

= HMS Valiant (1863) =

HMS Valiant was the second ship of the Hector class armoured frigates ordered by the Royal Navy in 1861 . Her builders went bankrupt shortly after she was laid down , which significantly delayed her completion . After being launched in 1863 , she waited a further five years to receive her guns due to supply issues . Upon being commissioned in 1868 the ship was assigned as the First Reserve guard ship for Southern Ireland , where she remained until she was decommissioned in 1885 . Valiant was hulked in 1897 as part of the stoker training school HMS Indus before becoming a storeship for kite balloons during the First World War . The ship was converted to a floating oil tank in 1926 and served in that role until sold for scrap in 1956 .

= = Design and description = =

The Hector class ironclads , like their immediate predecessors , the Defence class , were designed as smaller and cheaper versions of the Warrior class armoured frigates . They were modified versions of the Defence class ships with additional armour and more powerful engines .

Valiant was 280 feet 2 inches (85 @ 4 m) long between perpendiculars . She had a beam of 56 feet 4 inches (17 @ 2 m) and a draft of 26 feet 2 inches (8 @ 0 m) . The ship was 300 long tons (300 t) overweight and displaced 7 @, @ 000 long tons (7 @, @ 100 t) . The hull was subdivided by watertight transverse bulkheads into 92 compartments and had a double bottom underneath the engine and boiler rooms . The ships of her class were designed with a very low centre of gravity and had a metacentric height of 4 feet 6 inches (1 @ 4 m) . While handy in manoeuvring , they rolled quite badly .

= = = Propulsion = = =

Valiant had one 2 @-@ cylinder horizontal return connecting rod steam engine made by Maudslay Sons & Field driving a single 20 @-@ foot @-@ 2 @-@ inch (6 @ 1 m) propeller . Six boilers provided steam to the engine at a working pressure of 25 psi (172 kPa ; 2 kgf / cm²) . The engine produced a total of 3 @, @ 560 indicated horsepower (2 @, @ 650 kW) . During sea trials on 18 September 1865 Valiant had a maximum speed of 12 @ 65 knots (23 @ 43 km / h ; 14 @ 56 mph) . The ship carried 450 long tons (460 t) of coal , enough to steam 800 nautical miles (1 @, @ 500 km ; 920 mi) at full speed .

The ship was barque @-@ rigged and had a sail area of 24 @, @ 500 square feet (2 @, @ 276 m²) . Her funnel was semi @-@ retractable to reduce wind resistance while under sail alone . She was designed to allow the ship 's propeller to be hoisted up into the stern of the ship to reduce drag while under sail , but the hoisting gear was never fitted .

= = = Armament = = =

The armament of the Hector class ships was intended to be 32 smoothbore , muzzle @-@ loading 68 @-@ pounder guns , 15 on each side on the main deck and one each fore and aft as chase guns on the upper deck . This was modified during construction to eight rifled 110 @-@ pounder breech @-@ loading guns and twenty @-@ four 68 @-@ pounders . 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 .

Due to her extended construction time , Valiant never received the breech loaders , and was armed with sixteen 7 @-@ inch (178 mm) and two 8 @-@ inch (203 mm) rifled muzzle @-@ loading guns . The two 8 @-@ inch guns were mounted on the quarterdeck where they could be fought in

all weathers and four 7 @-@ inch guns were also fitted on the upper deck . The remaining twelve 7 @-@ inch guns were carried on the main deck . The shell of the 15 @-@ calibre 8 @-@ inch gun weighed 175 pounds (79 @.@ 4 kg) while the gun itself weighed 9 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 a nominal 9 @.@ 6 inches (244 mm) of wrought iron armour at the muzzle . The 16 @-@ calibre 7 @-@ inch gun weighed 6 @.@ 5 long tons (6 @.@ 6 t) and fired a 112 pounds (50 @.@ 8 kg) shell . It was credited with the nominal ability to penetrate 7 @.@ 7 @-@ inch (196 mm) armour .

= = = Armour = = =

The Hector @-@ class ships had a wrought iron waterline armour belt , 4 @.@ 5 inches (114 mm) thick , that covered 216 feet (65 @.@ 8 m) amidships and left the bow and stern unprotected . To protect against raking fire the belt was closed off by 4 @.@ 5 @-@ inch transverse bulkheads at each end at lower deck level . The armour extended to 5 feet 8 inches (1 @.@ 7 m) below the waterline . The main deck was protected by a strake of armour that ran the full length of the ship . Amidships , it was 4 @.@ 5 @-@ inch thick for a length of 216 feet and tapered to a thickness of 2 @.@ 5 inches (64 mm) to the ends of the ship . The armour was backed by 18 inches (460 mm) of teak . The lack of armour at the stern meant that the steering gear was very vulnerable .

= = Service history = =

HMS Valiant was laid down 1 February 1861 by Westwood , Baillie in Cubitt Town . This company went bankrupt in November 1861 and was ultimately bought by Thames Ironworks , which delayed the ship 's launching until 14 October 1863 . In August 1865 , after Valiant had been towed to Portsmouth for fitting out , the ship was inspected by French officers during a port visit by ironclads of the French Navy . Production of the new muzzle @-@ loaded rifles was slow and ships already in commission had priority so Valiant was not commissioned until September 1868 , nearly five years after she was launched .

After Valiant was commissioned she became the First Reserve guard ship in Southern Ireland , where she remained until 1885 , an experience unique among the British ironclads , although she did have one break to have new boilers installed . From June to August 1878 the ship formed part of the Particular Service Squadron at the time of the Russian war scare during the Russo @-@ Turkish War , and sailed up the Dardanelles under the command of Admiral Hornby . On 20 July 1884 Valiant was accidentally rammed by the ironclad HMS Defence in Lough Swilly , damaging her hull and tearing off her boats , davits and fittings on one side of the ship . Valiant was paid off in 1885 , and saw no further front @-@ line service ; lying for thirteen years in a partially dismantled state at Devonport . In 1897 she was assigned to the HMS Indus stoker training establishment , briefly losing her name , before being renamed as Indus IV in 1904 . The ship was converted to a kite balloon storeship in 1915 , during World War I , and her name was changed to HMS Valiant III . She was offered for sale in 1922 , but there were no takers so that she was converted into a floating oil tank in 1926 and towed to Hamoaze , where she remained until 1956 . Valiant was sold in that year to Belgian ship breakers and towed to Bruges on 8 December 1956 .