SMS Greif was an aviso built by the Imperial German Navy ( Kaiserliche Marine ) , the only ship of her class . She was built at the Germaniawerft shipyard in Kiel ; her keel was laid in 1885 , she was launched in July 1886 , and she was commissioned in July 1887 . Unlike the other avisos built by Germany , Greif was equipped only with a gun armament . Greif served with the fleet from 1887 until 1911 , though she was not a particularly successful design and so saw little active service , having spent most of her time in reserve . In 1912 , she was reduced to a training ship for engine @-@ room personnel . In 1917 , she was hulked for minelayers in Kiel . She was ultimately sold for scrapping in 1921 in Hamburg .

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= = Design = =
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## = = = General characteristics = = =

Greif was 99 @.@ 5 meters ( 326 ft ) long at the waterline and 102 @.@ 6 m ( 337 ft ) long overall . She had a beam of 9 @.@ 75 m ( 32 @.@ 0 ft ) and a draft of 4 @.@ 22 m ( 13 @.@ 8 ft ) forward and 4 @.@ 34 m ( 14 @.@ 2 ft ) aft . The ship was designed to displace 2 @,@ 050 metric tons ( 2 @,@ 020 long tons ; 2 @,@ 260 short tons ) , and at combat loading , she displaced 2 @,@ 266 t ( 2 @,@ 230 long tons ; 2 @,@ 498 short tons ) . Her hull was constructed with transverse steel frames and it contained twelve watertight compartments .

Greif was a mediocre sea boat and was moderately handy . She pitched slightly but rolled significantly more . Her transverse metacentric height was .48 m ( 1 ft 7 in ) . The ship had a crew of seven officers and 163 enlisted men , though the latter later increased to 178 . Greif carried several smaller boats , including one picket boat , two cutters , one yawl , and one dinghy .

## = = = Machinery = = =

Greif 's propulsion system consisted of two horizontal 2 @-@ cylinder double expansion engines built by AG Germania , which drove a pair of four @-@ bladed screws that were 4 m ( 13 ft ) wide in diameter . Steam for the engines was provided by six cylindrical , double @-@ ended , coal @-@ fired water @-@ tube boilers split in three boiler rooms . In 1906 , she was reequipped with eight new cylindrical boilers in two boiler rooms , which slightly improved her performance . She was equipped with a pair of generators for electrical power ; they had a combined output of 20 kilowatts ( 27 hp ) at 67 volts . Steering was controlled with a single rudder .

The ship 's propulsion system was rated at 5 @,@ 400 indicated horsepower ( 4 @,@ 000 kW ) for a top speed of 18 knots ( 33 km / h ; 21 mph ) . On trials , Greif reached 5 @,@ 431 ihp ( 4 @,@ 050 kW ) and 18 @.@ 2 kn ( 33 @.@ 7 km / h ; 20 @.@ 9 mph ) . With the new boilers , her engines could reach 5 @,@ 795 ihp ( 4 @,@ 321 kW ) and 19 @.@ 1 kn ( 35 @.@ 4 km / h ; 22 @.@ 0 mph ) on speed trials . She could carry up to 350 t ( 340 long tons ; 390 short tons ) of coal , which provided a range of approximately 2 @,@ 180 nautical miles ( 4 @,@ 040 km ; 2 @,@ 510 mi ) at a cruising speed of 12 kn ( 22 km / h ; 14 mph ) . After her refit , she could carry 436 t ( 429 long tons ; 481 short tons ) of coal , which increased her range to 3 @,@ 960 nmi ( 7 @,@ 330 km ; 4 @,@ 560 mi ) at 10 kn ( 19 km / h ; 12 mph ) .

## = = = Armament = =

Unlike the other avisos built by the German navy , which carried torpedo tubes as their primary armament , Greif was armed only with guns . As built , the ship was armed with two 10 @.@ 5 cm ( 4 @.@ 1 in ) K L / 35 guns placed in pivot mounts . The ship was also equipped with ten machine guns . In 1906 , the ship was rearmed with eight 8 @.@ 8 cm SK L / 34 guns in single mounts and six machine guns . Later in her career , two of the 8 @.@ 8 cm guns and two machine guns were

removed. Greif carried no armor protection.

## = = Service history = =

The ship was laid down at the Germaniawerft shipyard in Kiel in 1885 and launched on 29 July 1886 . Fitting @-@ out work followed her launch , and was completed by 9 July 1887 , when she was commissioned into the German fleet . Following her commissioning , Greif served with the active duty fleet , though she saw little service , as she was an unsuccessful design . In 1897 , Greif was assigned to the II Division of the Maneuver Squadron for the annual summer training exercises in August and September . After the conclusion of the maneuvers , the II Division returned to its home port in Kiel for the winter . In early 1898 , Gefion returned to service in the II Division .

In August and September 1900, Greif was assigned to the Maneuver Squadron during the annual summer training exercises. During the maneuvers, she served in the cruiser screen for the hostile squadron, along with the old frigate Carola. On 21 June 1911, Greif was reduced to a special purpose ship for experimentation, and she was hulked on 25 October 1915. She was thereafter used as a training ship for engine room personnel. In 1917, she was converted into a hulk for minelayers and based in Heikendorf outside Kiel. She served in this capacity for the last year of World War I. In 1921, she was sold for scrapping and broken up in Hamburg.