

= Moltke @-@ class battlecruiser =

The Moltke class was a class of two " all @-@ big @-@ gun " battlecruisers of the German Imperial Navy built between 1909 ? 1911 . Named SMS Moltke and SMS Goeben , they were similar to the previous Von der Tann unique battlecruiser , but the newer design featured several incremental improvements . The Moltkes were slightly larger , faster , and better armored , and had an additional pair of 28 centimeter guns .

Both ships served during World War I. Moltke participated in several major battles with the rest of the High Seas Fleet , including the battles of Dogger Bank and Jutland in the North Sea , and the Battle of the Gulf of Riga and Operation Albion in the Baltic Sea . At the end of the war , Moltke was interned with the majority of the High Seas Fleet at Scapa Flow while the ships ' fate was being discussed during peace treaty negotiations . The ships were scuttled on 21 June 1919 to prevent their seizure by the Allies .

Goeben was stationed in the Mediterranean at the start of the war ; she escaped from pursuing Royal Navy ships to Constantinople . The ship , along with the light cruiser Breslau , was transferred to the Ottoman Navy soon after arrival . Strategically , Goeben played a very important role : she helped bring the Ottoman Empire into the war as a member of the Central Powers , and by acting as a fleet in being the ship prevented Anglo @-@ French attempts to force the Bosphorus , and similarly stymied a possible advance by the Russian Black Sea Fleet . Goeben was retained by the new Turkish government after the war . Only slightly modified from her original configuration , the ship remained on active service with the Turkish Navy until being decommissioned on 20 December 1950 ; she was stricken from the Navy register on 14 November 1954 . Two years earlier , when Turkey joined NATO in 1952 , the ship was assigned the hull number B70 . The ship was unsuccessfully offered for sale to the West German government in 1963 . Without a group willing to preserve her as a museum , the ship was sold to M.K.E. Seyman in 1971 for scrapping . She was towed to the breakers on 7 June 1973 , and the work was completed in February 1976 .

= = Development = =

During a May 1907 conference , the German Naval Office decided to follow up the Von der Tann unique battlecruiser with an enlarged design . The 44 million marks allocated for the 1908 fiscal year created the possibility of increasing the size of the main guns from the 28 cm (11 in) weapons of the preceding design to 30 @.@ 5 cm (12 in) . However , Admiral Alfred von Tirpitz , along with the Construction Department , argued that increasing the number of guns from 8 to 10 would be preferable , as the 28 cm guns had been deemed sufficient to engage even battleships . Tirpitz also argued that , given the numerical superiority of the Royal Navy 's reconnaissance forces , it would be more prudent to increase the number of main guns , rather than increase their caliber . The General Navy Department held that for the new design to fight in the battle line , 30 @.@ 5 cm guns were necessary . Ultimately , Tirpitz and the Construction Department won the debate , and Moltke was to be equipped with ten 28 cm guns . It was also mandated by the Construction Department that the new ships have armor protection equal or superior to Von der Tann 's and a top speed of at least 24 @.@ 5 knots (45 @.@ 4 km / h) .

During the design process , there were many weight increases due to growth in the size of the citadel , armor thickness , additions to the ammunition stores , and the rearrangement of the boiler system . It was originally planned to build only one ship of the new design , but due to the strains being put on the Navy design staff , it was decided to build two ships of the new type . They were assigned under the contract names of " Cruiser G " and " Cruiser H " . As Blohm & Voss made the lowest bid for " Cruiser G " , the company also secured the contract for " Cruiser H " . The former was assigned to the 1908 ? 09 building year , while the latter was assigned to 1909 ? 10 .

The contract for " Cruiser G " was awarded on 17 September 1908 , under building number 200 . The keel was laid on 7 December 1908 , and the ship was launched on 7 April 1910 . " Cruiser G " was commissioned on 30 September 1911 as SMS Moltke . The ship 's namesake was Field Marshal Helmuth von Moltke , the Chief of Staff of the Prussian Army in the mid 19th century . "

Cruiser H " was ordered on 8 April 1909 with the building number 201 . The ship 's keel was laid on 12 August 1909 ; the hull was launched on 28 March 1911 . After fitting out , " Cruiser H " was commissioned on 2 July 1912 as SMS Goeben . The ship was named for August Karl von Goeben , a Prussian general who served during the Franco - Prussian War .

== Ships ==

== Design ==

== General characteristics ==

The Moltke class ships were 186 m (612 ft 2 in) long overall , 29 m (96 ft 5 in) wide , and had a draft of 9 m (30 ft 2 in) fully loaded . The ships displaced 22 , 979 t (22 , 616 long tons) normally , and 25 , 400 t (24 , 999 long tons) fully loaded . The Moltke class ships had 15 watertight compartments and a double bottom that ran for 78 % of the keel of the ships . They were considered to handle well , with gentle movement even in heavy seas . However , they were slow to answer the helm and were not particularly maneuverable . The ships lost up to 60 % speed and heeled 9 degrees at full rudder . The ships had a standard crew of 43 officers and 1010 men . While Moltke served as the I Scouting Squadron flagship , she was manned by an additional 13 officers and 62 men . While serving as the second command flagship , the ship carried an additional 3 officers and 25 men to the standard complement .

== Propulsion ==

Moltke and Goeben were powered by four shaft Parsons turbines in two sets and 24 coal fired Schulz Thornycroft boilers , divided into four boiler rooms . The boilers were composed of one steam drum and three water drums apiece , and produced steam at 16 standard atmospheres (240 psi) . After 1916 , the boilers were supplemented with tar oil . The Parsons turbines were divided into high- and low pressure pairs . The low pressure turbines were the inner pair , and were placed in the aft engine room . The high pressure turbines were on either side of the low pressure pair , and were located in the forward wing rooms . The turbines powered four propellers , 3 m (12 ft) in diameter .

The ships ' power plants delivered a rated 51 , 289 shaft horsepower (38 , 246 kW) and a top speed of 25 . 5 knots (47 . 2 km / h ; 29 . 3 mph) . However , in trials Moltke attained 84 , 609 shp (63 , 093 kW) and a top speed of 28 . 4 knots (52 . 6 km / h ; 32 . 7 mph) ; Goeben 's power plant produced only a slightly lower horsepower and top speed . At 14 knots (26 km / h ; 16 mph) , the ships had a range of 4 , 120 nautical miles (7 , 630 km ; 4 , 740 mi) . The Moltke class ships were equipped with 6 turbo generators that delivered 1 , 200 kW (1 , 600 hp) of power at 225 volts . The ships were designed to carry 1 , 000 tons of coal , although in practice they could store up to 3 , 100 tons . Fuel consumption on the six hour forced trial was 0 . 667 kilogram per horsepower / hour at 75 , 744 shp (56 , 482 kW) , and .712 kg per hp / hr at 70 , 300 shp (52 , 400 kW) , respectively for the two ships .

== Armament ==

The main armament was ten 28 cm (11 in) SK L / 50 guns in five twin turrets . The guns were placed in Drh.L C / 1908 turret mounts ; these mountings allowed a maximum elevation of 13 . 5 degrees . This elevation was 7 . 5 degrees less than in the preceding Von der Tann , and , as a consequence , the range was slightly shorter , at 18 , 100 m (19 , 800 yd) , than the 18 , 900 m (20 , 700 yd) of Von der Tann 's guns . In 1916 , during a refit , the elevation was

increased to 16 degrees , for an increased range of 19 @, @ 100 m (20 @, @ 900 yd) . One turret , Anton , was located fore , two aft (Dora turret superfiring over Emil) , and two , Bruno and Cäsar , were wing turrets mounted en echelon . The guns fired armor @-@ piercing and semi @-@ armor @-@ piercing shells , which both weighed 302 kg (670 lb) . The guns could fire at a rate of 3 rounds per minute , and had a muzzle velocity of 895 m / s (2 @, @ 940 ft / s) . A total of 810 of these shells were stored aboard the ship .

The ships ' secondary armament consisted of twelve 15 cm (5 @. @ 9 in) SK L / 45 cannon , mounted in the MPL C / 06 mounts as in Von der Tann . The guns had a total of 1800 shells , at 150 per gun . The 15 cm guns had a range of 13 @, @ 500 m (14 @, @ 800 yd) at construction , although this was later extended to 18 @, @ 800 m (18 @, @ 373 yd) . Initially , twelve 8 @. @ 8 cm (3 @. @ 5 in) SK L / 45 guns were also fitted to defend the ships against torpedo boats and destroyers , but these were later removed , with the guns in the aft superstructure replaced with four 8 @. @ 8 cm Flak L / 45 guns .

Moltke and Goeben were also armed with four 50 cm (20 in) torpedo tubes ; one fore , one aft , and two on the broadside , with 11 torpedoes stored . The torpedoes were of the G / 7 model , which weighed 1 @, @ 365 kg (3 @, @ 010 lb) and carried a warhead weighing 195 kg (430 lb) . The torpedoes had a maximum range of 9 @, @ 300 m (10 @, @ 200 yd) at 27 knots (50 km / h) , and 4 @, @ 000 m (4 @, @ 400 yd) when set at 37 knots (69 km / h) .

== Armor ==

The ships were equipped with Krupp cemented armor . The level of armor protection for the Moltke class was increased from the Von der Tann design , to 10 cm (3 @. @ 9 in) in the forward main belt , 27 cm (10 @. @ 6 in) in the citadel , and 10 cm (3 @. @ 9 in) aft . The casemates were protected by 15 cm (5 @. @ 9 in) vertically and 3 @. @ 5 cm (1 @. @ 4 in) on the roofs . The forward conning tower was protected by 35 cm (14 in) , and the aft tower had 20 cm (7 @. @ 9 in) of armor . The turrets had 23 cm (9 @. @ 1 in) on the face , 18 cm (7 @. @ 1 in) on the sides , and 9 cm (3 @. @ 5 in) on the roofs . The deck armor and sloping armor were both 5 cm (2 @. @ 0 in) , as was the torpedo bulkhead around the barbettes . The torpedo bulkhead was 3 cm (1 @. @ 2 in) in other , less critical areas . As with Von der Tann , the armor was Krupp cemented and nickel steel .

== Service history ==

== Moltke ==

Moltke replaced the armored cruiser Roon in the I Scouting Group on 30 September 1911 . On 19 April 1912 , Moltke and light cruisers Stettin and Bremen departed Germany for a goodwill visit to the United States , and arrived on 30 May . In early July , Moltke escorted Kaiser Wilhelm II 's yacht to Russia . Once the ship returned , the commander of the I Scouting Group made Moltke his flagship ? a role in which she served until Rear Admiral Franz von Hipper transferred his flag to the newer battlecruiser Seydlitz on 23 June 1914 .

Moltke participated in most of the major fleet actions conducted by the German Navy during the First World War , including the Battles of Dogger Bank and Jutland in the North Sea , and the Battle of the Gulf of Riga and Operation Albion in the Baltic . The ship took part in several operations to bombard the English coast , including the first raid on Yarmouth , the attack on the towns of Scarborough , Hartlepool , and Whitby , and the second raid on Yarmouth and Lowestoft . Moltke was damaged several times during the war : the ship was hit by heavy @-@ caliber gunfire at Jutland , and torpedoed twice by British submarines while on fleet advances .

Following the end of the war in 1918 , Moltke , together with most of the High Seas Fleet , was interned at Scapa Flow pending a decision by the Allies as to the fate of the fleet . The ship met her end when she was scuttled by her crew , along with the rest of the High Seas Fleet in 1919 to

prevent them from being seized by the British Royal Navy . The wreck of Moltke was raised on 10 June 1927 , and scrapped at Rosyth from 1927 to 1929 .

= = = Goeben = = =

Following the outbreak of the First Balkan War in October 1912 , the German High Command decided to create a Mediterranean Division in an attempt to exert influence in the area . The new squadron consisted of Goeben and the light cruiser Breslau ; the two ships left Kiel on 4 November and arrived off Constantinople on 15 November . The ships visited several Mediterranean ports , including Venice , Pola , and Naples . The First Balkan War ended on 30 May 1913 , and there was some consideration given to withdrawing the pair to German waters . However , the conflict reignited less than a month later on 29 June , meaning the ships would have to remain in the area .

Following the assassination of Archduke Franz Ferdinand on 28 June 1914 , Rear Admiral Wilhelm Souchon recognized the imminent outbreak of war , and so immediately sailed to Pola for repair work for Goeben . The ships were then ordered to steam to Constantinople . While en route , they were pursued by British forces , but Goeben and Breslau managed to evade them and reach Istanbul by 10 August 1914 . Goeben was transferred to the Ottoman Empire and renamed Yavûz Sultân Selîm after Sultan Selim I. Popularly known as Yavûz , she was designated as the flagship of the Ottoman Navy , but she retained her German crew . Goeben , flying the Ottoman flag , bombarded the Russian port of Sevastopol , captured and sank a Russian minesweeper , and damaged a destroyer on 29 October 1914 . The Russian government responded by declaring war on the Ottoman Empire on 1 November ; Britain and France followed suit on 5 November . By acting as a fleet in being , Goeben effectively blocked a Russian advance into the Bosphorus , and defended against a similar incursion of British and French pre @-@ dreadnoughts . More powerful British and French warships ? which could have dealt with Goeben ? could not be risked in the heavily mined and U @-@ boat patrolled Turkish waters .

In 1936 she was renamed TCG Yavûz and remained the flagship of the Turkish Navy until 1950 , although the ship was largely stationary in Izmit from 1948 . In 1952 , Turkey joined NATO , and the ship was assigned the hull number " B70 " . Yavûz was decommissioned on 20 December 1950 , and removed from the navy register on 14 November 1954 . The Turkish government attempted to preserve the ship as a museum , including an offer to West Germany to sell the ship back in 1963 , but none of the efforts were successful . Goeben was sold for scrapping in 1971 , and was eventually broken up between 1973 and 1976 ? the last remaining ship of the Imperial German Navy .