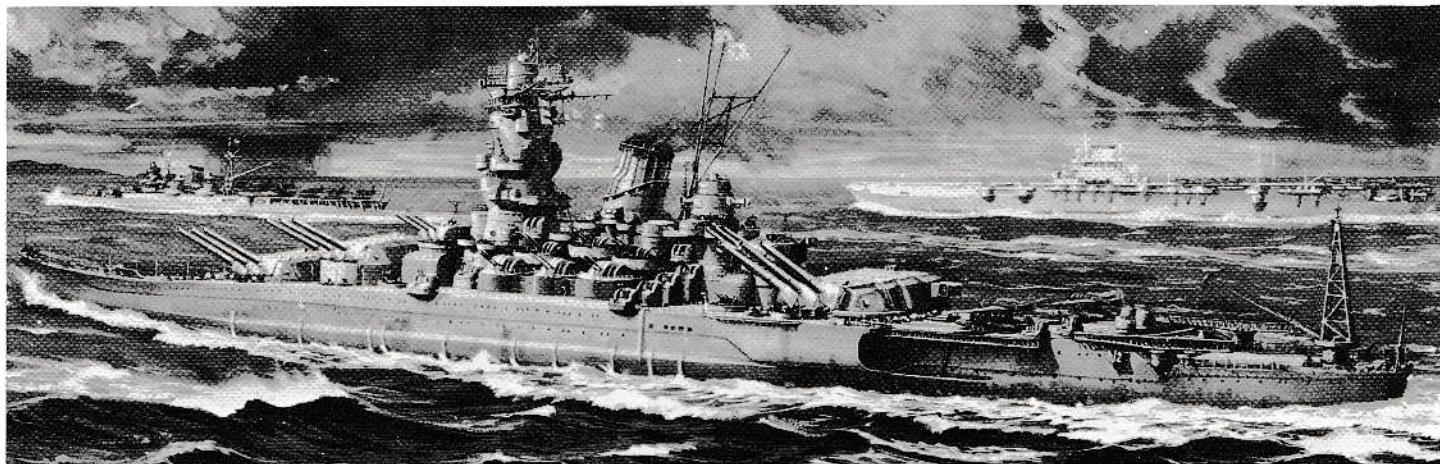


YAMATO 大和 JAPAN BATTLE SHIP



WATER LINE SERIES

Short History of YAMATO

Since a gun appeared upon the scene of the history of man's struggle, it has controlled the battlefield for centuries as the most powerful weapon on earth. Consequently, the calibre has been enlarged little by little. This is one of the reasons why a battle ship carrying the biggest gun is called the capital ship. With the World War II as a turning-point, however, the position as the most powerful weapon has been completely usurped by aircraft. It was the aircraft that dealt a deadly blow at the United States Pacific Fleet in Pearl Harbor and also sunk the unsinkable battle ship Prince of Wales of England. Also in the Midway Sea Battle, a turning-point of the Pacific War, the issue was decided not by gun fights between battle ships but by bomb attacks from ship-planes. In less than half a century after that, however, atomic and hydrogen bombs and a missile carrying a nuclear warhead have appeared as powerful new weapons, which look like the very final weapon of man.

From the viewpoint of the history of weapon progress, the great-warships-and-big-guns principle may be a passing phase in the process. The early stage of the Showa era (1926—) was what is called the period when the principle reigned supreme in the tactical thought. All the strategy and tactics of those days placed the greatest importance on battle ships.

On account of the fact that the issue of every sea battle had been decided so far by gun fights between battle ships, the largest calibre gun that the technique of those days permitted was built; therefore, a battle ship carrying it was made increasingly bigger into a great one. After the outbreak of the Manchurian Incident on 18th September, 1931, the feeling of other countries towards Japan got worse, leading Japan to withdraw from the League of Nations on 27th March, 1933. Thus, it became a pressing need for Japan to replenish national defence. The Japanese Navy regarded it as serious that its capital ships were not enough due to arms limitation placed by the Washington Treaty and the London Treaty.

To strengthen the national defence freely, Japan denounced both the treaties by January, 1936, and started building the Yamato and the Musashi, capital ships with the highest performance in the world. A project for building the Yamato and the Musashi was started in October, 1934. The original plan was completed at the end of July, 1936. The essential specifications of these capital ships at the time of completion are as in the following.

The most notable feature of the Yamato was in its main guns. The biggest gun mounted on the battle-ships of those days was of 40 cm (16 in.) calibre. Accordingly, a plan for mounting nine or twelve 40 cm guns on the Yamato type was studied for some time. Remodelled battle ships of the United States, however, were found to have a 7 in. protective deck, which a 40 cm projectile might not always be able to penetrate even from within the gun-fire range. It was, therefore, decided that the Yamato should be armed with 46 cm guns. Since Japan could not hope to possess more ships than the United States in view of the industrial and economic power, Japan had no choice but to make each of her battle ships more powerful.

The swivel of the Yamato's great main gun weighed 2,200 tons and the barrel had a length of 21 m. A projectile discharged by the great gun at the elevation of 45 deg could fly at an altitude of 7,000 m and reach an objective 41 km away. The gun was designed to fire two times a minute. Steel materials used in the Yamato's hull excluding the armaments and the engine weighed nearly 43,000 tons, half of which were used in the armour plates. How to provide effective protection was an important question in designing the Yamato. Even though the overall length was strictly limited and the length of the essential part to be protected was minimized, the total weight was no less than 69,100 tons. This is due to the following: On the assumption that the range is 20,000—30,000 m, if the Yamato can withstand its own 46 cm armour piercing shell, the most powerful one in the world, it will not be beaten by any enemy battle ship of the same class.

The Yamato originally carried two great main gun turrets on the front and one on the rear, as well as four 15.5 cm triple secondary guns. In order to strengthen its anti-aircraft defence, two of the secondary guns were replaced in 1943 by 12.7 cm anti-aircraft guns. Also added were 25 mm triple machine

guns and double and single ones. The funnel of the Yamato type was inclined backward so that hot smoke might not touch the bridge. Six planes and a number of boats were all kept under the rear deck in order that they should not be blown off by bomb-shell blasts on the rear.

After participating in the Midway Sea Battle as the flagship of the Japanese Combined Fleet, the Yamato took part in the Sea Battle off the Mariana and the Battle of the Philippine Sea. At the Sea Battle off Samar, the Yamato rained huge shells of its 46 cm main guns on the enemy escort carriers, sinking the destroyer Haul. On 6th April, 1945, the Yamato, as the flagship of the 2nd Squadron, made sortie towards Okinawa accompanied by the light cruiser Yahagi and eight destroyers in order to attack the enemy troops landed on the main island of Okinawa and finally to ground itself there and give a heavy blow to the enemy with the huge guns, for the Yamato had fuel only for the one-way voyage. The next day, under the attack of no less than 1,000 enemy ship-planes in all, the Yamato was hit by 12 torpedoes, 7 bombs and numerous small shells. Thus the great battle ship was seriously damaged and went to the bottom at last.

Washington Naval Reduction Conference

A naval reduction conference held in Washington in November, 1921. The five big naval powers—England, the U.S., Japan, France, and Italy—discussed naval construction limitation and concluded a naval reduction treaty. This treaty limited the tonnage of capital ships possessed by England, the U.S., Japan, France, and Italy in the proportion 5 : 5 : 3 : 1.75 : 1.75, and determined the total tonnage as follows:

- Capital ship: 35,500 tons and less per one; main gun, 16 in. (40 cm) and less.
- Auxiliary vessel: 10,000 tons and less per one; gun, 8 in. (20 cm) and less.
- Aircraft carrier: 27,000 tons and less per one. The total tonnage of aircraft carriers measuring 10,000 tons and over was limited.

London Naval Reduction Conference

A naval reduction conference held in London in 1930. Since the former Washington Treaty, which limited only the tonnage of each warship and the calibre of its main gun, had no provision for the total tonnage, this conference fixed the limit of the total tonnage of warships including auxiliary vessels and submarines.

Hulls of the Japanese warships had been consistently painted in the same deep grey with a slight blue-tinge for a long period extending from the end of 1903 when the colour was formally adopted for the purpose in anticipation of the Russo-Japanese War to the termination of the 2nd World War. The colour was called, "wartime painting colour" and is roughly the same as that of the present-day warships of the Japan Sea Self-Defence Force. However, there was one exception to this rule of painting, as aircraft-carriers were painted in light green in the late period of the latter war. Also, camouflage painting in dark grey alternately in light and shade was sometimes employed. The bottom portion of hull below the waterline was painted in maroon, a brownish crimson colour. Decks of destroyers and light cruiser were covered with iron-plates painted in the same colour as that of hull. But decks of heavy cruisers were covered in three different ways: Some with iron-plates while others either linoleum or boarded. In the latter two cases, decks were left unpainted. Decks of the battleships and flight decks of most carriers, too, were covered with board and not painted.

Going into details, it should be added that the funnel top was done in black while both sections of the tripod mast, too, in black in the same width, one rising 9 meter above the same level as that of the top-most of the funnel and the other descending below onto the level with the lower edge of the blackened portion of the funnel. As for the Imperial crest of the chrysanthemum, gun base and canvas cover of cutters, the first had better be painted in gold colour, while the latter two, in white. At the stern, it used to be seen a brass-plate on which the name of the warships was clearly written in the Japanese cursive characters. However, this name-plate was painted out in the same colour as that of hull during the wartime. In case you want the name-plate as it was in peace-time, be sure not to have its letters start from right and not from left as in the English language. Lastly, all warships of the Japanese combined fleet had their tops and foremasts painted in white for sometime after the outbreak of the Pacific war to identify them from enemy warships.

Aircraft Carried

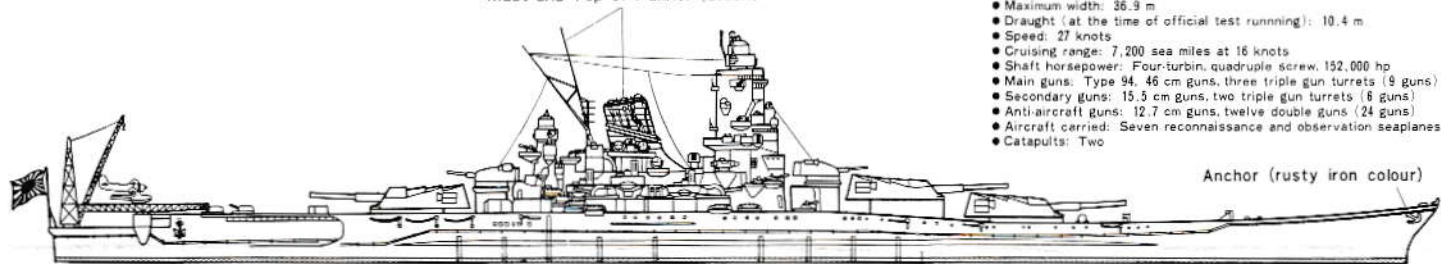
The Yamato and the Musashi carried the Navy type O observation seaplanes. Their mission during a sea battle was to stay in the air halfway between the two fleets for finding the range of guns of their side and to report it by wireless to their fleet so that their fleet could have an edge over the enemy in the gun fight.

The seaplane was dark green except for each lower part of the body, the planes, and the float, which was painted in light grey. Each of the sun-disks on the main planes and the body was a dark green circle with a white rim. The symbol and the number on the vertical rear plane were painted in yellow or white. The upper front part of the main float had a red belt bordered with white.

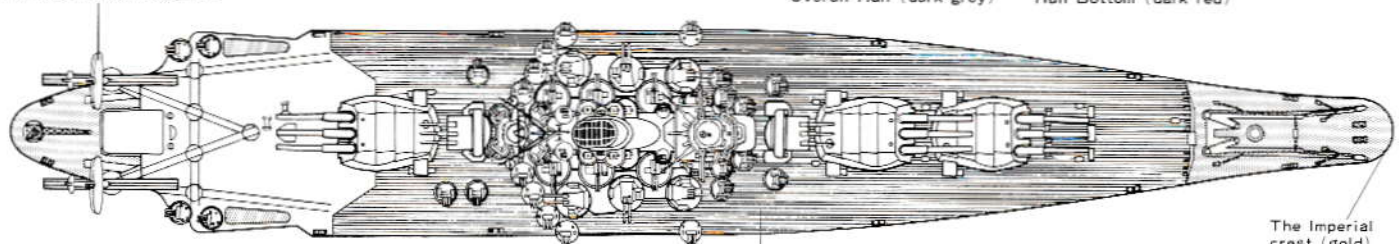
Essential Specifications of the Battle Ship Yamato

- Displacement at the time of official test running: 69,100 tons
- Water line length (at the time of official test running): 256.0 m
- Maximum width: 36.9 m
- Draught (at the time of official test running): 10.4 m
- Speed: 27 knots
- Cruising range: 7,200 sea miles at 16 knots
- Shaft horsepower: Four-turbin, quadruple screw, 152,000 hp
- Main guns: Type 94, 46 cm guns, three triple gun turrets (9 guns)
- Secondary guns: 15.3 cm guns, two triple gun turrets (6 guns)
- Anti-aircraft guns: 12.7 cm guns, twelve double guns (24 guns)
- Aircraft carried: Seven reconnaissance and observation seaplanes
- Catapults: Two

Mast and Top of Funnel (black)



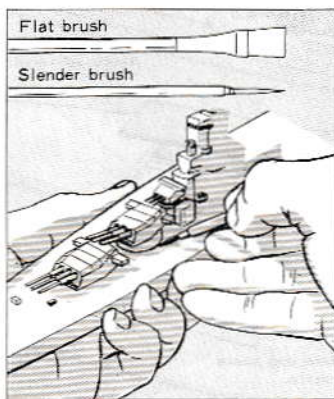
Type O Observation Seaplane



Wood Deck (light brown)

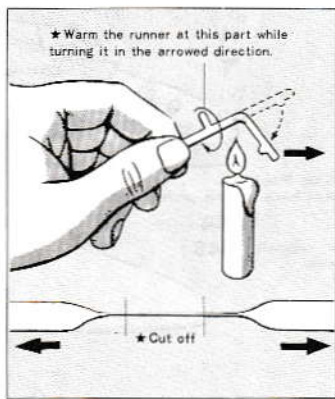
Painting of the Yamato

Painting of a Yamato kit should be done after it has been fully constructed. Begin with overall painting, preferably using spray-type paint which is easy to handle and gives an even, beautiful coat. Do not try to finish it at a sitting. The tip is to apply three overall thin coats or so repeatedly after one has been completely dry. Then, paint the deck and small parts. Get a flat brush (for broad surfaces) and a slender brush (for small parts) ready, and use them properly as in the figure at right.



Construction of Antenna

Stretch an antenna to make the kit look better. This should be done after the kit has been completely painted. By making use of a runner, you can have a good antenna ready for use. First, cut the runner down to a proper length, and warm it by a candle fire until it becomes soft as shown in the chart at right. When the runner is sufficiently hot, take it away from the fire. Then, quickly pull it both ways until it becomes a long thread. With reference to the two diagrams above, cut the thread a little longer, and fix it in place by applying adhesive with an end of a match. Then, cut off the excessive length of the thread after the adhesive has been completely dry.



YAMATO 大和

 Name plate

(Read before Your Assembly Work)

★Parts should be cut off the runner carefully with either a pair of nippers or a knife.

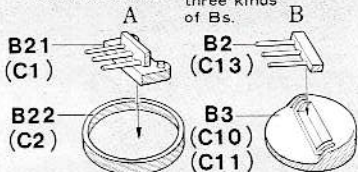
★Too much adhesives won't do. Instead apply just a little onto both parts to be glued together.

WATER LINE SERIES

1 Construction of Triple Machine Guns

★In all, Seven As and four teen Bs will have to be constructed.

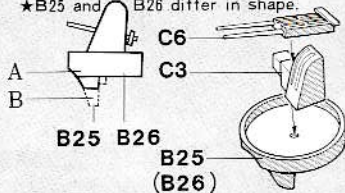
C10 B3 C11
There are three kinds of Bs.



2 Construction of Anti-Aircraft Guns.

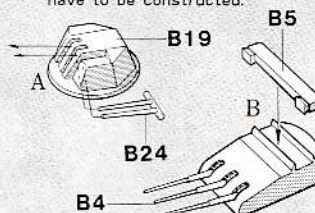
★In all four As and two Bs will have to be constructed.

★B25 and B26 differ in shape.



3 Construction of Anti-Aircraft Guns and Secondary Guns

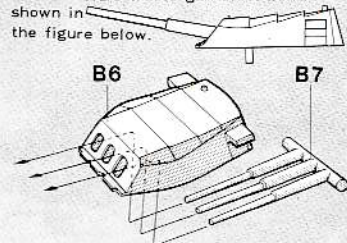
★In all six As and two Bs will have to be constructed.



4 Construction of Main Guns

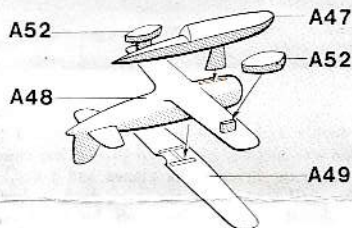
★In all, three Main Guns will have to be constructed.

★Desirable gun elevation is shown in the figure below.



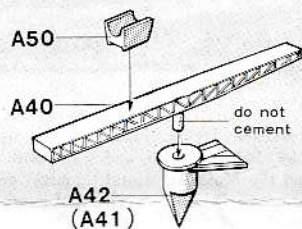
5 Construction of Observation Planes

★In all, three Observation Planes will have to be constructed.

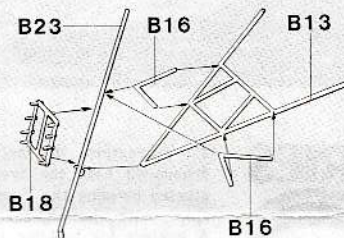


6 Construction of Catapults

★In all, two Catapults will have to be constructed.

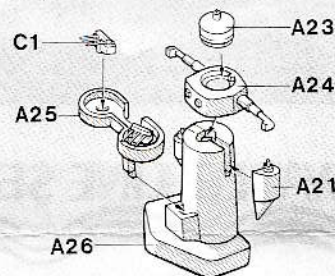


7 Construction of Yard

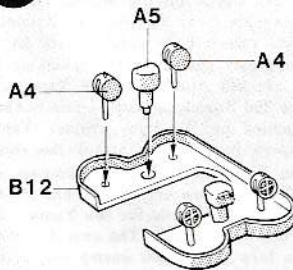


8 Construction of Rear Bridge

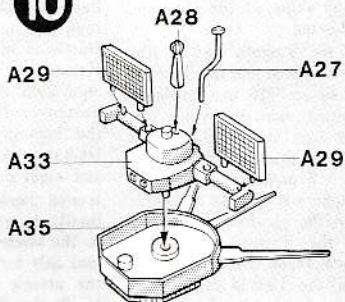
★First-glue A21 in place.



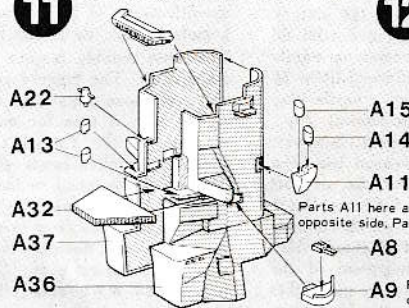
9 Construction of Search-light Tower



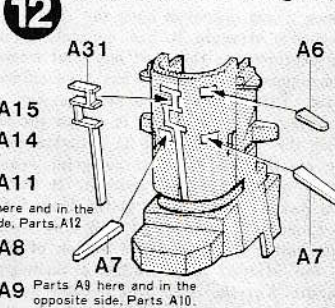
10 Construction of Bridge (1)



11 Construction of Bridge (2)

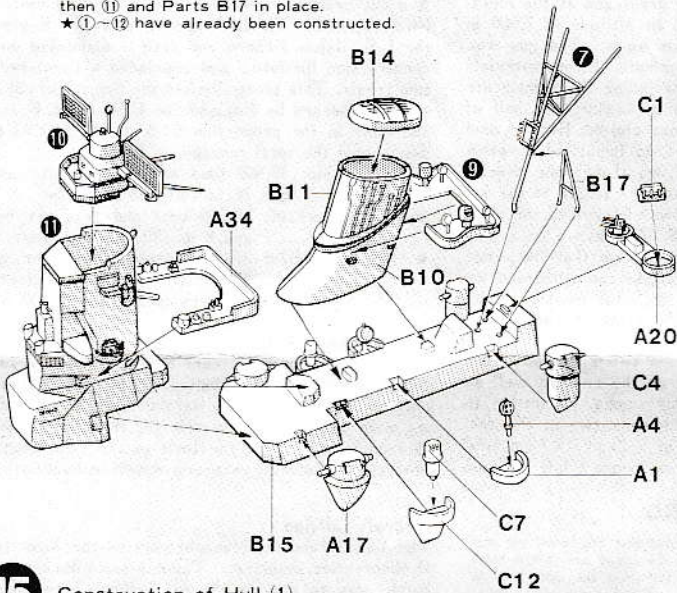


12 Construction of Bridge (3)



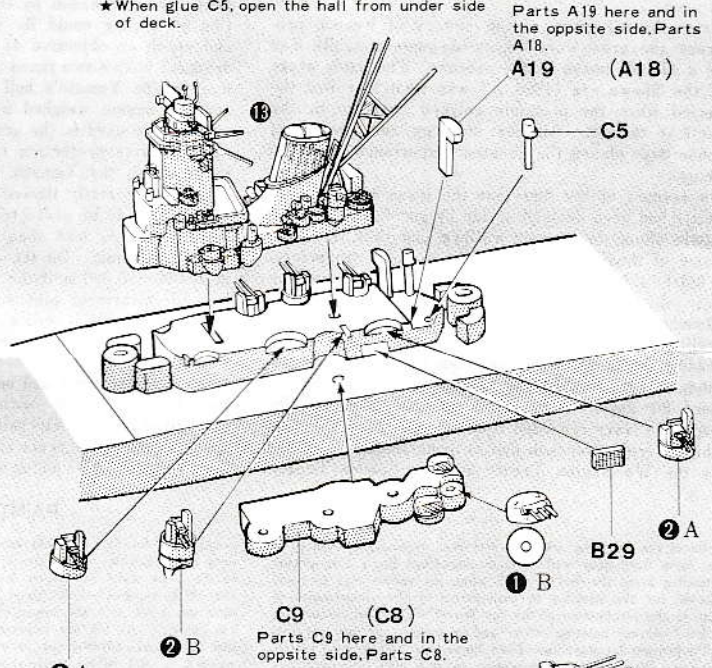
13 Construction of Bridge, Funnel, and Superstructure

★First, glue Parts B10, B11, B14 and ⑨ and then ⑩ and Parts B17 in place.
★①-⑫ have already been constructed.



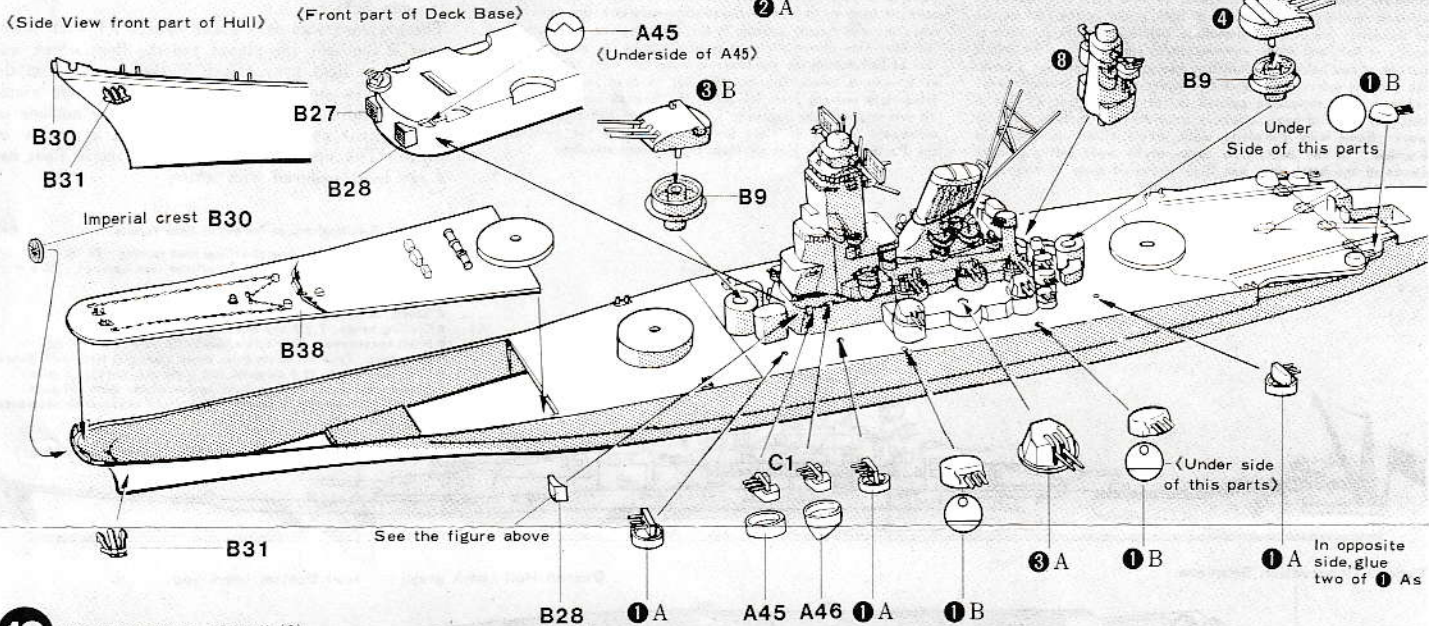
14 Construction of Center portion of Hull

★First, glue ⑬
★Glue B29 and then glue C8, C9.
★When glue C5, open the hull from under side of deck.



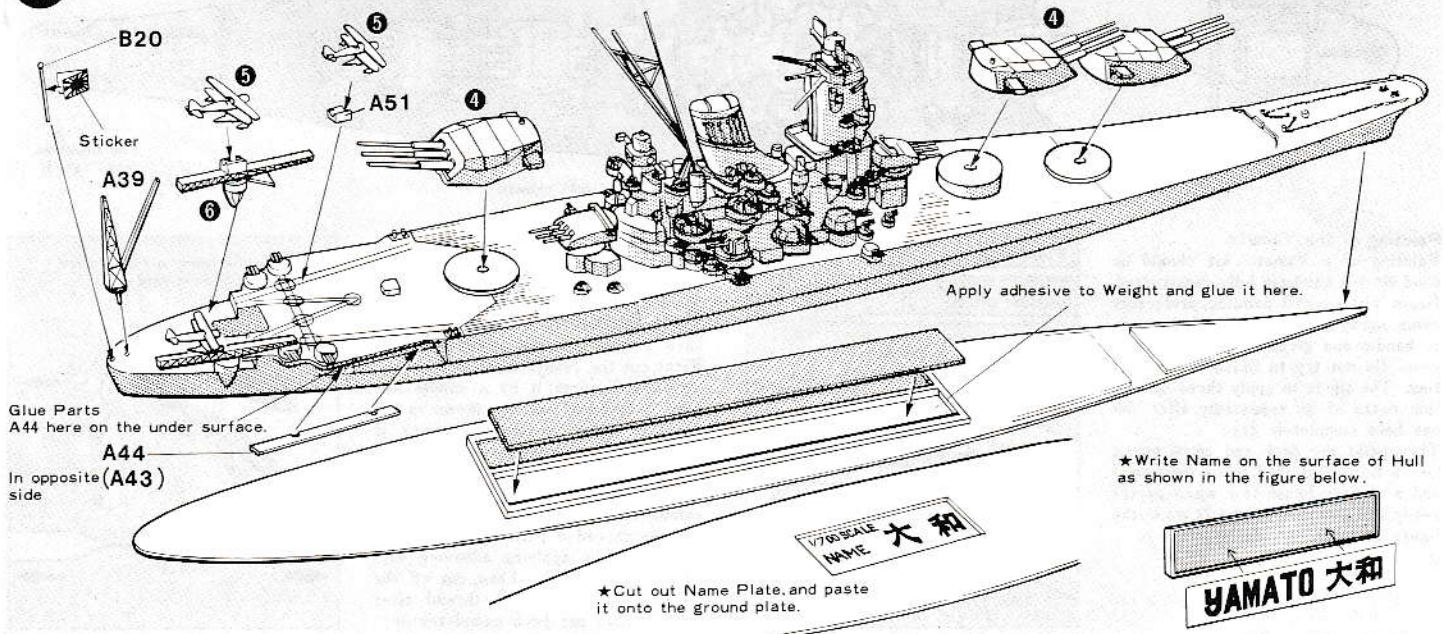
15 Construction of Hull (1)

★When glue M.G.s, open the hulls from underside of deck.



16 Construction of Hull (2)

In opposite side (B27)



★Write Name on the surface of Hull as shown in the figure below.

★Cut out Name Plate, and paste it onto the ground plate.