

= Königsberg @-@ class cruiser ( 1905 ) =

The Königsberg class was a group of four light cruisers built for the German Imperial Navy . The class comprised four vessels : SMS Königsberg , the lead ship , SMS Nürnberg , SMS Stuttgart , and SMS Stettin . The ships were an improvement on the preceding Bremen class , being slightly larger and faster , and mounting the same armament of ten 10 @. @ 5 cm SK L / 40 guns and two 45 cm ( 18 in ) torpedo tubes .

The four ships saw extensive service during World War I. Königsberg conducted commerce warfare in the Indian Ocean before being trapped in the Rufiji River and sunk by British warships . Her guns nevertheless continued to see action as converted artillery pieces for the German Army in German East Africa . Nürnberg was part of the German East Asia Squadron , and participated in the Battles of Coronel and Falkland Islands . At the former , she sank the British armored cruiser HMS Monmouth , and at the latter , she was in turn sunk by the cruiser HMS Kent .

Stuttgart and Stettin remained in German waters during the war , and both saw action at the Battle of Jutland on 31 May and 1 June 1916 . The two cruisers engaged in close @-@ range night fighting with the British fleet , but neither was significantly damaged . Both ships were withdrawn from service later in the war , Stettin to serve as a training ship , and Stuttgart to be converted into a seaplane tender in 1918 . They both survived the war , and were surrendered to Britain as war prizes ; they were dismantled in the early 1920s .

= = Design = =

The 1898 Naval Law authorized the construction of 30 new light cruisers by 1904 ; the Gazelle and Bremen classes filled the requirements for the first seventeen vessels . The Königsberg design followed the same general parameters as the two earlier classes , but with significant improvements in terms of size and speed . Like the Bremens , one member of the Königsberg class , Stettin , was fitted with steam turbines to evaluate their performance compared to traditional triple @-@ expansion engines .

= = = General characteristics = = =

The ships of the Königsberg class had slightly different characteristics . The lead ship was 114 @. @ 8 meters ( 377 ft ) long at the waterline and 115 @. @ 3 m ( 378 ft ) long overall . She had a beam of 13 @. @ 2 m ( 43 ft ) and a draft of 5 @. @ 29 m ( 17 @. @ 4 ft ) forward . The remaining three ships were 116 @. @ 8 m ( 383 ft ) long at the waterline and 117 @. @ 4 m ( 385 ft ) long overall ; they had a beam of 13 @. @ 3 m ( 44 ft ) and a draft of 5 @. @ 14 to 5 @. @ 4 m ( 16 @. @ 9 to 17 @. @ 7 ft ) forward . Königsberg displaced 3 @, @ 390 metric tons ( 3 @, @ 340 long tons ; 3 @, @ 740 short tons ) as designed and up to 3 @, @ 814 t ( 3 @, @ 754 long tons ; 4 @, @ 204 short tons ) at full combat load . Nürnberg and Stuttgart were designed to displace 3 @, @ 469 t ( 3 @, @ 414 long tons ; 3 @, @ 824 short tons ) , with full load displacements of 3 @, @ 902 t ( 3 @, @ 840 long tons ; 4 @, @ 301 short tons ) and 4 @, @ 002 t ( 3 @, @ 939 long tons ; 4 @, @ 411 short tons ) , respectively . Stettin displaced 3 @, @ 480 t ( 3 @, @ 430 long tons ; 3 @, @ 840 short tons ) as designed and 3 @, @ 822 t ( 3 @, @ 762 long tons ; 4 @, @ 213 short tons ) at combat load .

The ships ' hulls were constructed with transverse and longitudinal steel frames , over which the steel outer hull was built . The hulls were divided into thirteen or fourteen watertight compartments . A double bottom ran for forty @-@ seven percent of the length of the keel . Steering was controlled by a single rudder . The ships of the class were good sea boats , but they were crank and rolled up to twenty degrees . They were also very wet at high speeds and suffered from a slight weather helm ; in the case of Stuttgart , she suffered from quite severe weather helm . The ships ' metacentric height was .54 to .65 m ( 1 ft 9 in to 2 ft 2 in ) . The ships had a crew of fourteen officers and 308 enlisted men . They carried a number of smaller boats , including one picket boat , one barge , one cutter , two yawls , and two dinghies .

### == Machinery ==

The first three Königsberg class ships' propulsion system consisted of two 3-cylinder triple expansion engines rated at 13,200 indicated horsepower ( 9,800 kW ) for a top speed of 23 knots ( 43 km / h ; 26 mph ) . Stettin was instead equipped with a pair of Parsons steam turbines , rated at 13,500 shaft horsepower ( 10,100 kW ) and a top speed of 24 knots ( 44 km / h ; 28 mph ) . Each ship exceeded their design speed by at least half a knot on speed trials , however . All four ships' engines were powered by eleven coal-fired Marine type boilers , which were trunked into three funnels . The ships were designed to carry 400 t ( 390 long tons ; 440 short tons ) of coal , though they could store up to 880 t ( 870 long tons ; 970 short tons ) . Königsberg could steam for 5,750 nautical miles ( 10,650 km ; 6,620 mi ) at 12 knots ( 22 km / h ; 14 mph ) , while the other three ships' ranges were considerably shorter . Nürnberg and Stuttgart could cruise for 4,120 nmi ( 7,630 km ; 4,740 mi ) at the same speed , and Stettin had a range of 4,170 nmi ( 7,720 km ; 4,800 mi ) . Königsberg had two electricity generators , while the other three ships were equipped with three generators . The generators produced a total output of 90 and 135 kilowatts at 100 volts , respectively .

### == Armament and armor ==

The ships were armed with ten 10.5 cm SK L / 40 guns in single pedestal mounts . Two were placed side by side forward on the forecastle , six were located amidships , three on either side , and two were side by side aft . The guns had a maximum elevation of 30 degrees , which allowed them to engage targets out to 12,700 m ( 41,700 ft ) . They were supplied with 1,500 rounds of ammunition , for 150 shells per gun . Königsberg later had a pair of 8.8 cm ( 3.5 in ) guns installed . The last three ships were also equipped with eight 5.2 cm SK L / 55 guns with 4,000 rounds of ammunition . All four ships were also equipped with a pair of 45 cm ( 18 in ) torpedo tubes with five torpedoes submerged in the hull on the broadside .

Armor protection for the members of the class consisted of two layers of steel with one layer of Krupp armor . The ships of the Königsberg class were protected by an armored deck that was 80 millimeters ( 3.1 in ) thick amidships , and reduced to 20 mm ( 0.79 in ) thick aft . Sloped armor 45 mm ( 1.8 in ) thick gave a measure of vertical protection . The conning tower had 100 mm ( 3.9 in ) thick sides and a 20 mm thick roof . The ships' guns were protected with 50 mm ( 2 in ) thick gun shields .

### == Construction ==

The first three ships of the class were built by government shipyards . Königsberg was laid down at the Imperial Dockyard in Kiel in 1905 , launched on 12 December 1905 , and commissioned into the German Navy on 6 April 1907 . Nürnberg was also laid down at the Imperial Dockyard in Kiel , in 1906 . Her launching occurred on 28 August 1906 , and she was commissioned on 10 April 1908 . Stuttgart was built by the Imperial Dockyard in Danzig . She was laid down in 1905 , launched on 22 September 1906 , and commissioned on 1 February 1908 . Stettin was the only ship of the class built by a private shipbuilding firm , by AG Vulcan in her namesake city . She was laid down in 1906 , launched on 7 March 1907 , and commissioned just seven months later on 29 October 1907 .

### == Service history ==

The ships of the Königsberg class served with the High Seas Fleet after their commissionings , though Stuttgart also saw service as a gunnery training ship . Nürnberg and Königsberg were deployed overseas in 1910 and 1914 , respectively . Nürnberg was sent to the East Asia Squadron , while Königsberg went to east African waters . Stuttgart and Stettin meanwhile remained in Germany .

All four ships had active careers during World War I and saw action at many major battles during the conflict . At the outbreak of war , Königsberg was stationed in German East Africa ; she was ordered to begin raiding British commerce in the region . She was relatively unsuccessful in this regard , having sunk only the British freighter City of Winchester . She did , however , surprise the British cruiser HMS Pegasus in harbor and sank her in the Battle of Zanzibar . She was then blockaded in the Rufiji River and eventually destroyed by two British monitors , HMS Mersey and HMS Severn . Königsberg 's guns were removed from the wreck and mounted on improvised gun carriages and used in German East Africa during the World War I land campaign .

Nürnberg was still assigned to the East Asia Squadron under Admiral Maximilian von Spee when war broke out . Initially based in Tsingtao , China , the squadron crossed the Pacific in an attempt to raid British commerce off South America . The ship saw action at the Battle of Coronel in November 1914 where a British squadron attempted to intercept the German flotilla . There she sank the British armored cruiser HMS Monmouth . The following month during the Battle of the Falkland Islands , Nürnberg was sunk by the armored cruiser HMS Kent , part of another British squadron sent to hunt down Spee 's squadron .

Stettin and Stuttgart both saw action with the High Seas Fleet in the North Sea . Stettin participated in the Battle of Heligoland Bight in August 1914 , and suffered relatively minor damage . Both cruisers participated in the Battle of Jutland on 31 May and 1 June 1916 . Stettin was hit twice but was not badly damaged during the night , while Stuttgart emerged from the battle unscathed . Both ships were withdrawn from service in 1917 ; Stettin was used as a training ship , while Stuttgart was converted into a seaplane tender in 1918 . The two ships survived the war and were surrendered to Britain as war prizes ; they were later broken up for scrap in the early 1920s .