

= French ironclad Friedland =

The French ironclad Friedland was originally intended to be an iron-hulled version of Océan class armoured frigate built for the French Navy during the 1870s , but she was much altered during her prolonged construction . Named after the French victory at the Battle of Friedland in 1807 , the ship spent the bulk of her career assigned to the Mediterranean Squadron and supported the French occupation of Tunisia in 1881 . She was condemned in 1902 .

= = Design and description = =

Friedland was a central battery ironclad with the armament concentrated amidships . Like most ironclads of her era she was fitted with a plough-shaped ram .

The ship measured 101 meters (331 ft 8 in) overall , with a beam of 17 meters (56 ft 1 in) . Friedland had a maximum draft of 8 meters (26 ft 3 in) and displaced 8,540 metric tons (8,410 long tons) , some 750 metric tons (740 long tons) larger than the Ocean class ironclads . Her crew numbered around 750 officers and men .

Five 100 millimetre (4 in) watertight bulkheads divided the hull into compartments , although they only reached up to the main deck . Friedland did not have a double bottom . The metacentric height of the ship was low , a little above 3 feet (0.9 m) .

= = = Propulsion = = =

Friedland had one Indret 3-cylinder horizontal return connecting rod compound steam engine driving a single propeller . Its engine was powered by eight oval boilers . On sea trials the engine produced 4,428 indicated horsepower (3,302 kW) and Friedland reached 13 knots (24 km / h ; 15 mph) . She carried 630 metric tons (620 long tons) of coal which allowed her to steam for approximately 2,666 nautical miles (4,937 km ; 3,068 mi) at a speed of 10 knots (19 km / h ; 12 mph) . Friedland was initially ship rigged with three masts , then barque rigged and finally fore and aft rigged after her mainmast was removed .

= = = Armament and Armour = = =

Two 274 millimetre Modèle 1870 guns were mounted in barbettes on the upper deck , one gun at the forward corner of the battery , with the remaining six 274 millimetre Modèle 1870 guns on the battery deck below the barbettes . Eight 138 millimetre Modèle 1870 guns were on the upper deck , fore and aft of the barbettes , and on the battery deck .

The 18-calibre 274 millimeter (10.8 in) gun fired an armour-piercing , 476-pound (216 kg) shell while the gun itself weighed 22.84 long tons (23.21 t) . The gun fired its shell at a muzzle velocity of 1,424 ft / s (434 m / s) and was credited with the ability to penetrate a nominal 14.3 inches (360 mm) of wrought iron armour at the muzzle . The 138 millimeter (5.4 in) gun was 21 calibres long and weighed 2.63 long tons (2.67 t) . It fired a 61.7-pound (28 kg) explosive shell that had a muzzle velocity of 1,529 ft / s (466 m / s) . The guns could fire both solid shot and explosive shells .

At some point the ship received 22 37 millimeter (1.5 in) Hotchkiss 5-barrel revolving guns . They fired a shell weighing about 500 g (1 lb) at a muzzle velocity of about 610 m / s (2,000 ft / s) to a range of about 3,200 meters (3,500 yd) . They had a rate of fire of about 30 rounds per minute . The hull was not recessed to enable any of the guns on the battery deck to fire forward or aft . However , the guns mounted in the barbettes sponsoned out over the sides of the hull did have some ability to fire fore and aft . In 1884 two above-water 356 millimeter (14.0 in) torpedo tubes were added . Two more were added in 1891 .

Friedland had a complete 220 millimeter (8.7 in) wrought iron waterline belt . The sides

and the transverse bulkheads of the battery itself were armoured with 160 millimeters (6 @. @ 3 in) of wrought iron . The barbettes were unarmoured .

= = Service = =

Friedland was laid down at Lorient in January 1865 and launched on 15 October 1873 . While the exact reason for such prolonged construction time is not known , the budget for the French Navy was cut after the Franco @-@ Prussian War of 1870 ? 71 and the French dockyards had not been reformed with working practices more suitable for the industrial age . The ship began her sea trials on 1 May 1875 , but was not completed until 20 June 1877 . Friedland joined the Mediterranean Squadron in 1878 and the ship bombarded the Tunisian port of Sfax from 6 ? 16 July 1881 as part of the French occupation of Tunisia . She was reduced to reserve in 1887 and decommissioned in 1893 . Friedland returned to active duty in 1893 , but was paid off in 1898 and condemned in 1902 .