

= Wiesbaden @-@ class cruiser =

The Wiesbaden class of light cruisers was a class of ships built by the German Kaiserliche Marine ( Imperial Navy ) shortly before the outbreak of World War I. Two ships were built in this class , Wiesbaden and Frankfurt . They were very similar to the preceding design , the Graudenz class , though they were armed with eight 15 cm SK L / 45 guns instead of the twelve 10 @. @ 5 cm SK L / 45 guns on the earlier vessels . The ships had a top speed of 27 @. @ 5 knots ( 50 @. @ 9 km / h ; 31 @. @ 6 mph ) .

Wiesbaden saw only one major action , the Battle of Jutland , on 31 May ? 1 June 1916 . She was badly damaged and immobilized during the battle and became the center of a melee as both sides fought over the crippled ship . She eventually sank in the early morning hours of 1 June , with only one survivor . Frankfurt was only lightly damaged at Jutland and saw extensive service with the II Scouting Group , including during Operation Albion against the Russians in the Baltic and at the Second Battle of Heligoland Bight , both in 1917 . She was interned with the rest of the fleet at the end of the war and scuttled at Scapa Flow , though British sailors prevented her from sinking . Frankfurt was ceded to the US Navy as a war prize and eventually expended as a target in July 1921 .

= = Design = =

= = = Dimensions and machinery = = =

The ships were 141 @. @ 7 meters ( 465 ft ) long at the waterline and 145 @. @ 3 m ( 477 ft ) long overall . They had a beam of 13 @. @ 9 m ( 46 ft ) and a draft of 5 @. @ 76 m ( 18 @. @ 9 ft ) forward and 6 @. @ 06 m ( 19 @. @ 9 ft ) aft . They displaced 5 @, @ 180 metric tons ( 5 @, @ 100 long tons ; 5 @, @ 710 short tons ) at designed displacement and 6 @, @ 601 t ( 6 @, @ 497 long tons ; 7 @, @ 276 short tons ) at full combat load . The hulls were built with longitudinal steel frames and contained seventeen watertight compartments and a double bottom that extended for forty @-@ seven percent of the length of the keel . Steering was controlled by a single rudder . Wiesbaden and Frankfurt had a crew of 17 officers and 457 enlisted men . They carried a number of smaller craft , including one picket boat , one barge , one cutter , two yawls , and two dinghies .

Their propulsion systems consisted of two sets of Marine steam turbines driving two 3 @. @ 5 @-@ meter ( 11 ft ) propellers . They were designed to give 31 @, @ 000 shaft horsepower ( 23 @, @ 000 kW ) . These were powered by twelve coal @-@ fired Marine @-@ type water @-@ tube boilers and two oil @-@ fired double @-@ ended boilers . These gave the ship a top speed of 27 @. @ 5 knots ( 50 @. @ 9 km / h ; 31 @. @ 6 mph ) . The ships of the class carried 1 @, @ 280 tonnes ( 1 @, @ 260 long tons ) of coal , and an additional 470 tonnes ( 460 long tons ) of oil that gave them a range of 4 @, @ 800 nautical miles ( 8 @, @ 900 km ; 5 @, @ 500 mi ) at 12 knots ( 22 km / h ; 14 mph ) . At 25 knots ( 46 km / h ; 29 mph ) , the cruising radius dropped significantly , to 1 @, @ 200 nmi ( 2 @, @ 200 km ; 1 @, @ 400 mi ) . Wiesbaden was equipped with a pair of turbo generators and one diesel generator rated at a combined 300 kilowatts ( 400 hp ) at 220 Volts . Frankfurt only had the two turbo generators , which provided 240 kW ( 320 hp ) .

= = = Armament and armor = = =

The ships of the Wiesbaden class were 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 placed in a superfiring pair aft . The guns could engage targets out to 17 @, @ 600 m ( 57 @, @ 700 ft ) . They were supplied with 1 @, @ 024 rounds of ammunition , for 128 shells per gun . The ships ' antiaircraft armament initially consisted of four 5 @. @ 2 cm ( 2 @. @ 0 in ) L / 55 guns , though these were replaced with a pair of 8 @. @ 8 cm SK L / 45 anti @-@ aircraft guns . The ships were also equipped with four 50 cm ( 19 @. @ 7 in ) torpedo tubes with

eight torpedoes . Two were submerged in the hull on the broadside and two were mounted on the deck amidships . They could also carry 120 mines .

Wiesbaden and Frankfurt were protected by a waterline armored belt that was 60 mm ( 2 @ .@ 4 in ) thick amidships ; the belt was reduced to 18 mm ( 0 @ .@ 71 in ) forward . The stern was not armored . The conning tower had 100 mm ( 3 @ .@ 9 in ) thick sides and a 20 mm ( 0 @ .@ 79 in ) thick roof . The rangefinder atop the conning tower had 30 mm ( 1 @ .@ 2 in ) worth of armor protection . The deck was covered with 60 mm thick armor plate forward , 40 mm ( 1 @ .@ 6 in ) amidships , and 20 mm aft . Sloped armor 40 mm thick connected the deck to the belt armor . The main battery gun shields were 50 mm ( 2 @ .@ 0 in ) thick .

= = Service history = =

= = = Wiesbaden = = =

Wiesbaden was ordered under the contract name " Ersatz Gefion " and was laid down at the AG Vulcan shipyard in Stettin in 1913 and launched on 20 January 1915 , after which fitting @-@ out work commenced . She was commissioned into the High Seas Fleet on 23 August 1915 , after being rushed through trials . The ship saw only one major action , the Battle of Jutland on 31 May ? 1 June 1916 . The ship was badly damaged by gunfire from the battlecruiser HMS Invincible . Immobilized between the two battle fleets , Wiesbaden became the center of a hard @-@ fought action that saw the destruction of two British armored cruisers . Heavy fire from the British fleet prevented evacuation of the ship 's crew . Wiesbaden remained afloat until the early hours of 1 June and sank sometime between 01 : 45 and 02 : 45 . Only one crew member survived the sinking ; the wreck was located by German Navy divers in 1983 .

= = = Frankfurt = = =

Frankfurt was ordered under the contract name " Ersatz Hela " and was laid down at the Kaiserliche Werft shipyard in Kiel in 1913 and launched on 20 March 1915 . The ships was commissioned into the High Seas Fleet on 20 August 1915 . Frankfurt saw extensive action with the High Seas Fleet during World War I. She served primarily in the North Sea , and participated in the Bombardment of Yarmouth and Lowestoft and the battles of Jutland and Second Heligoland . At Jutland , she was lightly damaged by a British cruiser and her crew suffered minor casualties . The ship was also present during Operation Albion in the Baltic Sea in October 1917 . At the end of the war , she was interned with the bulk of the German fleet in Scapa Flow . When the fleet was scuttled in June 1919 , Frankfurt was one of the few ships that were not successfully sunk . She was ceded to the US Navy as a war prize and ultimately expended as a bomb target in tests conducted by the US Navy and Army Air Force in July 1921 .