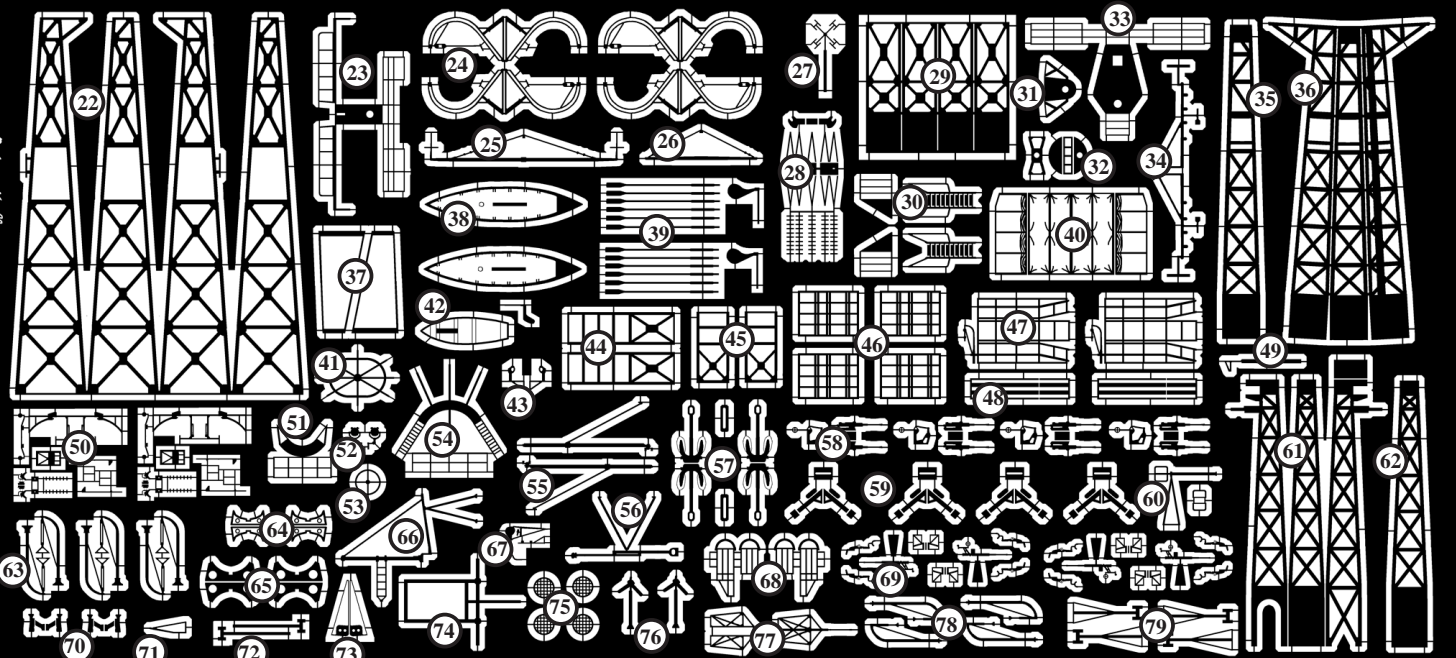
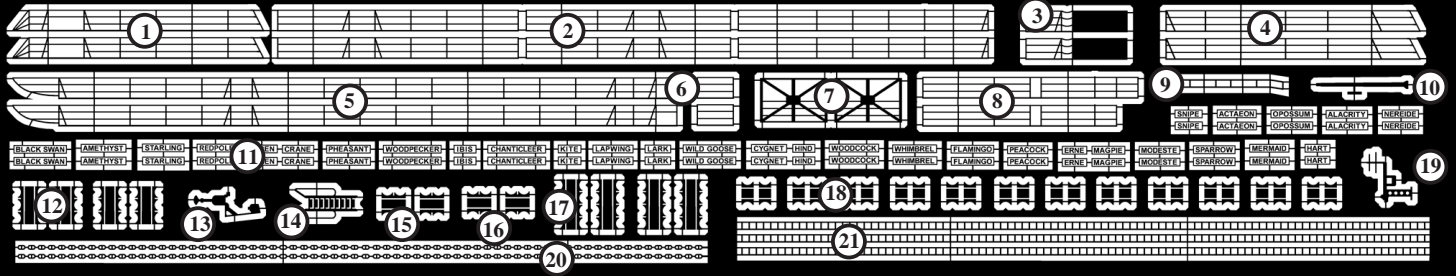


When assembling a Resin / Photoetched metal kit, certain precautions must first be taken.

1. Resin dust can be harmful if inhaled. It is recommended that you wear a suitable dust mask when drilling or sanding resin parts.
2. Cyano adhesives (super glues) are generally used to assemble this type of kit. Care must be taken when using this type of adhesive as it will bond in seconds. Follow the advice on the container.
3. Wash resin parts in a solution of warm soapy water before assembly. This will remove any residual mold release agents and ensure a good key for painting.
4. Soak photoetch parts in a suitable solvent, such as white spirit, to degrease the surfaces prior to painting.

List of Photo Etched Metal Parts

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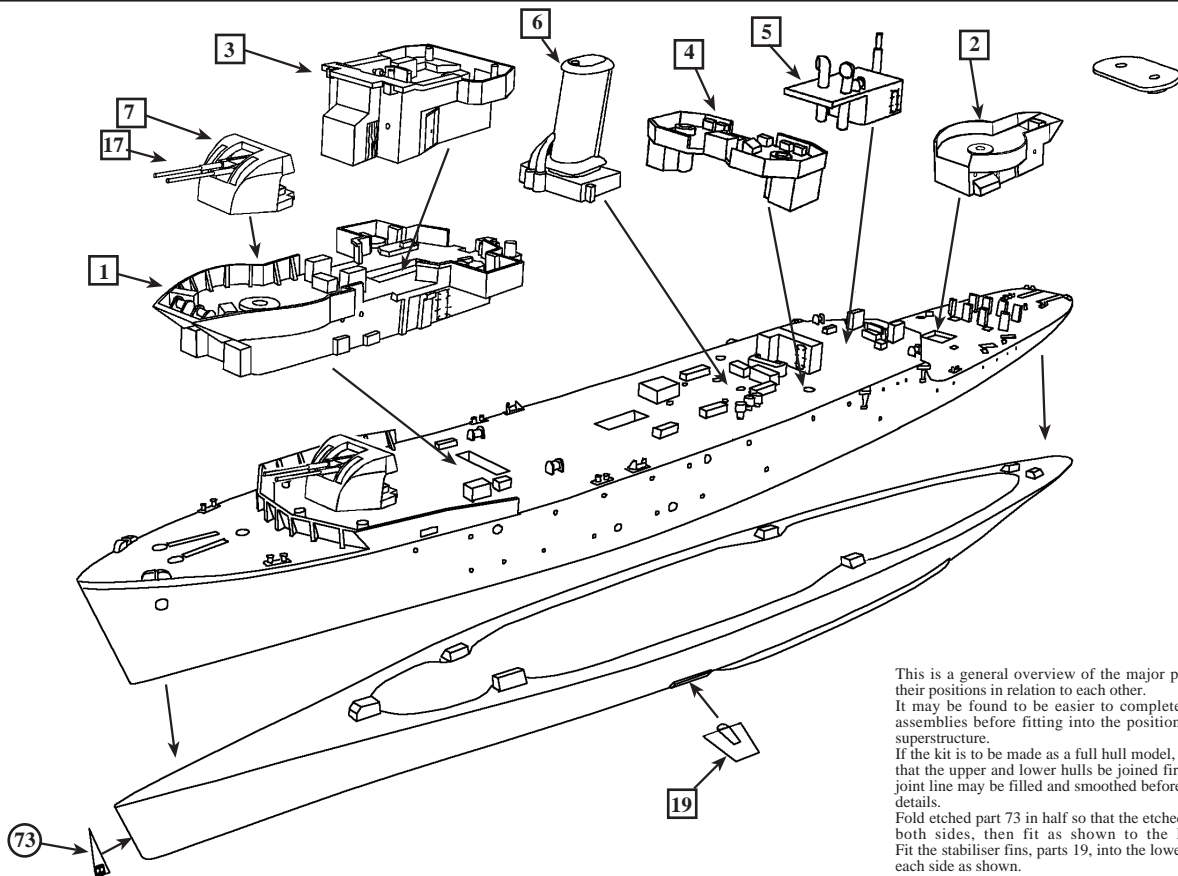
Black Swan Class Frigates 1/350 Scale

- | | | | |
|--|---------------------------------|------------------------------------|---------------------------------------|
| 1. Railings (Amethyst Bow) | 21. Vertical Ladder Stock | 41. Funnel Cap Grill | 61. Lattice Main Mast (Starling Late) |
| 2. Railings (Focle Deck) | 22. Lattice Mast (Tall) | 42. 14' Dinghy Thwarts and Rudder | 62. Lattice Main Mast Front |
| 3. Railings (B Gun Deck) | 23. Mast Top Platform and Yards | 43. Funnel Sirens | 63. Depth Charge Handling Davits |
| 4. Railings (Bow) | 24. Boat Davits | 44. Forward Carley Raft Racks | 64. 14' Dinghy Cradles |
| 5. Railings (Quarterdeck) | 25. Tripod Foremast Lower Yard | 45. Aft Carley Raft Racks | 65. 25' Admiralty Cutter Cradles |
| 6. Railings (Hull Step Early) | 26. Tripod Foremast Upper Yard | 46. Vertical Depth Charge Racks | 66. Stern Boat Boom |
| 7. Forward AA Deck Supports | 27. 291 Radar Antenna | 47. Depth Charge Stern Rails | 67. 25' Admiralty Cutter Fittings |
| 8. Railings (Searchlight Platform) | 28. 285 FC Radar Yagi Antenna | 48. Depth Charge Stern Rail Tracks | 68. Rocket Flare Launcher Frames |
| 9. Bridge Windscreen | 29. Radar Lantern Main Mast | 49. Lattice Main Mast Top Pole | 69. Single 20mm Oerlikons |
| 10. Lattice Mast Top Pole (Early) | 30. Hull Step Inclined Ladders | 50. 40mm Hazemeyer Fittings | 70. Binocular Sights |
| 11. Ships Name Plates | 31. Lattice Mast Lower Platform | 51. Funnel Siren Platform | 71. Radar Lantern Mast Gaff |
| 12. Depth Charge Stowage Rack | 32. 293 Radar Antenna Assembly | 52. Signal Lamps | 72. Stove Pipes |
| 13. Tripod Mast Light Cluster | 33. Lattice Mast Top Platform | 53. Searchlight Lens Cross | 73. Bow Plate |
| 14. Inclined Ladder | 34. Lattice Mast Yardarms | 54. HACs Director Catwalk | 74. Wire Antenna Spreader Mast |
| 15. Depth Charge Stowage Rack (Twin) | 35. Lattice Mast Front | 55. Boat Booms | 75. Cowl Vent Grills |
| 16. Depth Charge Stowage Rack (Triple) | 36. Lattice Mast (Short) | 56. Jack Staff | 76. Bridge Semaphores |
| 17. Depth Charge Stowage Rack (Large) | 37. Tripod Foremast Spacers | 57. Anchors | 77. HF/DF Antenna Assembly |
| 18. Depth Charge Stowage Rack (Single) | 38. 27' Whaler Thwarts | 58. Twin 20mm Gun Fittings | 78. Ammunition Loading Davits |
| 19. Fore Mast ESM Antenna | 39. Whaler Oars and Rudder | 59. Depth Charge Throwers (Alt) | 79. Stove Pipes (Braced) |
| 20. Anchor Chain | 40. Bridge Canopy | 60. Bridge Front DF Antenna | |

General Instructions for working with Photo Etched Metal

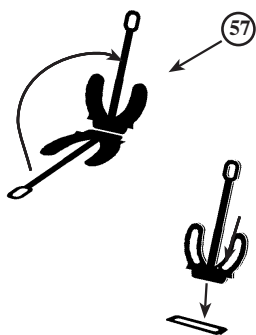
1. Do not remove the etched parts from the fret until you are ready to use them.
2. Before assembly, soak the etched parts in a suitable solvent, such as white spirit, to de-grease the surfaces for painting.
3. Cyanoacrylate adhesive (Super glue) or contact adhesive such as Elmers white glue may be used. These can be applied with a pin or piece of stretched sprue.
4. When removing parts from the fret, place the fret on a hard surface, such as a smooth ceramic tile, in order to prevent parts bending whilst cutting through the holding tabs. It is suggested that a #11 type of modelling knife blade is used for this purpose.
5. When shaping or bending a part, a straight edged blade such as a chisel blade #17 or # 18 will give a good sharp corner, or alternatively a small pair of smooth jawed pliers may be used.
6. If a part is bent incorrectly, lay it on a hard flat surface and roll it flat with a cylindrical object such as a modelling knife handle.
7. It is suggested that rails are pre-measured, where practical, using a pair of compass dividers and then tacked to the deck edge every third or fourth stanchion with a small drop of glue. When a section is complete, run a thin line of glue along the inside edge to attach it firmly to the deck.

Main Component Location



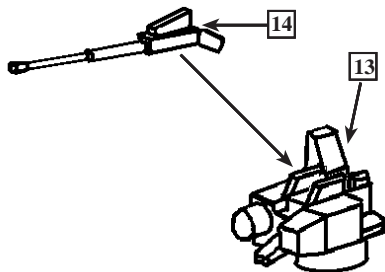
This is a general overview of the major parts in the kit and their positions in relation to each other.
 It may be found to be easier to complete some of the sub assemblies before fitting into the position on to the hull or superstructure.
 If the kit is to be made as a full hull model, it is recommended that the upper and lower hulls be joined first of all. Then any joint line may be filled and smoothed before adding any of the details.
 Fold etched part 73 in half so that the etched details appear on both sides, then fit as shown to the lower hull stem. Fit the stabiliser fins, parts 19, into the lower hull positions on each side as shown.

Anchor Assembly



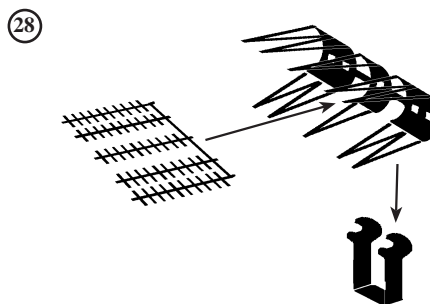
Assemble photo etched anchors 57 as shown above, by fitting the fluke base into the slot in the tipper palm.
 Fit anchors into the hawse pipes each side of the bow, after first drilling out the holes with a 1.5mm drill bit.

40 mm Bofors Gun Mounting



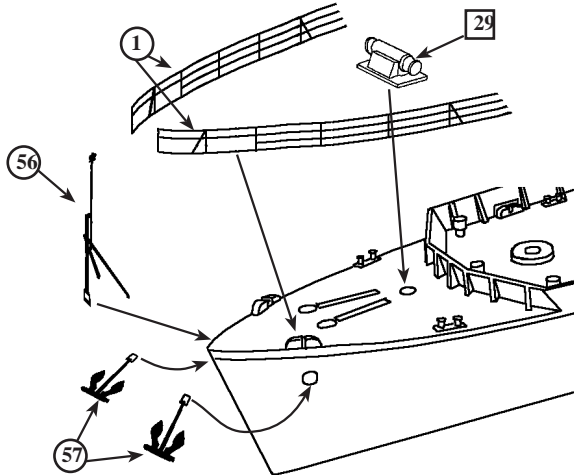
Fit the body of the 40mm Bofors gun, part 14, into the recess on the top of the Gun Mounting, part 13. The gun may be set at any desired angle of elevation before securing into place.

285 Yagi Antenna



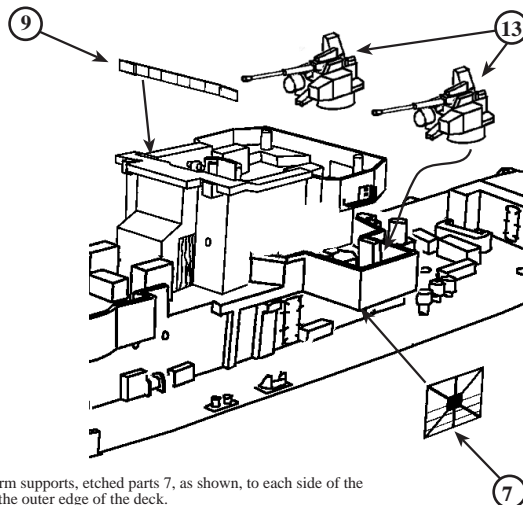
Assemble the 285 Fire Control antenna by folding a gentle curve on to the rectangular reflectors then folding over the stays so that they face forwards.
 Fit the set of dipoles centrally on to the reflector faces, locating the pegs into the slots. Nip the pointed ends of the stays together so that they trap the centre bar of the dipoles between them. Fit the mounting arms to the spindles between the reflectors.
 The complete assembly then fit on to the top of the main gun director part 28, so that the points face over the front of the director.

Fo'c'sle Fittings



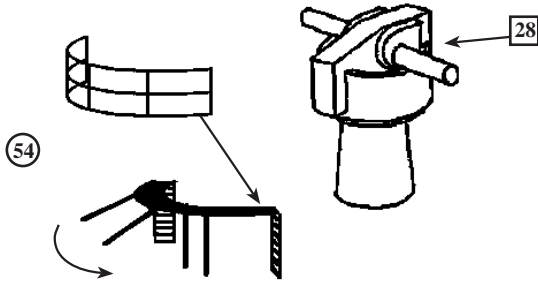
Fit the etched parts on to the fo'c'sle area as shown. Etched anchor chain, part 20, has been provided to fit between the hawse pipe holes and the Windlass, part 29.

Forward Superstructure



Fit the gun platform supports, etched parts 7, as shown, to each side of the superstructure at the outer edge of the deck.
 Shape and fit the bridge windshield, etched part 9.

HACs Mk3 Director Assembly



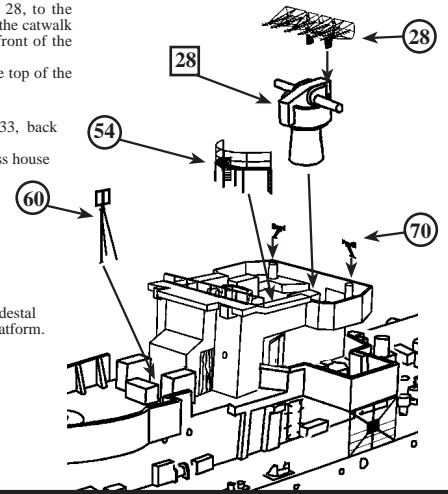
Fold the support legs and vertical ladders to 90° on the HACs Director catwalk, etched part 54. Curve and fit the safety rail as shown. Note. This catwalk does not fit directly on to the director, but sits on the bridge deck by its support frame, just in front of the director.

Bridge and Director Fittings

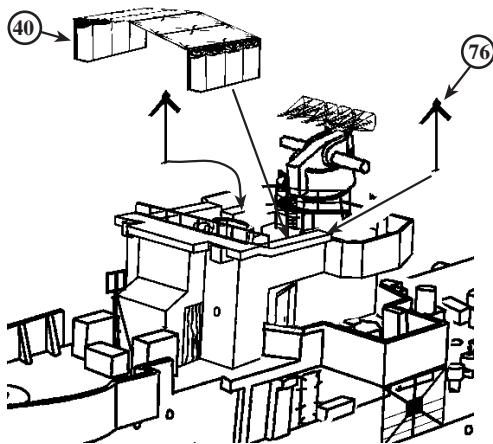
Assemble the Mk 3 Director, part 28, to the bridge deck. Then locate and secure the catwalk assembly 54, centrally and just in front of the director. Fit the 285 yagi assembly, 28, to the top of the director as shown.

Fold the legs of the HF/DF antenna, 33, back to the position shown right. Fit the antenna in front of the wireless house as shown.

Fit the binocular sights, 70, to the pedestal mounts on each side of the signal platform.

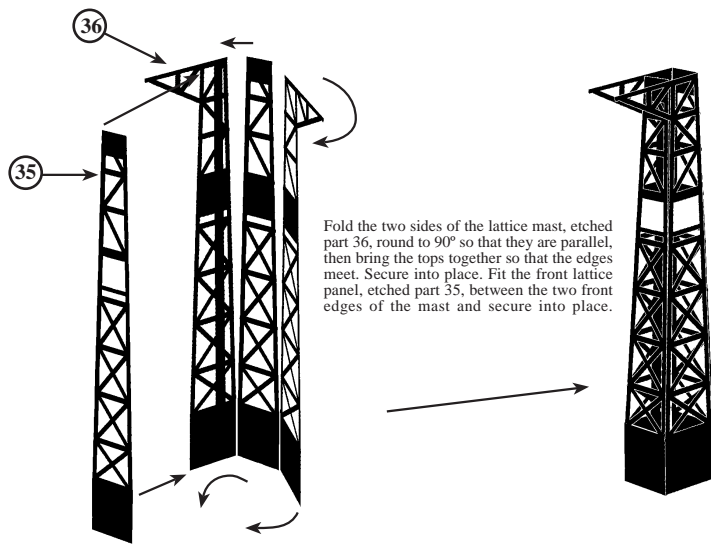


Bridge Canopy



If it is desired to fit the bridge canopy, fold down the side supports of etched part 40. Fold along the centre line so that the roof has a slight run off on each side as shown above. Locate the support frame to the tops of the bridge bulwarks. For the early version of the ship, fit the semaphores, etched parts 76, against the rear uprights of the canopy frame.

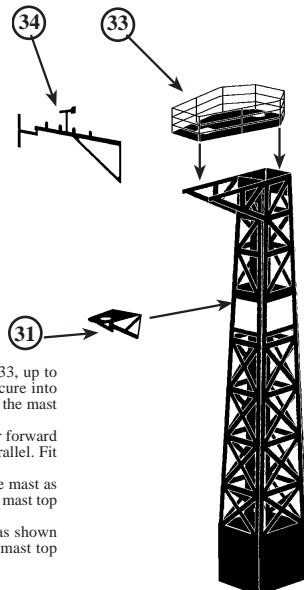
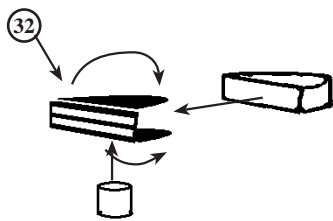
Fore Mast Assembly



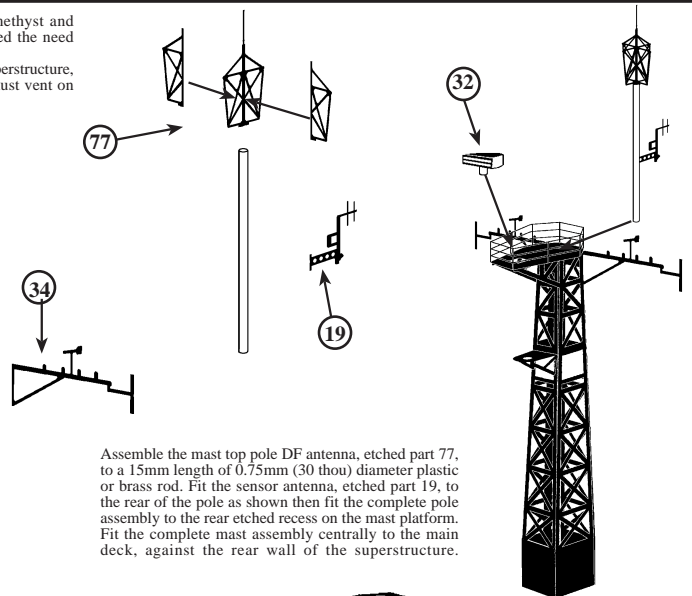
Fold the two sides of the lattice mast, etched part 36, round to 90° so that they are parallel, then bring the tops together so that the edges meet. Secure into place. Fit the front lattice panel, etched part 35, between the two front edges of the mast and secure into place.

Fore Mast Assembly and Location

This type of late mast assembly was fitted to Amethyst and housed the new 293 Radar antenna which eliminated the need for a lantern style radar and its mast. First remove the housing on the aft of the forward superstructure, part 1. Take care not to remove the mushroom exhaust vent on the port side of the structure.



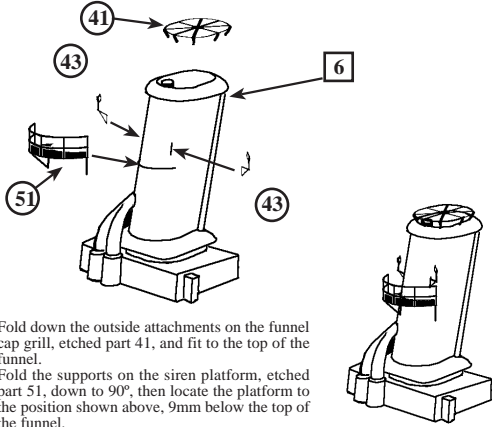
Fold the railings on the top platform, etched part 33, up to 90° and shape to fit the edges of the platform. Secure into place at the aft corners. Fit into place on the top of the mast as shown right. Fold down the two support brackets on the smaller forward platform, etched part 31, to 90° so that they are parallel. Fit to the front of the lookout position as shown. Fit the yardarms, etched parts 34 to the sides of the mast as shown so that the horizontal bar is parallel with the mast top platform. Assemble the 293 radar antenna, etched part 32, as shown above and fit to the forward etched recess on the mast top platform.



Assemble the mast top pole DF antenna, etched part 77, to a 15mm length of 0.75mm (30 thou) diameter plastic or brass rod. Fit the sensor antenna, etched part 19, to the rear of the pole as shown then fit the complete pole assembly to the rear etched recess on the mast platform. Fit the complete mast assembly centrally to the main deck, against the rear wall of the superstructure.

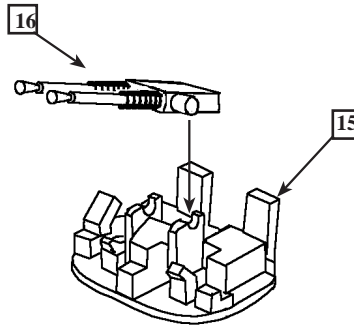


Funnel Assembly



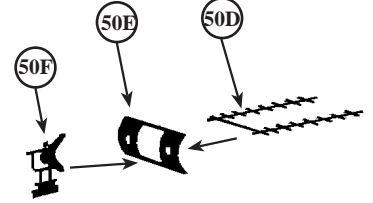
Fold down the outside attachments on the funnel cap grill, etched part 41, and fit to the top of the funnel.
 Fold the supports on the siren platform, etched part 51, down to 90°, then locate the platform to the position shown above, 9mm below the top of the funnel.
 Fit the sirens, parts 43, to each side. Locate the funnel assembly to the main deck just forward of the amidships AA platform.

40mm Bofors (Hazemeyer)



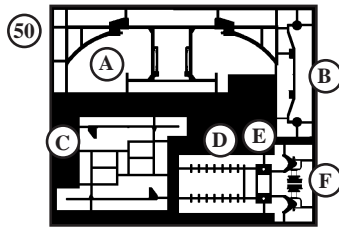
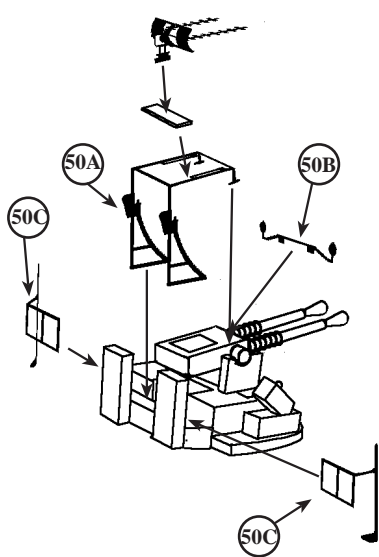
Assemble part 16 into the desired position on the base part 15. The angle of elevation can be fixed as desired for any display or diorama scene.

Hazemeyer Yagi Assembly

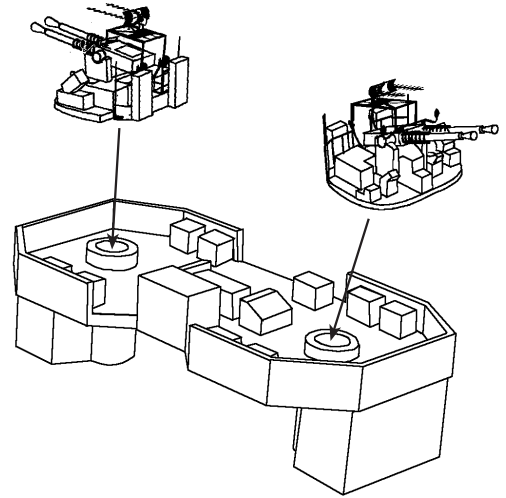


Assemble the yagi radar antennas by curving the rectangular dishes of etched parts 50E as shown. Fit the dipoles in to the holes in the centre of the dishes do that they are parallel.
 Fold part 50F in half so that the etched detail is outermost, then attach centrally to the two joining bars between the radar dishes.

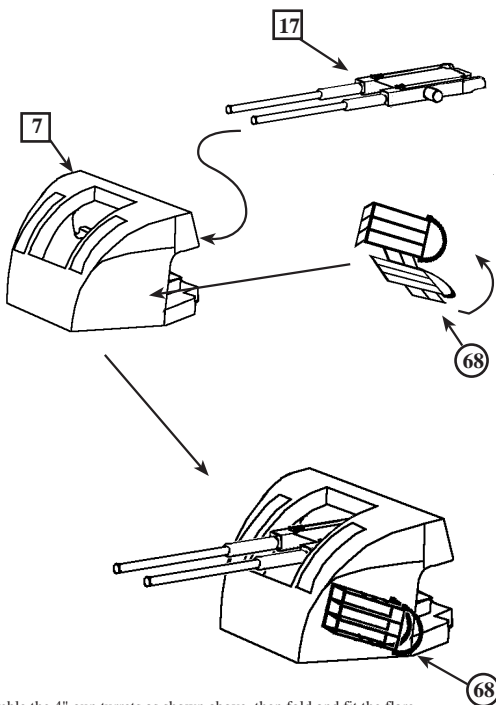
40mm Bofors (Hazemeyer) Assembly or 20mm Early Fit



Fold the central mounting frame, part 50A, so that the sides are parallel.
 Fit the frame so that the main legs fit behind the gun barrels and the small forward feet fit on top of the gun body.
 Fit a small strip of thin (10thou) plasticard across the top of the frame on which to mount the yagi antenna as shown left.
 Fit the rear railings and gunsights to the positions shown.

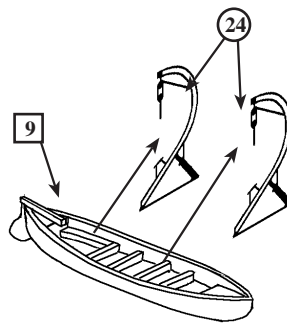


4" HA/LA Gun Mounting



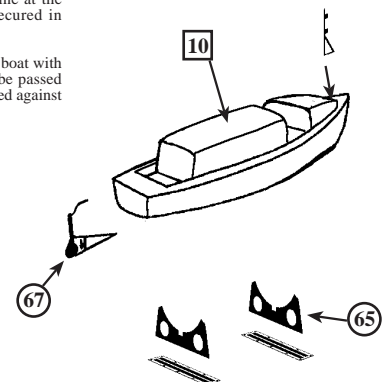
Assemble the 4" gun turrets as shown above, then fold and fit the flare rocket launcher, etched parts 68, to each side of 'B' turret only.

Ships Boats Assembly

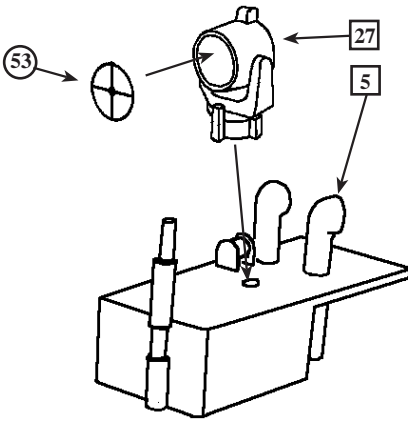


Fit the etched details to the 25' Motor Cutter and then fit the boat into the cradles, etched parts 65, provided.

To assemble the davits, fold each one along the etched line at the base of the davit, so that the two sides meet and are secured in place with glue.
 Ensure that the etched detail is facing outward.
 To fit the boat to the davits, drill through the bottom of the boat with a .3 drill bit at points adjacent to the falls. The falls can be passed through the bottom of the boat allowing the boat to be secured against the davits.

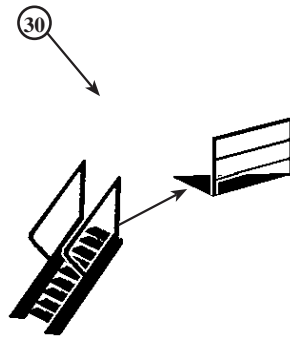


Searchlight Fitting



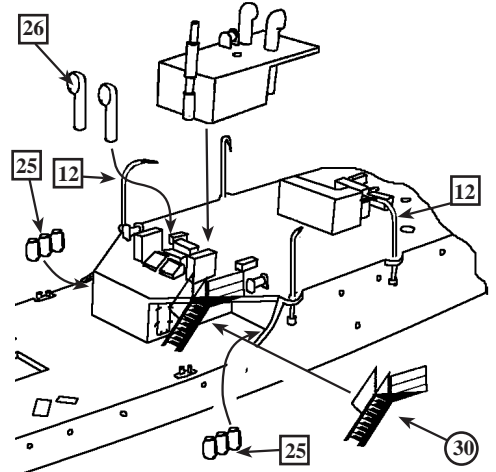
Assemble the lens cross, etched part 53 to the front of the searchlight, metal part 27 as shown above. Fix the complete assembly to the top of the aft deck house. Resin part 5.

Aft Ladder Assembly



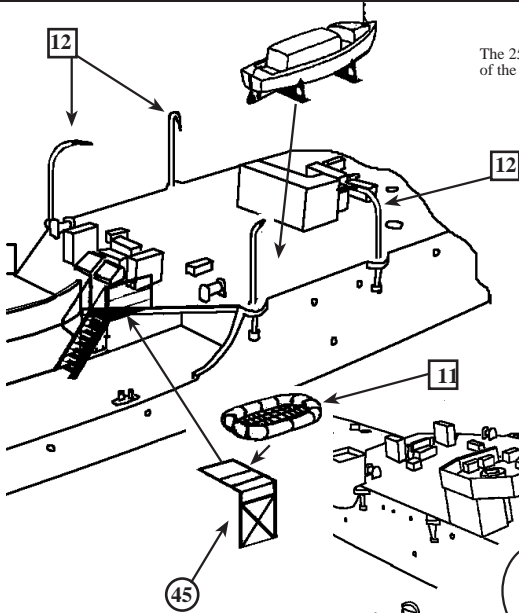
Assemble the two quarter deck step ladders as shown above. The steps may be angled so that they are flat, by using a pair of needle point tweezers. Ensure that the angled landings are made as mirror images of each other, so that they fit to port and starboard sides of the step.

Deck Step Area Fittings



Fit the cowl vents, parts 26, into the holes in the deck that are located between the ammunition lockers. Fit the smoke generator canisters, 25 to the deck inside the sloped fairing. Fit the aft boat davits, parts 12, to the protruding brackets as shown.

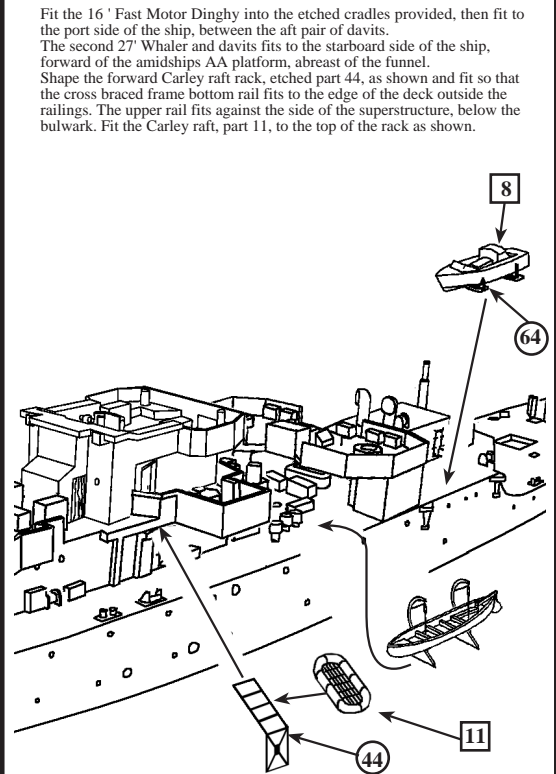
Ships Boats Location (Starboard)



The 25' Motor Cutter assembly fits to the starboard side of the ship, between the aft pair of davits.

One 27' Whaler and davits fits to the starboard side of the ship, forward of the amidships AA platform, abreast of the funnel. Shape the forward Carley raft rack, etched part 44, as shown and fit so that the cross braced frame bottom rail fits to the edge of the deck outside the railings. The upper rail fits against the side of the superstructure, below the bulwark. Fit the Carley raft, part 11, to the top of the rack as shown.

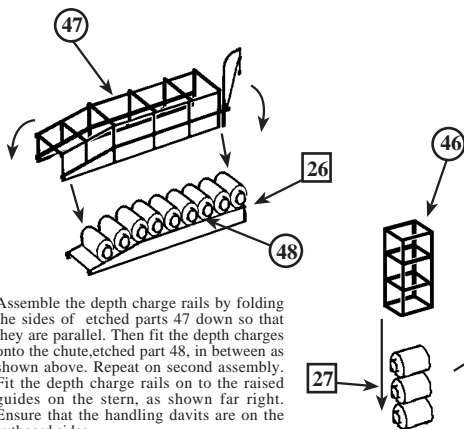
Ships Boats Location (Port)



Fit the 16' Fast Motor Dinghy into the etched cradles provided, then fit to the port side of the ship, between the aft pair of davits.

The second 27' Whaler and davits fits to the starboard side of the ship, forward of the amidships AA platform, abreast of the funnel. Shape the forward Carley raft rack, etched part 44, as shown and fit so that the cross braced frame bottom rail fits to the edge of the deck outside the railings. The upper rail fits against the side of the superstructure, below the bulwark. Fit the Carley raft, part 11, to the top of the rack as shown.

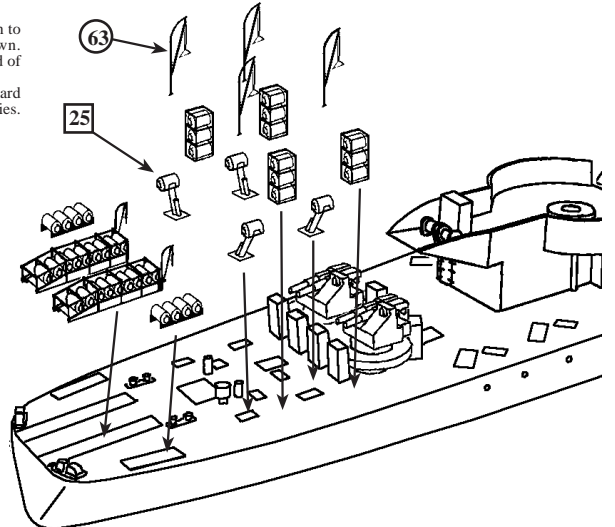
Depth Charge Delivery Systems Assembly



Assemble the depth charge rails by folding the sides of etched parts 47 down so that they are parallel. Then fit the depth charges onto the chute, etched part 48, in between as shown above. Repeat on second assembly. Fit the depth charge rails on to the raised guides on the stern, as shown far right. Ensure that the handling davits are on the outboard sides.

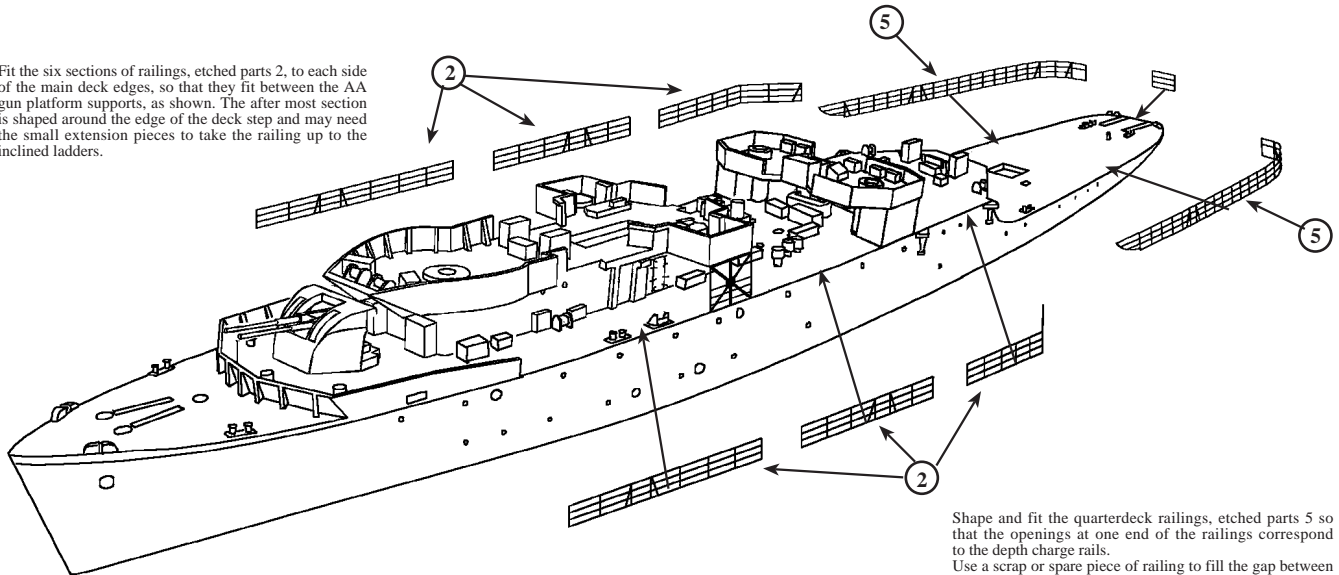
Fold the frames of etched parts 46 around, to make a box section as shown, then fit a stack of three depth inside the frame. Make four of these. These were the ready use depth charges for the side throwers.

Fit the depth charge throwers, parts 25, on to the raised guides on the deck as shown. Fit a depth charge stack assembly forward of each depth thrower. Fit a handling davit, etched part 63, inboard of each of the depth charge stack assemblies.



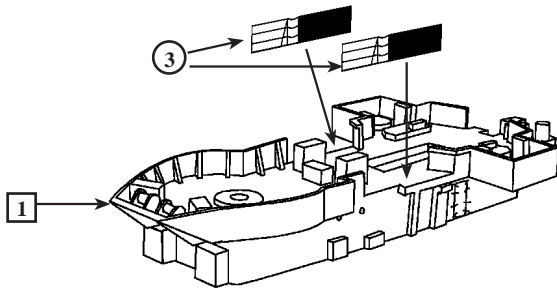
Main Deck and Quarterdeck Railing Location

Fit the six sections of railings, etched parts 2, to each side of the main deck edges, so that they fit between the AA gun platform supports, as shown. The after most section is shaped around the edge of the deck step and may need the small extension pieces to take the railing up to the inclined ladders.



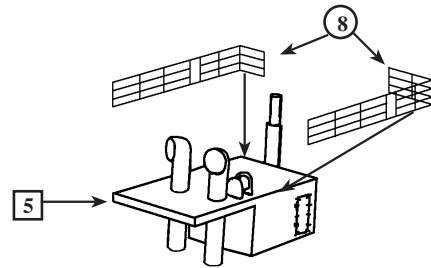
Shape and fit the quarterdeck railings, etched parts 5 so that the openings at one end of the railings correspond to the depth charge rails. Use a scrap or spare piece of railing to fill the gap between the depth charge rails.

'B' Gun Deck Railing Location



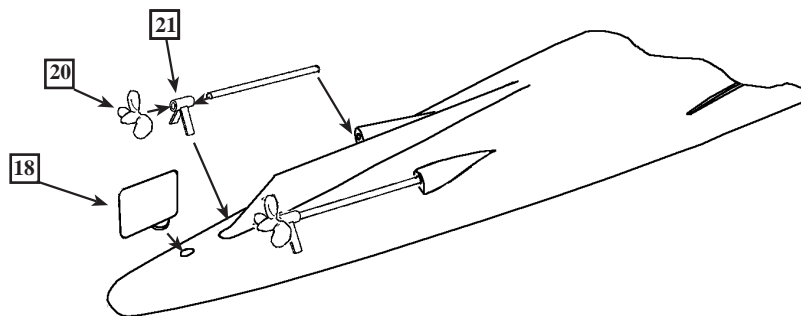
Fit the railing sections, etched parts 3, to the sides of 'B' gun deck. Vertical ladder, etched part 21, may be cut to length and fitted to the sides of the superstructure below the narrow gap in the railing stanchions.

Searchlight Platform Railings



Fit the railing sections, etched parts 8, to the sides of the searchlight platform. Vertical ladder, etched part 21, may be cut to length and fitted to the sides of the deck house below the narrow gap in the railing stanchions.

Propeller and Rudder Assembly



If the ship is to be modelled full hull, the running gear will be required. Fit the propellers to the 'A' frames as shown, then cut two pieces of .75mm (32thou) brass rod to the length of 15mm to use as shafts. Assemble the shafts and propellers as shown above. The legs of the 'A' frames may be over length to allow that they may be trimmed to achieve the correct position. Fit the rudder, part 18, into the central locating hole.

Other Instructions

1. Cowl vent grills, etched parts 75, are provided to fit over the cowl vent openings if desired.
2. Signal lamps, etched parts 52, are provided to fit on to the bulwarks of the signal platforms on either side of the bridge.
3. Sufficient name plates, etched parts 11, have been provided to enable the modeller to build any of the war survivors of the Black Swan class. These are fitted on each side of the aft superstructure section below the aft 4" gun mounting.
4. The ensign staff, etched part 66, come with the aft boat boom fitted as an integral part. The boom may be removed with a sharp knife if desired, so that the ensign staff may be fitted clean, on the stern, between the depth charge rails.
5. Anchor chain, etched parts 20, has been supplied in sufficient lengths to enable the modeller to portray the ship at anchor in a diorama setting. These lengths can be run from the windlass on the focsle, through the hawse pipe holes, down to the surface of the water scape.
6. The photo etched set provided in this kit, is a universal set that covers the Black Swan class ships from their WW2 days through to their final appearance. There is also an extra lattice main mast provided, etched parts 61 and 62, to assist any modeller wishing to build HMS Starling or Redpole when they fitted as training ships during the 1950s.

Painting Guide and Colour Chart



AP 507C Light AD Grey
Humbrol 147



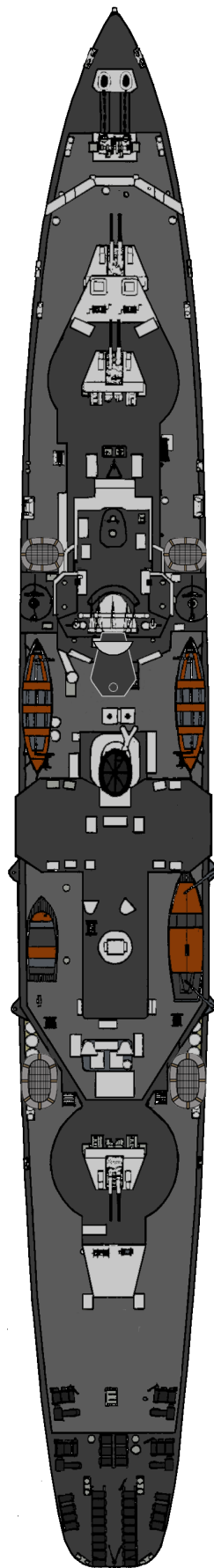
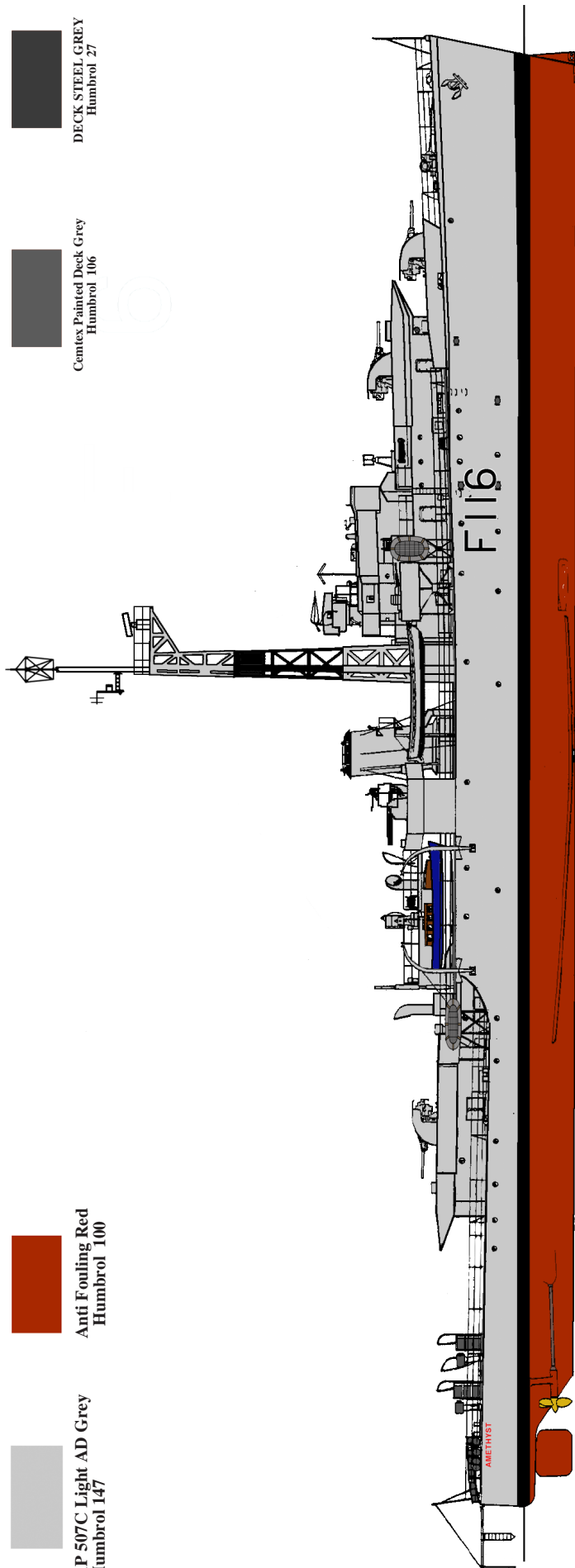
Anti Fouling Red
Humbrol 100



Context Painted Deck Grey
Humbrol 106



DECK STEEL GREY
Humbrol 27



Other Colours Used:-

Funnel Cap and Top Band
Matt Black.....
Waterline Boot Topping, AA
Gun Barrels.

White.. Fore Mast Top Pole, 293 Radar Antenna

Teak Whaler Thwarts

Bronze Propellers

HMS Amethyst 1949

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