

= SMS Zieten =

SMS Zieten was the first aviso built for the Imperial German Navy (Kaiserliche Marine) . She was built in Britain in 1875 ? 1876 , and was the last major warship built for Germany by a foreign shipyard . Ordered as a testbed for the new Whitehead torpedo , Zieten was armed with a pair of 38 cm (15 in) torpedo tubes , and was capable of a top speed of 16 knots (30 km / h ; 18 mph) , making her the fastest ship in the German fleet at the time . Zieten proved to be the first torpedo @-@ armed vessel in a series of avisos that ultimately developed into the first light cruisers . In addition to her impact in German warship design , Zieten also influenced numerous other navies , who built dozens of similar avisos and torpedo vessels of their own .

Zieten served for the first two decades of her career with the torpedo boat flotilla . In 1878 ? 1880 , she was captained by Alfred von Tirpitz , the future architect of the High Seas Fleet . In 1882 , she cruised the Mediterranean Sea with several other German warships , and was present during the British bombardment of Alexandria , where she protected German interests . Zieten was used as a fishery protection ship from 1899 until 1914 , when the outbreak of World War I necessitated her mobilization as a coastal patrol ship . She served in this capacity for the duration of the war , and was stricken from the naval register in December 1919 . The ship was finally sold for scrapping in August 1921 , after forty @-@ five years of service .

= = Design = =

In 1869 , the Prussian Navy sent then @-@ Korvettenkapitän Alexander von Monts to Austria to examine the new Whitehead torpedoes then being developed there . Albrecht von Stosch , the commander in chief of the new Imperial German Navy , approved a plan to develop a torpedo arm for the German fleet , and placed Monts in charge of the program in 1873 . That year , Stosch 's naval construction program called for a tender for the new torpedo boats . The tender was ordered from the British firm the Thames Iron Works , and named Zieten . She was to be the last major warship purchased by the German navy from a foreign shipyard .

In addition to the planned role as a tender for torpedo boats , she was also intended to serve as a test platform for the new self @-@ propelled torpedo . Up to the mid @-@ 1870s , the German navy had only experimented with a handful of torpedo ships , all of which were equipped with the old spar torpedo . The ship 's design provided the basis for both later German avisos ? the Blitz class ? and all subsequent light cruisers , but also to numerous foreign designs , such as several classes of French , Italian , and Austrian avisos and torpedo craft .

= = General characteristics = = =

Zieten was 69 @. @ 5 meters (228 ft) long at the waterline and 79 @. @ 4 m (260 ft) long overall . She had a beam of 8 @. @ 56 m (28 @. @ 1 ft) and a draft of 3 @. @ 8 m (12 ft) forward . She displaced 1 @, @ 001 metric tons (985 long tons ; 1 @, @ 103 short tons) as designed and up to 1 @, @ 170 t (1 @, @ 150 long tons ; 1 @, @ 290 short tons) at full combat load . The hull was constructed with transverse iron frames and contained eight watertight compartments . Initially , Zieten had only a small bridge forward , but in 1899 , a new superstructure was built ; it included a conning tower with a compass platform . A chart house was also added forward of the funnel .

Zieten was a good sea boat with a gentle motion , but she was very crank . She was very maneuverable , but she handled poorly in a head sea . In bad weather , she took on considerable amounts of water and was very dangerous . The ship had a crew of 6 officers and 88 enlisted men , though later in her career the figure rose to 7 and 99 , respectively . During her career as a fishery protection ship , it rose further , to 7 officers and 104 sailors . Zieten carried a number of smaller boats : one picket boat , one cutter , two yawls , and one dinghy . Later in her career , the picket boat was removed and two barges were added .

= = Machinery = = =

The ship's propulsion system consisted of two horizontal 2 @-@ cylinder double expansion engines manufactured by John Penn and Sons . The engines drove two 3 @-@ bladed propellers that were 3 @.@ 05 m (10 @.@ 0 ft) wide in diameter . Steam was provided by six coal @-@ fired cylindrical boilers , also manufactured by John Penn and Sons , which were trunked into a single funnel amidships . The boilers were replaced with new models in 1891 during a refit at the Kaiserliche Werft shipyard in Kiel . As built , Zieten was fitted with a schooner rig with a sail area of 355 square meters (3 @, @ 820 sq ft) to supplement her steam engines , but this was later reduced to only an auxiliary gaff sail .

The engines were rated at 2 @, @ 000 indicated horsepower (1 @, @ 500 kW) , but only managed to reach 1 @, @ 807 ihp (1 @, @ 347 kW) at maximum power . With the new boilers , the engines reached 2 @, @ 376 ihp (1 @, @ 772 kW) . Her top speed as designed was to have been 16 knots (30 km / h ; 18 mph) , but with her original boilers , she could make 15 @.@ 9 knots (29 @.@ 4 km / h ; 18 @.@ 3 mph) at full power . This speed nevertheless made Zieten the fastest ship in the German fleet . With the new boilers , she could steam at up to 16 @.@ 3 knots (30 @.@ 2 km / h ; 18 @.@ 8 mph) . Zieten could carry up to 130 t (130 long tons ; 140 short tons) of coal , which allowed her to steam for 1 @, @ 770 nautical miles (3 @, @ 280 km ; 2 @, @ 040 mi) at a cruising speed of 9 knots (17 km / h ; 10 mph) . During the refit , she also had one electricity generator , with an output of 10 kilowatts (13 hp) at 67 volts , installed .

= = = Armament = = =

Zieten 's primary armament consisted of a pair of 38 @-@ centimeter (15 in) torpedo tubes . Both were submerged in the hull , one in the bow and one in the stern . They were supplied with a total of ten Whitehead torpedoes . These powerful weapons , coupled with the ship 's high speed and maneuverability , made her a powerful vessel for the period . In 1878 , the forward torpedo tube was relocated to a swivel launched mounted on the deck , and two 12 cm (4 @.@ 7 in) guns were installed . She was also equipped with six machine guns . Later in her career , the torpedo tubes were removed , due to their obsolescence , and she was rearmed with six 5 cm (2 @.@ 0 in) SK L / 40 guns , though two were later removed . The guns were supplied with a total of 864 rounds of ammunition , and could engage targets out to 6 @, @ 200 m (20 @, @ 300 ft) . She was also equipped to lay naval mines , and she could carry 49 of them .

= = Service history = =

Zieten was built by the Thames Iron Works in London . She was laid down in 1875 and was launched on 9 March 1876 . She was completed on 15 July 1876 , and commissioned into the German fleet on 1 August . She was thereafter used in experiments with early torpedoes and as a tender for torpedo boats . In 1876 , Otto von Diederichs served aboard the ship as her executive officer in her first crew . In August , the ship conducted sea trials in the North Sea , before arriving in Wilhelmshaven on 11 August for fitting @-@ out work . Diederichs supervised the installation of the ship 's torpedo tubes , along with the magazine for storing the torpedoes . The work lasted until September , which prevented Zieten from participating in the annual August ? September fleet exercises . As a result , she was placed in reserve on 17 September for the winter . In March 1877 , Diederichs returned to the ship and prepared her for service in the training season that year . The ship was ready for active duty by 11 June , and thereafter conducted further sea trials and torpedo training .

After Zieten entered service in June 1877 , Diederichs was replaced by Alfred von Tirpitz , who took over torpedo testing while he was assigned to the Torpedo School at Kiel . Diederichs meanwhile readied the old gunboat Scorpion as a tender for Zieten . On 18 September , Zieten and Scorpion participated in the first major test of the new Whitehead torpedoes in the German navy . During the exercises , Zieten scored three hits on a stationary target , which was deemed a great success . After the conclusion of the maneuvers , Zieten was placed in reserve on 2 October for the winter .

The analysis of the testing showed that the bow @-@ mounted torpedo tube was not satisfactory , and so Diederichs was tasked with redesigning her armament in January 1878 . Diederichs moved the bow tube to a swivel mount on her deck , and added two 12 cm guns to improve her defense against small warships .

The refit work was completed by 16 April 1878 , permitting Tirpitz to take command of the ship on 6 May . He served as the ship 's commander until August 1880 . Tirpitz , as the commander of Germany 's torpedo boat flotilla , staunchly advocated the development of torpedo craft rather than a fleet of battleships . In July 1880 , during maneuvers with the fleet , Zieten torpedoed and sank the old paddle steamer Barbarossa . In 1882 , Zieten joined a cruising squadron that consisted of the corvettes Gneisenau and Nympe , the steamer Loreley , and a gunboat , for operations in the Mediterranean Sea . The ships were present during the British bombardment of Alexandria in August 1882 ; they sent men ashore to protect the German embassy , along with a German @-@ run hospital . In July , Zieten joined a squadron of ships to take the newly crowned Kaiser Wilhelm II for a tour of Baltic ports , which included a visit to Tsar Alexander III of Russia .

The ship was assigned as the dispatch vessel for the Reserve Squadron in the North Sea in 1898 , along with the coastal defense ships Beowulf and Frithjof . Starting in 1899 , Zieten was used intermittently as a fishery protection ship . In September 1902 , Zieten participated in the final exercises during the annual fleet maneuvers . Her career as a fishery protection ship lasted until 1914 , when she was mobilized at the outbreak of World War I in August . She was used as a coast guard ship for the duration of the conflict . After Germany 's defeat , Zieten was stricken from the naval register on 6 December 1919 . The ship was sold on 18 August 1921 for 655 @,@ 000 marks and broken up in Wilhelmshaven .