

= German aircraft carrier I ( 1942 ) =

The German aircraft carrier I was a planned conversion of the transport ship Europa during World War II . The loss of the battleship Bismarck and near torpedoing of her sistership Tirpitz in May 1941 and March 1942 , respectively , spurred the Kriegsmarine to acquire aircraft carriers . Europa was one of several vessels selected for conversion into auxiliary aircraft carriers . As designed , the ship would have had an air complement of 24 Bf 109T fighters and 18 Ju 87C Stuka dive @-@ bombers .

Conversion planning began in May 1942 , and had the conversion been finished , she would have been the largest German aircraft carrier , longer even than the purpose @-@ built Graf Zeppelin @-@ class aircraft carriers . The work was canceled in November 1942 , however , after design problems , including serious instability and structural weaknesses , proved to be irreconcilable . No work was done on the ship , which was eventually seized by the US Army and used as a troop transport following the end of the war .

= = Design = =

The carrier I was a conversion proposal for the transport ship Europa . The ship was launched on 16 August 1928 and entered service on 19 March 1930 for the German Norddeutscher Lloyd shipping company . Starting in 1939 , the ship was used as a floating barracks ; the ship was requisitioned by the Kriegsmarine for use in the planned Operation Sea Lion , but the operation was abandoned when the Luftwaffe failed to achieve air superiority in the Battle of Britain . Following the loss of the battleship Bismarck in May 1941 and the near torpedoing of her sistership Tirpitz in March 1942 , the Kriegsmarine was convinced of the need to acquire aircraft carriers . Several vessels were selected for conversion , including the incomplete heavy cruiser Seydlitz and several passenger liners . Planning for the conversion of Europa into an auxiliary aircraft carrier was started in May 1942 .

The ship would have been faster and larger than any of the other ships Germany intended to convert into auxiliary carriers . However , a number of design problems emerged as the drawing up of the conversion plan progressed . Her speed and capacity advantages were offset by several serious practical problems . These included structural weakness , caused by the need to recess the hangar deck into the primary structural deck ; instability , normally resolved by adding bulges ; and high fuel consumption . Another significant obstacle was the unwillingness of Hermann Göring , the commander in chief of the Luftwaffe , to provide the Kriegsmarine with sufficient aircraft and pilots . By the time the design was completed in November 1942 , these problems had proved impossible to rectify , and so the project was abandoned . As a result , no construction work began . After the end of the war , Europa was seized by the US Army and commissioned as a troop transport under the name AP 177 before being transferred to France , where she resumed her commercial duties .

= = General characteristics and machinery = =

I was 280 meters ( 920 ft ) long at the waterline , and 291 @.@ 5 m ( 956 ft ) long overall , which was approximately 30 m ( 98 ft ) longer than the Graf Zeppelin @-@ class aircraft carriers . The ship initially had a beam of 31 m ( 102 ft ) , but bulges added during the design process to help stability increased the beam to 37 m ( 121 ft ) . The ship had a draft of 8 @.@ 5 m ( 28 ft ) as designed , but the conversion would have increased it to 10 @.@ 3 m ( 34 ft ) . I displaced 44 @,@ 000 metric tons ( 43 @,@ 000 long tons ; 49 @,@ 000 short tons ) at the designed weight , and up to 56 @,@ 500 t ( 55 @,@ 600 long tons ; 62 @,@ 300 short tons ) at maximum displacement . The ship 's hull was divided into 16 watertight compartments and was equipped with a double bottom . The percentage of the length of the hull the double bottom extended is unknown . The ship 's flight deck was 276 m ( 906 ft ) long and 30 m ( 98 ft ) wide . There was a single hangar that was 216 m ( 709 ft ) long , 25 m ( 82 ft ) wide forward , and 30 m ( 98 ft ) wide aft . No armor was to have been added to the ship during the conversion process .

The ship was propelled by four sets of Blohm & Voss geared turbines that drove four shafts , each with a four-bladed screw that was 5 m ( 16 ft ) in diameter . The turbines were powered by 24 double-ended narrow water tube boilers that produced up to 21 atmospheres of pressure . The engines were rated for 100,000 shaft horsepower ( 75,000 kW ) , and provided a top speed of 26.5 knots ( 49.1 km / h ; 30.5 mph ) . At the maximum speed , the ship could steam for 5,000 nautical miles ( 9,300 km ; 5,800 mi ) ; at a cruising speed of 19 kn ( 35 km / h ; 22 mph ) , the cruising range doubled , to 10,000 nmi ( 19,000 km ; 12,000 mi ) . The ship was designed to store up to 6,500 t ( 6,400 long tons ; 7,200 short tons ) of fuel oil , but total fuel bunkering was 8,500 t ( 8,400 long tons ; 9,400 short tons ) . I had only one rudder . The electrical power plant comprised four diesel generators that provided 520 kilowatts and two emergency generators that provided 100 kW each . The total power output was 2,280 kW at 230 volts .

== Armament ==

The ship was to have been armed with twelve 10.5-centimeter ( 4.1 in ) L / 65 anti-aircraft guns in six twin mounts , three forward and three aft of the island and funnel . These guns had a total of 4,800 rounds , or 400 rounds per gun . The 10.5 cm guns fired two types of projectiles : a 58 kg ( 129 lb ) high explosive shell and a 51 kg ( 114 lb ) incendiary round . Both types of ammunition used a single propellant charge : the 11.46 kg ( 25.3 lb ) RPC / 32 charge . The guns could elevate to 80 degrees , and could hit targets flying at 12,500 m ( 13,700 yd ) . When the guns were used to engage surface targets , they could hit targets 17,700 m ( 19,400 yd ) away , at an elevation of 45 degrees .

There were also to have been twenty 37-millimeter ( 1.5 in ) anti-aircraft guns , also in double mounts . These guns were placed along both sides of the flight deck , and had a total of 40,000 shells . The 3.7 cm guns fired 0.742 kg ( 1.64 lb ) high explosive shells at a rate of fire of about 30 rounds per minute , and a muzzle velocity of 1,000 m / s ( 3,281 ft / s ) . The guns could elevate to 85 degrees and hit targets flying at 6,800 m ( 7,400 yd ) , although the tracers were limited to 4,800 m ( 5,200 yd ) .

The anti-aircraft battery was rounded out by twenty-eight to thirty-six 20 mm ( 0.79 in ) guns in the usual Flakvierling quadruple mounts , supplied by a store of up to 72,000 rounds . These guns fired at a rate of 480 shells per minute cyclic , but were limited in practice to around 200 rounds per minute . The shells were fired at a muzzle velocity of between 800 ? 835 m / s ( 2,625 ? 2,740 ft / s ) , depending on the type of shell fired . The effective ceiling of the guns was 3,700 m ( 4,000 yd ) at 85 degrees elevation .

The ship was designed to carry 18 Ju 87 " Stuka " dive bombers and 24 Bf 109 . The Ju 87s were to have been the " E " variant , which was a navalized version of the Ju 87D , and were modified for catapult launches and were equipped with arresting gear . The Bf 109 fighters were a navalized version of the " E " model , designated as Bf 109T . Their wings were longer than the land-based model to allow for shorter take-off .