

= Wittelsbach @-@ class battleship =

The Wittelsbach @-@ class battleships were a group of five pre @-@ dreadnought battleships of the Imperial German Navy . They were the first battleships produced under the Navy Law of 1898 . The class was composed of the lead ship , Wettin , Zähringen , Schwaben , and Mecklenburg . All five ships were laid down between 1899 and 1900 , and finished by 1904 . The ships of the Wittelsbach class were similar in appearance to their predecessors of the Kaiser Friedrich III class , however , they had a flush main deck , as opposed to the lower quarterdeck of the Kaiser Friedrich class , and had a more extensive armor belt . Their armament was almost identical , though more efficiently arranged .

The ships were commissioned into the German fleet between 1902 and 1904 , where they joined the I Squadron of the battle fleet . They were rapidly made obsolete by the launch of HMS Dreadnought in 1906 . By the outbreak of World War I in 1914 , they were no longer fit for front @-@ line service , though they saw some limited duty in the Baltic Sea against the Russian Navy . In 1916 the five ships were disarmed and employed in secondary roles . Wittelsbach , Wettin , and Schwaben became training ships , Mecklenburg was used as a prison ship and later as a floating barracks , and Zähringen became a target ship . All of the ships save Zähringen were broken up in 1921 ? 22 . Zähringen was rebuilt as a radio @-@ controlled target ship in the mid @-@ 1920s . During World War II , she was badly damaged in a bombing raid in 1944 and scuttled in the final days of the war . She was eventually broken up in situ in 1949 ? 50 .

= = Design = =

The ships of the Wittelsbach class were the first battleships built under the first Naval Law of 1898 . The ships represented an incremental improvement over the preceding Kaiser Friedrich III class . They were equipped with the same armament of 24 cm guns , but were given an additional torpedo tube . They also had improved defensive capabilities , as they were protected by a more extensive armored belt . They also differed from the preceding ships in their main deck , the entire length of which was flush ; in the Kaiser Friedrich III @-@ class ships , the quarterdeck was cut down .

= = General characteristics = =

The ships of the Wittelsbach class were 125 @. @ 2 meters (410 ft 9 in) long at the waterline and 126 @. @ 8 m (416 ft 0 in) overall . They had a beam of 22 @. @ 8 m (74 ft 10 in) and a draft of 7 @. @ 95 m (26 ft 1 in) forward . The Wittelsbachs were designed to displace 11 @, @ 774 metric tons (11 @, @ 588 long tons) with a standard load , and displaced up to 12 @, @ 798 metric tons (12 @, @ 596 long tons) at full combat weight . The Wittelsbach @-@ class ships ' hulls were built with transverse and longitudinal steel frames . Steel hull plates were riveted to the structure created by the frames . The hull was split into 14 watertight compartments and included a double bottom that ran for 70 percent of the length of the ship .

The ships were regarded in the German Navy as excellent sea boats with an easy roll ; the ships rolled up to 30 ° with a period of 10 seconds . They maneuvered easily ; at hard rudder the ships lost up to 60 percent speed and heeled over 9 ° . However , they suffered from severe vibration , particularly at the stern , at high speeds . They also had very wet bows , even in moderate seas . The ships had a crew of 33 officers and 650 enlisted men . However , when serving as a squadron flagship , the crew was augmented by an additional 13 officers and 66 enlisted men . While acting as a second command ship , 9 officers and 44 enlisted men were added to the standard crew . Wittelsbach and her sisters carried a number of smaller vessels , including two picket boats , two launches , one pinnace , two cutters , two yawls , and two dinghies .

= = Propulsion = =

The five ships of the Wittelsbach class each had three three @-@ cylinder triple expansion steam

engines . The outer engines drove a three @-@ bladed screw that was 4 @. @ 8 m (15 ft 9 in) in diameter ; the central shaft drove a four @-@ bladed screw that was slightly smaller , at 4 @. @ 5 m (14 ft 9 in) in diameter . To produce steam to power the engines , each ship had six marine @-@ type boilers , with the exception of Wettin and Mecklenburg , which had six Thornycroft boilers , along with six transverse cylindrical boilers . Steering was controlled by a single large rudder .

The propulsion system was rated at 14 @, @ 000 metric horsepower (13 @, @ 808 ihp ; 10 @, @ 297 kW) , which produced a top speed of 18 knots (33 km / h ; 21 mph) . On trials , however , the five ships had significantly varied performances . Schwaben , the slowest ship , reached 13 @, @ 253 metric horsepower (13 @, @ 072 ihp ; 9 @, @ 748 kW) for a top speed of only 16 @. @ 9 knots (31 @. @ 3 km / h ; 19 @. @ 4 mph) . Wettin , the fastest , managed 15 @, @ 530 PS (15 @, @ 318 ihp ; 11 @, @ 422 kW) and a top speed of 18 @. @ 1 knots (33 @. @ 5 km / h ; 20 @. @ 8 mph) . They carried 650 metric tons (640 long tons) in their holds , but fuel capacity could be nearly tripled to 1 @, @ 800 metric tons (1 @, @ 772 long tons) with the usage of additional spaces in the ships . This provided a maximum range of 5 @, @ 000 nautical miles (9 @, @ 260 km ; 5 @, @ 754 mi) at a cruising speed of 10 knots (19 km / h ; 12 mph) . Electrical power was supplied by four generators that each produced 230 kilowatts (310 hp) at 74 volts , although in Wittelsbach the generators were rated at 248 kilowatts (333 hp) .

== = Armament == =

The ships ' armament was nearly identical to the preceding Kaiser Friedrich III class . The primary armament consisted of a battery of four 24 cm (9 @. @ 4 in) SK L / 40 guns in twin gun turrets , one fore and one aft of the central superstructure . The guns were mounted in Drh.L. C / 98 turrets , which allowed elevation to 30 ° and depression to ? 5 ° . At maximum elevation , the guns could hit targets out to 16 @, @ 900 meters (18 @, @ 500 yd) . The guns fired 140 @-@ kilogram (310 lb) shells at a muzzle velocity of 690 m / s (2 @, @ 263 ft / s) . They had a rate of fire of three to four shots per minute . Each gun was supplied with 85 shells , for a total of 340 .

Secondary armament included eighteen 15 cm (5 @. @ 9 inch) SK L / 40 guns ; four were emplaced in single turrets amidships and the rest were mounted in MPL casemates . These guns had a fired armor @-@ piercing shells at a rate of 4 ? 5 per minute . The ships carried 120 shells per gun , for a total of 2 @, @ 160 rounds total . The guns could depress to ? 7 degrees and elevate to 20 degrees , for a maximum range of 13 @, @ 700 m (14 @, @ 990 yd) . They were manually elevated and trained .

The ships also carried twelve 8 @. @ 8 cm (3 @. @ 45 in) SK L / 30 quick @-@ firing guns , also mounted in casemates and pivot mounts . These guns were supplied with between 170 and 250 shells per gun . These guns fired 13 @. @ 8 kg (30 @. @ 4 lb) at a muzzle velocity of 590 mps (1 @, @ 936 fps) . Their rate of fire was approximately 15 shells per minute ; the guns could engage targets out to 10 @, @ 500 m (11 @, @ 480 yd) . The gun mounts were manually operated . The ships ' gun armament was rounded out by twelve machine cannons .

The ships were also armed with six 45 cm (17 @. @ 7 in) torpedo tubes , all in above @-@ water swivel mounts . Four tubes were mounted on the sides of the ship , another in the bow , and the last in the stern . These weapons were 5 @. @ 1 m (201 in) long and carried an 87 @. @ 5 kg (193 lb) TNT warhead . They could be set at two speeds for different ranges . At 26 knots (48 km / h ; 30 mph) , the torpedoes had a range of 800 m (870 yd) . At an increased speed of 32 knots (59 km / h ; 37 mph) , the range was reduced to 500 m (550 yb) .

== = Armor == =

The five Wittelsbach class battleships were armored with Krupp steel . Their armored decks were 50 millimeters (2 @. @ 0 in) thick , with sloped sides that ranged in thickness from 75 to 120 mm (3 @. @ 0 to 4 @. @ 7 in) . The sloped section of the deck connected it to the main armored belt , which was 225 mm (8 @. @ 9 in) in the central citadel , where the ship 's vitals were . This included ammunition magazines and the propulsion system . The belt was reduced to 100 mm (3 @. @ 9 in)

on either end of the central citadel ; the bow and stern were not protected with any armor . The entire length of belt was backed by 100 mm of teak planking .

Directly above the main belt , the 15 cm casemate guns were protected with 140 mm (5 @. @ 5 in) thick steel plating . The 15 cm guns in turrets were more exposed and therefore slightly better protected : their side armor was increased to 150 mm (5 @. @ 9 in) , with 70 mm (2 @. @ 8 in) thick gun shields . The 24 cm gun turrets had the heaviest armor aboard ship : 250 mm (9 @. @ 8 in) thick sides and 50 mm thick roofs . The forward conning tower also had 250 mm thick sides , though its roof was only 30 mm (1 @. @ 2 in) thick . The rear conning tower was much less protected . Its sides were only 140 mm thick ; the roof was 30 mm thick .

= = Construction = =

Wittelsbach was ordered for the German fleet under the contract designation " C. " She was laid down at the Kaiserliche Werft Wilhelmshaven in 1899 , under construction number 25 . She was launched on 3 July 1900 ; once she left the stocks fitting out work commenced . This included the installation of the ship 's armament , completion of the interior compartments , and the finishing of the superstructure . By late 1902 work on the ship was finished . Wittelsbach was commissioned into the fleet on 15 October of that year . Wettin was ordered as " D " and laid down at the Schichau @-@ Werke in Danzig in 1899 . Although she was launched on 6 June 1901 ? nearly a full year after Wittelsbach ? she was commissioned on 1 October 1902 , two weeks earlier than her sister ship .

Zähringen was laid down at the Germaniawerft dockyard in Kiel under the provisional name " E " in 1899 . She was launched on 12 June 1901 and commissioned into the fleet on 25 October 1902 . In 1900 , Schwaben followed Wittelsbach at the Kaiserliche Werft Wilhelmshaven , under the provisional name " G. " She was launched on 19 August 1901 and commissioned on 13 April 1904 , the last ship of the five to join the fleet . Mecklenburg was ordered from the AG Vulcan shipyard in Stettin under the contract name " F. " Her keel was laid there in 1900 . Launched on 9 November 1901 , Mecklenburg was completed by May 1903 and commissioned on the 25th .

= = Service history = =

In the early 1900s , the German fleet was organized as the Home Fleet (German : Heimatflotte) . After joining the fleet , the Wittelsbach @-@ class ships were assigned to the I Battle Squadron , where they replaced the older Brandenburg @-@ class battleships . By 1907 , the Braunschweig and Deutschland classes had come into service . With two full battle squadrons , the fleet was reorganized as the High Seas Fleet .

Like the Kaiser Friedrich III @-@ class ships , the Wittelsbachs were withdrawn from active service after the advent of the dreadnoughts . The five ships were recalled to active service at the outbreak of war in 1914 . They were assigned to the IV Battle Squadron and deployed to the Baltic . The ships were based in Kiel and placed under the command of Vice Admiral Ehrhard Schmidt . In early September 1914 , the ships conducted a result @-@ less sweep into the Baltic against the Russian navy operating there . In May 1915 , four of the Wittelsbachs sailed into the Baltic and bombarded Libau , which was subsequently captured by the German army . The five ships of the class were moved to Libau during the Battle of the Gulf of Riga in August 1915 , though they did not see any combat during the operation .

British submarines were becoming increasingly active in the Baltic by late 1915 ; several cruisers had been sunk and the elderly Wittelsbach @-@ class ships could no longer be risked there . Therefore , due to their age and vulnerability , they were withdrawn from active service and disarmed by 1916 . They were used as training ships , with the exception of Mecklenburg , which was used as a prison ship . In 1919 , Wittelsbach and Schwaben were converted into depot ships for minesweepers . The entire class , with the exception of Zähringen , were struck from the navy list after the end of World War I. Mecklenburg was struck on 27 January 1920 , Wettin followed on 11 March 1920 , and Wittelsbach and Schwaben were struck on 8 March 1921 . The four ships were

broken up between 1921 ? 22 . Zähringen was converted into a radio @-@ controlled target ship in 1926 ? 27 . Royal Air Force bombers sank the ship in Gotenhafen in 1944 ; the wreck was broken up in 1949 ? 50 .