

= HMS Achilles (1863) =

HMS Achilles was an armoured frigate built for the Royal Navy in the 1860s . Upon completion in 1864 she was assigned to the Channel Fleet . The ship was paid off in 1868 to refit and be re @-@ armed . When she recommissioned in 1869 , she was assigned as the guard ship of the Fleet Reserve in the Portland District until 1874 . Achilles was refitted and re @-@ armed again in 1874 and became the guard ship of the Liverpool District in 1875 . Two years later , she was rejoined the Channel Fleet before going to the Mediterranean in 1878 . The ship returned to the Channel Fleet in 1880 and served until she was paid off in 1885 .

Achilles was recommissioned in 1901 as a depot ship at Malta under a succession of different names . She was transferred to Chatham in 1914 and was again renamed multiple times before she was sold for scrap in 1923 . Achilles had more changes of her rigging and armament than any other British warship , before or since .

= = Design and description = =

Achilles was the third member of the 1861 Naval Programme and was designed as an improved version of the earlier Warrior @-@ class armoured frigates with a complete waterline armour belt .

The ship was 380 feet 2 inches (115 @.@ 9 m) long between perpendiculars , had a beam of 58 feet 3 inches (17 @.@ 8 m) and a draft of 27 feet 2 inches (8 @.@ 3 m) . She displaced 9 @,@ 820 long tons (9 @,@ 980 t) and had a tonnage of 6 @,@ 121 bm . The hull was subdivided by watertight transverse bulkheads into 106 compartments and had a double bottom . Achilles was designed with a high centre of gravity and was very stiff . So much so that the ship only rolled 10 degrees during one storm that ripped the main and mizen topgallant masts off and split her topsails . Because of her great length she was not very manoeuvrable . Achilles had a crew of 709 officers and enlisted men .

= = = Propulsion = = =

The ship had a single two @-@ cylinder trunk steam engine made by John Penn and Sons driving a single 24 @-@ foot (7 @.@ 3 m) propeller . Ten rectangular boilers provided steam to the engine at a working pressure of 25 psi (172 kPa ; 2 kgf / cm²) . During her sea trials on 15 March 1865 , Achilles had a maximum speed of 14 @.@ 32 knots (26 @.@ 52 km / h ; 16 @.@ 48 mph) from 5 @,@ 722 indicated horsepower (4 @,@ 267 kW) . The ship carried 750 long tons (760 t) of coal , enough to steam 1 @,@ 800 nautical miles (3 @,@ 300 km ; 2 @,@ 100 mi) at 6 @.@ 5 knots (12 @.@ 0 km / h ; 7 @.@ 5 mph) .

As built , Achilles was ship @-@ rigged with four masts , called bow , fore , main and mizen from fore to aft , and she was the only British warship ever to have four masts . They carried a total of 44 @,@ 000 square feet (4 @,@ 088 m²) of sail area , excluding the stunsails , the greatest area ever spread in a British warship . Her performance was unsatisfactory when the wind was before the beam and her bowsprit and bowmast were removed in June 1865 in an attempt to correct this problem . However , now she had too much weather helm so the bowsprit was replaced and the foremast was moved forward 25 feet (7 @.@ 6 m) in July 1866 . This reduced her sail area to 30 @,@ 133 square feet (2 @,@ 799 m²) . In 1877 Achilles was rerigged as a barque . Both of her funnels were retractable to reduce wind resistance while under sail alone .

= = = Armament = = =

The intended armament of Achilles changed no less than five times before it was finally mounted . She received four rifled 110 @-@ pounder breech @-@ loading guns mounted on the upper deck , two of which served as chase guns at the bow and stern , and 16 smoothbore , muzzle @-@ loading 100 @-@ pounder Somerset cannon , eight on each side on the main deck . The breech @-@ loading guns were a new design from Armstrong and much was hoped for them . Firing tests

carried out in September 1861 against an armoured target , however , proved that the 110 @-@ pounder was inferior to the 68 @-@ pounder smoothbore gun in armour penetration and repeated incidents of breech explosions during the Battles for Shimonoseki and the Bombardment of Kagoshima in 1863 ? 64 caused the navy to withdraw the gun from service shortly afterwards . In 1865 , six 68 @-@ pounder smoothbores were added , three on each side of the main deck , although she was not comprehensively rearmed until her 1868 refit .

Detailed data for the Somerset cannon is not available , but the 7 @. 9 @-@ inch (201 mm) solid shot of the 68 @-@ pounder gun weighed approximately 68 pounds (30 @. 8 kg) while the gun itself weighed 10 @, 640 pounds (4 @, 826 @. 2 kg) . The gun had a muzzle velocity of 1 @, 579 ft / s (481 m / s) and had a range of 3 @, 200 yards (2 @, 900 m) at an elevation of 12 ° . The seven @-@ inch (178 mm) shell of the 110 @-@ pounder Armstrong breech @-@ loader weighed 107 ? 110 pounds (48 @. 5 ? 49 @. 9 kg) . It had a muzzle velocity of 1 @, 150 ft / s (350 m / s) and , at an elevation of 11 @. 25 ° , a maximum range of 4 @, 000 yards (3 @, 700 m) . The 110 @-@ pounder gun weighed 9 @, 520 pounds (4 @, 318 @. 2 kg) . All of the guns could fire both solid shot and explosive shells .

Achilles was rearmed during her 1867 ? 68 refit with 22 seven @-@ inch and eight 8 @-@ inch (203 mm) rifled muzzle @-@ loading guns . The eight @-@ inch guns and 18 seven @-@ inch guns were mounted on the main deck and the remaining seven @-@ inch guns replaced the 110 @-@ pounders on the upper deck . The shell of the 15 @-@ calibre eight @-@ inch gun weighed 175 pounds (79 @. 4 kg) while the gun itself weighed nine long tons (9 @. 1 t) . It had a muzzle velocity of 1 @, 410 ft / s (430 m / s) and was credited with the ability to penetrate 9 @. 6 inches (244 mm) of wrought iron armour at the muzzle . The 16 @-@ calibre seven @-@ inch gun weighed 6 @. 5 long tons (6 @. 6 t) and fired a 112 pounds (50 @. 8 kg) shell . It was credited with the ability to penetrate 7 @. 7 @-@ inch (196 mm) armour .

In 1874 the ship was rearmed with 16 nine @-@ inch rifled muzzle @-@ loaders replacing the 4 eight @-@ inch and 20 of the 22 seven @-@ inch guns . Fourteen of the nine @-@ inch (229 mm) guns were mounted on the main deck and the other two replaced the seven @-@ inch chase guns . The two remaining seven @-@ inch guns stayed in their position on the quarterdeck . As the nine @-@ inch guns were considerably bigger than their predecessors , the gun ports had to be widened to accommodate them . The shell of the 14 @-@ calibre nine @-@ inch gun weighed 254 pounds (115 @. 2 kg) while the gun itself weighed 12 long tons (12 t) . It had a muzzle velocity of 1 @, 420 ft / s (430 m / s) and was rated with the ability to penetrate a 11 @. 3 inches (287 mm) of wrought iron armour at the muzzle .

== Armour ==

The ship had a wrought iron waterline armour belt that ran the full length of the ship . Amidships , it was 4 @. 5 inches (114 mm) thick for a length of 212 feet (64 @. 6 m) and tapered to a thickness of 2 @. 5 inches (64 mm) to the ends of the ship . The armour extended 5 feet 6 inches (1 @. 7 m) below the waterline . The main deck was protected by a strake of armour , also 4 @. 5 @-@ inch thick and 212 feet long . To protect against raking fire the upper strake was closed off by 4 @. 5 @-@ inch transverse bulkheads at each end .

== Construction and service ==

Achilles , named after the Greek mythological hero , was ordered on 10 April 1861 from the Chatham Dockyard . She was the first iron @-@ hulled warship to be built at a royal dockyard and her construction was delayed by the need to acquire the necessary machinery to handle iron and to train the workers to use it . The ship was laid down on 1 August 1861 in a drydock and was floated out rather than being launched on 23 December 1863 . Achilles was completed on 26 November 1864 at the cost of £ 469 @, 572 .

She served in the Channel Fleet until 1868 . After a refit and her first major re @-@ armament , Achilles became the guardship at Portland until 1874 when she was again re @-@ armed . Upon its

completion in 1875 , the ship became guardship at Liverpool until 1877 when Captain William Hewett , VC , assumed command . In 1878 she was one of the ships in the Particular Service Squadron which Admiral Geoffrey Hornby took through the Dardanelles at the time of the Russian war scare in June ? August 1878 during the Russo @-@ Turkish War . Achilles accidentally collided with the flagship of the Mediterranean Fleet , Alexandra , in October 1879 , but was only lightly damaged by Alexandra 's propeller . The ship rejoined the Channel Fleet in 1880 and was paid off in 1885 .

She lay derelict in the Hamoaze until April 1901 , when she was sent to Malta as a depot ship . To release her name for the new armoured cruiser , Achilles was renamed Hibernia in 1902 . She was renamed Egmont in March 1904 , and remained in Malta until 1914 . Her role in Malta was assumed by the stone frigate Fort St Angelo . She was brought home to Chatham that year , and served there as a depot ship under the successive names of Egremont (19 June 1916) and Pembroke (6 June 1919) . The ship was sold for scrap on 26 January 1923 to the Granton Shipbreaking Co .