German submarine U @-@ 104 was a Type IXB U @-@ boat of Nazi Germany 's Kriegsmarine during World War II . She was ordered by the Kriegsmarine on 24 May 1938 as part of the German naval rearmament program Plan Z. Her keel was laid down by DeSchiMAG AG Weser in Bremen in November 1939 . Following about six and a half months of construction , she was launched in May 1940 and formally commissioned into the Kriegsmarine in August 1940 .

U @-@ 104 had a very short career , sinking just one enemy vessel and damaging one other during one war patrol . In the middle of her first patrol , U @-@ 104 was posted missing off the north coast of Ireland on 28 November 1940 and was presumed sunk in minefield SN 44 , which was laid a few days prior to her arrival in the area .

= = Construction and design = =

= = = Construction = = =

U @-@ 104 was ordered by the Kriegsmarine on 24 May 1938 (as part of Plan Z and in violation of the Treaty of Versailles) . Her keel was laid down on 10 November 1939 by DeSchiMAG AG Weser in Bremen as yard number 967 . U @-@ 104 was launched on 25 May 1940 and commissioned on 19 August of that year under the command of Kapitänleutnant Harald Jürst .

= = = Design = = =

German Type IXA submarines were slightly larger than the original German Type IX submarines , later designated IXA . U @-@ 104 had a displacement of 1 @,@ 051 tonnes (1 @,@ 034 long tons) when at the surface and 1 @,@ 178 tonnes (1 @,@ 159 long tons) while submerged . The U @-@ boat had a total length of 76 @.@ 50 m (251 ft) , a pressure hull length of 58 @.@ 75 m (192 ft 9 in) , a beam of 6 @.@ 76 m (22 ft 2 in) , a height of 9 @.@ 60 m (31 ft 6 in) , and a draught of 4 @.@ 70 m (15 ft 5 in) . The submarine was powered by two MAN M 9 V 40 / 46 supercharged four @-@ stroke , nine @-@ cylinder diesel engines producing a total of 4 @,@ 400 metric horsepower (3 @,@ 240 kW ; 4 @,@ 340 shp) for use while surfaced , two Siemens @-@ Schuckert 2 GU 345 / 34 double @-@ acting electric motors producing a total of 1 @,@ 000 metric horsepower (740 kW ; 990 shp) for use while submerged . She had two shafts and two 1 @.@ 92 m (6 ft) propellers . The boat was capable of operating at depths of up to 230 metres (750 ft) .

The submarine had a maximum surface speed of 18 @.@ 2 knots (33 @.@ 7 km / h ; 20 @.@ 9 mph) and a maximum submerged speed of 7 @.@ 3 knots (13 @.@ 5 km / h ; 8 @.@ 4 mph) . When submerged , the boat could operate for 64 nautical miles (119 km ; 74 mi) at 4 knots (7 @.@ 4 km / h ; 4 @.@ 6 mph) ; when surfaced , she could travel 12 @,@ 000 nautical miles (22 @,@ 000 km ; 14 @,@ 000 mi) at 10 knots (19 km / h ; 12 mph) . U @-@ 104 was fitted with six 53 @.@ 3 cm (21 in) torpedo tubes (four fitted at the bow and two at the stern) , 22 torpedoes , one 10 @.@ 5 cm (4 @.@ 13 in) SK C / 32 naval gun , 180 rounds , and a 3 @.@ 7 cm (1 @.@ 5 in) as well as a 2 cm (0 @.@ 79 in) anti @-@ aircraft gun . The boat had a complement of forty @-@ eight .

= = Service history = =

During her short career , U @-@ 104 sank one enemy vessel and damaged another on her first and only war patrol in the North Sea , off the northern coast of Ireland and Great Britain . She went to sea on her first and only war patrol on 12 November 1940 . For a period of 17 days , she roamed the North Sea and eventually the northern coast of Scotland and Ireland in search of any Allied convoys heading to Great Britain . During that time she attacked two enemy vessels , sinking one and damaging the other . On 27 November 1940 , U @-@ 104 torpedoed and sank the British

merchant vessel Diplomat , a straggler of convoy HX 88 , with the loss of 14 of her crew . The other merchant vessel was the British motor tanker Charles F. Meyer , of convoy HX 87 , which survived the attack . The next day , U @-@ 104 went missing just north of neutral Ireland . She is presumed to have been sunk by a mine from the SN 44 minefield , which was laid on 8 November 1940 , just 20 days prior to U @-@ 104 's disappearance . All of her crew are presumed dead .

= = Summary of raiding history = =