

= Shikishima @-@ class battleship =

The Shikishima class (????? , Shikishima @-@ gata senkan) was a two @-@ ship class of pre @-@ dreadnought battleships built for the Imperial Japanese Navy in the late 1890s . As Japan lacked the industrial capacity to build such warships herself , they were designed and built in the UK . The ships participated in the Russo @-@ Japanese War of 1904 ? 1905 , including the Battle of Port Arthur on the second day of the war . Hatsuse sank after striking two mines off Port Arthur in May 1904 . Shikishima fought in the Battles of the Yellow Sea and Tsushima and was lightly damaged in the latter action , although shells prematurely exploded in the barrels of her main guns in each battle . The ship was reclassified as a coast defence ship in 1921 and served as a training ship for the rest of her career . She was disarmed and hulked in 1923 and finally broken up for scrap in 1948 .

= = Design and description = =

Combat experience in the First Sino @-@ Japanese War convinced the Imperial Japanese Navy of weaknesses in the Jeune Ecole naval philosophy , and Japan embarked on a program to modernize and expand its fleet . As with the earlier Fuji @-@ class battleships , Japan lacked the technology and capability to construct its own battleships , and turned again to the United Kingdom . They were ordered as part of the Ten Year Naval Expansion Programme and paid for from the £ 30 @, @ 000 @, @ 000 indemnity paid by China after losing the Sino @-@ Japanese War of 1894 ? 1895 .

The design of the Shikishima class was a modified and improved version of the Majestic @-@ class battleships of the Royal Navy . They had the same armament and similar machinery as the Fuji class which was intended to allow them to work together as a homogenous group . The Shikishima @-@ class ships had an overall length of 412 feet (125 @. @ 6 m) , a beam of 75 @. @ 5 ? 76 @. @ 75 feet (23 @. @ 0 ? 23 @. @ 4 m) , and a normal draught of 26 @. @ 25 ? 26 @. @ 5 feet (8 @. @ 0 ? 8 @. @ 1 m) . They displaced 14 @, @ 850 ? 15 @, @ 000 long tons (15 @, @ 090 ? 15 @, @ 240 t) at normal load . The hull had a double bottom and was subdivided into 261 watertight compartments . The crew numbered about 741 officers and enlisted men , although this increased to 849 when serving as a flagship .

= = = Propulsion = = =

The ships were powered by two Humphrys Tennant vertical triple @-@ expansion steam engines , each driving one propeller , using steam generated by 25 Belleville boilers . The engines were rated at 14 @, @ 500 indicated horsepower (10 @, @ 800 kW) , using forced draught , and designed to reach a top speed of 18 knots (33 km / h ; 21 mph) although they proved to be faster during their sea trials . Shikishima reached a top speed of 19 @. @ 027 knots (35 @. @ 238 km / h ; 21 @. @ 896 mph) using 14 @, @ 667 indicated horsepower (10 @, @ 937 kW) . The ships carried a maximum of 1 @, @ 643 tonnes (1 @, @ 617 long tons) of coal which allowed them to steam for 5 @, @ 000 nautical miles (9 @, @ 300 km ; 5 @, @ 800 mi) at a speed of 10 knots (19 km / h ; 12 mph) .

= = = Armament = = =

The main battery of the Shikishima class consisted of the same four Elswick Ordnance Company 40 @-@ calibre twelve @-@ inch guns as used in the Fuji class . They were mounted in twin @-@ gun barbettes fore and aft of the superstructure that had armoured hoods to protect the guns and were usually called gun turrets . The hydraulically powered mountings could be loaded at all angles of traverse while the guns were loaded at a fixed angle of + 13 @. @ 5 ° . They fired 850 @-@ pound (386 kg) projectiles at a muzzle velocity of 2 @, @ 400 ft / s (730 m / s) .

Secondary armament of the Shikishima class consisted of fourteen 40 @-@ calibre Type 41 six @-@ inch quick @-@ firing guns mounted in casemates . Eight of these guns were positioned on

the main deck on the side of the ship 's hull and the other six guns were placed in the superstructure . They fired 100 @-@ pound (45 kg) shells at a muzzle velocity of 2 @, @ 300 ft / s (700 m / s) . Protection against torpedo boat attacks was provided by twenty QF 12 @-@ pounder 12 cwt guns and four 47 @-@ millimetre (1 @. @ 9 in) 2 @. @ 5 @-@ pounder Hotchkiss guns . The 12 @-@ pounders fired 3 @-@ inch (76 mm) , 12 @. @ 5 @-@ pound (5 @. @ 7 kg) projectiles at a muzzle velocity of 2 @, @ 359 ft / s (719 m / s) . The ships were also equipped with four submerged 18 @-@ inch torpedo tubes , two on each broadside .

= = = Armour = = =

The waterline main belt of the Shikishima @-@ class vessels consisted of Harvey armour 8 feet (2 @. @ 4 m) high , 3 feet 7 inches (1 @. @ 1 m) of which was above the waterline at normal load , and had a maximum thickness of 9 inches (229 mm) for the middle 220 feet (67 m) of the ship . It was only 4 inches (102 mm) inches thick at the ends of the ship and was surmounted by a six @-@ inch strike of armor that ran between the barbets for 220 feet . The barbets were 14 inches (356 mm) thick , but reduced to 10 inches (254 mm) at the level of the lower deck . The armour of the barbettes had a maximum thickness of 10 inches (254 mm) while their roofs were three inches thick . Diagonal bulkheads 12 ? 14 inches (305 ? 356 mm) thick connected the barbets to the side armor , but the bulkheads were only six inches thick at the lower deck level . The casemates protecting the secondary armament were also six inches thick . The flat portion of the deck armour was 2 @. @ 5 inches (64 mm) thick and four inches thick where it sloped down to the bottom of the armour belt . This significantly improved the ships ' protection as any shell that penetrated their vertical armour also had to penetrate the sloping deck before it could reach the machinery compartments or magazines . Outside the central armoured citadel , the sloped deck had a thickness of 2 inches (51 mm) . The forward conning tower was protected by 14 inches of armour , but the aft conning tower only had three inches of armour .

= = Ships = =

At the start of the Russo @-@ Japanese War , Hatsuse and Shikishima were assigned to the 1st Division of the 1st Fleet . They participated in the Battle of Port Arthur on 9 February 1904 when Admiral T?g? Heihachir? led the 1st Fleet in an attack on the Russian ships of the Pacific Squadron anchored just outside Port Arthur . T?g? chose to attack the Russian coastal defences with his main armament and engage the Russian ships with his secondary guns . Splitting his fire proved to be a bad idea as the Japanese 8 @-@ inch (203 mm) and six @-@ inch guns inflicted very little damage on the Russian ships who concentrated all their fire on the Japanese ships with some effect . Hatsuse was hit twice during the battle , 10 men being killed and 17 wounded , but Shikishima was only hit once with 17 men wounded .

Both ships participated in the action of 13 April when T?g? successfully lured out two battleships of the Pacific Squadron . When the Russians spotted the five battleships of the 1st Division , they turned back for Port Arthur and the battleship Petropavlovsk struck a minefield laid by the Japanese the previous night . It sank in less than two minutes after one of her magazines exploded . Emboldened by his success , T?g? resumed long @-@ range bombardment missions , which prompted the Russians to lay more minefields .

On 14 May 1904 , Hatsuse , Shikishima , and the battleship Yashima , the protected cruiser Kasagi , and the dispatch boat Tatsuta put to sea to relieve the Japanese blockading force off Port Arthur . On the following morning , the squadron encountered a newly laid Russian minefield . Hatsuse struck one mine that disabled her steering and Yashima struck another when moving to assist Hatsuse . Hatsuse struck another mine while drifting about a half @-@ hour later that detonated one of her magazines and the ship sank in a little over a minute . The catastrophe claimed 496 crewmen although the escorting ships were able to rescue 336 men .

Shikishima was not hit during the Battle of the Yellow Sea in August 1904 , although a shell exploded prematurely in one of her 12 @-@ inch guns , disabling it . During the Battle of Tsushima

in May 1905 , she was hit nine times ; the most serious of which penetrated beneath a six @-@ inch gun , killing or wounding the entire gun crew . Again the ship had another 12 @-@ inch shell prematurely detonate in one of the forward guns , wrecking it completely . Shikishima was reclassified as a first @-@ class coast defence ship in September 1921 , and was used for training duties in various capacities until disarmed and reclassified as a transport in 1923 . Her hulk continued to be used as a training ship until she was scrapped in 1948 .