Length:	127m
Beam:	12m
Draught:	4.5m
Maximum displacement:	3,690 tons
Fuel oil carried:	825 tons max.
Maximum speed:	38.5 knots
Maximum endurance:	2,087 nautical miles
Main armament:	5 x 15cm guns, three in single-barrelled turrets, plus one twin mount
Flak armament:	8 x 3.7cm guns in four twin turrets 5 x 2cm guns on single mounts
Torpedoes:	8 x 53.3cm torpedo tubes in two quadruple mounts
Depth charges:	4 launchers
Mines:	Up to 70 carried
Complement:	332 officers and men



This unidentified destroyer tied up in port gives some idea of the colour and camouflage schemes typical of these vessels. The dark grey splinter scheme over a light grey base was very effective at breaking up the outline of the ship.

TYPE 36A (MOB) Z31 CLASS

A total of seven vessels of this type were completed. Z31–Z34 were built by Deschimag of Bremen, and Z35–Z39 by Germaniawerft in Kiel.

Z31 Keel laid 1/9/40; launched 15/5/41; commissioned 11/4/42.
Survived the war and passed to the Royal Navy before being given to France in 1946. She served in the French navy as the Marceau before being scrapped in 1951.

Z32 Keel laid 1/11/40; launched 15/8/40; commissioned 15/9/42.
Sunk in battle with Allied warships off Normandy, 9 July 1944.

Z33 Keel laid 22/12/40; launched 15/9/41; commissioned 6/2/43.
Survived the war and passed to the Soviet navy. Scrapped in 1959.

Z34 Keel laid 15/1/41; launched 5/5/42; commissioned 5/6/43.
Survived the war to be passed to the US Navy. Scuttled March 1946.

Z37 Keel laid 1940; launched 24/2/41; commissioned 16/7/42.
Decommissioned and disarmed, August 1944. Hulk survived the war and was scrapped in 1949.

Z38 Keel laid 1940; launched 5/8/41; commissioned 20/3/43.
Survived the war to be passed to the Royal Navy where she served as a trials ship, HMS *Nonsuch*, until scrapped in 1949.

Z39 Keel laid 1940; launched 5/8/41; commissioned 21/8/43.
Survived the war and passed to the US Navy where it served as a trials ship, the DD939, until passed to the French, who used her for spare parts before she was scrapped in 1964.

Ship's commanders

Z31	
Feb 1941 to Aug 1942	Fregattenkapitän Schmidt
Aug 1942 to Dec 1943	Korvettenkapitän Schultz
Z32	
Sep 1941 to Feb 1943	Fregattenkapitän Erdmenger
Feb 1943 to Mar 1943	Fregattenkapitän Reinicke
Mar 1943 to Jan 1944	Korvettenkapitän Zenker
Jan 1944 to Oct 1944	Fregattenkapitän Gerlach
Jan 1945 to Mar 1945	Fregattenkapitän Lampe
Z33	
Jun 1941 to Mar 1943	Fregattenkapitän Reichel
Apr 1943 to May 1945	Korvettenkapitän von Multius
Z34	
Nov 1941 to Mar 1943	Kapitän zur See Kaiser
Mar 1943 to Dec 1944	Fregattenkapitän Lampe
Dec 1944 to Apr 1945	Korvettenkapitän Hoffmann
Apr 1945 to May 1945	Korvettenkapitän Erdmann
Z37	
May 1942 to Oct 1943	Fregattenkapitän Langheld
Oct 1943 to Mar 1944	Korvettenkapitän von Mantey

Mar 1944 to Jul 1944	Korvettenkapitän Ulrich
Jul 1944 to Aug 1944	Fregattenkapitän Heppe
Z38	
Mar 1943 to Sep 1944	Korvettenkapitän Brutzer
Sep 1944 to May 1945	Korvettenkapitän von Lyncker
Z39	
Aug 1943 to May 1945	Korvettenkapitän Loerke

Modifications

This class, as constructed, featured the large twin 15cm forward turret. The exception to this was Z31, which initially had only a single-barrelled unit, but this was subsequently replaced by a twin unit. Dissatisfaction with the adverse effect of the heavy twin turret on the ship's performance led to Z31 having the twin turret removed and a single 10.5cm turret substituted. Flak weaponry was also upgraded from the initial complement of 4 x 3.7cm weapons. Z31 ultimately featured 14, with Z33 and Z34 each mounting 6 of these weapons. The complement of 2cm guns in the case of Z33 was increased from the initial 10 to 16 and in the case of Z34 to 18.

Powerplant

The type 36A (MOB) was also powered by two Wagner turbines and provided with six Wagner boilers. Only one 200kw turbo-generator was fitted, along with four 80kw diesel generators providing auxiliary power.

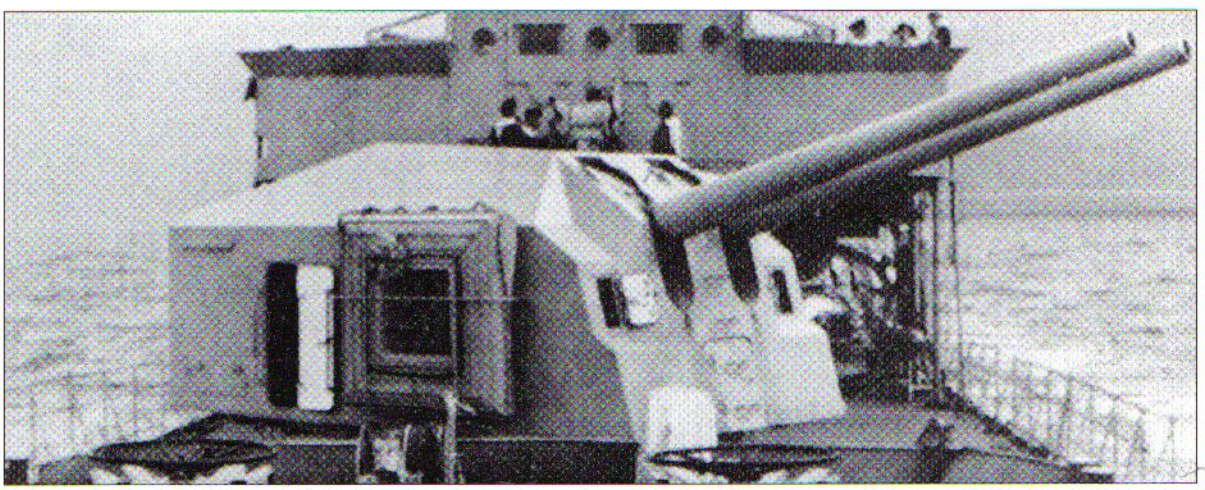
TYPE 36B (MOB) Z35 CLASS

A total of seven vessels of this type were ordered, all to be built by Deschimag of Bremen.

Z35 Keel laid 6/6/41; launched 2/10/42; commissioned 22/9/43. Sunk by mines in the Baltic, 12 December 1944.

Z36 Keel laid 15/9/41; launched 15/5/43; commissioned 9/2/44. Sunk by mines in the Baltic, 12 December 1944.

Z43 Keel laid 1/5/42; launched 15/9/43; commissioned 20/3/44.



The huge twin 12.7cm gun turret as fitted to later destroyers, whilst providing a far safer and more protected environment for its crew, added hugely to the weight of the forward part of the ship and was claimed to adversely affect their handling. Visible just behind the turret is the top of a *Flakvierling* quadruple 2m anti-aircraft gun.

Scuttled May 1945 after being severely damaged by mines. Raised in 1953 and scrapped.
Z44 and **Z45** were cancelled and scrapped before launch.

TYPE 36B (MOB) SPECIFICATIONS	
Length:	127m
Beam:	12m
Draught:	4.5m
Maximum displacement:	3,542 tons
Fuel oil carried:	825 tons max.
Maximum speed:	37 knots
Maximum endurance:	2,900 nautical miles
Main armament:	5 x 12.7cm guns, in single-barrelled turrets
Flak armament:	8 x 3.7cm guns in four twin turrets 15 x 2cm guns, three quadruple and three single mounts
Torpedoes:	8 x 53.3cm torpedo tubes in two quadruple mounts
Depth charges:	4 launchers
Mines:	Up to 76 carried
Complement:	332 officers and men

Ship's commanders

Z35
Sep 1943 to Dec 1944 Korvettenkapitän Bätge
Z36
Feb 1944 to Dec 1944 Korvettenkapitän Freiherr von Hausen
Z43
Aug 1943 to May 1945 Korvettenkapitän Loerke

Modifications

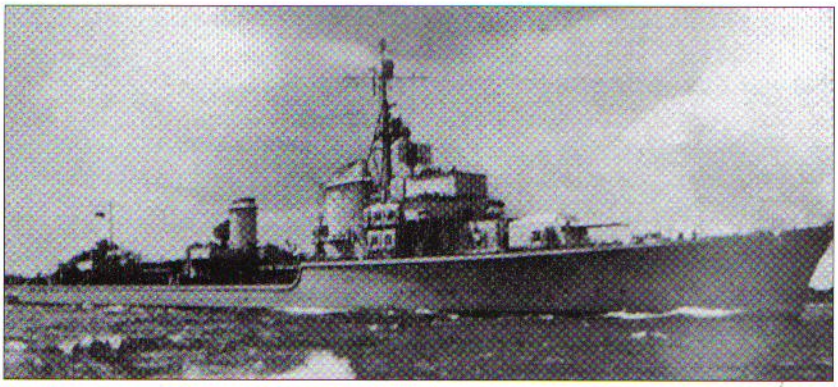
This class was provided with 5 x 12.7cm guns in single-barrelled turrets.

There were no major modifications to this arrangement, though, as with all other destroyers, flak armament was improved in the latter part of the war.

Powerplant

The Type 36B was also powered by two Wagner turbines and provided with six Wagner boilers. Only one 200kw turbo-generator was fitted, along with four 80kw diesel generators providing auxiliary power.

One of the last destroyers to be built, Z39, shows another of the typical camouflage schemes used in the second half of the war.



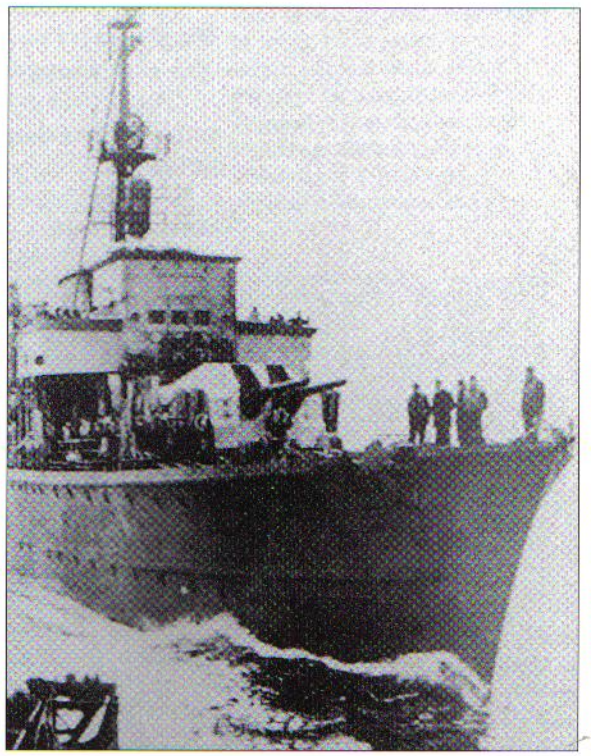
The huge size of the twin 15cm turret can be clearly seen on this shot of Z34. Another common feature of destroyers during wartime, and seen here, is the lashing of life-rafts to the sides of the turrets and bridge wing supports.

WARTIME SERVICE

On the outbreak of war in September 1939, all but three of the available German destroyer fleet were positioned in the Baltic. Here they provided a screening force intended to prevent Polish warships or merchant vessels from escaping. *Leberecht Maas* was involved in a firefight with Polish warships in the port of Hela, during which the Polish shore batteries scored a hit on the German destroyer, killing or wounding eight crewmen. The weak Polish naval forces available meant that the large German naval force present in the Baltic was not really necessary, and only provided targets for the small number of Polish submarines lurking in the area. The destroyer force was therefore withdrawn into western waters.

A bow view of one of the Type 36A destroyers. A quadruple 2cm *Flakvierling* anti-aircraft gun is mounted to the rear of the large 15cm twin turret. This class also featured a searchlight platform on the foremast.

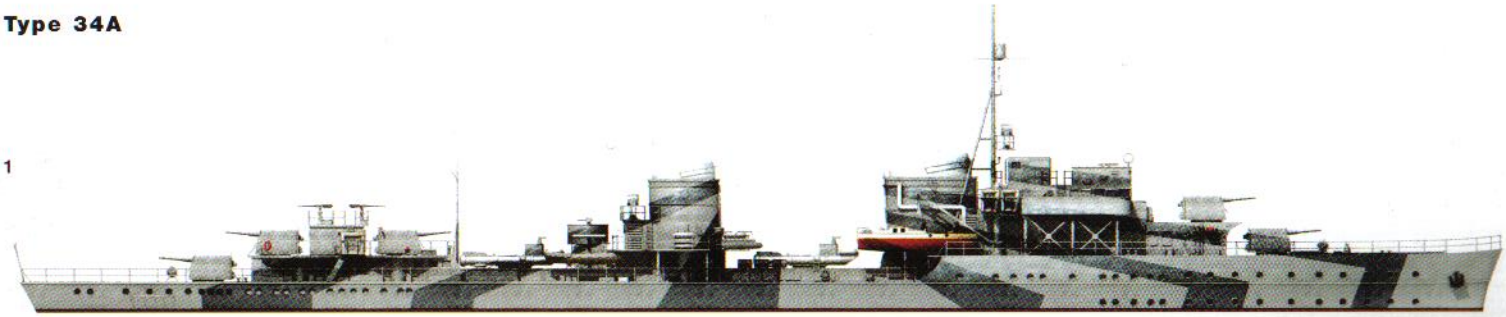
The new task allocated to the destroyer force was in laying the huge defensive minefield intended to protect the German Bight from incursions by British warships. 16 of the fleet were involved in this successful minelaying campaign, which lasted until late September whilst the remaining destroyers were used to stop and search merchant ships in the Skagerrak looking for contraband, and seizing several ships under prize rules. After the cessation of their involvement in the Polish campaign, almost all of the available units of the destroyer fleet were moved onto minelaying duties off the English coast. These operations were highly successful, with several enemy merchantmen and warships being sunk.



On 7 December, *Hans Lody* and *Erich Giese* were on such a minelaying sortie when, after depositing their payload, they encountered the British destroyers *Juno* and *Jersey*. As yet unnoticed by the enemy, the Germans immediately attacked but, having seriously damaged the *Jersey* with a spread of torpedoes, took advantage of the apparent British assumption that the attack had been by submarine rather than surface units, and withdrew. During this early part of the war, the Germans had adopted the practice of using their

A: Type 34A

1



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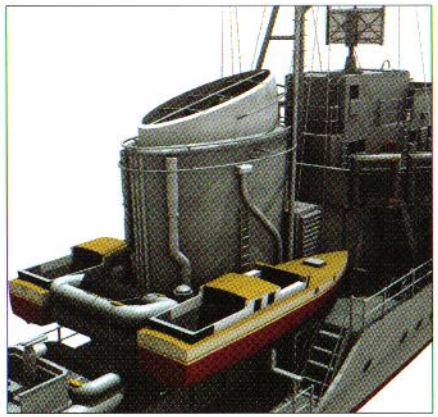

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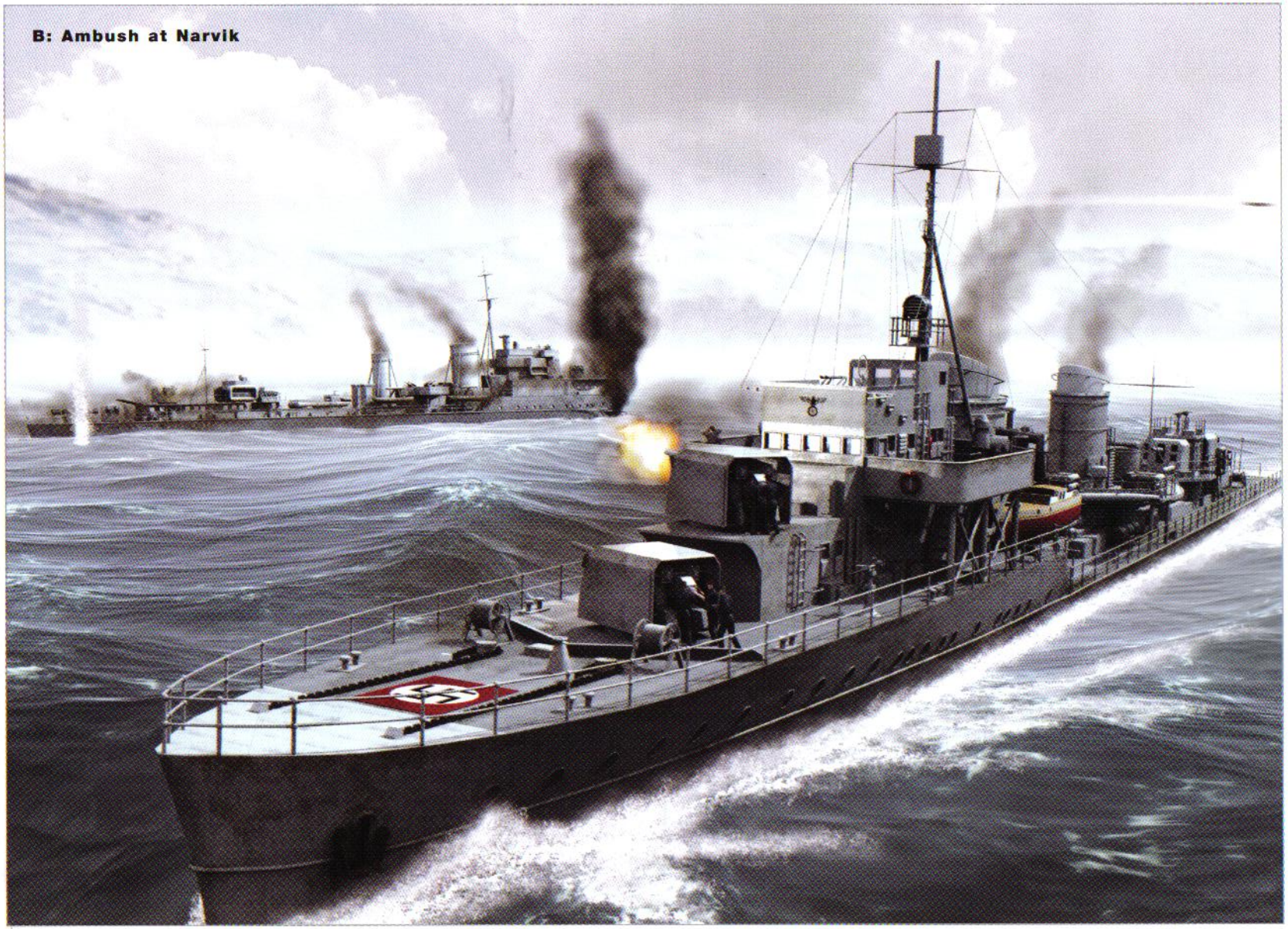
B: Ambush at Narvik

C: Type 34

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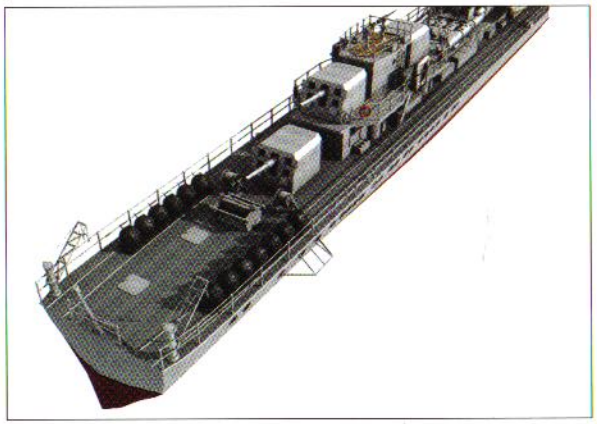
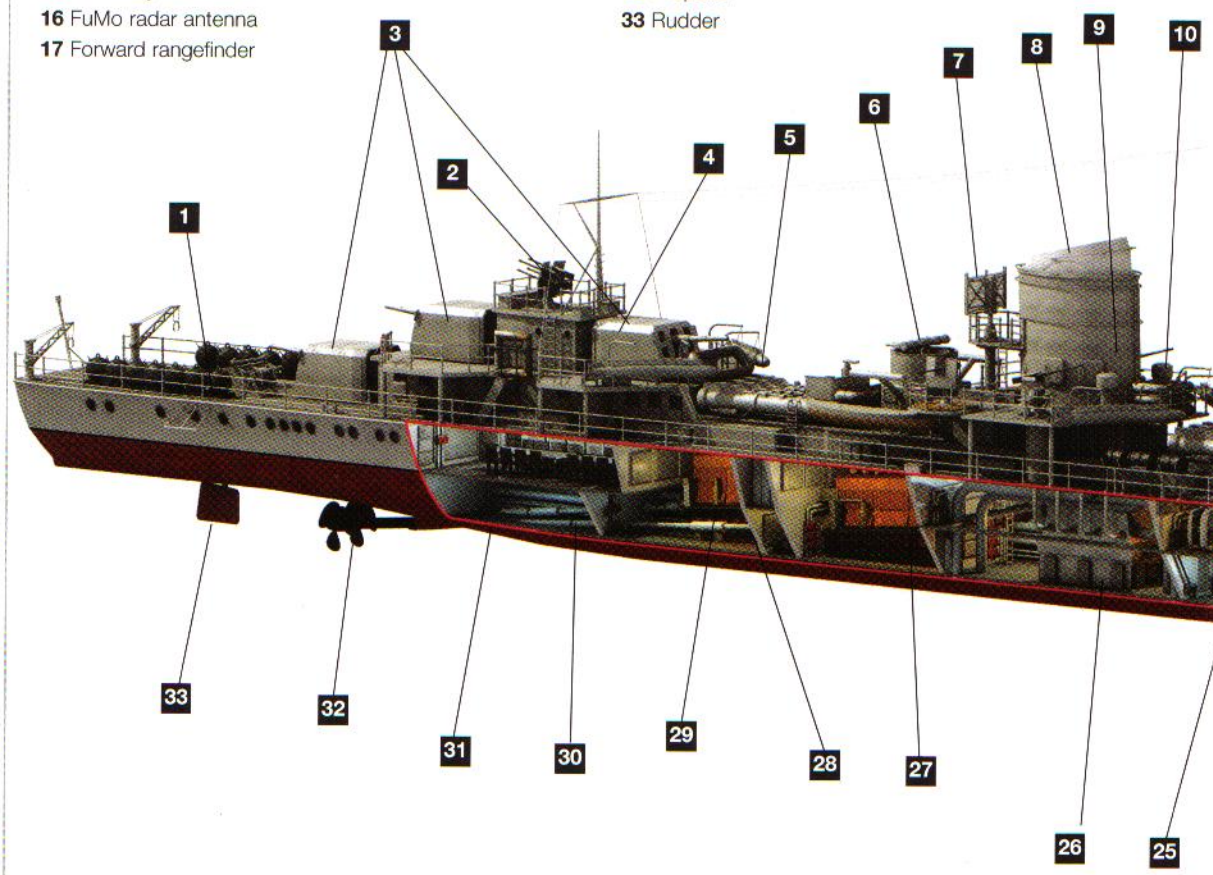
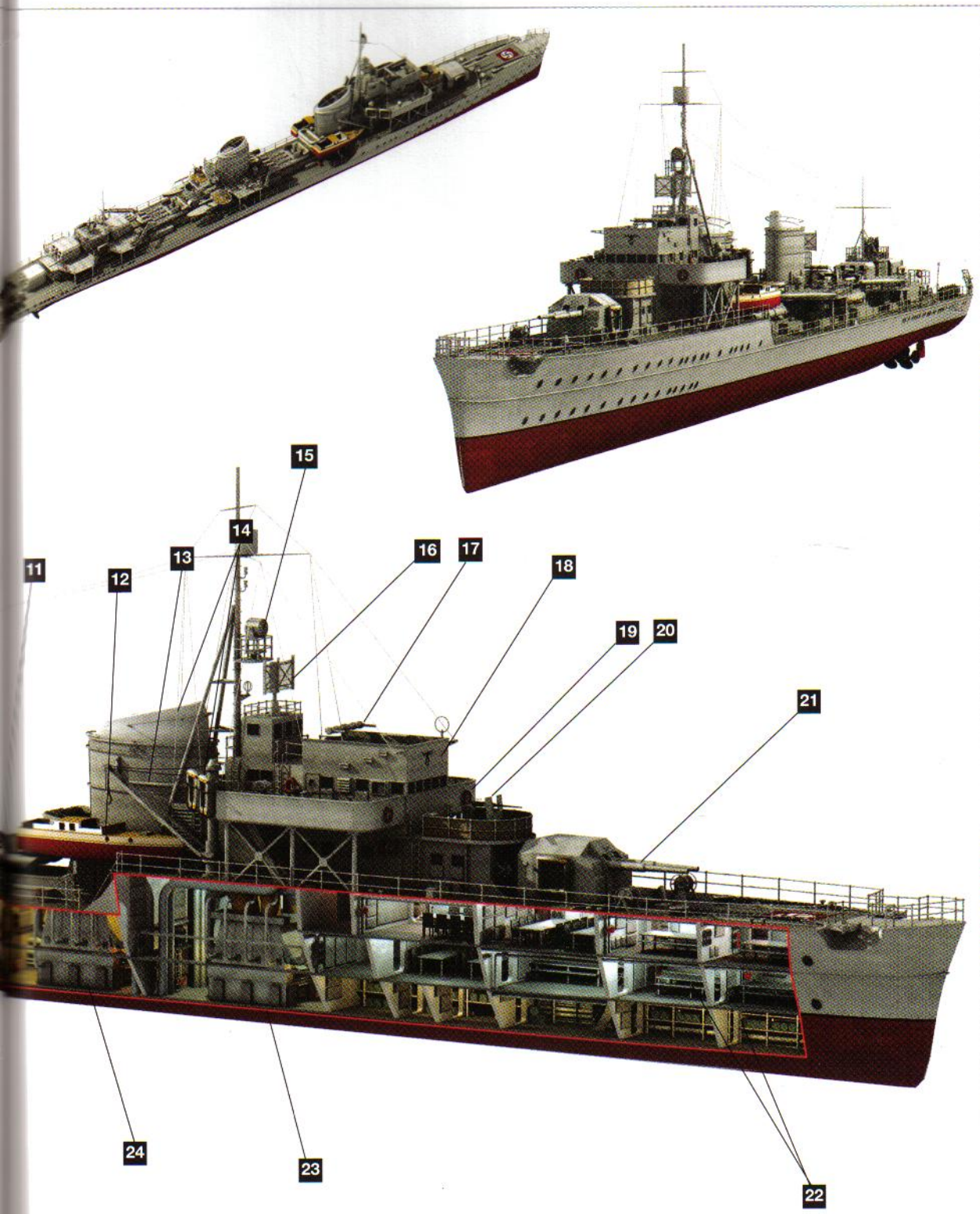


D: Z39 CUTAWAY

KEY

1 Mines
2 Quad 2cm flak gun
3 15cm single gun turret
4 Deckhouse accommodating ship's cooks and stewards
5 Minesweeping paravane
6 Rangefinder
7 FuMo 63 radar antenna
8 Aft funnel
9 2cm flak
10 Depth charges
11 Forward quadruple torpedo tubes
12 Ship's launch
13 Launch derrick
14 Forward funnel
15 Searchlight
16 FuMo radar antenna
17 Forward rangefinder
18 Bridge
19 Wheelhouse
20 3.7cm flak gun
21 Twin 13cm gun turret
22 Crew accommodation
23 Boiler room 3
24 Boiler room 2
25 Auxiliary boiler room
26 Boiler room 1
27 Turbine room 2
28 Aft quadruple torpedo tubes
29 Turbine room 1
30 Officers' accommodation
31 Aft superstructure containing wardroom and captain's accommodation
32 Propeller
33 Rudder

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E: Type 36A – Z23

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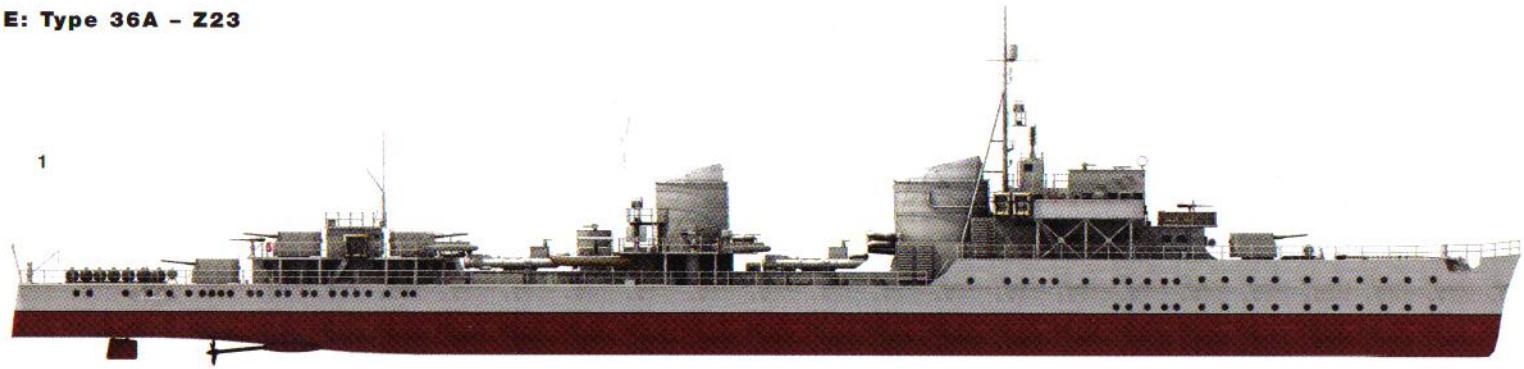

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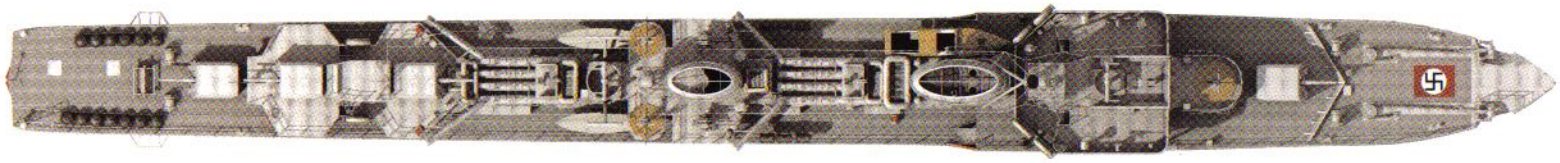

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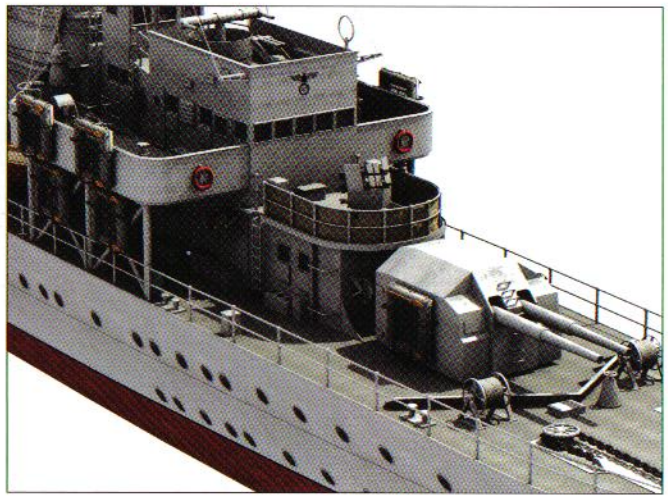

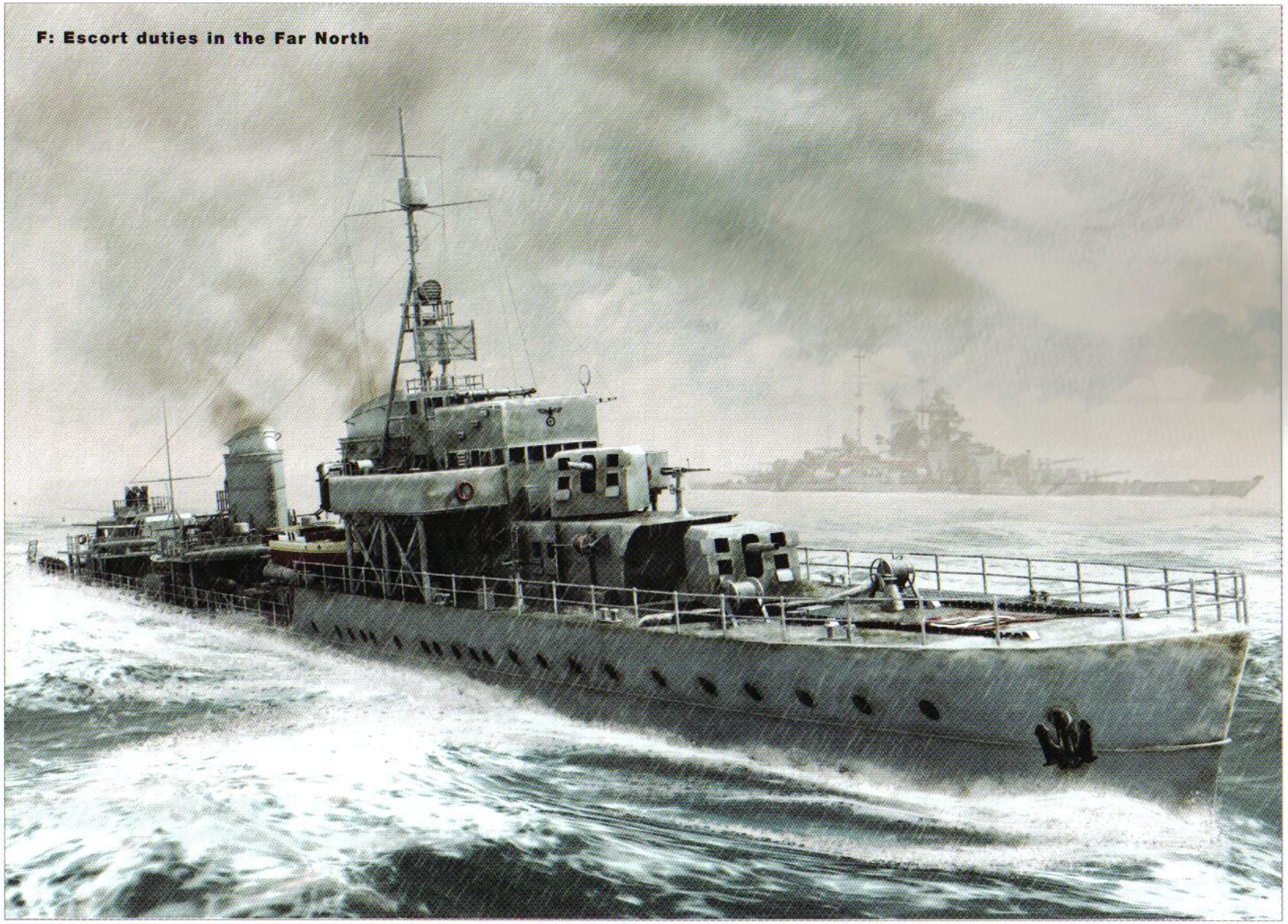
F: Escort duties in the Far North

G: Type 36A (MOB)

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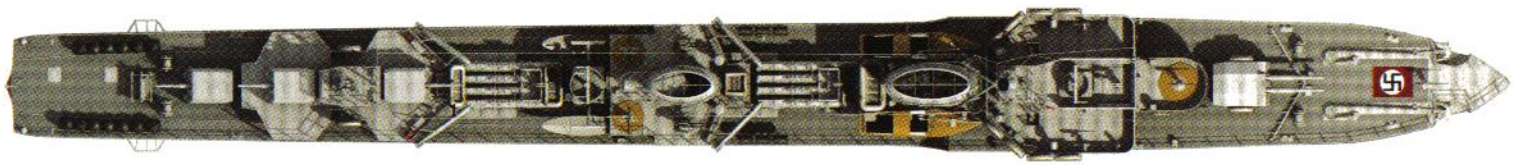

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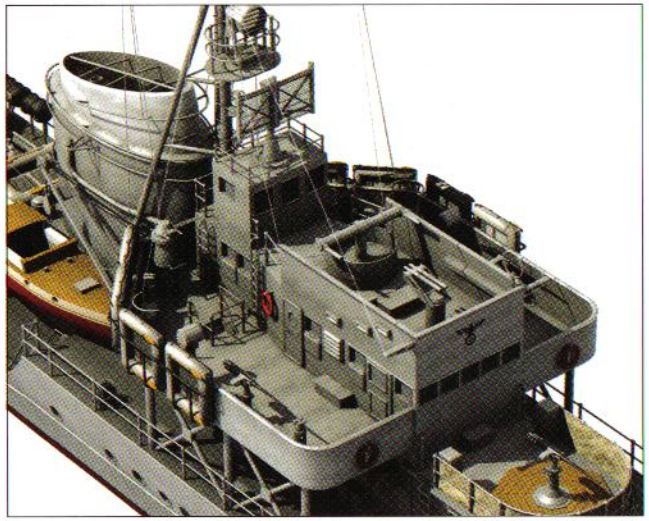
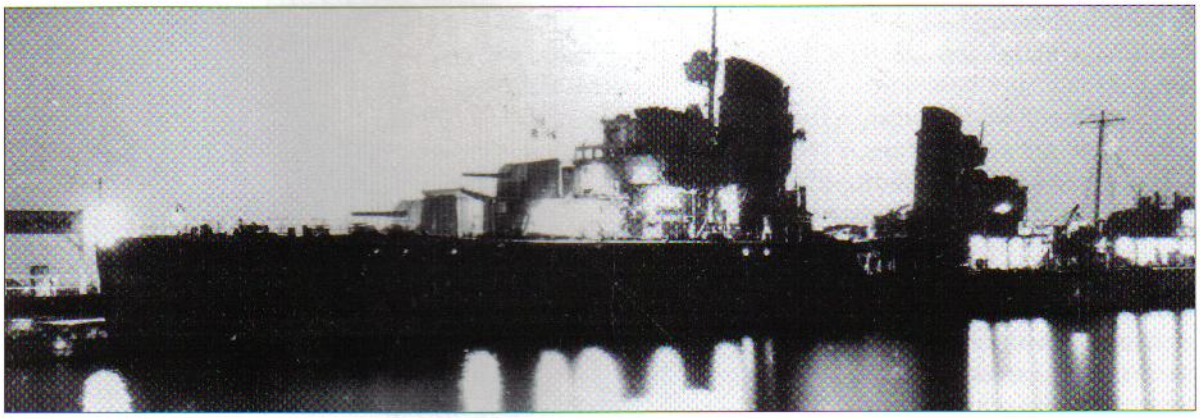




A superb atmospheric night-time floodlit view of Z2, *Georg Thiele*, moored alongside the so called 'Blücher Brücke' in Wilhelmshaven prior to the outbreak of war. The original rounded face of the upper bridge structure of the Type 34 can be seen here.

light cruisers to provide a cover force for destroyer units returning from minelaying operations.

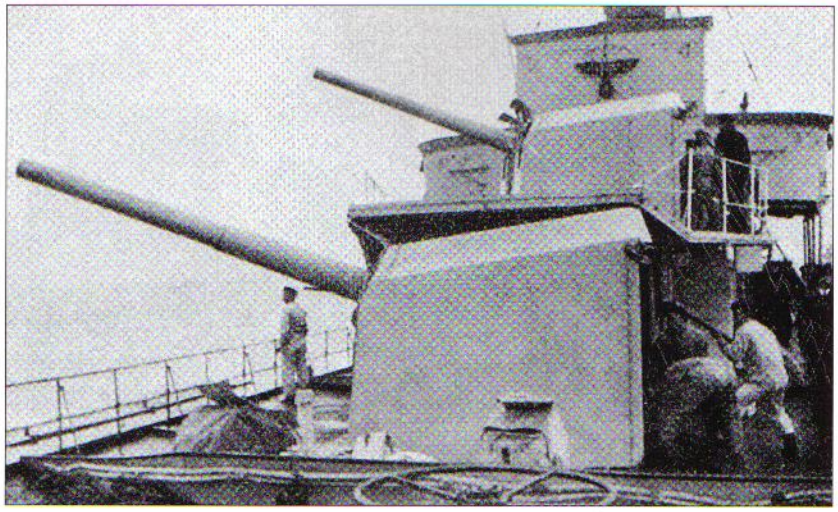
It was this rather strange policy of providing large ships as escorts for smaller vessels, rather than the more normal situation of using smaller faster vessels and escorts for larger ships, which was to combine with the notoriously unreliable powerplant of the German destroyers, to cause one of Germany's first major naval catastrophes.

On one occasion in December 1939, the cruisers *Nürnberg*, *Köln* and *Leipzig* were detached to escort a force of destroyers returning from minelaying operations. Unbeknown to the cruisers, the *Bruno Heinemann* had developed severe mechanical problems and a fire had broken out onboard. The destroyer was forced to heave to, and lay wallowing for over an hour whilst the fire was extinguished. *Erich Steinbrinck* remained with her to provide cover. Meanwhile, the cruiser force was obliged to loiter at the rendezvous point and provided a perfect target for the British submarine *Salmon*. Both *Nürnberg* and *Leipzig* were torpedoed and seriously damaged. Fortunately, the British submarine went deep to escape an anticipated depth charge attack and did not press home the attack against the two damaged cruisers, which were effectively sitting ducks.

The day's events were far from over, however, and as the damaged cruisers limped home, a second British submarine, the *Ursula*, was lying in wait. A further spread of torpedoes was unleashed and although they missed the cruisers, the escort F9 received a direct hit and blew up with heavy loss of life. It was to be but one of many occasions when the poor reliability of the destroyer's engine systems was to have serious consequences for the Kriegsmarine.

The first serious losses to the destroyer fleet came in 1940. A force of six destroyers, the *Richard Beitzen*, *Theodor Riedel*, *Leberecht Maas*, *Max Schultz*, *Erich Koellner* and *Friedrich Eckoldt* set off on another minelaying sortie and were being escorted through a defensive minefield. As they passed through the minefield, they came under attack by aircraft, which they assumed to be enemy but which were, in fact, German Heinkel bombers. *Leberecht Maas* took direct hits and sank with heavy loss of life. It was thought that *Max Schultz* was also hit by bombs and sank but it has also been claimed that she may have run on to a mine whilst manoeuvring to avoid being hit by the bombers. Whatever the cause, she too sank with the loss of most of her crew. The subsequent enquiry established that whilst the Luftwaffe had advised naval high command that its

bombers would be operating in the area, the navy failed to pass on the information to the destroyers. The navy, on the other hand, had completely failed to advise the Luftwaffe that any of its ships would be in that area. The loss of two destroyers with most of their crews was entirely the fault of the Kriegsmarine.



A fine view of the forward turrets of a Type 34. The crew can clearly be seen to the open rear of turret 'Anton' preparing to load another shell into the breech.

The greatest disaster was yet to come, however. In April 1940, Germany prepared her forces for Operation Weserübung, the invasion of Norway, and amongst the naval units allocated to the invasion force were all the available destroyers, 16 in all. The destroyers, as well as providing a substantial amount of fire support, were to be used to ferry mountain troops of 3 Gebirgs Division to their destination, Narvik. Accustomed to the wide-open spaces and high mountain peaks, the mountain troops suffered dreadfully during the voyage to Norway as the warships were tossed to and fro in heavy seas, overcome with seasickness and cooped up in the cramped spaces below decks on the destroyers.

As the force entered the Ofotfjord in a heavy snowstorm, they encountered two small Norwegian coastal defence ships that they ordered to return to port. Hopelessly outnumbered, the Norwegians complied. Shortly thereafter, however, a much larger Norwegian vessel, the *Eidsvold*, was encountered. Elderly, but armed with 21cm guns, she was more than capable of doing serious damage to the destroyers. The Germans obeyed the Norwegian orders to heave to and a party was sent over to negotiate. The Germans were well aware that the chance of the Norwegians surrendering easily was virtually nil, and whilst the negotiations were ongoing the Germans had trained their torpedo tubes on the Norwegian. As suspected, the Norwegians refused to yield and as soon as the German party had cleared the Norwegian ship, torpedoes were fired and the enemy ship sunk before she could open fire on the Germans.

Norge, the sister ship of *Eidsvold*, however, was sitting in Narvik harbour and was now forewarned of the German approach. The Germans now knew that speed was of the essence, and the German destroyers raced into the harbour and came alongside the quay, discharging their mountain troop passengers even as the gun crews gave battle to the *Norge*. The Norwegian ship was hit by two torpedoes fired by *Bernd von Arnim* and rolled over and sank. At this, Norwegian resistance ceased and the town of Narvik was occupied without further opposition.

The German position was still somewhat precarious, as the destroyers urgently needed refuelling. Three fleet oilers had been despatched to support the force, but two had been lost (one sunk and one captured). Only one, the *Jan Wellem*, had reached Narvik but she was a converted whaler and did not have sufficient pumping capacity. The destroyers were

forced to linger in the fjords around Narvik. Two destroyers would be fuelled at the same time, whilst a third kept watch and the remainder lay at various points around the fjords.

On 10 April, a force of British destroyers entered the fjords, intent on surprising the German force in Narvik. Fortunately for the British, their arrival coincided with the withdrawal of the 'guard' destroyer into harbour for refuelling and the British were able to catch the Germans completely by surprise. Of five British destroyers involved, two engaged shore defences whilst three entered the harbour and loosed off their torpedoes at German warships. *Wilhelm Heidkamp* and *Anton Schmitt* both took direct hits and sank, the latter breaking in two. *Hermann Künne* suffered severe damage to her engines in the explosion that sank *Anton Schmitt*, and *Hans Lüdemann* had her steering damaged by shellfire. *Diether von Roeder*, although not damaged by torpedoes, took the brunt of the enemy shellfire and had to be abandoned.

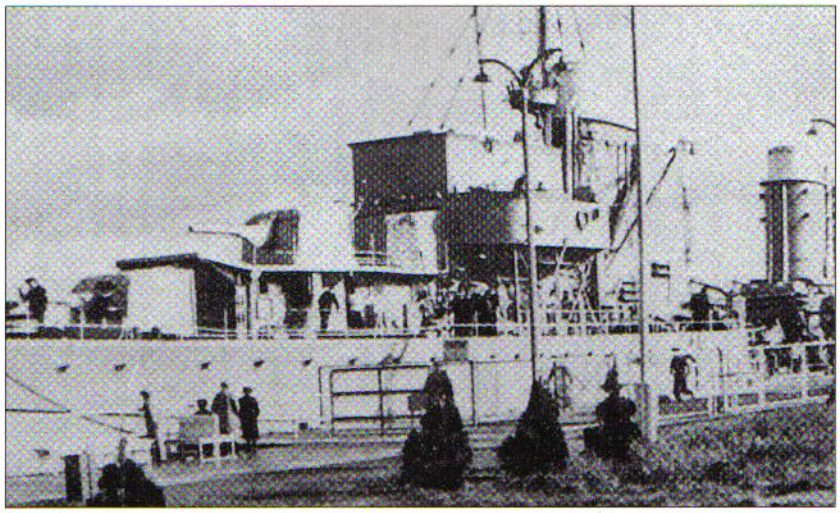
Unbeknown to the British, however, the other German destroyers awaiting refuelling were now on the alert and were lying in wait for them. In the battle that followed, HMS *Hardy* and HMS *Hunter* were sunk, and HMS *Hotspur* severely damaged. *George Thiele*, on the German side, was severely damaged. Of eight remaining German destroyers, only four were now battleworthy.

The battle was not yet over, and on 12 April, the British returned in force. This time, nine destroyers supported by the battleship HMS *Warspite*, with eight 15-in. guns, faced the weakened Germans. *Erich Koellner* attempted an ambush but was spotted by *Warspite*'s aircraft and the British were forewarned. The German vessel was smashed to pieces by the combined fire of the British battleship supported by two destroyers, and her captain ordered her scuttled.

A confused action between the two destroyer forces then ensued, with neither side gaining a particular advantage, the Germans shooting off most of what remained of their already badly depleted ammunition. *Hermann Künne* was scuttled once her ammunition was completely expended, leaving her helpless. *Erich Giese* was caught by gunfire from *Warspite* as she attempted to leave Narvik harbour, but before being sunk she and the disabled *Diether von Roeder* inflicted serious damage on the destroyer HMS *Punjabi*. *Diether von Roeder* also inflicted significant damage on HMS *Cossack* before being subdued by the combined gunfire of several British destroyers.

Z21, *Wilhelm Heidkamp*, has an admiring audience as she lies at anchor. Like all Type 36 vessels, she has been completed with a sharply raked clipper bow. The funnel caps are also smaller than on the earlier models.

Of the remaining German destroyers, *Georg Thiele* torpedoed HMS *Eskimo*, blowing off her bows before, her ammunition expended, being run ashore and breaking her back. *Bern von Arnim*, *Wolfgang Zenker* and *Hermann Lüdemann* were all abandoned once their ammunition was expended and scuttling charges set. Those on *Hermann Lüdemann* failed to explode, however, and she was torpedoed and sunk by HMS *Hero*.



Z13, *Erich Koellner*, moored alongside the pier at Gotenhafen. This photo gives a good view of the forward turrets, bridge and midships area. Blast bags are fitted on the gun barrels. The very square face of the bridge is particularly evident.

The action at Narvik was a disaster for the Kriegsmarine, resulting in the loss of most of its destroyer fleet over the course of just three days. Strangely, this loss was not to result in any great degree of angst. Perhaps because of the fact that, overall, the campaign in Norway was a success and that capture and defence of Narvik itself was heralded as a victory, the loss of the destroyers was considered a heroic action rather than a disaster and no one on the German side was held to account. By the end of 1940, Germany possessed a mere ten destroyers, the losses sustained at Narvik resulting in four flotillas being disbanded.

German destroyer forces subsequently operated as escorts to the heavy cruisers in attempted raids on merchant shipping in the North Sea with some success before the fall of France gave the Kriegsmarine ideal bases from which to mount offensive operations against shipping off Britain's south coast and western approaches. Whilst some shipping was sunk, much of it consisted of small coastal vessels, and the Germans were often driven off by the imminent arrival of British destroyers or larger warships. On 28 November 1940, however, a force of three German destroyers, the *Hans Lody*, *Karl Galster* and *Richard Beitzen*, were involved in an attack on British coastal craft when a flotilla of five British destroyers approached. This time the Germans did not withdraw but turned to steam a parallel course to the enemy and launched torpedoes. HMS *Javelin* took a direct hit, blowing off the forward part of her hull. Still outnumbered four to three, the Germans opened fire with their 12.7cm main armament. Satisfied with drawing first blood, they turned to head for home. The superior speed of the German vessels took them out of range of the British guns and, although minor damage was sustained, there were no German casualties. The severely damaged British destroyer was towed back into port where it took over a year to put right the damage she had suffered.

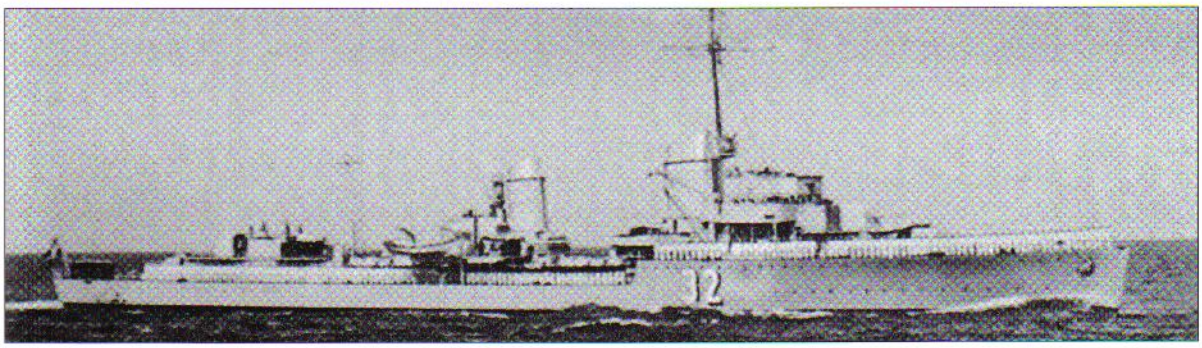
In the summer of 1941, a destroyer sortie was authorised with the intent of attacking Soviet destroyer forces in the Murmansk area, which might have been used to support Soviet moves against the German forces advancing on the Soviet port. *Hans Lody*, *Hermann Schoemann*, *Karl Galster*, *Friedrich Eckoldt* and *Richard Beitzen* made up the German force. On 12 July, the German ships were returning from a rather fruitless patrol into the Barents Sea when they intercepted a small Soviet convoy escorted by

armed trawlers. Two of the trawlers were sunk by gunfire from the German destroyers before they resumed course for home, fending off two separate attacks by Soviet aircraft and shooting down one of the enemy. A second operation on 22 July resulted in the sinking of one Soviet survey ship and a floatplane. A third on 29 July was called off and a fourth on 9 August saw only a small armed trawler being sunk, followed by a furious attack on the three German destroyers involved by Soviet aircraft, resulting in damage to *Richard Beitzen*. This rather uninspiring performance was rather typical of German destroyer operations in the far north, during the winter of 1941–42, which never came anywhere near to fulfilling their potential.

The next major operation in which destroyers featured was the so-called 'Channel Dash', or Operation Cerberus. At this time no destroyers were based in France, all serving units being located in the far north, home waters, or the Baltic. Clearly, the planned escape of the capital ships *Scharnhorst*, *Gneisenau* and *Prinz Eugen* would require considerable numbers of smaller escort vessels if they were to successfully pass through the dangerous waters of the English Channel under the very noses of the British. Accordingly, *Richard Beitzen*, *Paul Jacobi*, *Hermann Schoemann* and *Bruno Heinemann* were ordered from Kiel on 24 January 1942. Late on the following day, *Bruno Heinemann* ran on to a mine and was so badly damaged that she had to be abandoned, with the loss of over ninety of her crew. The remaining three destroyers reached Le Havre on the following morning. Here, *Friedrich Ihn* and the new destroyers Z25 and Z29 joined them.

On 11 February the German flotilla sailed under cover of darkness. With destroyers leading the column as well as providing flank cover, the Germans made excellent progress and were not detected by the enemy until 1120 the following morning. *Friedrich Ihn* was first into action, intercepting an attack force of British motor torpedo boats whilst dodging their torpedoes and the shells being fired by enemy long-range shore batteries. *Friedrich Ihn* also succeeded in shooting down one of the enemy Swordfish torpedo bombers that launched their attack shortly after the MTBs had been driven off.

This was the first of many such attacks from the air, all of which were met by a veritable curtain of fire from the anti-aircraft defences of all of the German ships. The destroyers were forced to manoeuvre violently to avoid bombs and torpedoes dropped by enemy aircraft. *Richard Beitzen*, too, succeeded in shooting down an enemy bomber. Although the Z39 suffered a mechanical breakdown, and three of the older torpedo boats that also formed part of the escort force were sunk, as far as the destroyers



This pre-war view of Z16, *Friedrich Eckoldt*, a Type 34A, shows the slightly raked bows with which this type were fitted. It also shows the large funnels and large funnel caps typical of the early destroyers.

were concerned, Operation Cerberus could be considered a success.

Despite the availability of excellent bases in France, the destroyer fleet did not contribute much to German naval strength in this area, torpedo boats, E-boats and U-boats being by far the most numerous types operating out of French bases. Those that did operate here were primarily used on minelaying duties and for escorting returning U-boats or blockade runners safely into port. Several destroyers were badly shot up by British aircraft whilst carrying out such escort duties.

This view of Z7, *Hermann Schoemann*, shows the distinct lack of rake to the bows of these early Type 34A destroyers. She would be scuttled by her crew after being severely damaged by the cruiser HMS *Edinburgh* in May 1942 in the Barents Sea.

As we have already seen, occasional warship-to-warship encounters did occur. On 28 December 1943, a combined force of torpedo boats and destroyers was despatched into the Bay of Biscay to provide an escort for the blockade-breaker *Alsterufer* inbound from the Far East. Destroyers taking part in this operation were Z24, Z27, Z32 and Z37.

The blockade breaker had in fact been intercepted and sunk by Allied aircraft, but the Germans were unaware of this. In addition, two cruisers, HMS *Enterprise* and HMS *Glasgow*, which had been involved in the search for the *Alsterufer*, were now available to intercept the German flotilla whose presence in the area was known to the British.

The two opposing forces met in the early afternoon. Under normal circumstances a large number of small warships heavily armed with torpedoes might stand a fair chance against two cruisers, especially given the fairly powerful artillery also carried by German destroyers. Unfortunately, weather conditions were appalling, with extremely heavy seas being whipped up by gale force winds. Well over thirty torpedoes were fired at the two cruisers by the various German ships, but accuracy was well nigh impossible in these seas, and no hits were registered. Although torpedoes had failed, despite the heavy seas, gunfire from both the German destroyers and British cruisers was impressively accurate, with both sides closely straddling their targets almost from the start of the engagement.

Unfortunately for the Germans, a lucky shot from the *Enterprise* hit Z27 in one of her boiler rooms, and caused a tremendous fire, though the destroyer continued to fire back at the enemy. As her power fell away, Z27 slowed and eventually stopped, drifting helplessly. The fighting moved on, but around an hour later *Glasgow* re-encountered Z27, dead in the water and closed to almost point-blank range before letting her have a full broadside. The destroyer's magazines ignited and she quickly sank, taking her captain and most of the crew with her. Two torpedo boats were also sunk by the British, both with torpedoes, before the cruisers withdrew virtually unscathed.

During 1942, Norway became the main base for most of Germany's capital ships. Their potential break-out into the Atlantic coupled with the threat they posed to the Russian convoys ensured that much Allied

Z15, *Erich Steinbrinck*, in pre-war livery. Note that her bows lack the extreme clipper-style rake common to all destroyers from Z20 onwards.

resource was tied down in ensuring they remained bottled up in their lairs amongst the fjords. Destroyers were to play an important part in operations from Norway, as escorts to the capital ships.

In March 1942, a German destroyer force consisting of Z24, Z25 and Z26 was on patrol searching for convoy PQ13. The Germans first encountered lifeboats containing survivors from a ship from the convoy that had been sunk by German aircraft. The survivors were picked up and unfortunately revealed information that put the Germans on the trail of the convoy. Shortly thereafter, the destroyers encountered a straggler from the convoy and swiftly sent it to the bottom. In worsening weather conditions and deteriorating visibility, the Germans eventually found the convoy, escorted by five destroyers and a light cruiser. Severe damage was suffered by Z25 and Z26 and although the cruiser HMS *Trinidad* took some hits, her fighting efficiency was not impaired. *Trinidad* pursued Z26 relentlessly until it looked like the destroyer was doomed. Battered and with only one gun still in action, the Germans could only watch as the cruiser launched torpedoes in an attempt to administer the *coup de grâce*. Incredibly, two of the three torpedoes failed to launch and the other malfunctioned and turned back against the cruiser herself, hitting her in the bows. Z26 then attempted to limp away at much reduced speed but was caught by the British destroyer *Eclipse*. Incredibly, once again just as the British were preparing to finish her off, luck smiled on the Z26 as the weather suddenly cleared to reveal the other two German destroyers rushing to the aid of their stricken companion. Heavy fire fell on *Eclipse*, driving her off with substantial damage being caused. Damage to Z26 was by now too great for there to be any chance of saving her, and the best that Z24 and Z25 could do was to take off her surviving crew after scuttling charges had been set. The two remaining destroyers subsequently reached their base in Kirkenes safely.

This wartime view of Z10, *Hans Lody*, shows one of the many camouflage schemes sported by German destroyers. This was one of the less bizarre and dramatic schemes.

On 30 April 1942, destroyers operating in the far north (Zerstörergruppe Eismeer) were tasked with hunting down and finishing off the cruiser HMS *Edinburgh*. She had been bound from Murmansk to the USA and carrying (unbeknown to the Germans) a load of gold bullion in payment for supplies the Soviets had received from the Americans. The cruiser had been torpedoed and severely damaged by U-456.

In this view of the after part of Z6, *Theodor Riedel*, the second and third turrets have been trained to port, exposing the open rear. The structure at the hull side near the stern is a fender, which prevented the side of the vessel swinging hard against a pier or quay and damaging the propellers, which were sited immediately below this area.

Whilst searching for the cruiser, the destroyers Z24, Z25 and *Hermann Schoemann* encountered the convoy that the *Edinburgh* had been escorting. Thanks to the spirited defence put up by the convoy's well-outgunned remaining escorts, only one freighter was sunk before the destroyers broke off to continue their search for the damaged cruiser. In the morning of 2 May, the cruiser, with a mixed escort of destroyers and minesweepers, was sighted. However, as the Germans manoeuvred into a favourable position to fire torpedoes, the cruiser opened up with her forward armament and scored several hits on *Hermann Schoemann*. So great was the damage that her captain considered her beyond saving and ordered scuttling charges set. Z24 took off a number of her companion's crew whilst Z25 laid smoke. The remaining two German destroyers then withdrew. A torpedo from one of the German destroyers, however, had also hit HMS *Edinburgh*, and she too was now considered beyond saving. British destroyer escorts took off her crew then administered the *coup de grâce* with torpedoes. The cruiser went to the bottom taking her cargo of gold bullion with her.

German destroyers also took part in an abortive surface attack on convoy PQ17 on 2 July 1942. The attack was to be a combined operation using surface ships, U-boats and aircraft. The destroyers were acting primarily as scouts and escorts to the heavy units involved, the battleship *Tirpitz*, and heavy cruisers *Lützow*, *Admiral Hipper* and *Admiral Scheer*. Disaster struck almost immediately with *Lützow* running aground before she could reach the open sea. *Hans Lody*, *Theodor Riedel* and *Karl Galster* also ran aground. Only one destroyer, *Friedrich Ihn*, remained undamaged. Before the depleted German surface force could reach the convoy, it had already been decimated by U-boats and Luftwaffe bombers, so the remnants of the surface force dejectedly returned to their moorings.

A further, fateful operation against Allied convoys followed at the end of 1942 when a force was assembled to attack what was believed to be a weakly protected convoy, JW51B. On 30 December, six destroyers, the Z29, Z30 and Z31, with *Friedrich Eckoldt*, *Richard Beitzen* and *Theodor Riedel*, departed Kaafjord with the heavy cruisers *Admiral Hipper* and *Lützow*. The force split with three destroyers allocated to each heavy cruiser. Contact with the convoy was achieved mid-evening of that same day. As *Admiral Hipper* engaged the convoy escorts, she was taken by surprise by the appearance of two British light cruisers, *Sheffield* and *Jamaica*. As the

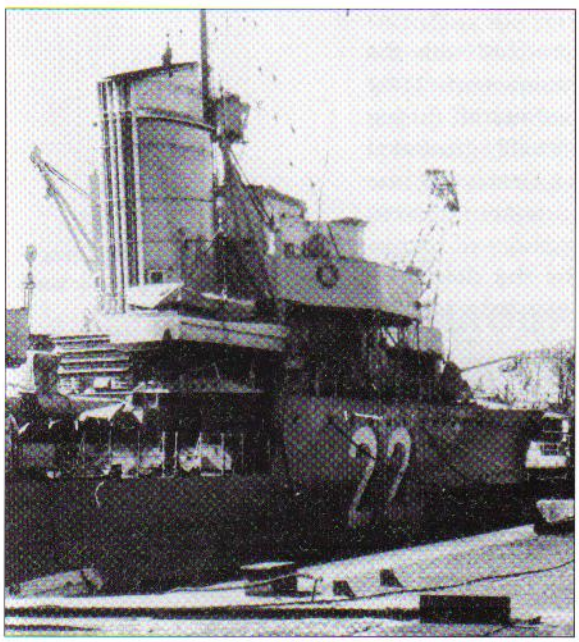
German cruiser made a hasty retreat, *Friedrich Eckoldt* and *Richard Beitzen* were approaching. Unaware of the presence of the British cruisers, they took the British gunfire to be from *Hipper* and approached the enemy to almost point-blank range before discovering their fatal error. The British directed their gunfire on to *Friedrich Eckoldt*, which, still not realising its error, signalled *Hipper* asking why it was firing on her. *Richard Beitzen* raced off into the night and escaped as her unfortunate companion was pounded and sunk by the British cruisers. *Friedrich Eckoldt* was sent to the bottom with her entire crew.

The entire action had resulted in only one Allied merchant ship being damaged, with one minesweeper and one destroyer sunk. Two light cruisers (with 6-in. guns) had driven off a heavy cruiser (8-in. guns) and a former pocket battleship (11-in. guns) with a powerful destroyer escort, all of which greatly outgunned their British equivalents.

Hitler was furious at the lack of aggression shown by such a powerful force, and the outcome was the resignation of the C-in-C Navy, Grossadmiral Erich Raeder, and an order (later scaled down) that the entire fleet of capital ships be scrapped.

Subsequent operations for the destroyer forces in the far north consisted predominantly of escorting heavy units to and from Germany with some minelaying sorties thrown in. Fuel shortages, however, were beginning to have a serious effect on availability of German warships for operational use and many ships suffered long periods of enforced inactivity. This, in the case of the destroyers, was accompanied by a litany of technical problems that saw the numbers available regularly reduced. The once high morale of the destroyer arm was seriously damaged.

In September 1943, Z27, Z29, Z30, Z31 and Z33, together with *Erich Steinbrinck*, *Karl Galster*, *Theodor Riedel* and *Hans Lody*, set course for the island of Spitzbergen, the destroyers carrying several hundred army troops whose task would be, with heavy fire support from the destroyers plus the battleships *Tirpitz* and *Scharnhorst*, to seize the island from the Norwegian troops who occupied it. With such a massive force at the disposal of the Germans, the outcome was somewhat of a foregone conclusion, The defenders, however, did not give up without a fight, shore batteries scoring several hits on Z29, Z30 and Z31. Although this victory, small though it may have been, would have served to boost the morale of the German sailors, it served little real purpose as the Allies re-imposed control over the island just a few weeks later.



Z6, Theodor Riedel, in port. Of particular interest is the layout of steam pipes running up the rear face of the forward funnel. Each of the shipyards that constructed the destroyers had its own specific style of layout for these pipes.

In December 1943, the destroyer force played only a minor role in the fateful sortie of the *Scharnhorst*, which saw her sunk by the British battleship *Duke of York*. After escorting the *Scharnhorst* some way out into open waters, Z29, Z30, Z33, Z34 and Z38 were detached and sent to search for enemy merchant shipping. Nothing was found, and in the interim *Scharnhorst* was intercepted and sunk.

1944 was a lean period for the destroyer fleet, relegated once again to minor escorting duties, with many units being dogged by mechanical

failures. The loss of naval bases in France saw the destroyers located there being transferred to the Baltic, where they took part in several shore bombardment missions alongside heavy units such as the *Prinz Eugen*. Destroyers were also instrumental in assisting in the evacuation of army units from the island of Ösel, when, along with the *Admiral Scheer*, Z25, Z35 and a number of torpedo boats bombarded Soviet units whilst German troops were successfully evacuated by barge to safety.

A major catastrophe had hit the destroyers once again when, on 12 December 1944, a mixed group of destroyers and torpedo boats was tasked with laying mines off the Estonian coast. Strict radio silence was ordered, as well as a prohibition on the use of radar, and all ships were running darkened, with no lights showing. As the flotilla progressed towards its destination area, weather conditions worsened and it appears that several of the ships were uncertain of their exact position, a dangerous situation when in the proximity of known minefields. Just before 1400hrs, Z35 ran on to a mine and was rocked by several explosions, being ripped apart as her own payload of mines, fused and ready for laying, exploded. The same fate was suffered just minutes later by Z36. The remaining German ships were forced to reverse their course and carefully head westwards in heavy seas and gale-force winds, whilst gingerly defusing the heavy load of mines they carried.

In early 1945, most of the remaining destroyers were also transferred to the Baltic where many surviving German warships were being put to use in providing shore bombardment support to hard pressed German army units on the Eastern Front.

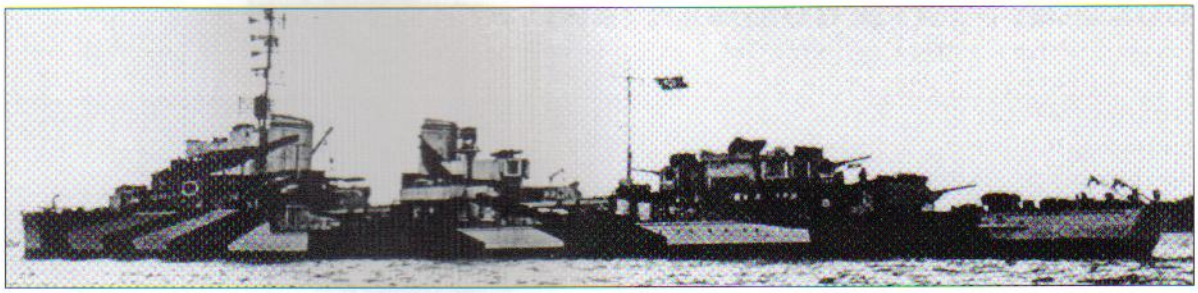
The passage from Norway into home waters, however, was not to be an easy one, the destroyers being intercepted by British cruisers and suffering significant shell damage though their superior speed eventually allowed them to escape their pursuers.

The destroyers were kept extremely busy in the Baltic ensuring defensive minefields intended to prevent Soviet naval units moving westwards were kept intact. Escort duties were also regularly undertaken, as civilians and wounded troops were evacuated by sea from ports in the eastern Baltic to relative safety in Germany.

In the final weeks of the war, Z34 was actually credited with the destruction of 12 enemy tanks during a shore bombardment sortie near Kolberg. Z28 had been dive-bombed and sunk by Soviet aircraft during such operations on 6 March 1945. With the Luftwaffe virtually grounded due to severe fuel shortages, air cover was sparse and vessels like the destroyers, despite their enhanced anti-aircraft armament, were extremely vulnerable.

Probably the most successful work undertaken by the destroyers during these final days of the war was in the escorting of refugee ships

Z21, *Wilhelm Heidkamp*. This broadside view shows her sleek lines to good advantage.



Z6, *Theodor Riedel*, sporting one of the more extreme splinter camouflage patterns used by the German destroyers.

laden with civilians desperate to avoid falling into the hands of the Soviets. As well as those packed into merchant and passenger ships, many thousands were carried on the destroyers themselves.

As the last hours of the Third Reich ticked away, most of those destroyers that could made their way westwards to ports such as Copenhagen. One last task remained, however, and on 6 May, *Hans Lody*, *Karl Galster*, *Friedrich Ihn*, *Theodor Riedel*, Z25, Z38 and Z39 sailed for Hela where, on the very eve of surrender, they snatched a further 22,000 soldiers and refugees from the jaws of Soviet captivity. The surrender came into force whilst the flotilla was still making its way westwards to safety in the port of Glücksberg.

The German destroyers, whilst large and impressively armed, were dogged by mechanical failure, hampered by lack of training for the crews and often by over-timid commanders who failed to use their vessels aggressively enough, though in fairness to them, it was usually the case that German warships were ordered to avoid contact with superior enemy forces.

FOREIGN DESTROYERS

A small number of captured destroyers saw service in the Kriegsmarine, including the Dutch *Gerard Callenburgh*, commissioned into the German Navy as ZH1, which was sunk in action with British destroyers in June 1944; the former French *L'Opiniatre*, serving as ZF2, which survived the war to be broken up in late 1945; the Greek *Hermes*, serving as ZG3, scuttled in May 1943; and two Norwegian craft, the TA7, serving as ZN4, and TA8, serving as ZN5. Both of these latter vessels were still under construction when captured and never completed, primarily due to damage caused by sabotage.

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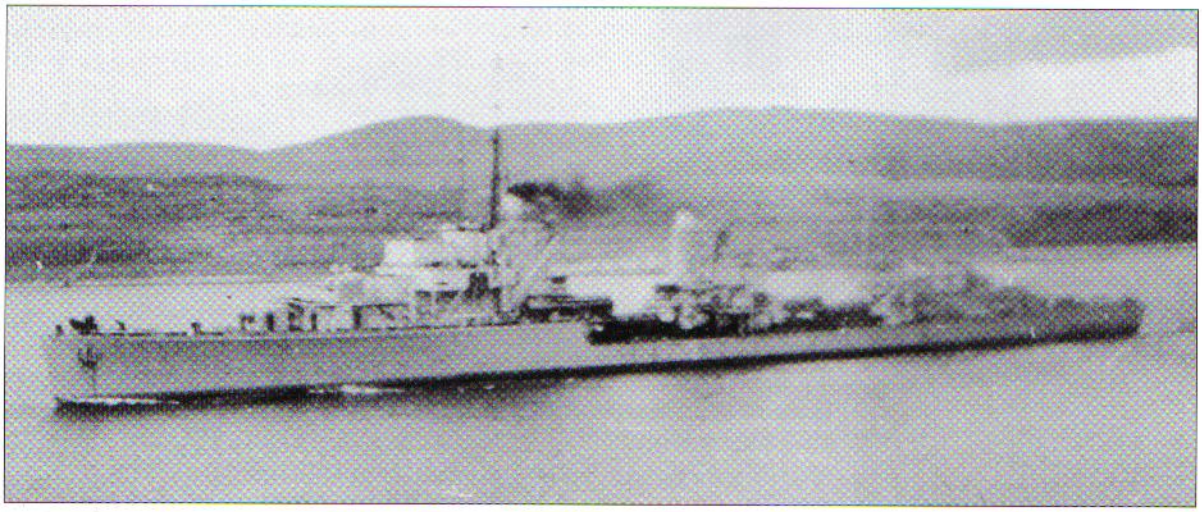
COLOUR PLATE COMMENTARY



A wartime photo of Z10, *Hans Lody*, shown at Kirkenes in Norway. She still bears the early pale grey livery of the early part of the war, but note the large eagle has been dismounted from the face of the bridge, and the pennant number on the hull side painted out.

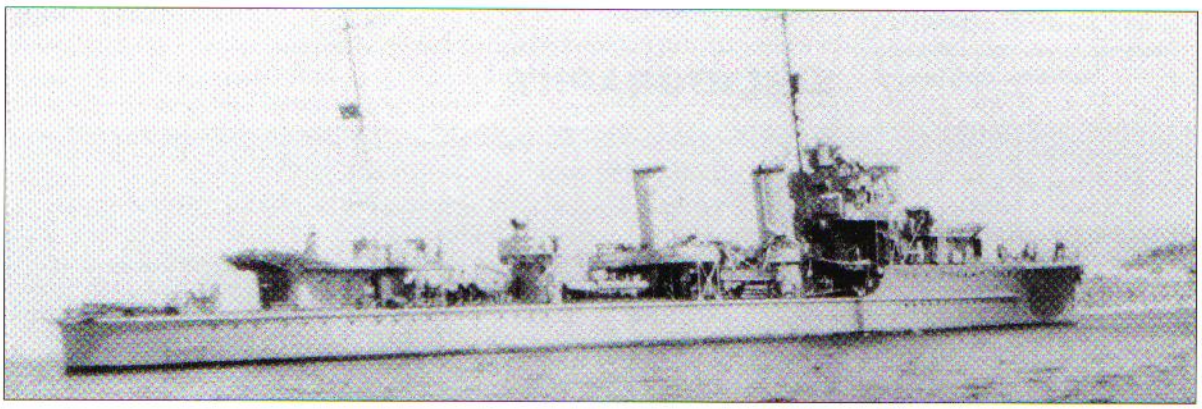
A: TYPE 34A

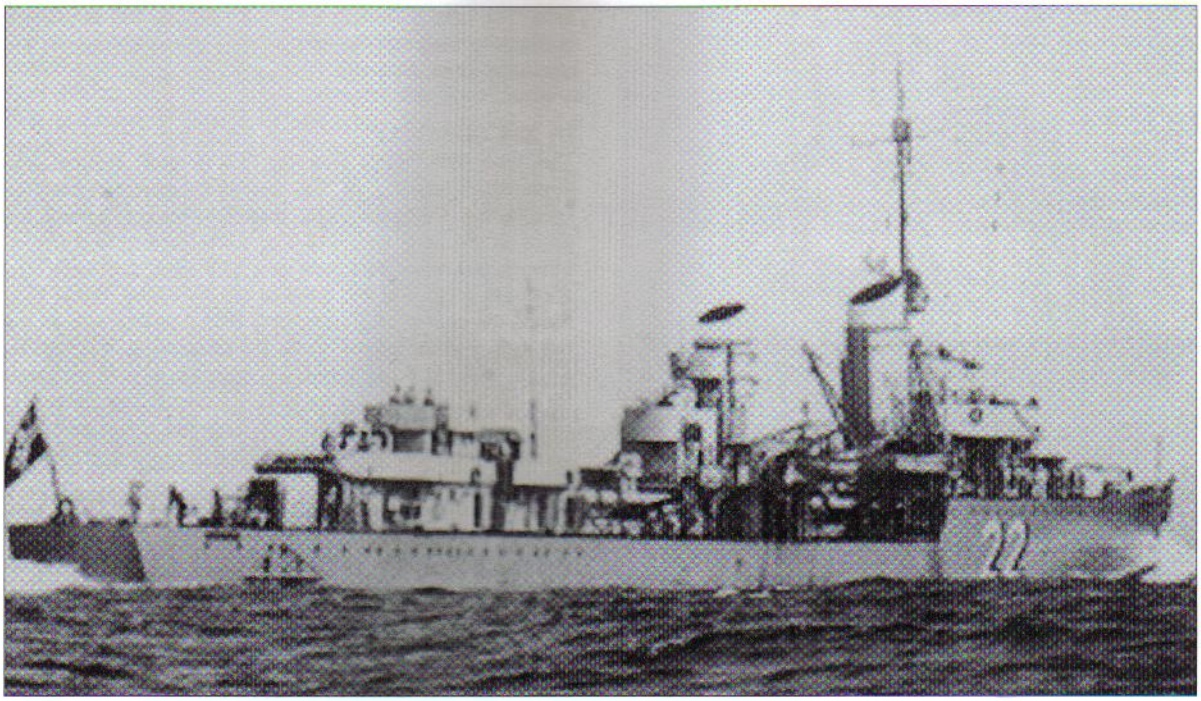
Here we see two destroyers of this class, illustrating the minor differences between sister ships and the often bizarre colour schemes they sported.

1 Z6 *Theodor Riedel*, shown as she appeared circa 1942, with bold dark grey angular stripes over her pale grey base colour. Note the mild rake to the bows of this class. The two single-barrelled 2cm flak guns on the roof of her aft deckhouse were later removed and a four-barrelled Flakvierling substituted. The searchlight on the platform abaft the funnel was also later removed and a FuMO radar installation sited here.

2 Z10, *Hans Lody*. She is also shown as she appeared from around 1942. In her case, however, the camouflage scheme is much less dramatic, consisting only of a mid-grey paint scheme over most of her hull with darker grey patches. Her anti-aircraft armament has already been enhanced with two *Flakvierlinge* on the roof of her aft deckhouse and radar antennae on the platform abaft her funnel and also atop her bridge structure.

ZG3, the former Greek destroyer *Hermes*, in German service. She was used mainly for convoy escort duties in the Aegean and was also occasionally used for transporting troops. She was responsible for the sinking of the submarine HMS *Splendid*. Damaged in an attack by Allied aircraft, she was considered beyond repair and was scuttled.





This stern view of Z6, *Theodor Riedel*, shows the square stern of these destroyers, an unusual feature at this time, but one very common on modern warships today.

Although the Class 34A destroyers were all broadly similar, one set of features may be used to determine which yard constructed a particular group of ships. To the rear of the forward funnel were grouped a number of steam vent pipes. Various yards used different configurations for these pipes.

At left (**3**), the configuration found on Z9 to Z13 shows three narrow pipes flanked by two large bore pipes. These destroyers were built by Germaniawerft in Kiel. At right (**4**), Z5 to Z8, constructed by Deschimag in Bremen, the vents were grouped as six small-bore pipes.

B: AMBUSH AT NARVIK

This plate shows one of the small victories in what was a disastrous event for the destroyer fleet. During the second phase of the battle of Narvik, in April 1940, the battleship HMS *Warspite*, in consort with destroyers, totally decimated the German naval presence at Narvik. Here the destroyer *Georg Thiele* has hidden herself just behind the neck of the Strommen narrows. Lying in wait with all guns ready, and with her last two torpedoes ready to fire, she pounced as the Tribal-class destroyer HMS *Eskimo* passed through the narrows. The two destroyers blazed away at each other at almost point-blank range. One of *Georg Thiele*'s torpedoes failed to launch but the other ran true, and struck the forward part of the British destroyer, blowing her bows off. Unfortunately for *Georg Thiele*, her ammunition was expended so she was unable to deliver the *coup de grâce* to the injured enemy destroyer and withdrew further into the narrow inlet where she was run aground and scuttled by her crew to prevent her capture.

The British destroyer, though seriously damaged, was not yet ready to be written off. Once the German destroyers had been taken care of, HMS *Eskimo*'s companions escorted her back to Great Britain, the destroyer running in reverse the whole way.

C: TYPE 34

Here we see the first of the post-WW1 German destroyer designs, the Type 34. Only four of this type were to be produced before the improved Type 34A were introduced.

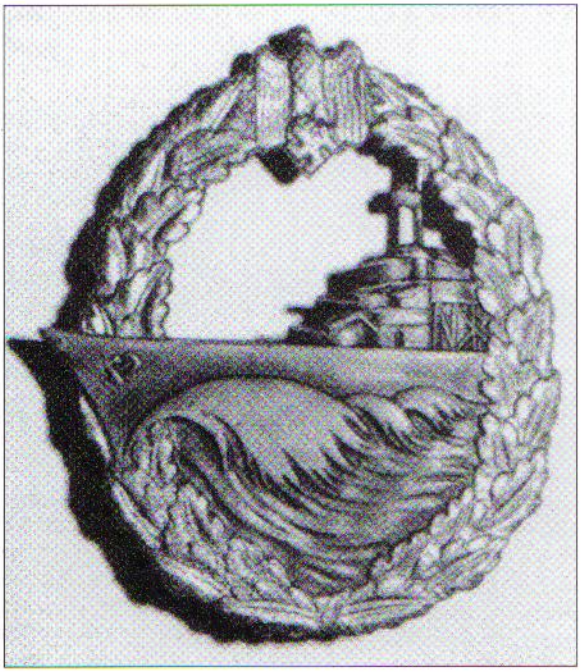
1 Z1, *Leberecht Maas*. Note that as built the first three of the type had a straight stem, though this was later modified during refit to give it a slight rake.

She is in the typical pale grey livery of the pre-war period. The early destroyers had larger funnels, with very tall and distinct funnel caps.

In the plan view (**2**) can be seen the rails which ran on the port side from the forward funnel all the way to the stern and to starboard from the aft funnel to the stern. These rails carried the mines which German destroyers used to good effect in the early part of the war. Decks and other horizontal surfaces were usually finished in a dark grey anti-slip material. Note also the staggered flak gun platforms mounted on the aft funnel, variation in the shape and positioning of these will be noted between the various classes. Some variation in the exact positioning of the single 2cm flak guns will also be noted.

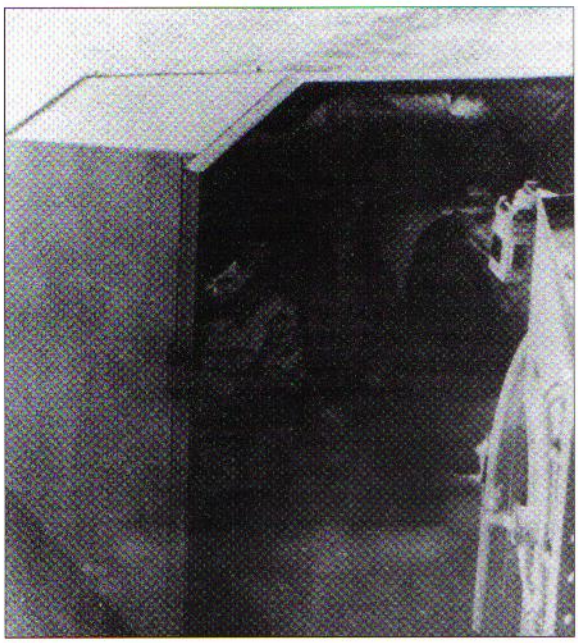
In the case of Z1, the guns are on the aft deckhouse roof, and on the main deck to port and starboard of the number two turret.

The detail inset (**3**) shows the stern area which is squared off in a quite distinctive fashion. Note the rails for the mine



The destroyer war badge (*Zerstörer Kriegsabzeichen*) awarded to crew members who had participated in at least three operational cruises. The badge shows an extremely realistic rendition of a Type 36 destroyer.

Just how miserable duty could be as a member of gun turret 'Anton' on a destroyer may be gauged from this photo. A crew member huddles in the cover of the turret, its rear open to the elements, as his destroyer ploughs through heavy seas.



load. The rails projecting from the hull side are to prevent damage to the propellers should the ship swing against the dockside when in port.

D: Z39 CUTAWAY

The Type 36A (MOB) was by far the most modern and streamlined looking of the German destroyer designs. Despite this, the basic design features were pretty much the same as the early Type 34s they succeeded. Above decks, forward, one major difference was in the placing of each bow anchor in a cluse at the edge of the forecastle, rather than having the anchor chain emerging from a hawse hole on the hull side. Further astern, came the breakwater, followed by a huge twin 15cm gun turret, a substantial level of firepower for a destroyer. Aft of the turret was a deckhouse containing office space on whose roof was mounted a flak gun. This could be a four-barrel 2cm *Flakvierling* or single-barrelled 3.7 or 4cm gun.

Next came the large box-shaped bridge structure, with extended wings either side. Here were the radio room, signal coding room, some sleeping accommodation and, above this, the wheelhouse itself, fully enclosed. Two of the five bridge windows were fitted with circular clear view screens. On the open upper bridge was located a 4m rangefinder and the binocular master sight, similar to the UZO (Überwasserzieloptik) equipment used on U-boats. Each bridge wing was home to a single 2cm flak gun.

Further aft again came the massive forward funnel with the ship's launches to port and starboard. These were lowered into the sea by derricks rather than davits. Next came the forward quadruple torpedo tube set followed by the second funnel. Either side of the funnel were mounted platforms to take the twin 3.7cm and single 2cm flak guns. At the rear of this structure was a tower on which was sited the aft 4m rangefinder.

Moving further aft, the second quadruple set of torpedo tubes were followed by the aft superstructure. On the forward part of the superstructure roof was a single gun turret facing forward and on the after end, a second turret facing the stern. In the centre was a small deckhouse which accommodated the ship's cooks and stewards and on whose roof was mounted a four-barrelled *Flakvierling*. At the base of the aft superstructure, facing astern, was the fourth turret, with a single-barrelled mount.

Below decks, the first two deck levels in the forward part of the ship were predominantly taken up by accommodation for seamen and petty officers with the lowest deck level being given over to ammunition storage. Immediately below the bridge and funnel areas were boiler rooms 3 and 2 respectively, with, under the forward torpedo tube set, the auxiliary boiler room and generator room. Moving aft, the number 1 boiler room was sited immediately under the second funnel. This was followed by number 2 turbine room and, under the aft torpedo tube set, the gyro room and ship's workshops. Next came the number 1 turbine room. The first deck level below the aft superstructure contained the officers' accommodation, and below this more magazine storage. Aft of the officers' accommodation lay the CPO's mess with, beneath the aftmost turret, further crew accommodation. The aft superstructure itself contained the wardroom and captain's accommodation.

E: TYPE 36A – Z23

On this plate we see one of the Type 36A destroyers which underwent major modification. The side profile (**1**) and plan view (**2**) show her as built. Note that this vessel features only one forward main armament turret. The position of the second turret on earlier types is now occupied by a single 2cm flak gun. Note the distinctive clipper bow and the layout of the flak platforms on either side of the second funnel. Two platforms are provided either side, and are mounted symmetrically, one each side carrying a 3.7cm twin flak and one a single 2cm flak. Note also the distinct difference in funnel design when compared with the Type 34 and Type 34A, and the much smaller funnel caps.

After a major refit, this class sported a massive twin 15cm gun turret forward and has had the forward 2cm flak gun replaced by a *Flakvierling*, as shown in the detailed inset (**3**). The new turret gave her greatly enhanced firepower, and the gun crew improved protection from splinters and from the sea in bad weather conditions. The extra weight however also unfortunately adversely affected the ship's handling, and she eventually reverted back to her old-style single gun turret.

F: ESCORT DUTIES IN THE FAR NORTH

In the second half of the war, most of the destroyers saw service in the Far North, operating from bases in Norway and ranging far into the Arctic Circle, the 'Eismeer Front'.

Following the debacle of the abortive surface attack on convoy PQ17, Hitler's respect for the heavy units of his fleet all but disappeared. Although the order for the scrapping of all major ships was rescinded, most then spent the rest of the war lurking in Norwegian fjords where their mere presence caused substantial British naval resource to be tied down awaiting any attempted breakout.

One of the last successful sorties came on 6 September 1943, when the *Tirpitz*, supported by *Scharnhorst* and a number of destroyers, led an attack on Spitzbergen Island. The use of two large warships and a number of destroyers on a mission of such low impact, and which, although successful, was to have an effect whose life was measured in mere days before the Allies were back in control, would seem hard to justify. It did, however, greatly improve the morale of German naval forces to have set out to sea and completed a combat mission instead of being cooped up in some narrow fjord for periods of enforced inaction.

The weather during this action was utterly appalling, and here Z20, *Karl Galster*, labours through very heavy seas. One can only imagine what it must have been like to serve as a gunner in one of the small single-gun turrets, the rear of which was open to the elements, in such weather conditions. In particular, the forward gun turret crew must have led a truly miserable existence. In the background, her huge bulk just visible in the gloom, is *Tirpitz*, our tiny destroyer providing flank cover.

G: TYPE 36A (MOB)

Here we see Z37 (**1** and **2**), one of the last destroyers to be built for the Kriegsmarine.

She was completed with a pronounced clipper bow and had the large twin 15cm turret as part of her initial design rather than as a modification. Note the single 2cm flak gun at the bow and aft of the forward turret, though her aft deckhouse roof bears a *Flakvierling*. This class also had a distinctive searchlight platform fitted to the foremast, and was provided with a FuMO radar antenna on the bridge structure.

The inset (**3**) shows detail of the bridge area of the Type 36A (MOB), with the so-called "Barbara" style radar array with its large mattress-type antenna. Note also the searchlight platform on the mast and the rangefinder on the roof of the bridge structure. This rangefinder controlled the main forward twin turret. A second rangefinder aft controlled the stern turrets.

A superb pre-war shot of *Karl Galster*, her pennant number identifying her as the second ship of the fourth flotilla. Note the raked clipper bow, which was to be a standard fitting from *Karl Galster* onwards.

INDEX

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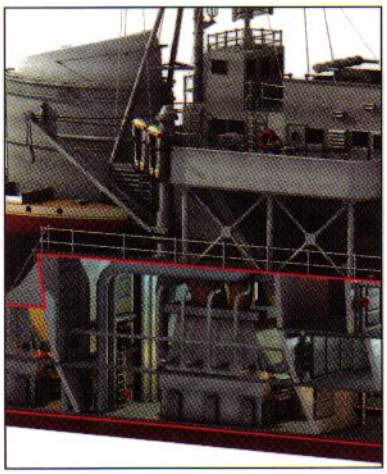

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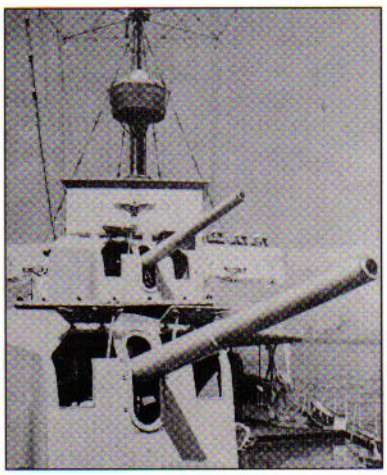

Photographs

German Destroyers 1939–45

The German destroyer fleet of World War II consisted of nine classes: the *Diether von Roeder* class, the *Leberecht Maas* class and the wartime classes Z23, Z35, Z37, Z40, Z43, Z46 and Z52. These vessels, though fewer in number than the British destroyer fleet, tended to be much bigger and more powerful than their Allied counterparts. They served their country well throughout operations in the Channel, North Sea, the Far North and in the rescue of civilians from East Prussia during the final days of the war. This title describes their design, development and operational use from the fjords of Narvik through to the end of the war.

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