

= Cöln @-@ class cruiser =

The Cöln class of light cruisers was Germany 's last class commissioned before her defeat in World War I. Originally planned to comprise ten ships , only two were completed ; Cöln and Dresden . Five more were launched , but not completed : Wiesbaden , Magdeburg , Leipzig , Rostock and Frauenlob , while another three were laid down but not launched : Ersatz Cöln , Ersatz Emden and Ersatz Karlsruhe ( for the last three , the names quoted were only provisional titles to be used during construction , and the three would have received other names at their launch if that had taken place ) . The design was a slightly modified version of the preceding Königsberg class .

Cöln and Dresden joined the High Seas Fleet in 1918 , which limited their service careers . They were assigned to the II Scouting Group , and participated in an abortive fleet operation to Norway to attack British convoys . They were to have led attacks on British merchant traffic designed to lure out the British Grand Fleet and force a climactic fleet battle in the final days of the war , but the Wilhelmshaven Mutiny forced the cancellation of the plan . The two ships were interned and eventually scuttled in Scapa Flow in June 1919 . Both Dresden and Cöln remain on the bottom of Scapa Flow .

= = Design = =

By 1916 , thirteen German light cruisers had been lost in the course of World War I. To replace them , the Kaiserliche Marine ordered ten new cruisers built to a modified Königsberg class design . All ten ships were laid down in 1915 and 1916 . Cöln was built by the Blohm & Voss shipyard in Bremen . Wiesbaden and Rostock were built at AG Vulcan in Stettin , and Leipzig , Ersatz Cöln , and Ersatz Emden were ordered from the AG Weser dockyard in Bremen . Dresden and Magdeburg were built at the Howaldtswerke shipyard in Kiel , while Frauenlob and Ersatz Karlsruhe were built by the Imperial Dockyard in Kiel .

Cöln and Dresden , the only two ships to be completed , were launched on 5 October 1916 and 25 April 1917 , respectively . Wiesbaden was launched on 3 March 1917 and was five months away from completion when she was canceled in December 1918 . Magdeburg followed on 17 November 1917 ; she was nine months from being finished when she was canceled . Leipzig was launched on 28 January 1918 and canceled seven months from completion . Rostock followed on 6 April , and also was seven months away from being finished . Frauenlob , the last ship of the class to be launched , on 16 September , was about thirteen months away from completion when she was canceled . The last three ships were canceled while still on the slipway .

= = = General characteristics and machinery = = =

The ships of the class were 149 @. @ 80 meters ( 491 @. @ 5 ft ) long at the waterline and 155 @. @ 50 m ( 510 ft 2 in ) long overall . They had a beam of 14 @. @ 20 m ( 46 ft 7 in ) and a draft of 6 @. @ 01 m ( 19 ft 9 in ) forward and 6 @. @ 43 m ( 21 ft 1 in ) aft . The ships had a designed displacement of 5 @, @ 620 metric tons ( 5 @, @ 530 long tons ) , and at full combat load , they displaced 7 @, @ 486 t ( 7 @, @ 368 long tons ) . Their hulls were built with longitudinal steel frames . The hulls were divided into twenty @- @ four watertight compartments and incorporated a double bottom that extended for forty @- @ five per cent of the length of the keel . The ships had a complement of 17 officers and 542 enlisted men . They carried several smaller vessels , including one picket boat , one barge , one cutter , two yawls , and two dinghies . The German Navy regarded the ships as good sea boats , having gentle motion . The ships were highly maneuverable and had a tight turning radius , and but lost speed going into a turn ; in hard turns , they lost up to sixty percent of their speed . They were stern @- @ heavy .

The ships ' propulsion systems consisted of two steam turbines powered by eight coal @- @ fired boilers and six oil @- @ fired boilers . The turbines drove a pair of three @- @ bladed screws , which were 3 @. @ 50 m ( 11 ft 6 in ) in diameter . The engines were rated at 31 @, @ 000 shaft horsepower ( 23 @, @ 000 kW ) for a top speed of 27 @. @ 5 knots ( 50 @. @ 9 km / h ; 31 @. @ 6

mph ) . On trials , Cöln reached 48 @, @ 708 shp ( 36 @, @ 322 kW ) and a top speed of 29 @. @ 3 kn ( 54 @. @ 3 km / h ; 33 @. @ 7 mph ) , while Dresden made 49 @, @ 428 shp ( 36 @, @ 858 kW ) and 27 @. @ 8 kn ( 51 @. @ 5 km / h ; 32 @. @ 0 mph ) . Coal storage was 300 t ( 300 long tons ; 330 short tons ) as designed , though up to 1 @, @ 100 t ( 1 @, @ 100 long tons ; 1 @, @ 200 short tons ) could be carried . Fuel oil was initially 200 t ( 200 long tons ; 220 short tons ) , and could be similarly increased to 1 @, @ 050 t ( 1 @, @ 030 long tons ; 1 @, @ 160 short tons ) . At a cruising speed of 12 kn ( 22 km / h ; 14 mph ) , Cöln could steam for approximately 6 @, @ 000 nautical miles ( 11 @, @ 000 km ; 6 @, @ 900 mi ) , while Dresden could steam for 5 @, @ 400 nmi ( 10 @, @ 000 km ; 6 @, @ 200 mi ) at the same speed . At a higher speed of 25 kn ( 46 km / h ; 29 mph ) , the range fell considerably , to 1 @, @ 200 nmi ( 2 @, @ 200 km ; 1 @, @ 400 mi ) . Electrical power was provided by two turbo generators and one diesel generator , with a total output of 300 kilowatts at 220 volts . Steering was controlled by a single , large rudder .

= = = Armament and armor = = =

The ship was armed with eight 15 cm SK L / 45 guns in single pedestal mounts . Two were placed side by side forward on the forecastle , four were located amidships , two on either side , and two were arranged in a super firing pair aft . Aboard Cöln , the forward pair of amidships guns were placed on the forecastle deck , while on the rest of the ships in the class , they were placed one deck lower , on the upper deck . These guns fired a 45 @. @ 3 @-@ kilogram ( 100 lb ) shell at a muzzle velocity of 840 meters per second ( 2 @, @ 800 ft / s ) . The guns had a maximum elevation of 30 degrees , which allowed them to engage targets out to 17 @, @ 600 m ( 57 @, @ 700 ft ) . They were supplied with 1 @, @ 040 rounds of ammunition , for 130 shells per gun . The ships also carried three 8 @. @ 8 cm ( 3 @. @ 5 in ) L / 45 anti @-@ aircraft guns mounted on the centerline astern of the funnels , though one was removed in 1918 . These guns fired a 10 kg ( 22 lb ) shells at a muzzle velocity of 750 to 770 m / s ( 2 @, @ 500 to 2 @, @ 500 ft / s ) . She was also equipped with four 60 cm ( 23 @. @ 6 in ) torpedo tubes with eight torpedoes in deck @-@ mounted swivel launchers amidships . The ships were also outfitted to carry up to 200 mines .

The Cöln class ships were protected by an armored belt composed of Krupp cemented steel . It was 60 mm ( 2 @. @ 4 in ) thick amidships and 18 mm ( 0 @. @ 71 in ) forward . The stern was not protected by armor . The armored deck was 20 mm ( 0 @. @ 79 in ) thick in the stern , 40 mm ( 1 @. @ 6 in ) thick amidships , and 60 mm thick forward . Sloped armor 40 mm thick connected the deck and belt armor . The conning tower had 100 mm ( 3 @. @ 9 in ) thick sides and a 20 mm thick roof . The main battery guns were protected with 50 mm ( 2 @. @ 0 in ) thick gun shields .

= = Ships of the class = =

= = Service history = =

After their commissioning , Cöln and Dresden joined the High Seas Fleet . They were assigned to the II Scouting Group , alongside the cruisers Königsberg , Pillau , Graudenz , Nürnberg , and Karlsruhe . The ships were in service in time for the major fleet operation to Norway in 23 ? 24 April 1918 . The I Scouting Group and II Scouting Group , along with the Second Torpedo @-@ Boat Flotilla were to attack a heavily guarded British convoy to Norway , with the rest of the High Seas Fleet steaming in support . The Germans failed to locate the convoy , which had in fact sailed the day before the fleet left port . As a result , Admiral Reinhard Scheer broke off the operation and returned to port .

In October 1918 , the two ships and the rest of the II Scouting Group were to lead a final attack on the British navy . Cöln , Dresden , Pillau , and Königsberg were to attack merchant shipping in the Thames estuary while the rest of the Group were to bombard targets in Flanders , to draw out the British Grand Fleet . Großadmiral Reinhard Scheer , the commander in chief of the fleet , intended to inflict as much damage as possible on the British navy , in order to secure a better bargaining

position for Germany , whatever the cost to the fleet . On the morning of 29 October 1918 , the order was given to sail from Wilhelmshaven the following day . Starting on the night of 29 October , sailors on Thüringen and then on several other battleships mutinied .

During the sailors ' revolt , the crew of the battleship Markgraf refused to move out of Dresden 's way ; she aimed one of her 30 @. @ 5 cm ( 12 @. @ 0 in ) gun turrets at Dresden , but then backed down and let Dresden leave the port . The ship then went to Swinemünde , where she was partially scuttled and subsequently re @-@ floated and returned to seaworthy condition . The unrest ultimately forced Hipper and Scheer to cancel the operation . When informed of the situation , the Kaiser stated , " I no longer have a navy . " Following the capitulation of Germany in November 1918 , most of the High Seas Fleet 's ships , under the command of Rear Admiral Ludwig von Reuter , were interned in the British naval base in Scapa Flow . Cöln and Dresden were among the ships interned .

The fleet remained in captivity during the negotiations that ultimately produced the Versailles Treaty . Von Reuter believed that the British intended to seize the German ships on 21 June 1919 , which was the deadline for Germany to have signed the peace treaty . Unaware that the deadline had been extended to the 23rd , Reuter ordered the ships to be sunk at the next opportunity . On the morning of 21 June , the British fleet left Scapa Flow to conduct training maneuvers , and at 11 : 20 Reuter transmitted the order to his ships . Cöln sank at 13 : 50 and was never raised for scrapping . Dresden also remains at the bottom of Scapa Flow .

The eight ships that were not completed by the end of the war were formally stricken from the naval register on 17 November 1919 . Wiesbaden was broken up for scrap in 1920 after she was briefly considered for completion . Magdeburg was sold on 28 October 1921 for 1 @, @ 300 @, @ 000 marks and broken up the next year at Kiel @-@ Nordmole . Leipzig and Rostock were sold in 1921 and scrapped in Hamburg . Frauenlob was towed to the Deutsche Werke shipyard in 1921 and broken up . Ersatz Karlsruhe was dismantled on the slipway in 1920 , and Ersatz Cöln and Ersatz Emden were sold for 400 @, @ 000 marks apiece on 21 and 25 June 1921 , respectively . They were scrapped that year in Hamburg .