= Design A @-@ 150 battleship =

Design A @-@ 150 , also known as the Super Yamato class , was an Imperial Japanese plan for a class of battleships . Begun in 1938 ? 39 , the design was mostly complete by 1941 . However , so that a demand for other types of warships could be met , all work on Design A @-@ 150 was halted and no keels were laid . Authors William H. Garzke and Robert O. Dulin have argued that Design A @-@ 150 would have been the " most powerful battleships in history " because of the massive size of their main battery of six 510 mm (20 in) guns as well as numerous smaller caliber weapons .

= = Design = =

= = = Background = = =

Initial plans for the A @-@ 150 battleships called for eight or nine 510 mm (20 @.@ 1 in) guns in quadruple or triple turrets . The successful construction of a 480 mm (18 @.@ 9 in) gun in 1920 ? 1921 made the Japanese confident that a 510 mm (20 @.@ 1 in) could be built . In addition , a top speed of 30 knots (56 km / h ; 35 mph) was desired so that the class would be faster than the United States ' 27 kn (31 mph ; 50 km / h) North Carolina @-@ class battleships . However , these grand specifications were curtailed when tests culminated in a ship that had a displacement of some 90 @,@ 000 tons ; it was felt that ships of this size would be " too large and too expensive " .

= = = Specifications = = =

Initial design studies were undertaken after the completion of plans for the Yamato class (1938 ? 39) ; they focused on a ship with a displacement nearer to that of the Yamatos . As the Japanese expected that the Americans would be able to obtain the true characteristics of that class (namely the principal armament of 460 mm (18 @.@ 1 in)) , the use of 510 mm guns was vital to keep with Japan 's policy of individual ships ' superiority over their American counterparts ; the A @-@ 150s were meant to counter the United States ' reply to the Yamatos .

Plans were " essentially completed " sometime in 1941 ; however , similar to the fate of documents relating to the Yamato class , most papers and all plans relating to the class were destroyed at the end of the war , meaning that the full specifications of the ships are not known . It is known the ships would have had greater firepower than the Yamato class : a main battery of six 510 mm (20 @.@ 1 inch) guns in three twin turrets and a secondary armament of " many " 100 mm (3 @.@ 9 in) / 65 caliber guns . The displacement was to be similar to the Yamato class , which was around 60 @,@ 000 ? 70 @,@ 000 tonnes . The side armor belt was probably going to be 460 mm (18 in) . This was so large that steel mills in Japan were incapable of manufacturing it ; instead , " double strakes of armor plates " were going to be used , which would have been much less effective than just one single plate .

= = = Armament = = =

Although details of the smaller armament planned for the ships are not given in sources , a main battery of six 510 mm (20 @.@ 1 in) / 45 caliber guns in dual turrets was definitely planned . These would have been the largest ever fitted to a capital ship , dwarfing the 460 mm (18 @.@ 1 in) guns mounted on the Yamato class . By 1941 , one ? possibly two ? of the 510 mm guns were being constructed at the Kure Naval Arsenal and detailed designs of the turrets that would hold the guns were drawn up . The turrets would have weighed 2 @,@ 780 tonnes (2 @,@ 740 long tons) and trained at 2 ° per second through a range of 120 ° to port or starboard . The guns themselves could have fired at a maximum rate of 1 to 1 @.@ 5 rounds per minute and be elevated from -5 ° to 45 ° , with the elevation rate being 10 ° per second . They would have weighed 227 t (223 long tons) and would have been 23 @.@ 56 m (928 in) long . The bore length was to have been around 22 @.@

84 m (899 in) . The armor @-@ piercing ammunition would have weighed between 1900 and 2000 kg (4190 ? 4409 lbs) , while the high explosive rounds would have been 1 @,@ 858 kg (4 @,@ 096 lb) .

A secondary battery of " many " 100 mm (3 @.@ 9 in) / 65 caliber guns was being considered , although this was not final . This design was the best anti @-@ aircraft gun produced by Japan during the Second World War . Overall , the weapons compared very well with other contemporary weapons . The key advantages that made it so successful ? the " high muzzle velocity and a fast rate of fire " ? resulted in a short 350 ? 400 @-@ round service life . In anti @-@ aircraft defense , their ceiling at 90 ° was 13 @,@ 000 m (43 @,@ 000 ft) , although the effective range was 11 @,@ 000 m (36 @,@ 000 ft) . They were able to fire 15 ? 21 rounds per minute .

In Battleships : Axis and Neutral Battleships in World War II , authors William H. Garzke and Robert O. Dulin argued that Design A @-@ 150 would have been the " most powerful battleships in history " because of the titanic main armament and the use of a dual purpose secondary battery .

= = Construction = =

With war on the horizon in early 1941 , all design work was diverted from battleships ? even though the A @-@ 150s ' design was virtually complete ? so that a demand for " aircraft carriers , cruisers , and smaller ships " could be met . Even though no work was being done on them , two ships of Design A @-@ 150 , provisionally designated as Warships Number 798 and 799 , were projected in a 1942 building program . 798 was to be built in the same dock as Shinano , while 799 was to be built in Kure in the same dock as Yamato after the fourth ship in the class , Warship Number 111 , was launched . Both of the ships ' keels were supposed to be laid in late 1941 or early 1942 , launched in 1944 / 45 , and finished in 1946 / 47 . However , the war 's turn against the Japanese after the Battle of Midway meant that the need for ships other than battleships never abated .