

# DEUTSCHLAND CLASS POCKET BATTLESHIP

## BRIEFING

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## Key Information

<b>Country of Origin:</b>	Germany
<b>Manufacturers:</b>	Deutsche Werke, Navy Yard (Wilhemshaven)
<b>Major Variants:</b>	-
<b>Role:</b>	Commerce raider
<b>Operated by:</b>	Kriegsmarine
<b>First Laid Down:</b>	9 February 1929
<b>Last Completed:</b>	6 January 1936
<b>Units:</b>	<i>Deutschland, Admiral Scheer, Admiral Graf Spee</i>

## Overview

After the end of the First World War, the Treaty of Versailles restricted Germany to a collection of vessels that were barely adequate for coastal defence (6 obsolete battleships, 6 light cruisers, 12 destroyers and 12 torpedo boats). The treaty permitted the replacement of the battleships and cruisers 20 years after launch (i.e. in the 1920s), although replacement 'battleships' were limited to a maximum of 10,000 tons displacement, which matched the tonnage of cruisers (as defined in the inter-war naval treaties).

Germany had great difficulty deciding on an appropriate design of ship to replace the very old pre-dreadnought era battleships. The tonnage limitation was severe, making it impossible to build a ship that was heavily armed and heavily armoured. Faced with treaty limitations on the number of ships, and with potential threats from Russia, Poland and France, the choice of design was not easy. Slow, short range, heavily armoured ships (for coastal defence) were rejected as Germany wanted to retain an ocean-going navy to project political influence world wide, and typical cruiser-type vessels were rejected due to a desire to make use of Germany's ability to mount heavy guns on a small hull (other nations could not do this due to treaty limits). It was eventually decided to build a ship that was well armed, with sufficient speed to out-run any superior ships, but with relatively light armour (to remain close to the treaty limitations).

The main guns were chosen to be six 280 mm (11 in) guns in two turrets (one forward and one aft). Larger guns were considered, but were discounted due to weight limitations and possible adverse political consequences. Secondary armament was eight 150 mm (5.9 in) guns, fitted in single shielded mounts (four to port and four to starboard). For anti aircraft defence, three World War One vintage 88 mm (3.5 in) guns were provided (one on each side of the funnel, and one on the centreline aft), along with eight 37 mm (1.5 in) guns in twin mounts and four single 20 mm (0.8 in) machineguns. Eight torpedo tubes were provided on the stern of the vessel, aft of the turret, four on each side of the ship. Before the start of the Second World War this was modified, by replacing the single 88 mm guns with twin mounts, and further modifications to the light guns were made throughout the war.

The armour arrangement was designed to save weight wherever possible, with reduced thickness inside the armoured longitudinals and tapering forward and aft. The main belt was 80 mm (3.1 in) thick, with deck armour of 45 mm (1.8 in) outside the longitudinal armour and 30 mm (1.2 in) inside. The turrets had 140 mm (5.5 in) front, 80 mm (3.1 in) sides and 105 mm (4.1 in) roof. The conning tower had 140 mm (5.5 in) protection.

Diesel engines were chosen for the main machinery, in contrast to the steam turbines fitted in ships of other navies, as it was hoped that this would save weight. Eight engines provided power to the two propeller shafts, for 56,800 shp, giving a maximum speed of 28 knots. Fuel capacity was 3,347 m<sup>3</sup> (118,198 ft<sup>3</sup>), sufficient to allow 18,650 nm at 15 knots, or 7,149 nm at 26 knots.

Initially designed for one aircraft, and without a catapult, she was modified before the start of the Second World War to carry a second aircraft, and a catapult was fitted. This aircraft was the Arado Ar 196 two seat floatplane.

There was some dissatisfaction with the ships' seakeeping qualities, with the night action control positions in the final two ships of the class being unusable due to spray. To address this attempts were made to reduce weight, and a plan was put in place to lengthen and widen the ships, however the refit (which was expected to take a year) did not take place.

Although limited by treaty to a displacement of 10,000 tons, the vessel actually displaced over 11,500 tons standard (over 15,000 tons full load), however the ship was a creditable effort to keep within the Versailles treaty limits whilst still providing a useful warship. Due to the battleship-type gun arrangement being combined with a relatively tiny hull, she was referred to as a 'pocket' battleship by the rest of the world. Two other warships followed; the *Admiral Scheer* and the *Admiral Graf Spee*. These ships differed in detail to the original (and to each other), however none of the fundamental design elements was altered.

The pocket battleships had an eventful career with the *Kriegsmarine*. All saw action in the Spanish Civil War (the *Deutschland* being bombed and suffering her first action casualties), all made raiding sorties in to the Atlantic, and all saw action with surface forces. Despite some seakeeping problems, the ships performed well in action and showed the wisdom of the design choices made.

## Units

<i>Deutschland</i>	Builder	Laid Down	Launched	Completed	Left Service
	Deutsche Werke	9 Feb 1929	19 May 1931	1 April 1933	4 May 1945

The *Deutschland* was at sea in the Atlantic when war was declared, and (for political reasons) her raiding activities were suspended until the end of September, after which the implementation of convoys and bad weather made conditions difficult. Nevertheless, she managed to remain undetected in the North Atlantic for over ten weeks and finally returned after bagging 11,900 grt of merchant vessels. She was then renamed the *Lützow*, due to fears over the potential adverse publicity if a vessel named *Deutschland* was lost. She supported the Norway campaign in 1940, and was in action in the Battle of the Drobak Narrows where she was hit three times by the shore battery there. On her way back to Germany for repairs she was torpedoed by the submarine *HMS Spearfish*, losing her rudder and causing the stern to hang off, and was towed back to Kiel. She spent a year under repair, and whilst working up for another Atlantic sortie was torpedoed again – this time by an aircraft. A further six months in dock followed, after which she was transferred to Norway for operations against convoys in May 1942. Whilst on her way to attack convoy PQ17 she ran aground, and had to return to Kiel for repairs. On 31 December 1942 she was involved in Operation Regenbogen (the attack on convoy JW51B) however the *Lützow* had only brief contact with the enemy. In September 1943 she returned to Germany for use as a training ship. In June 1944 she began operations in the Baltic, escorting convoys, conducting shore bombardments and running essential supplies. She was bombed and settled on the bottom at Swinemünde on 16 April 1945, but was still capable of using her aft turret for bombardment until she was finally scuttled on 4 May 1945. It's an interesting historical postscript to note that the first German ship above the size of a cruiser to be built after the First World War was also the last German ship above the size of a cruiser to be put out of action at the end of the Second World War.

<i>Admiral Scheer</i>	Builder	Laid Down	Launched	Completed	Left Service
	Navy Yard (Wilhelmshaven)	25 June 1931	1 April 1933	12 Nov 1944	10 April 1945

The *Admiral Scheer* was based in Wilhelmshaven at the start of the Second World War, and after extensive modification to her command tower she departed on a commerce raiding sortie on 23 October 1940. Her first success came quickly, with an independent merchant ship being sunk on 5 November 1940 followed a few hours later by the sighting of convoy HX84. This convoy contained 37 ships and was escorted by the single armed merchant cruiser *HMS Jervis Bay*. The convoy scattered as the *Jervis Bay* was sunk, and the *Admiral Scheer* sank a further five merchant ships and damaged two more before night fell. She finally returned home on 1 April 1941, after nearly six months at sea, with a tally of 15 ships sunk (including an armed merchant cruiser) and two captured, for a total bag of 1,130,000 grt of shipping. She was under repair until July, after which she joined the Baltic fleet before being transferred to Norway in May 1942. She left port in June to attack convoy PQ17, but the sortie was called off after the convoy scattered. In August she bombarded Port Dickson in the Cara Sea, then she returned to Kiel for repairs in November 1942. After service as a training ship she was recommissioned in October 1944 to support the German army from the Baltic, and in March 1945 had to return to Kiel because her gun barrels were worn out. She was bombed and sunk there in April 1945.

<i>Admiral Graf Spee</i>	Builder	Laid Down	Launched	Completed	Left Service
	Navy Yard (Wilhelmshaven)	1 Oct 1932	30 June 1934	6 Jan 1936	17 Dec 1939

The *Admiral Graf Spee* was at sea at the start of the Second World War, in preparation for commerce raiding in the South Atlantic. After sinking nine ships for 50,000 grt she was sighted by three British cruisers on 13 December 1939, after which followed the Battle of the River Plate. She severely damaged the heavy cruiser *HMS Exeter*, but was herself damaged (not seriously) and escaped to Monte Video for repairs. She was finally scuttled in Monte Video harbour on 17 December 1939, after being convinced that a superior force was awaiting her at sea.

## Specifications

	<b>Deutschland</b>	<b>Admiral Scheer</b>	<b>Admiral Graf Spee</b>
Displacement			
- <i>Standard</i>	11,700 tons	11,700 tons	12,100 tons
- <i>Full Load</i>	15,200 tons	15,900 tons	16,200 tons
Length (OA)	186.0 m (610 ft 3 in)	186.0 m (610 ft 3 in)	186.0 m (610 ft 3 in)
Length (WL)	181.7 m (596 ft 2 in)	181.7 m (596 ft 2 in)	181.7 m (596 ft 2 in)
Beam	20.70 m (67 ft 11 in)	21.4 m (70 ft 3 in)	21.7 m (71 ft 2 in)
Draft (Standard)	5.81 m (19 ft 1 in)	5.81 m (19 ft 1 in)	5.80 m (19 ft)
Draft (Full Load)	7.25 m (23 ft 9 in)	7.25 m (23 ft 9 in)	7.25 m (23 ft 9 in)
Block Coefficient	0.56	0.56	0.57
Propulsion <sup>[Note 1]</sup>	56,800 shp	56,800 shp	56,800 shp
Speed	28 kts	28 kts	28 kts
<b>Weapons</b>			
Main Guns	6 x 280 mm (11 in) in two triple mounts	6 x 280 mm (11 in) in two triple mounts	6 x 280 mm (11 in) in two triple mounts
Other Guns <sup>[Note 2]</sup>	8 x 150mm (5.9 in) in eight single mounts	8 x 150mm (5.9 in) in eight single mounts	8 x 150mm (5.9 in) in eight single mounts
	6 x 88mm (3.5 in) in three double mounts	6 x 88mm (3.5 in) in three double mounts	6 x 105mm (4.1 in) in three double mounts
	8 x 37mm (1.5 in) in four double mounts	8 x 37mm (1.5 in) in four double mounts	8 x 37mm (1.5 in) in four double mounts
	4 x 20mm (0.8 in) in four single mounts	4 x 20mm (0.8 in) in four single mounts	4 x 20mm (0.8 in) in four single mounts
Torpedo Tubes	8 x 533 mm (21 in) torpedo tubes in two quadruple mounts	8 x 533 mm (21 in) torpedo tubes in two quadruple mounts	8 x 533 mm (21 in) torpedo tubes in two quadruple mounts
<b>Armour</b>			
Side Belt	30-80 mm (1.2 - 3.1 in)	40 - 80 mm (1.6 - 3.1 in)	100 mm (3.9 in)
End Bulkheads	60 mm (2.4 in)	60 mm (2.4 in)	100 mm (3.9 in)
Magazine	None	None	70 mm (2.8 in) above only
Barbette	100 mm (3.9 in)	125 mm (4.9 in)	125 mm (4.9 in)
Turret	50-140 mm (2.0 - 5.5 in)	50-140 mm (2.0 - 5.5 in)	50-140 mm (2.0 - 5.5 in)
Machinery	30-45 mm (1.2 - 1.8 in)	20 - 45 mm (0.8 - 1.8 in)	20 - 45 mm (0.8 - 1.8 in)
<b>Miscellaneous</b>			
Aircraft	2 Arado AR 196 floatplanes	2 Arado AR 196 floatplanes	2 Arado AR 196 floatplanes
Compliment	635 (1100 war)	635 (1100 war)	635 (1100 war)

Note 1: These values are uncertain, and will be refined as more references become available

Note 2: increased from four to ten 20 mm guns in 1941 for surviving ships.