

= French ironclad Alma =

The French ironclad Alma was a wooden @-@ hulled armored corvette built for the French Navy in the late 1860s . The lead ship of her class , she was named after the 1854 Battle of Alma of the Crimean War . The ship spent her early career on the China Station and later supported the French occupation of Tunisia in 1881 . She was condemned in 1886 , but was not sold until 1893 .

= = Design and description = =

The Alma @-@ class ironclads were designed as improved versions of the armored corvette Belliqueuse suitable for foreign deployments . Unlike their predecessor the Alma @-@ class ships were true central battery ironclads as they were fitted with armored transverse bulkheads . Like most ironclads of her era she was equipped with a metal @-@ reinforced ram .

Alma measured 68 @. @ 84 meters ( 225 ft 10 in ) between perpendiculars , with a beam of 14 @. @ 04 meters ( 46 ft 1 in ) . She had a mean draft of 6 @. @ 53 meters ( 21 ft 5 in ) and displaced 3 @, @ 778 metric tons ( 3 @, @ 718 long tons ) .

= = = Propulsion = = =

The ship had a single Mazeline horizontal return connecting @-@ rod steam engine driving a single propeller . Her engine was powered by four oval boilers . On sea trials the engine produced 1 @, @ 896 indicated horsepower ( 1 @, @ 414 kW ) and the ship reached 11 @. @ 3 knots ( 20 @. @ 9 km / h ; 13 @. @ 0 mph ) . Alma carried 250 metric tons ( 250 long tons ) of coal which allowed the ship to steam for 1 @, @ 360 nautical miles ( 2 @, @ 520 km ; 1 @, @ 570 mi ) at a speed of 10 knots ( 19 km / h ; 12 mph ) . She was barque @-@ rigged and had a sail area of 1 @, @ 454 square meters ( 15 @, @ 650 sq ft ) .

= = = Armament = = =

Alma mounted her four 194 @-@ millimeter ( 7 @. @ 6 in ) Modèle 1864 breech @-@ loading guns in the central battery on the battery deck . The other two 194 mm guns were mounted in barbets on the upper deck , sponsoned out over the sides of the ship . The four 120 @-@ millimeter ( 4 @. @ 7 in ) guns were also mounted on the upper deck . She later exchanged her 194 mm guns for newer Modèle 1870 guns . The armor @-@ piercing shell of the 20 @-@ caliber Mle 1870 gun weighed 165 @. @ 3 pounds ( 75 @. @ 0 kg ) while the gun itself weighed 7 @. @ 83 long tons ( 7 @. @ 96 t ) . The gun fired its shell at a muzzle velocity of 1 @, @ 739 ft / s ( 530 m / s ) and was credited with the ability to penetrate a nominal 12 @. @ 5 inches ( 320 mm ) of wrought iron armour at the muzzle . The guns could fire both solid shot and explosive shells .

= = = Armor = = =

Alma had a complete 150 @-@ millimeter ( 5 @. @ 9 in ) wrought iron waterline belt , approximately 2 @. @ 4 meters ( 7 @. @ 9 ft ) high . The sides of the battery itself were armored with 120 millimeters ( 4 @. @ 7 in ) of wrought iron and the ends of the battery were closed by bulkheads of the same thickness . The barbet armor was 100 millimeters ( 3 @. @ 9 in ) thick , backed by 240 millimeters ( 9 @. @ 4 in ) of wood . The unarmored portions of her sides were protected by 15 @-@ millimeter ( 0 @. @ 6 in ) iron plates .

= = Service = =

Alma was laid down at Lorient on 1 October 1865 and launched on 26 November 1867 . The ship began her sea trials on 24 August 1869 , but did not enter service until the following year , after sailing to Brest to have sheathing added to protect her armor . She was commissioned as the

flagship of the China Squadron under command of Rear Admiral Dupré and the ship departed Brest on 15 June 1870 . She grounded on a shoal in the Inland Sea on 15 July and lost her false keel . After the start of the Franco - Prussian War Alma blockaded the Prussian corvettes Hertha and Medusa in the Japanese port of Yokohama from mid - December 1870 until the end of the war .

On 24 August 1871 Alma rode out a typhoon in Yokohama . She was relieved by Belliqueuse on 1 August 1872 and reached Toulon on 16 January 1873 . The ship was assigned to the Evolutionary Squadron on 8 October 1873 . She was in reserve in Cherbourg from 1876 to 1881 . Alma recommissioned on 1 March 1881 and was assigned to the Levant Squadron . From 6 - 16 July 1881 the ship bombarded the Tunisian port of Sfax as part of the French occupation of Tunisia . She was reduced to reserve in Cherbourg on 8 January 1883 . The ship was condemned on 12 March 1886 , but Alma was not sold until May 1893 for 129 ,000 francs .