

= Russian battleship Rostislav =

Rostislav was a pre-dreadnought battleship built by the Nikolaev Admiralty Shipyard in the 1890s for the Black Sea Fleet of the Imperial Russian Navy . She was conceived as a small , inexpensive coastal defence ship , but the Navy abandoned the concept in favor of a compact , seagoing battleship with a displacement of 8,880 long tons ( 9,020 t ) . Poor design and construction practices increased her actual displacement by more than 1,600 long tons ( 1,600 t ) . Rostislav became the world 's first capital ship to burn fuel oil , rather than coal . Her combat ability was compromised by the use of 10-inch ( 254 mm ) main guns instead of the de facto Russian standard of 12 inches ( 305 mm ) .

Her hull was launched in September 1896 , but non-delivery of the ship 's main guns delayed her maiden voyage until 1899 and her completion until 1900 . In May 1899 Rostislav became the first ship of the Imperial Navy to be commanded by a member of the House of Romanov , Captain Alexander Mikhailovich . From 1903 to 1912 the ship was the flagship of the second in command of the Black Sea Fleet . During the 1905 Russian Revolution her crew was on the verge of mutiny , but ultimately remained loyal to the regime , and actively suppressed the mutiny of the cruiser Ochakov .

Rostislav was actively engaged in World War I until the collapse of the Black Sea Fleet in the beginning of 1918 . She was the first Russian ship to fire on enemy targets on land during World War I , the first to be hit by a German airstrike , and the first to destroy a submarine , albeit a Russian one . In April 1918 the fleeing Bolsheviks abandoned Rostislav in Sevastopol . A year later the British occupation forces permanently disabled her engines . The White forces used the ship as a towed floating battery , then scuttled her in the Strait of Kerch in November 1920 .

= = Design and description = =

Similar in size to earlier coastal defence ships but seaworthy for operations in the Black Sea , Rostislav was conceived in 1892 as a cheap and compact platform for 12-inch guns . Admiral Nikolay Chikhachov , Chief of the Ministry of the Navy , envisioned a squadron of such ships , each displacing 4,000 to 5,000 long tons ( 4,100 to 5,100 t ) , that would fit into his total desired displacement target of 24,000 long tons ( 24,400 t ) . Chief designer of the Nikolaev Shipyard , Sergey Ratnik , evaluated Chikhachov 's request for proposals , and advised against the idea in general . The Naval Technical Committee ( NTC ) concurred : any meaningful combination of firepower , armor , speed and stability required at least 6,000 long tons ( 6,100 t ) . The NTC discarded Ratnik 's advice to build an improved copy of the battleship Sissoi Veliky of 8,880 long tons ( 9,020 t ) , but did not present a definite alternative . The NTC declined to discuss tactical matters , leaving the choice of armament to Chikhachov .

Chikhachov instructed Andrey Toropov of the Nikolaev Shipyard to draft two proposals , one armed with 10-inch and the other with 12-inch guns . Toropov estimated that the ship should have displaced at least 8,880 tons . Chikhachov admitted the fact and presented the two options to the NTC . The admiral himself and the active fleet commanders voted for the 12-inch caliber , which had already become a worldwide battleship standard , but the NTC strongly advised against it . The Navy brass spent April and May 1893 in lengthy debates . They agreed to increase displacement to 8,880 tons and were leaning toward accepting 12-inch guns when General Admiral Grand Duke Alexey resolved the discussion in favor of the smaller caliber .

Rostislav had the same hull as Sissoi Veliky , protected with the newly developed Harvey armor . She was also the first Russian battleship to use electric power instead of older hydraulic systems to train her guns .

= = General characteristics = =

Rostislav was 345 feet 6 inches ( 105.3 m ) long at the waterline and 351 feet 10 inches ( 107.2 m ) long overall . She had a beam of 68 feet ( 20.7 m ) and a draft of 25 feet 2 inches (

7 @. @ 7 m ) . She displaced 10 @, @ 520 long tons ( 10 @, @ 690 t ) , over 1 @, @ 500 long tons ( 1 @, @ 500 t ) more than her designed displacement of 8 @, @ 880 long tons ( 9 @, @ 020 t ) . This weight gain increased her draft by about 3 feet ( 0 @. @ 9 m ) , submerging most , if not all , of her waterline armored belt .

### == = Propulsion == =

Rostislav had two vertical triple @-@ expansion steam engines , identical to those of Sissoi Veliky , that had a total designed output of 8 @, @ 500 indicated horsepower ( 6 @, @ 300 kW ) . Eight cylindrical fire @-@ tube boilers provided steam to the engines , each of which drove one propeller . Half of the fire @-@ tube boilers were coal @-@ fired and the other half were oil @-@ fired , making Rostislav the first capital ship in the world to use fuel oil . This was done in order to substitute cheap oil from Baku for expensive imported coal . On sea trials , the power plant produced a total of 8 @, @ 816 indicated horsepower ( 6 @, @ 574 kW ) and a top speed of 15 @. @ 8 knots ( 29 @. @ 3 km / h ; 18 @. @ 2 mph ) . She carried a maximum of 820 long tons ( 830 t ) of fuel oil and coal at full load that provided a range of 3 @, @ 100 nautical miles ( 5 @, @ 700 km ; 3 @, @ 600 mi ) at a speed of 8 knots ( 15 km / h ; 9 @. @ 2 mph ) .

### == = Armament == =

The main armament consisted of two pairs of 10 @-@ inch ( 254 mm ) 45 @-@ caliber Model 1891 guns mounted in French @-@ style , center @-@ pivot twin gun turrets fore and aft . Each turret had an arc of fire of 240 ° . These guns had a maximum elevation of + 15 ° and could depress to ? 5 ° . They fired a 496 @. @ 5 @-@ pound ( 225 @. @ 2 kg ) shell at a muzzle velocity of 2 @, @ 273 ft / s ( 693 m / s ) . At an elevation of + 6 ° the guns had a range 7 @, @ 320 metres ( 8 @, @ 010 yd ) . All eight of the 45 @-@ caliber , 6 @-@ inch ( 152 mm ) Canet Pattern 1891 guns were mounted in twin @-@ gun turrets on the main deck . Each turret was positioned at a corner of the superstructure and had an arc of fire of 110 ° . They fired shells that weighed 91 @. @ 4 lb ( 41 @. @ 46 kg ) with a muzzle velocity of 2 @, @ 600 ft / s ( 792 m / s ) . They had a maximum range of 12 @, @ 602 yards ( 11 @, @ 523 m ) when fired at an elevation of + 20 ° .

The anti @-@ torpedo boat armament consisted of twelve 47 @-@ millimetre ( 1 @. @ 9 in ) Hotchkiss guns . Eight of these were mounted in the superstructure and the locations of the remaining four are unclear . They fired a 2 @. @ 2 @-@ pound ( 1 @. @ 00 kg ) shell at a muzzle velocity of 1 @, @ 400 ft / s ( 430 m / s ) . The ship also mounted sixteen 37 @-@ millimetre ( 1 @. @ 5 in ) Hotchkiss guns , eight of which were carried in the fighting top . The locations of the other eight are unknown . They fired a 1 @. @ 1 @-@ pound ( 0 @. @ 50 kg ) shell at a muzzle velocity of 2 @, @ 150 ft / s ( 660 m / s ) .

Rostislav carried six 15 @-@ inch ( 381 mm ) torpedo tubes . The bow and stern tubes and the aft pair of broadside tubes were above water . The forward broadside tubes were underwater . The ship carried 50 mines to be used to protect her anchorage .

### == = Protection == =

The maximum thickness of the Rostislav 's waterline belt was 14 @. @ 5 inches ( 368 mm ) , tapering to 10 inches ( 254 mm ) abreast the magazines . It covered 227 feet ( 69 @. @ 2 m ) of the ship 's length and was 7 feet ( 2 @. @ 1 m ) high . While the exact height of the belt above the designed waterline is unknown , much of it , if not all , would have been below the waterline as the ship 's draft was over 3 feet ( 0 @. @ 9 m ) deeper than designed . The belt terminated forward in a 9 @-@ inch ( 229 mm ) transverse bulkhead and aft in a 5 @-@ inch ( 127 mm ) bulkhead . The upper belt was 5 inches thick , 7 feet 6 inches ( 2 @. @ 3 m ) high and covered 160 feet ( 48 @. @ 8 m ) of the ship 's side . The sides of the main gun turrets were 10 inches thick and they had 2 @. @ 5 @-@ inch ( 64 mm ) roofs . The sides of the 6 @-@ inch turrets were 6 inches thick as were the sides of the conning tower . The armor deck was flat and located at the upper edge of the main belt .

It was 2 inches ( 51 mm ) thick . Below the waterline , forward and aft of the armored citadel , were 3 @-@ inch ( 76 mm ) decks .

= = Construction = =

Work on Rostislav commenced on January 30 , 1894 . The ship was officially christened May 20 , 1894 ; in line with Russian tradition , the formal laying down ceremony was delayed until May 19 , 1895 . The contract for oil @-@ firing boilers and engines was awarded to Baltic Works . The armor was rolled in the United States by Bethlehem Steel within the framework of an earlier contract for Petropavlovsk @-@ class battleships . Bethlehem Steel faced the scrutiny of the Senate Committee on Naval Affairs for charging the Russians an unusually low " introductory " price of \$ 250 to \$ 300 per ton , compared to \$ 600 to \$ 660 paid by the United States Navy . Senator Benjamin Tillman publicly accused Bethlehem and Carnegie of price fixing and robbing the American taxpayer .

Rostislav 's hull was launched on September 2 , 1896 . Lack of proper cranes in Nikolaev made the installation of its engines exceedingly difficult , to the point that the navy even considered towing the hull to Sevastopol for completion . The Nikolaev engineers eventually resolved the problem and the ship was ready to sail in July 1897 . Rostislav conducted her speed trials on October 21 , 1898 , still missing her main guns . Her power plant performed flawlessly , but its weight exceeded the design target by more than 295 long tons ( 300 t ) .

Non @-@ delivery of the new 10 @-@ inch Model 1897 guns , made by the Obukhov Factory in Saint Petersburg for Rostislav , Admiral Ushakov @-@ class coastal defense ships and Peresvet @-@ class battleships , delayed the completion of the ship by two years . One of these guns , earmarked for Admiral Ushakov , exploded at the proving ground and the whole batch was subjected to exhaustive tests and , when possible , repairs . Guns Number 16 through Number 19 passed the tests and were delivered to Sevastopol in July and August 1899 . Rostislav was able to sail to her first gunnery trial on April 12 , 1900 . On the second day of shooting practice the recoil mechanisms of her forward turret failed and more defects were discovered back at the base . Rostislav spent the rest of the spring having her gun mounts repaired , but the problem persisted and the Navy " solved " it by prohibiting them from being used . The gun mounts were rebuilt along the pattern of those used by the armored cruiser Admiral Nakhimov in 1901 and 1902 , and Rostislav successfully passed the gunnery tests in June 1902 . The ship 's electrical turret controls , with their 332 contact pairs , required tedious maintenance and proved too complex for most of the enlisted men .

= = Service = =

On May 1 , 1899 , Captain Grand Duke Alexander Mikhailovich assumed command of Rostislav , becoming the first Romanov since Peter I to command a combat ship . Another Romanov , Grand Duke Kirill , spent a few uneventful months on board Rostislav in 1900 . Alexander 's guests , parties and diplomatic visits to Istanbul regularly interfered with the crew 's duties , but he personally managed the repairs and alterations of the ship 's equipment . Shipyards and contractors treated Rostislav as a priority customer . Alexander , based on his experience with Sissoi Veliky , persuaded the NTC to reinforce Rostislav 's rudder frame and supervised installation of a backup control post deep under the conning tower . In 1903 Alexander was promoted to rear admiral and returned to his ship as a squadron commander . Rostislav served as the junior flagship of the Black Sea Fleet until September 1912 .

The 1900 season revealed grave problems with Rostislav 's boilers . Black smoke from burning oil was more conspicuous than coal smoke . Uneven distribution of heat inside the boilers caused severe local overheating , buckling of fireboxes and sudden backdrafts . For three and a half months the boilers failed one by one , starting with small auxiliary power units and ending with the main boilers . Oil delivered by the Rothschild @-@ controlled Russian Standard Oil was not at fault ; similar problems were experienced by oil @-@ fired ships of the Baltic Fleet . Repairs and alterations of the power plant continued until 1904 , when the continuing boiler failures compelled

the Navy to dispense with oil fuel and convert Rostislav to coal in 1904 and 1905 . Each round of repairs and alterations added more weight to the already overweight ship , and by 1907 the ship 's belt armor was completely below the waterline .

The Tsentral'ka , the group plotting a mutiny of the Black Sea Fleet , decided on June 25 , 1905 , that the mutiny should start on Potemkin rather than Rostislav . On June 27 , 1905 , the day of the battleship Potemkin mutiny , Rostislav was sailing under the ensign of Vice Admiral Alexander Krieger . Nicholas II ordered Krieger and his superior , fleet commander Grigory Chukhnin , to destroy the rebels by force , but the admirals refrained from shooting . They let the rebels flee to Odessa and later to Romania . Krieger 's own crew was on the verge of open mutiny . On July 2 , 1905 , a military council held on board Rostislav decided to moor the ships in Odessa , disconnect the engines from the propellers and let the enlisted men walk ashore at will . By the time of the Ochakov mutiny in November 1905 , fleet morale had improved and Krieger did not hesitate to fire two 10 @-@ inch and fourteen 6 @-@ inch shells against the rebels .

= = = Exercises and casualties = = =

After the Battle of Tsushima the Imperial Navy concentrated on improving their gunnery skills and fire @-@ control practices . In 1908 Alexei Krylov and Yevgeny Berkalov led Rostislav on an unprecedented long @-@ range gunnery shoot : Rostislav fired 330 ten @-@ inch shells at a distance of 8 to 10 miles ( 13 to 16 km ) in a few days . The experiment proved that the older ballistic tables used by the Navy were inaccurate . Berkalov compiled the data from the 1908 exercise into the new tables adopted by the Navy . Another of Krylov 's initiatives , rapid counter @-@ flooding , was standardized in 1909 .

Two plans for modernizing the ship were put forward before World War I. In 1907 the Naval General Staff proposed a major reconstruction aimed at reducing her draft and raising her armor belt higher out of the water . Her above @-@ water torpedo tubes , torpedo nets , auxiliary boilers and 47 @-@ millimeter guns would have been removed , her superstructure cut down and her rigging reduced to a single pole mast . These changes would have reduced her displacement by 250 long tons ( 250 t ) , but the plan was rejected due to a shortage of money . Her above @-@ water torpedo tubes , however , were removed about this time . In 1912 the staff of the Black Sea Fleet proposed to replace all of her 47 mm guns with four 75 @-@ millimetre ( 3 in ) guns and to remove the auxiliary boilers and the submerged torpedo tubes to offset the additional weight . The Naval General Staff did not think that this was worth the cost and rejected the plan . Even though these plans did not come to fruition , other alterations were made to Rostislav before the war . A dozen of her 37 mm guns were removed in 1906 , and she was fitted with 15 @-@ foot ( 4 @-@ 6 m ) rangefinders , probably made by Barr and Stroud , in 1907 and 1908 .

In 1909 and 1910 , Rostislav and the rest of the Black Sea Fleet prepared for joint operations with submarines . She was scheduled for an installation of the first Russian underwater acoustic communication system , but the installation was interrupted and her hardware was installed on the battleship Panteleimon ( the former Potemkin ) instead . During an anti @-@ submarine exercise on the night of June 11 , 1909 , Rostislav accidentally rammed and sank the submarine Kambala . Twenty men of Kambala and two rescue divers died . The accident was blamed on reckless maneuvering by the submarine , and Rostislav 's captain was cleared of any negligence or wrongdoing .

= = = Diplomatic incidents = = =

Before the outbreak of World War I Rostislav was involved in two minor international incidents . On August 11 , 1911 , Evstafi and Panteleimon , two of the Black Sea Fleet battleships paying a state visit to Romania , ran aground on a shoal just off the port of Constan?a . Rostislav 's officers had detected the hazard and steered her to safety , but did not alert the other ships . The international embarrassment that followed led to the resignation of fleet commander Admiral Ivan Bostrem . During the First Balkan War Rostislav sailed into the Sea of Marmara to protect the Russian

Embassy in Istanbul from a mob . Rostislav accidentally fired a live shell into the Turkish defenses . No one was injured during the incident , and the captain defused the situation with a personal apology to the Ottoman government .

= = = World War I = = =

Rostislav spent the winter of 1913 ? 14 refitting , and in April 1914 she returned to the active fleet with newly overhauled machinery , new rangefinders and new gun sights . The ship made 15 @.@ 37 knots ( 28 @.@ 47 km / h ; 17 @.@ 69 mph ) on her post @-@ refit trials .

On November 4 , 1914 , the Black Sea Fleet sailed out on its first combat operation of the war : the bombardment of Zonguldak . The operation was conceived as a retaliation against the Turkish @-@ German attack on Sevastopol . Rostislav , captained by Kazimierz Por?bski , was the " designated gunboat " while other Russian battleships formed a defensive screen around her . On November 6 she fired 251 shells at the port of Zonguldak , reducing it to rubble . On November 18 the ship faced Goeben during the Battle of Cape Sarych , but the German ship broke contact before Rostislav , trailing behind the Russian formation , even spotted her . Rostislav had other encounters with Goeben in 1915 and 1916 , but did not engage her directly . In 1915 the ship received four 75 mm anti @-@ aircraft guns .

After the commissioning of the Imperatritsa Mariya @-@ class dreadnoughts , the old battleships were split into independent combat groups . Rostislav became the flagship of the Batumi Group tasked with supporting the ground operations of the Caucasus Army . Their first joint action began February 5 , 1916 , near Arhavi . On the first day alone the ship fired 400 shells against the Turks . On March 4 Rostislav and the gunboats Kubanetz and Donetsk supported the amphibious landing at Atina . Three days later she supported the landing of marines that ended in the capture of Rize . At the end of March Rostislav and Panteleimon forced the Turks to evacuate Trabzon .

In the summer of 1916 the Navy seriously considered an all @-@ out amphibious assault on the Bosphorus . Fleet commander Andrei Eberhardt anticipated a high risk of naval mine and torpedo hits in the coastal waters and suggested equipping all pre @-@ dreadnought battleships with anti @-@ torpedo bulges . Sinop had her bulges fitted in Nikolaev in July 1916 , and Rostislav was next in line , but the work was cancelled in August , and she was transferred to the Romanian coast as flagship of the Constan?a Group . Constan?a temporarily became an important logistical hub for the Russian troops heading to the Romanian Front , and the base for minelayers , submarines and destroyers harassing the enemy in the Bosphorus area . The Germans responded with air raids ; their first aerial success against a Russian naval target was scored against Rostislav . The bomb hit the edge of the aft 10 @-@ inch turret and injured sixteen sailors . The turret itself remained fully operational . The collapse of the Romanian Front in October 1916 forced the Navy to evacuate Constan?a . Rostislav returned to Sevastopol for a much @-@ needed overhaul .

= = = Revolution = = =

The February Revolution of 1917 did not demoralize the Black Sea Fleet as quickly as the Baltic Fleet . Captain Fyodor Stark , a former destroyer commander , maintained Rostislav in combat @-@ ready condition until the end of the year . The battleship sailed out for her last voyage to Batumi in September and October . Stark managed to contain the radical politics , anti @-@ German sentiment and Ukrainization of the crew , but nevertheless raised the flag of Ukraine on his return to Sevastopol on October 25 . From this moment desertion and " volunteering " into the Red Guards intensified , and by December 21 the crew was reduced to 460 enlisted men and 28 officers . In January 1918 the fleet disintegrated completely : the officers fled from the enraged enlisted men , then the enlisted men abandoned the ships and fled from the advancing German Army . On April 29 , 1918 , the Bolsheviks managed to extricate two battleships and sixteen destroyers from Sevastopol to Novorossiysk , but Rostislav and the rest of the fleet remained in Sevastopol .

The German occupation of Crimea from May to November 1918 did not affect the abandoned ship . The Anglo @-@ French forces that replaced the Germans stayed in Sevastopol until April 1919 .

Before leaving , the British destroyed Rostislav 's engines on April 25 . The White forces of Baron Wrangel used the disabled ship as a floating battery in the Sea of Azov . The ship , manned by a ragtag volunteer crew , was stationed in the shallow waters of the Strait of Kerch to harass the Reds in Taman and prevent a landing in the Crimea . After the defeat of Wrangel 's land forces , the crew scuttled Rostislav in the Strait of Kerch to prevent the Red forces from breaking through to the Black Sea .

When Rostislav sank in the shallows her superstructure remained above water . In 1930 , the EPRON ( a Soviet salvage unit ) retrieved the ship 's guns and partially dismantled the hull . According to diver Alexander Yolkin , the remains of the hull are still lying in the strait , around 1 @ , @ 200 metres ( 1 @ , @ 300 yd ) from the Ukrainian coast , and gradually sinking into the silt .