

# Type 22 Frigate (Batch 3) H.M.S. Cumberland

## 1/350 Scale

HMS Cumberland was laid down at Yarrow Ship Builders on the Clyde 12th October 1984. Launched 21st June 1986 and Commissioned into service 10th June 1989. She was based at RNB Devonport and assigned to the 8th Frigate Squadron. Her first deployments were to the USA and Canada during 1989 and 90 during which she visited Fort Lauderdale, Baltimore, New York, Montreal and Toronto. On the other extreme HMS Cumberland spent the later part of 1990 and early 91 patrolling the Falkland Islands as South Atlantic Guardship. Later in her career Cumberland was involved in the rescue of the survivors of the Greek ferry, Express Samina, which had run aground off one of the Greek islands. HMS Cumberland was also involved in a major drugs bust in mid Atlantic during 2003. Along with RFA Wave Knight she help seize 3.5 tons of Cocaine. Then in 2005 she stopped and boarded a Go Fast off the coast of Nicaragua, and seized another 2 tons of Cocaine. In 2008 HMS Cumberland was refitted and assigned to anti piracy duties off the Horn of Africa, Red Sea and Persian Gulf and also took turns with other NAOT ships to act as guard ship for ships entering the Gulf. During her last deployment which started in 2010, HMS Cumberland provided escort to the French Carrier FNS Charles de Gaul whilst in the Persian Gulf on patrol. On her return to UK she was diverted to take part in the operation to evacuate British and foreign nationals from Libya. She entered the port of Benghazi on 24th February 2011 and rescued a total of 454 people, transferring them to safety in Malta. Cumberland then took up duties assisting the Royal Navy task group of the coast of Libya. Once her task had been completed she made her final return to Devonport for decommissioning on the 23 June 2011. Finally being sold for scrap in November 2013.

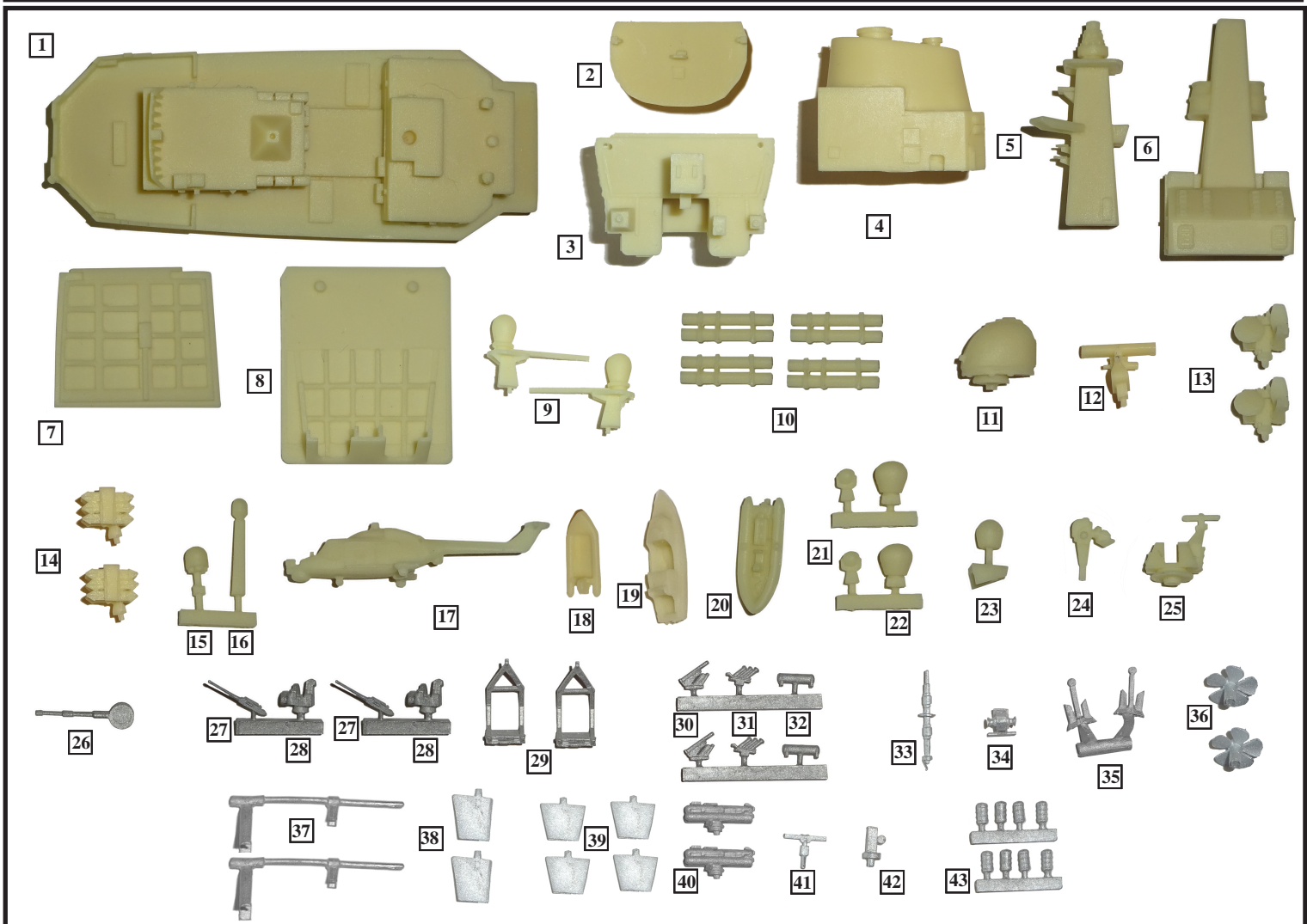
### Specifications

Length 486.75ft (148.1m) Beam 48.5ft (14.8m) Displacement 5,300 tonnes Speed 18kts Cruise 30 kts Max Complement 250 Officers and Men  
 Propulsion 2 x Rolls Royce Marine Spey boost gas turbines 2 x Rolls Royce Tyne RMIC cruise gas turbines

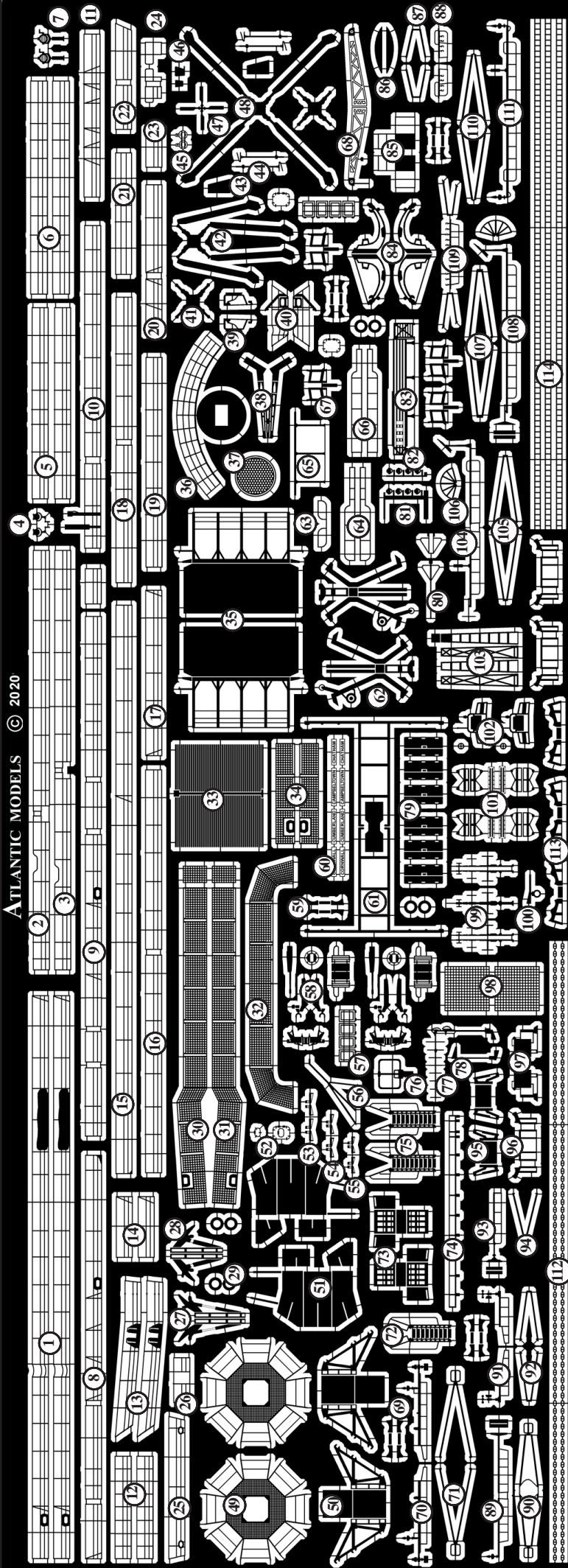
### Armament

1 x 4.5" Mk8 Gun Mounting 2 x Quad Harpoon Missile Launchers 2 x 6 GWS 25 Sea Wolf SAM Launchers 2 x 30mm Oerlikon DS30 Guns  
 1 x Goalkeeper CIWS Mounting 2 x Triple Anti Submarine Torpedo Tubes 2 x Lynx Mk8 Helicopters ( 1 in Peacetime)

### Resin and White Metal Parts



- |                            |                                |                                 |                              |                              |
|----------------------------|--------------------------------|---------------------------------|------------------------------|------------------------------|
| 1. Forward Superstructure  | 10. Harpoon Missile Tubes      | 19. 25° Cheverton Motor Boat    | 28. 30mm DS 30 Gun Mounting  | 37. Propeller Shafts         |
| 2. Bridge                  | 11. 4.5" Mk8 Gun Turret        | 20. Pacific 22 RHIB x 2         | 29. RHIB Davits (Late Fit)   | 38. Rudders                  |
| 3. Engine Air Intake House | 12. 967/ 968 Radar Antenna     | 21. Sea Archer Fire Controllers | 30. Sea Gnat Chaff Launchers | 39. Stabiliser Fins          |
| 4. Funnel (Late)           | 13. 911 Fire Control Directors | 22. SCOT Radomes (Late)         | 31. RBOC Chaff Launchers     | 40. STWS Torpedo Tubes       |
| 5. Fore Mast               | 14. Sea Wolf Missile Launchers | 23. Funnel Front Radome         | 32. DLF Decoy Containers     | 41. 1006 Nav Radar Antenna   |
| 6. Main Mast Unit          | 15. Data Link Radome           | 24. Goal Keeper Gun Barrels     | 33. Main Mast top Antenna    | 42. Small Boat Crane Bases   |
| 7. Hangar Roof             | 16. Radome                     | 25. Goal Keeper Gun Mounting    | 34. Torpedo Decoy Winch      | 43. Liferaft Canisters 4 x 4 |
| 8. Flight Deck (Late)      | 17. Lynx Mk 8 Helicopter x 2   | 26. 4.5" Mk 8 Gun Barrel        | 35. Anchors                  |                              |
| 9. SCOT Radome Platforms   | 18. Gemini Inflatable Boat x 2 | 27. 30mm DS 30 Gun Barrel       | 36. Propellers               |                              |



Batch 3 Type 22 Frigates 1/350 Scale

Peter Hall

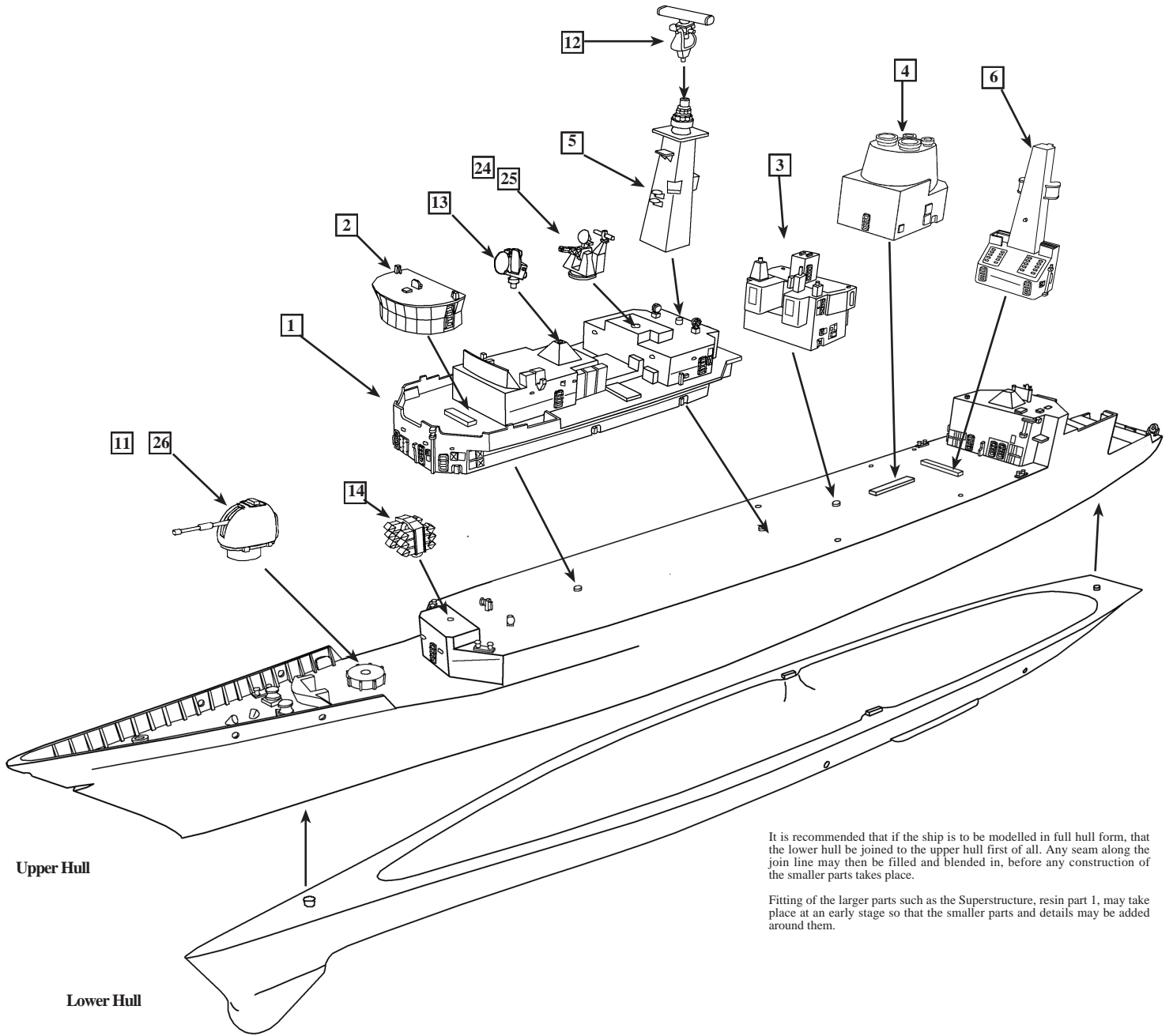
- |   |                                       |                                       |
|---|---------------------------------------|---------------------------------------|
| 1. Railings (Main Deck Forward)         | 58. 20mm GAMBO Assembly               | 87. Yardarm Stays                     |
| 2. Railings (Harpoon Deck Sbd)          | 59. Life Raft Rack (Single)           | 88. Yardarms (Main Mast Lower)        |
| 3. Railings (Harpoon Deck Port)         | 60. Ships Name Plates                 | 89. Yardarms (Fore Mast Aft Quarters) |
| 4. Signal Lamps Small                   | 61. Main Mast Wire Antenna Spreader   | 90. Yardarm Stays                     |
| 5. Railings (SCOT House Deck)           | 62. Cheverton Davit Lower             | 91. Yardarms (Fore Mast Fwd Quarters) |
| 6. Railings (RHIB Platform)             | 63. Bridge Bulwark Rail (Forward)     | 92. Yardarm Stays                     |
| 7. Signal Lamps Large                   | 64. Bridge Bulwark Rail (Front Sides) | 93. Yardarm (Fore Mast Front)         |
| 8. Railings (Main Deck Port Aft)        | 65. Funnel Aire Antenna Spreader      | 94. Yardarm Stays                     |
| 9. Railings (Main Deck Sbd Aft)         | 66. Bridge Bulwark Rail (Aft Sides)   | 95. Decoy Canister Rack               |
| 10. Railings (Forward 911 Deck)         | 67. Life Belt Ejector Rack            | 96. Life Raft Rack (Elevated)         |
| 11. Railings (Fwd Sea Wolf Platform)    | 68. RHIB Crane                        | 97. STWS Control Panels               |
| 12. Railings (SCOT Platforms)           | 69. Life Raft Racks (Single)          | 98. Quarterdeck Aft Safety Nets       |
| 13. Railings (Fo'c'sle)                 | 70. Yardarms (Fore Mast Sides)        | 99. Main Mast Top Antenna Array       |
| 14. Railings (Hull Step Forward)        | 71. Yardarm Stays (Fore Mast Sides)   | 100. Glidepath Lamp Mounting          |
| 15. Railings (Hangar Roof)              | 72. Inclined Ladder (Hull Step Aft)   | 101. RHIB Cradles                     |
| 16. Railings (Aft 911 Deck Sides)       | 73. Flammable Fuel Can Stowage Racks  | 102. RHIB Fittings                    |
| 17. Railings (Aft 911 Deck Fwd)         | 74. Approach Light Array              | 103. Radome Mast Aft                  |
| 18. Railings (Goalkeeper Platform)      | 75. Inclined Ladders (Forward)        | 104. Yardarms (Main Mast Upper)       |
| 19. Railings (Fore Mast Top Platform)   | 76. Bowman DF Antenna                 | 105. Yardarm Stays                    |
| 20. Railings (Fore Mast Deck)           | 77. Hangar Roof Antenna Sbd           | 106. Sword and Shield Antenna         |
| 21. Railings (Nav Radar Platform)       | 78. Hangar Roof Antenna Port          | 107. Yardarm Stays                    |
| 22. Railings (Flt Deck Sbd Forward)     | 79. Ammunition Locker Doors           | 108. Yardarms (Mid Lower)             |
| 23. Railings (Fore Mast Deck Fwd)       | 80. Bridge Roof DF Antenna            | 109. Yardarms (Funnel Wire Spreaders) |
| 24. Railings (Transom)                  | 81. Flight Deck Lights (Sbd)          | 110. Yardarm Stays                    |
| 25. Railings (SCOT House Deck Aft)      | 82. Flight Deck Lights (Port)         | 111. Yardarms (Main Mast Top)         |
| 26. Railing (Boat Crane Platform)       | 83. Accommodation Ladder (Stowed)     | 112. Anchor Chain                     |
| 27. RAS Gantry Aft                      | 84. Cheverton Davits Upper            | 113. Life Raft Racks (Double)         |
| 28. RAS Gantry Forward                  | 85. Main Air Intake Platforms         | 114. Vertical Ladder Stock            |
|   | 86. Propeller Guards                  |                                       |
| 29. Life Belts                          |                                       |                                       |
| 30. Flight Deck Nets (Port)             |                                       |                                       |
| 31. Flight Deck Nets (Sbd)              |                                       |                                       |
| 32. Flight Deck Nets (Stern)            |                                       |                                       |
| 33. Hangar Doors                        |                                       |                                       |
| 34. 30mm Gun Deck Nets                  |                                       |                                       |
| 35. RHIB Platforms                      |                                       |                                       |
| 36. 9677/968 Radar Platform             |                                       |                                       |
| 37. Flight Deck Hold Down Grid          |                                       |                                       |
| 38. Small Inflatable Boat Crane         |                                       |                                       |
| 39. Main Mast Antenna Terminals         |                                       |                                       |
| 40. Railings (Quarterdeck Sides)        |                                       |                                       |
| 41. Lynx Helicopter (Rotor Hub)         |                                       |                                       |
| 42. Lynx Helicopter (Main Rotor Folded) |                                       |                                       |
| 43. Lynx Helicopter (Tail Plane)        |                                       |                                       |
| 44. Lynx Helicopter (Rotor Blade Poles) |                                       |                                       |
| 45. Lynx Helicopter (Tail Fold Joint)   |                                       |                                       |
| 46. Lynx Helicopter (Blade Aerials)     |                                       |                                       |
| 47. Lynx Helicopter (Tail Rotor)        |                                       |                                       |
| 48. Lynx Helicopter (Main Rotor)        |                                       |                                       |
| 49. 911 Director Platforms              |                                       |                                       |
| 50. Harpoon Missile Tube Support Frame  |                                       |                                       |
| 51. Harpoon Missile Blast Deflectors    |                                       |                                       |
| 52. Deck Hatch                          |                                       |                                       |
| 53. Fore Mast ESM Sensors Upper         |                                       |                                       |
| 54. Fore Mast ESM Sensors Mid           |                                       |                                       |
| 55. Fore Mast ESM Sensors Lower         |                                       |                                       |
| 56. Main Mast Gaf                       |                                       |                                       |
| 57. Small Arms Gun Shields              |                                       |                                       |

## General Precautions

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.

### Main Component Location



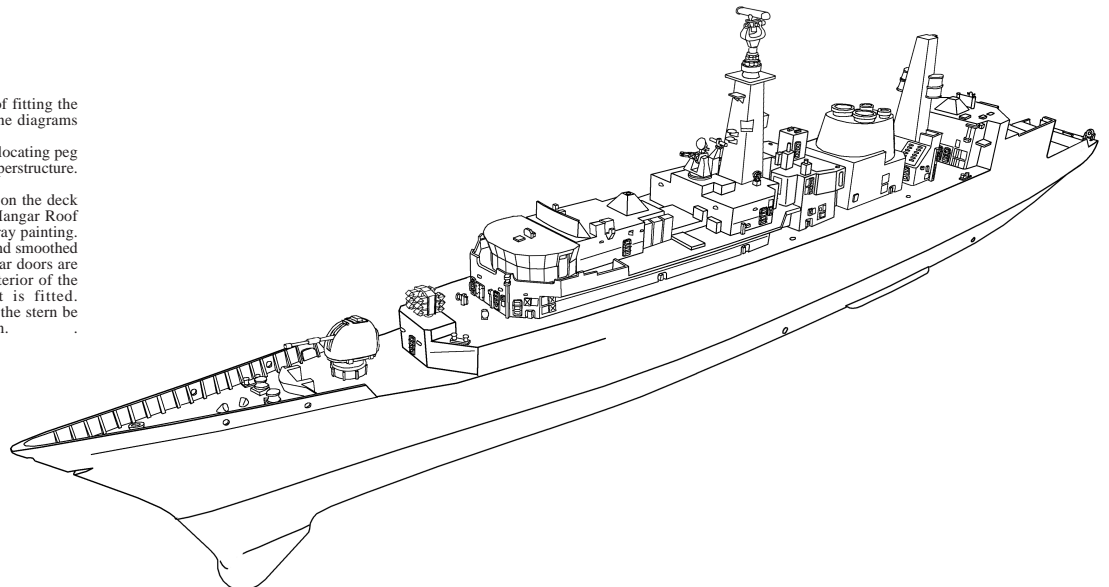
It is recommended that if the ship is to be modelled in full hull form, that the lower hull be joined to the upper hull first of all. Any seam along the join line may then be filled and blended in, before any construction of the smaller parts takes place.

Fitting of the larger parts such as the Superstructure, resin part 1, may take place at an early stage so that the smaller parts and details may be added around them.

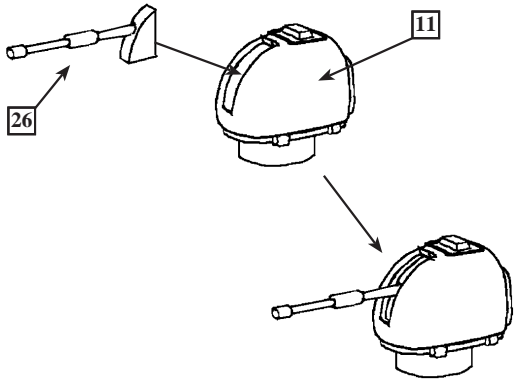
When the model has been constructed to the stage of fitting the masts into place, assemble the masts according to the diagrams in further sections.

Fit the assembled fore mast down to the deck over a locating peg in the centre of the rear deck house on the forward superstructure.

The main mast locates centrally on the location bar on the deck behind the funnel. Fit the Funnel, Intake Box and Hangar Roof into place also the Bridge and Flight Deck before spray painting. This is so that any seams in the joints may be filled and smoothed prior to painting. It is recommended that if the hangar doors are to be in the open position on the model, that the interior of the hangar be painted before the roof component is fitted. Also it is recommended that the quarterdeck area at the stern be painted before fixing the Flight Deck into position.

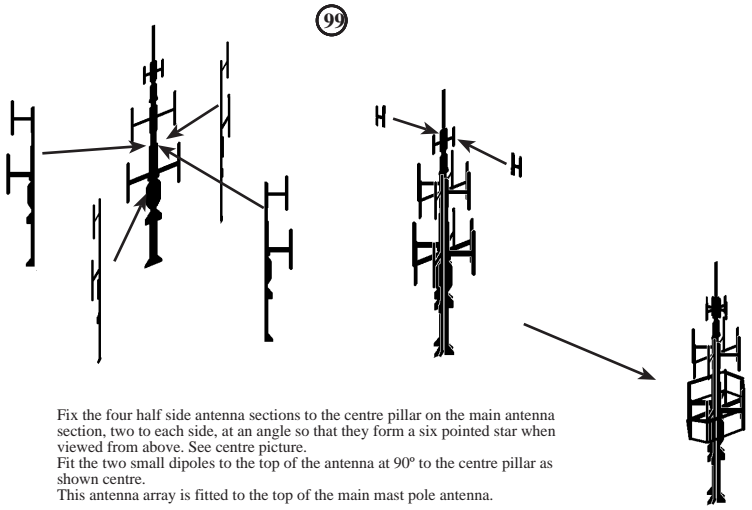


### 4.5" Gun Turret Assembly



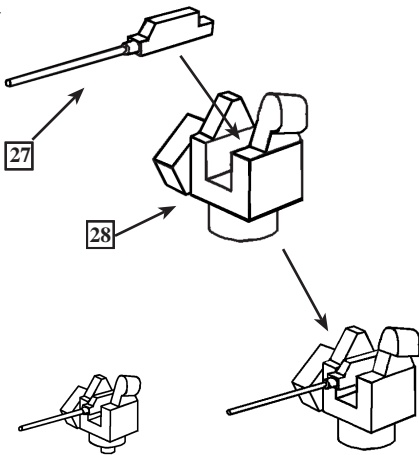
The Gun Turret, Part 11, supplied in this kit is the Mk8 Mod 0, which is the original version of this gun and fitted to the Batch 3 Type 22s in their early days. These were eventually replaced by the Mod 1 'Kryton' Turret which is available as an extra from Atlantic Models ATAC35012.

### Main Mast Top Antenna Array



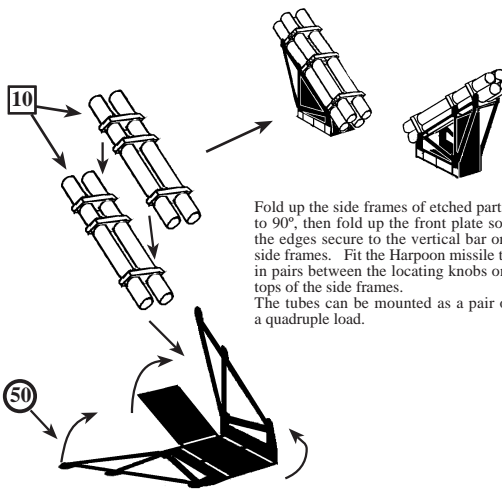
Fix the four half side antenna sections to the centre pillar on the main antenna section, two to each side, at an angle so that they form a six pointed star when viewed from above. See centre picture.  
Fit the two small dipoles to the top of the antenna at 90° to the centre pillar as shown centre.  
This antenna array is fitted to the top of the main mast pole antenna.

### 30mm Oerlikon DS30 Gun Mounting



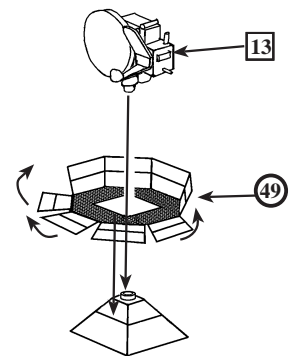
Assemble the DS30B Cannon mounting as shown above. Make two of these.

### Harpoon Missile Launcher Assembly



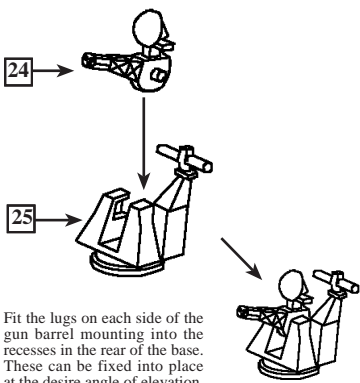
Fold up the side frames of etched parts 50, to 90°, then fold up the front plate so that the edges secure to the vertical bar on the side frames. Fit the Harpoon missile tubes in pairs between the locating knobs on the tops of the side frames. The tubes can be mounted as a pair or as a quadruple load.

### 911 Fire Control Radar



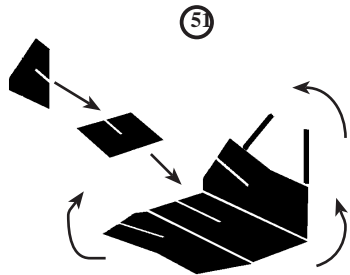
Fold up the railings on etched parts 49 so that the stanchions meet together. The railings will be angled outwards slightly.  
Fit the platform over the moulded pyramids on the Forward Superstructure roof and on the aft Sea Wolf magazine roof.  
Fit the 911 director, resin part 13, to the top of the mounting as shown above.

### Goalkeeper CIWS Assembly



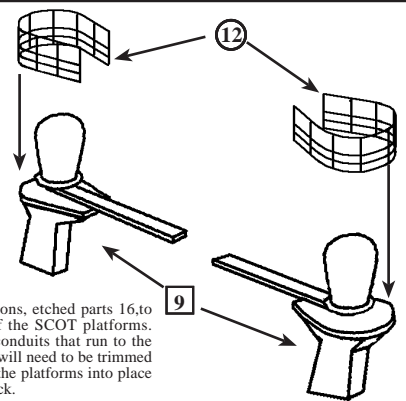
Fit the lugs on each side of the gun barrel mounting into the recesses in the rear of the base. These can be fixed into place at the desired angle of elevation.

### Harpoon Blast Deflector Assembly



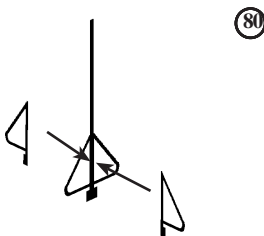
Fold up the sides of etched parts 51 to 90° so that they are parallel. Slot the two centre plates together as shown and fix so that the rectangular plate fits in to the etched lines on the side panels.  
Fold over the top cover plate so that it spans the gap between the two side panels. Make two of these.

### SCOT Platform Assembly



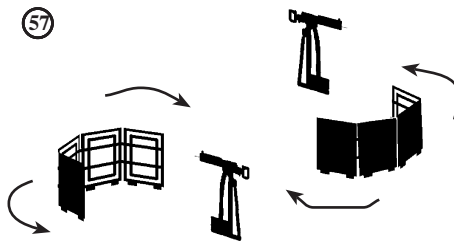
Shape the railings sections, etched parts 16, to fit around the edges of the SCOT platforms.  
Note: The waveguide conduits that run to the top of the SCOT house will need to be trimmed to length before fitting the platforms into place on the superstructure deck.

### Bridge Roof DF Antenna



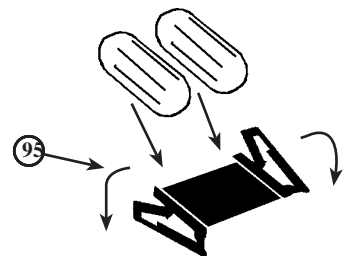
Fit the two half loops of the DF Antenna, etched part 80, to the central pillar at 90° as shown, so that they form a cross when viewed from above.

### Mini Gun Enclosure Assembly



Fold the panels on the gun enclosures round so that the two side panels are parallel, with the relief etched detail on the inside face. Make two of these. The enclosures can be used to contain either the GPMG mountings, or the 7.62 Minigun mountings, as desired which are available separately from Atlantic Models on ATEM 35012. These parts were only fitted during the later years of the ship's career as the Anti-Piracy patrols and close in ship protection was required against small craft.

### Decoy Ejector Racks



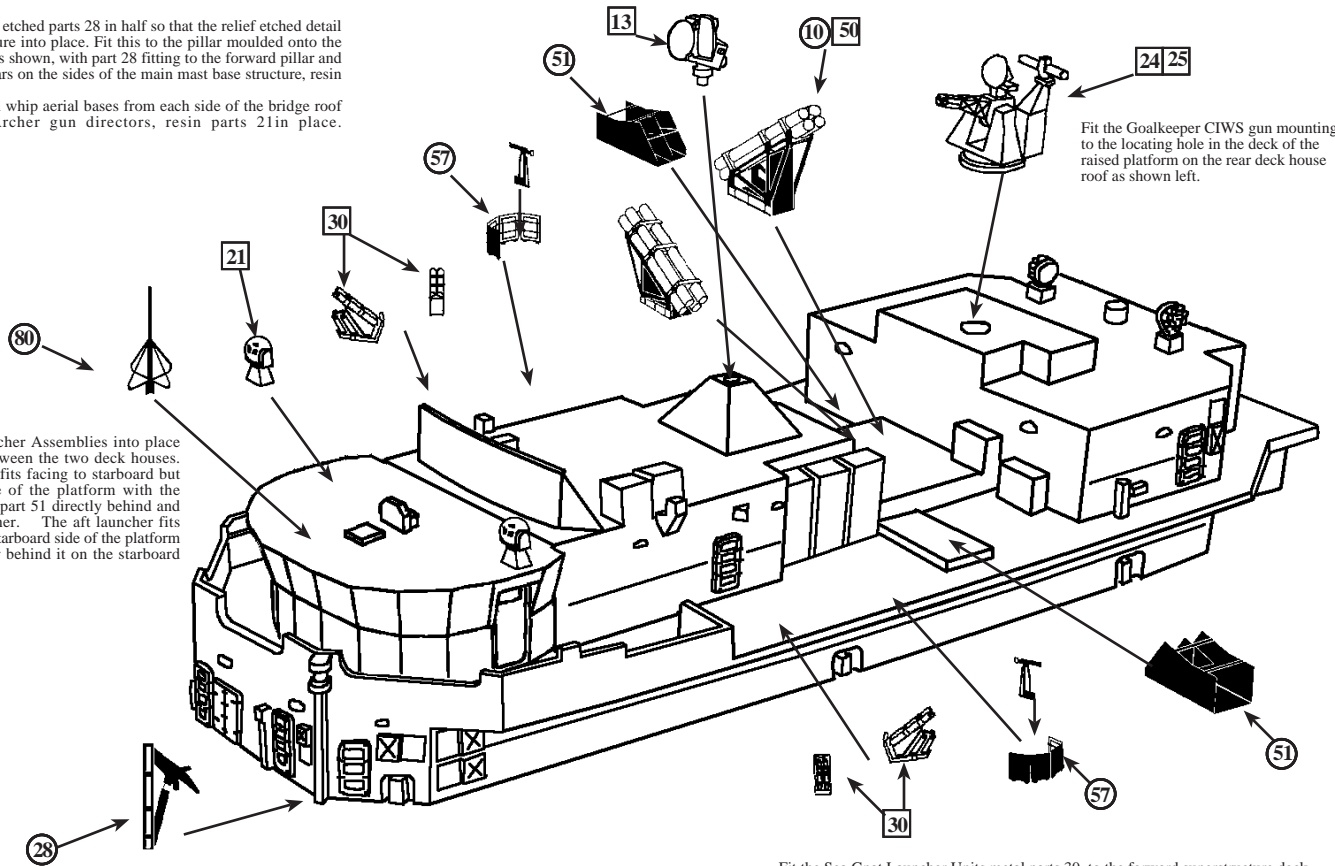
Fold down the side frames of the stowage rack, etched parts 95, so that they are parallel. Make the decoy containers from lengths of 1.5mm plastic rod that have the ends rounded off and fitted as shown above to the rack plate.

## Forward Superstructure Equipment Location

Fold the RAS Gantry etched parts 28 in half so that the relief etched detail is outermost and secure into place. Fit this to the pillar moulded onto the superstructure parts as shown, with part 28 fitting to the forward pillar and part 27 to the aft pillars on the sides of the main mast base structure, resin part 6.

Remove the moulded whip aerial bases from each side of the bridge roof and fit the Sea Archer gun directors, resin parts 21 in place.

Fit the Harpoon Launcher Assemblies into place on the raised deck between the two deck houses. The forward launcher fits facing to starboard but fitted to the port side of the platform with the blast deflector, etched part 51 directly behind and outboard of the launcher. The aft launcher fits facing port but on the starboard side of the platform with its blast deflector behind it on the starboard side.



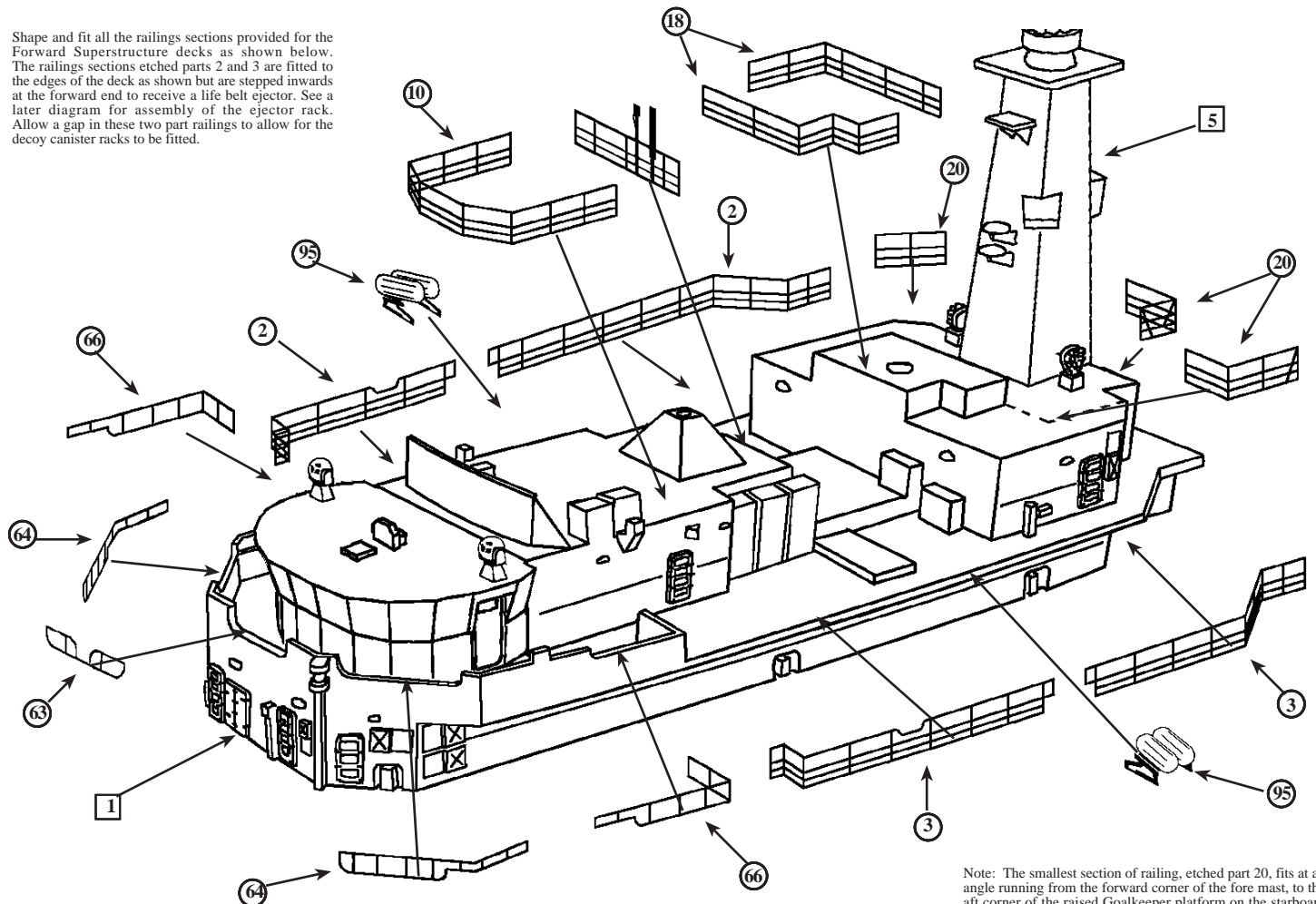
Fit the Goalkeeper CIWS gun mounting to the locating hole in the deck of the raised platform on the rear deck house roof as shown left.

The light weapons enclosures, etched parts 57, can be fitted if the kit is being modelled as a late fit version from around 2005 onwards.

Fit the Sea Gnat Launcher Units, metal parts 30, to the forward superstructure deck as shown above. The location of the 911 tracker assembly, etched parts 49 and resin part 13, is also shown on the ops room roof pyramid. Fit the DF antenna assembly etched part 80, centrally to the front of the bridge roof as shown.

## Forward Superstructure Railings Location

Shape and fit all the railings sections provided for the Forward Superstructure decks as shown below. The railings sections etched parts 2 and 3 are fitted to the edges of the deck as shown but are stepped inwards at the forward end to receive a life belt ejector. See a later diagram for assembly of the ejector rack. Allow a gap in these two part railings to allow for the decoy canister racks to be fitted.



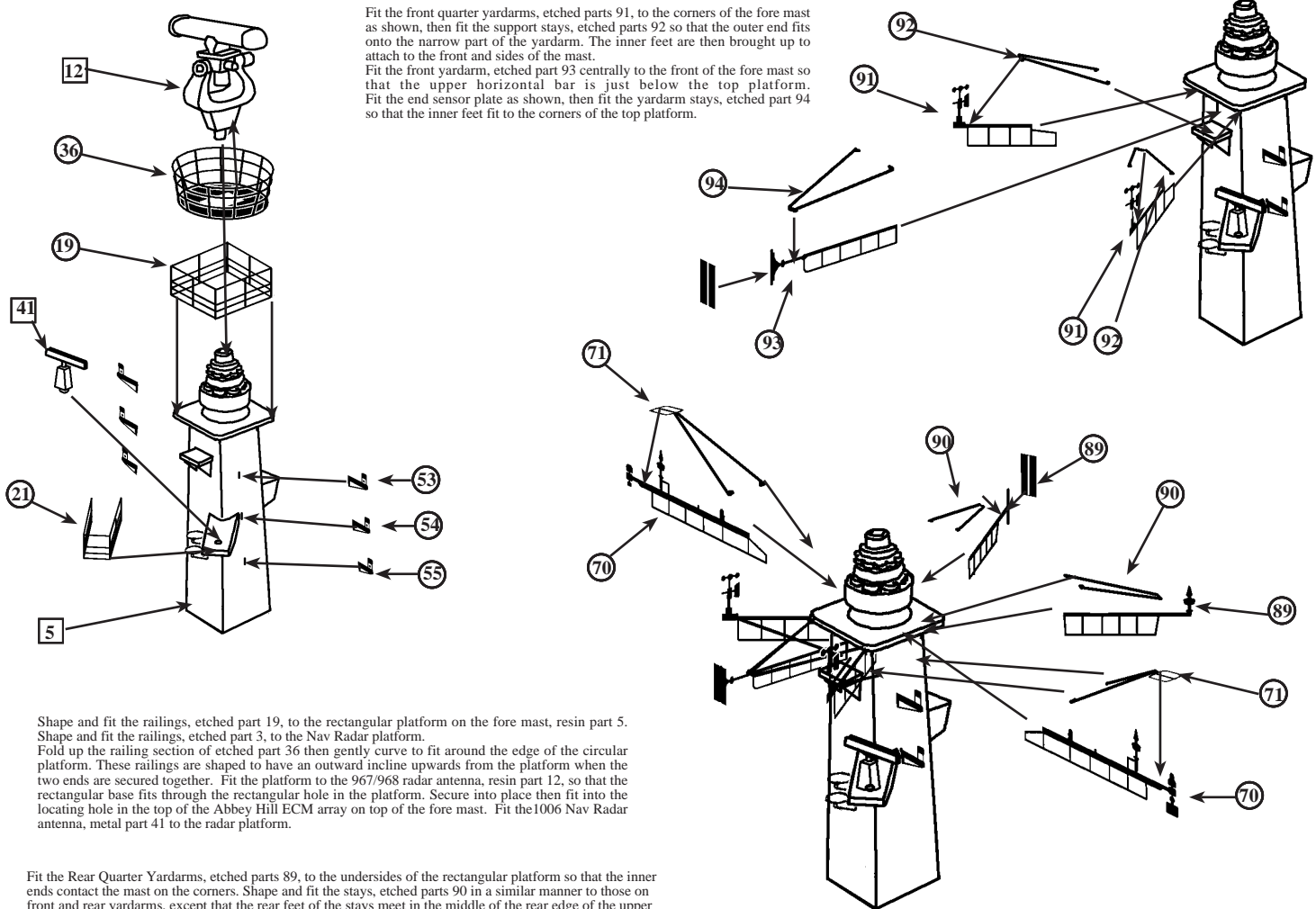
Note: The smallest section of railing, etched part 20, fits at an angle running from the forward corner of the fore mast, to the aft corner of the raised Goalkeeper platform on the starboard side.

## Fore Mast Assembly

Fit the front quarter yardarms, etched parts 91, to the corners of the fore mast as shown, then fit the support stays, etched parts 92 so that the outer end fits onto the narrow part of the yardarm. The inner feet are then brought up to attach to the front and sides of the mast.

Fit the front yardarm, etched part 93 centrally to the front of the fore mast so that the upper horizontal bar is just below the top platform.

Fit the end sensor plate as shown, then fit the yardarm stays, etched part 94 so that the inner feet fit to the corners of the top platform.



Shape and fit the railings, etched part 19, to the rectangular platform on the fore mast, resin part 5. Shape and fit the railings, etched part 3, to the Nav Radar platform.

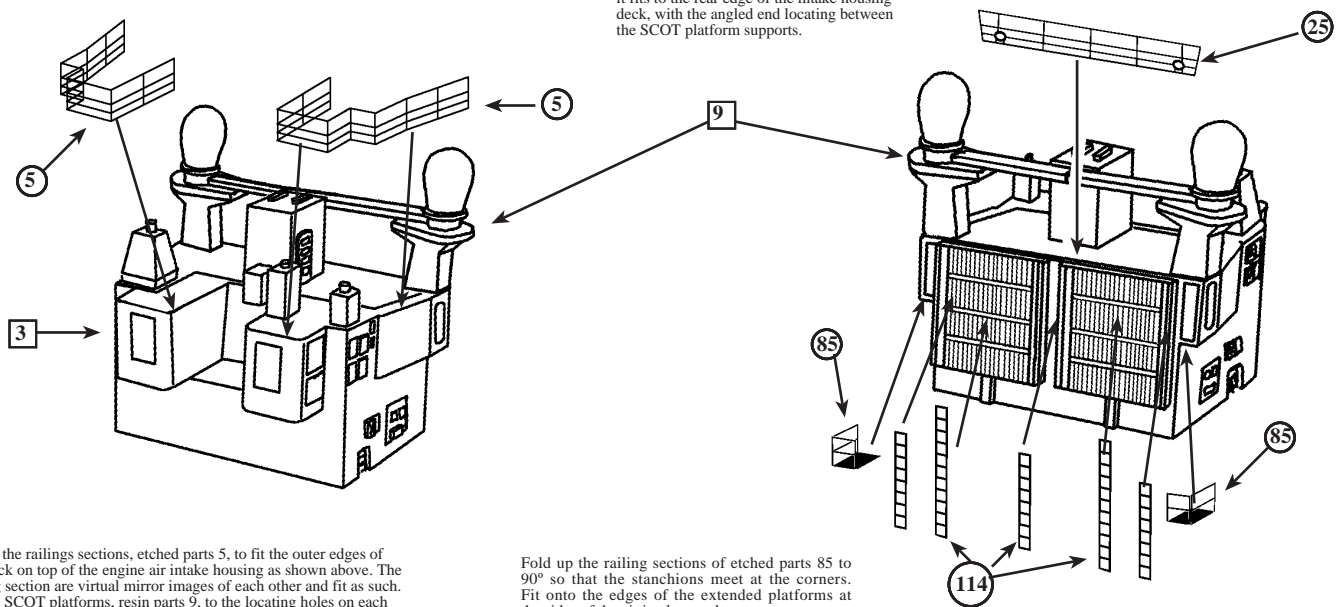
Fold up the railing section of etched part 36 then gently curve to fit around the edge of the circular platform. These railings are shaped to have an outward incline upwards from the platform when the two ends are secured together. Fit the platform to the 967/968 radar antenna, resin part 12, so that the rectangular base fits through the rectangular hole in the platform. Secure into place then fit into the locating hole in the top of the Abbey Hill ECM array on top of the fore mast. Fit the 1006 Nav Radar antenna, metal part 41 to the radar platform.

Fit the Rear Quarter Yardarms, etched parts 89, to the undersides of the rectangular platform so that the inner ends contact the mast on the corners. Shape and fit the stays, etched parts 90 in a similar manner to those on front and rear yardarms, except that the rear feet of the stays meet in the middle of the rear edge of the upper platform, the forward feet of the stays fit to the side edges of the upper platform.

Fit the side yardarms, etched parts 70, to the underside of the rectangular platform, with the inner end against the side of the fore mast. Shape and fit the stays, etched parts 71, so that the oval loop antenna is flat on the top of the outer end of the yardarm. fit the feet of the stays to the sides of the fore mast.

## Engine Air Intake Structure Railings and Fittings Location

Fit the railing section, etched part 25, so that it fits to the rear edge of the intake housing deck, with the angled end locating between the SCOT platform supports.

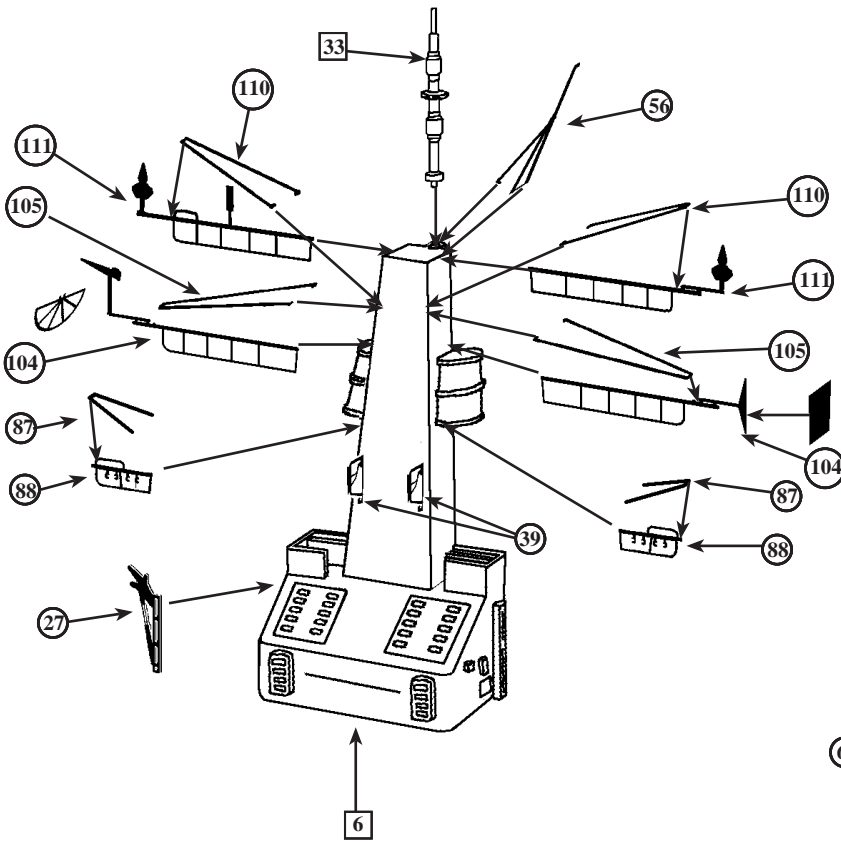


Shape the railings sections, etched parts 5, to fit the outer edges of the deck on top of the engine air intake housing as shown above. The railing sections are virtual mirror images of each other and fit as such. Fit the SCOT platforms, resin parts 9, to the locating holes on each side of the aft part of the housing as shown.

Fold up the railing sections of etched parts 85 to 90° so that the stanchions meet at the corners. Fit onto the edges of the extended platforms at the sides of the air intakes as shown.

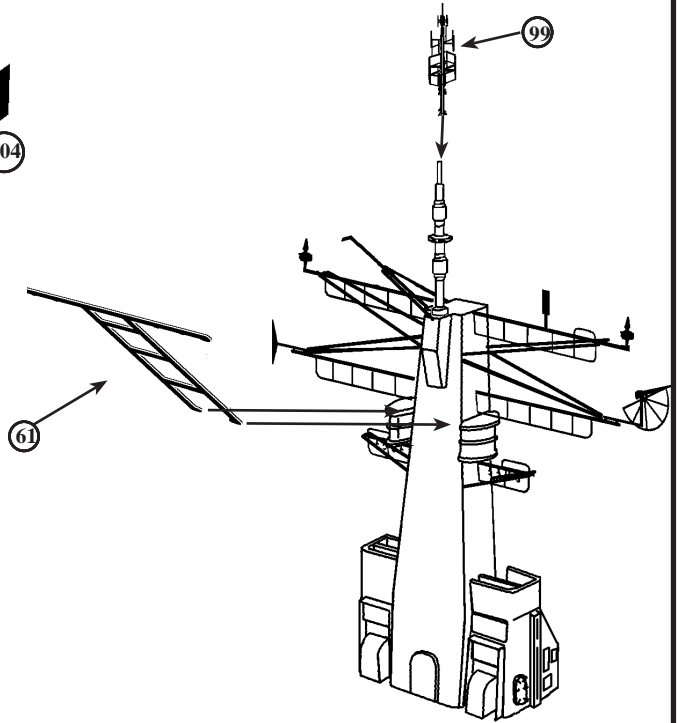
Fit sections of vertical ladders to the rear of the air intake grills after cutting to the lengths required.

## Main Mast Assembly



Fit the Main Mast Antenna Pole, metal part 33, into the locating hole in the top of the mast as shown left. Fit the Antenna Array etched part 99 into place on top of the Antenna Pole.

Fold the Wire Antenna Spreader, etched part 61, in half so that it is double thickness as shown below, then fit the two lower feet so that they locate to the rear face of the mast level with the tops of the heat shrouds of the diesel exhausts.

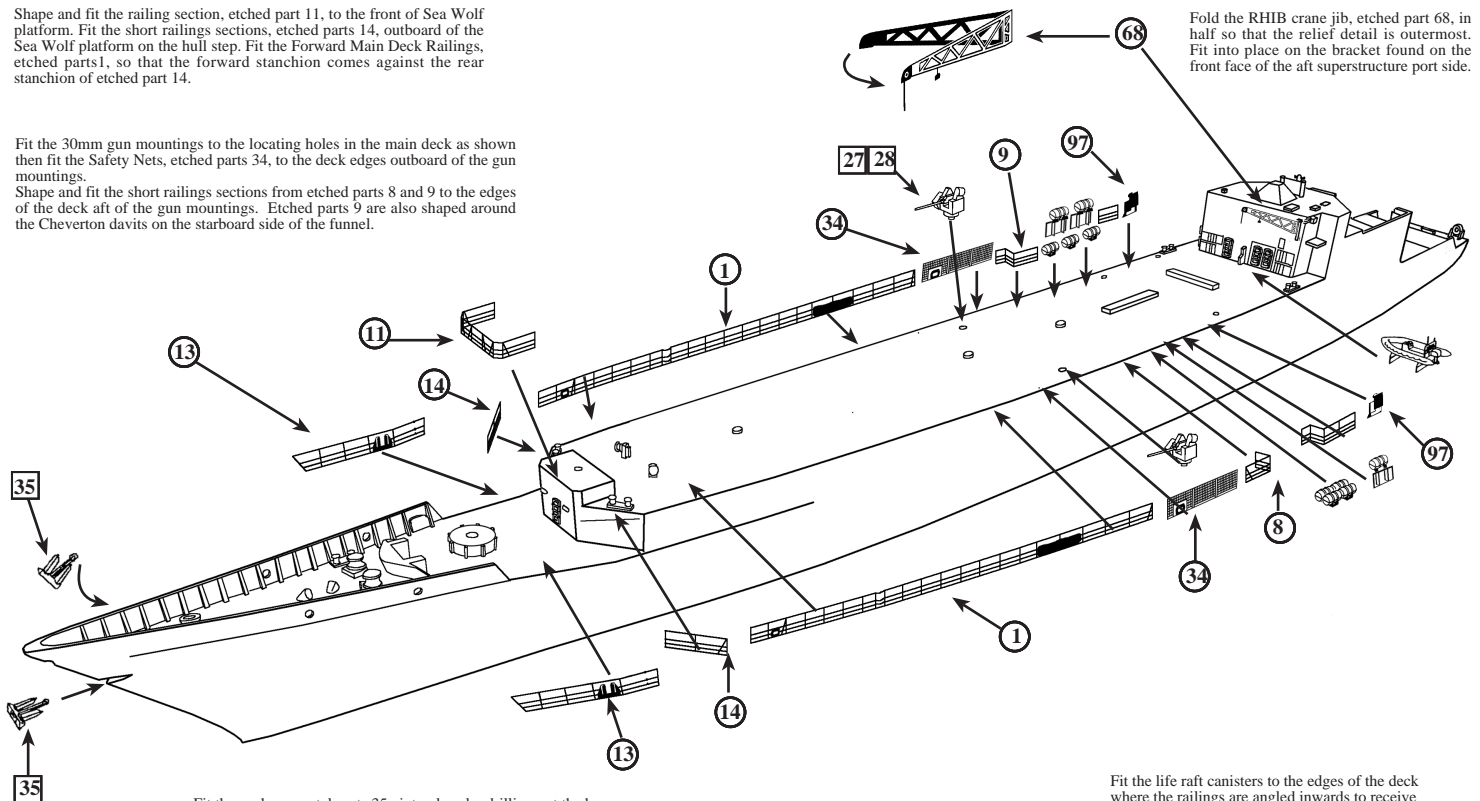


Fit the Upper Yardarms, etched parts 111, centrally to each side of the mast so that the horizontal main bar is level with the top of the mast. Fit the Yardarm Stays, etched parts 110 as shown above.  
Fit the larger Lower Yardarms, etched parts 104 centrally to each side of the mast as shown, then fit the stays etched parts 105, so that the feet meet up under the feet of etched parts 110. See diagram right.  
Fit the smaller Lower Wire Antenna Spreaders, etched parts 88, to the sides of the mast just below the diesel exhaust heat shrouds.  
Fit the Yardarm Stays, etched parts 87 as shown above.  
Fit one RAS Gantry assembly, etched parts 27, into place on the vertical pillars on the starboard side of the ventilator housing.  
Shape the Main Mast Gaff, etched part 56, to fit onto the port side of the mast top with the single stay locating centrally to the back of the mast top.

## Main Deck Railings and Life Raft Location

Shape and fit the railing section, etched part 11, to the front of Sea Wolf platform. Fit the short railings sections, etched parts 14, outboard of the Sea Wolf platform on the hull step. Fit the Forward Main Deck Railings, etched parts 1, so that the forward stanchion comes against the rear stanchion of etched part 14.

Fit the 30mm gun mountings to the locating holes in the main deck as shown then fit the Safety Nets, etched parts 34, to the deck edges outboard of the gun mountings.  
Shape and fit the short railings sections from etched parts 8 and 9 to the edges of the deck aft of the gun mountings. Etched parts 9 are also shaped around the Cheverton davits on the starboard side of the funnel.

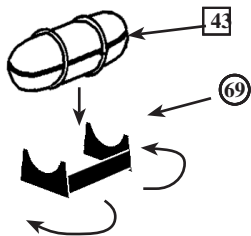


Fold the RHIB crane jib, etched part 68, in half so that the relief detail is outermost. Fit into place on the bracket found on the front face of the aft superstructure port side.

Fit the anchors, metal parts 35, into place by drilling out the hawse pipe holes on the starboard side of the bow with a 1mm diameter drill. To fit the anchor to the stem position, remove the anchor shank at it's base, before fitting the flutes either side of the recess.

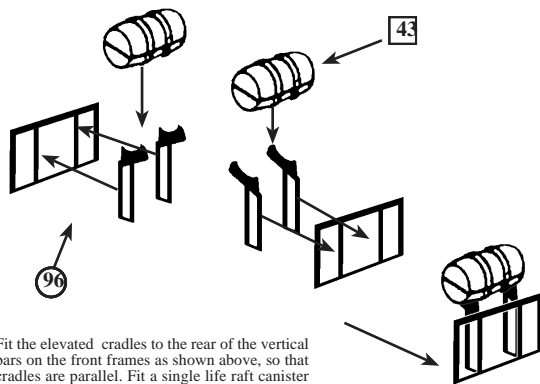
Fit the life raft canisters to the edges of the deck where the railings are angled inwards to receive them as shown above.

### Life Raft Canister Assembly



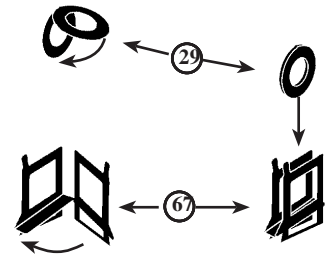
Fold the lift raft canister rack, etched part 69, to the shape shown above, then fit a single canister in to each rack. The life raft canisters are fitted to various points on the edges of the decks as shown in later diagrams.

### Elevated Life Raft Canister Assembly



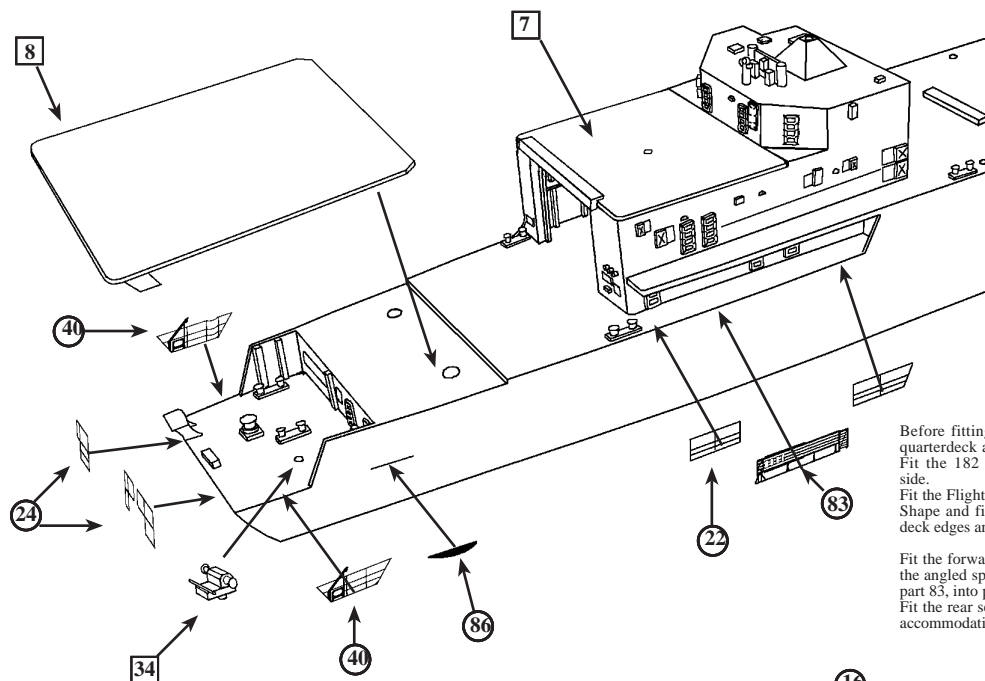
Fit the elevated cradles to the rear of the vertical bars on the front frames as shown above, so that cradles are parallel. Fit a single life raft canister into the cradles. These life raft racks are positioned on the deck amidships, and usually have a single life raft on the deck below and behind them.

### Life Ring Ejectors



Fold the sides of the Life Ring Ejector around so that they are parallel. Twist up the central spacer so that the edges locate along the bottom rail on the two sides. Fix into place. Fold the life rings, etched parts 29 in half so that they are double thickness, then place inside the ejector rack after painting. Fit these on each side of the rear bridge wing bulwarks in the recesses of the main deck railings. Also on the platform starboard side of the hangar aft of the fuel can racks, and port side aft of the 30mm gun mounting.

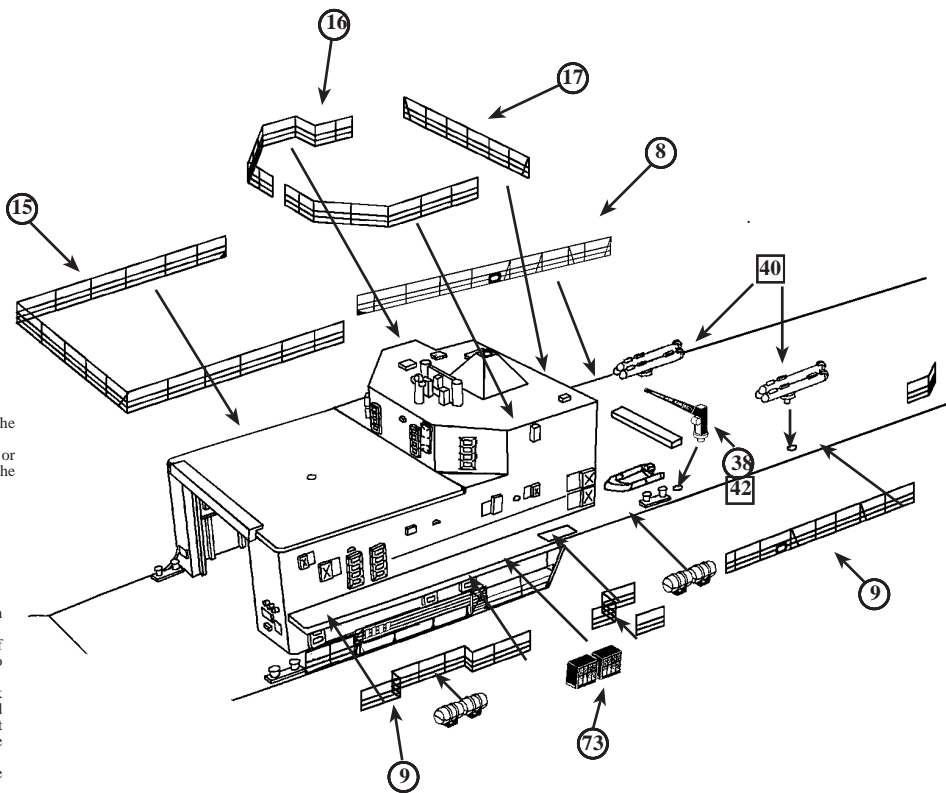
### Flight Deck, Quarterdeck and Hangar Railings Assembly



Before fitting the Flight Deck into place it may be desired to paint and finish the quarterdeck area first of all as access will be limited once the flight deck is in place. Fit the 182 Decoy Winch, metal part 34 to the locating hole on the starboard side.

Fit the Flight Deck into place as shown and fill any seams at the points of attachment. Shape and fit the railings sections, etched parts 24 and 40, to fit the stern quarters deck edges and transom as shown left.

Fit the forward section of etched part 22 into place so that the angled end fits against the angled spray shield of the hull side. Fit the stowed accommodation ladder, etched part 83, into place so that the forward end butts up against the stanchion of the railings. Fit the rear section of railings, etched part 22, so that they continue on away from the accommodation ladder.



Shape and fit the railings sections, etched parts 15, to the hangar roof, with the longer section fitting to the port side as shown.

Shape and fit the railings sections, etched parts 16, to the aft superstructure deck or 911 director deck. Fit etched part 17 across the forward edge of the deck joining the two side sections.

Fit the STWS Torpedo tubes, metal parts 40, to the two forward locating holes on the main deck.

Fit the small boat crane assembly to the aft locating holes on the starboard side of the main deck. A Gemini Inflatable boat may be placed on the deck adjacent to these cranes if desired.

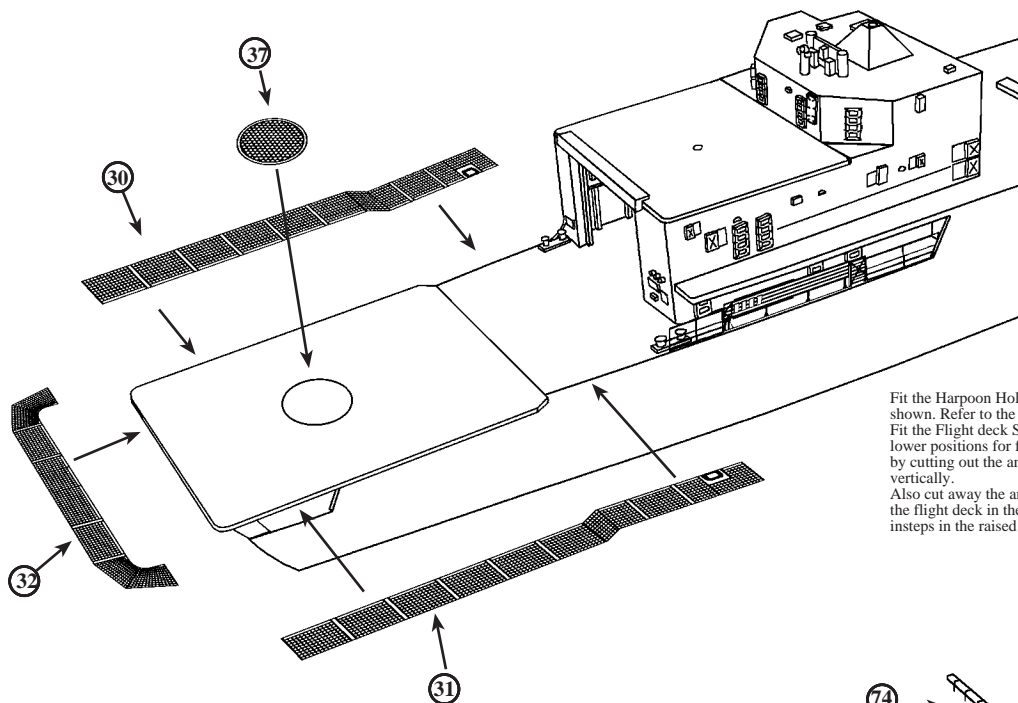
Fit the fuel can stowage racks directly aft of the access ladder hole on the deck edges starboard side. Continue aft fitting the smaller sections of railings etched part 9 to the deck edge as shown. Fit two single life raft canisters into the insert in the aft section of railing. Fit two single life raft canisters directly aft of the bollards on the main deck forward of the hangar.

Fit the two smaller sections of railing from etched part 9 to form an enclosure around the access ladder opening.

Fit the longer section of railing from the etched parts 8 to the deck edge on the port side, with the rear stanchion fitting against the hangar wall.

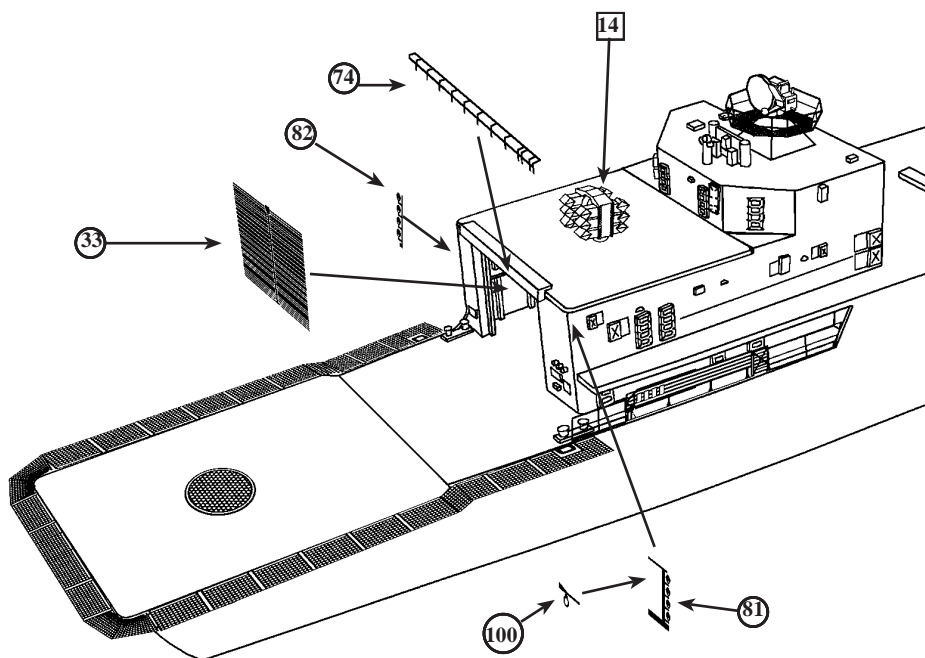


## Flight Deck Safety Nets and Hangar Fittings Location



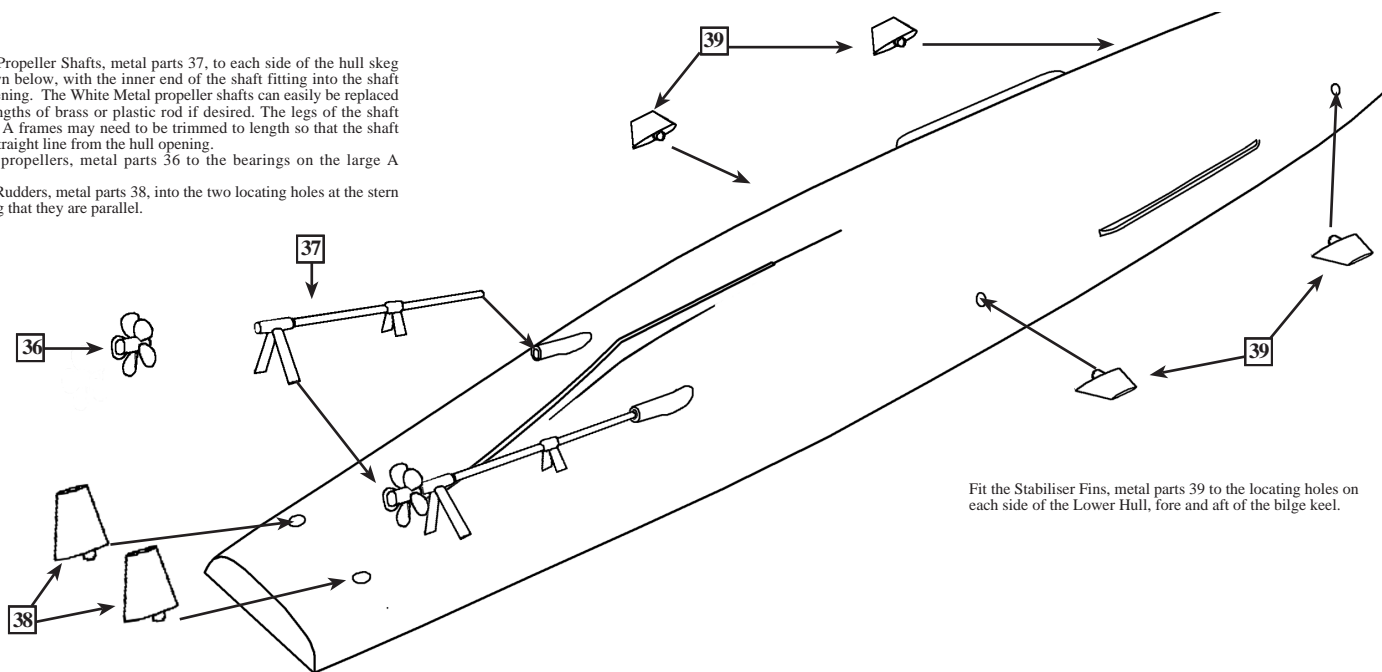
Fit the Harpoon Hold Down Grid, etched part 37, centrally to the flight deck as shown. Refer to the Colour Plan for exact fore and aft positioning.  
 Fit the Flight deck Safety Nets as shown above. These have been shown in their lower positions for flight operations. These can be fitted in their raised positions by cutting out the angled corner sections of etched part 32 and fitting the sections vertically.  
 Also cut away the angled insteps in etched parts 30 and 31 and fit to the sides of the flight deck in the raised position. Add the small rectangles of net into the insteps in the raised position.

The hangar doors, etched part 331, can be fitted in the open or closed position. If they are to be fitted in the open or partially open position, these are rolled up to the desired amount and then fixed into place under the aft edge of the hangar roof. The doors can also be separated down the central pillar so that only one door can be shown in the open position.  
 Fit the Flight Deck Floodlight brackets, etched parts 81 and 82 to the starboard and port sides of the hangar as shown below. The floodlights can be made to be more 3D by cutting small lengths of 30thou plastic rod and fitting to the forward face of each floodlight to represent the light shroud.  
 Fit the Glide Path Indicator Lamp, etched part 100 to the top horizontal beam on etched part 81 as shown.



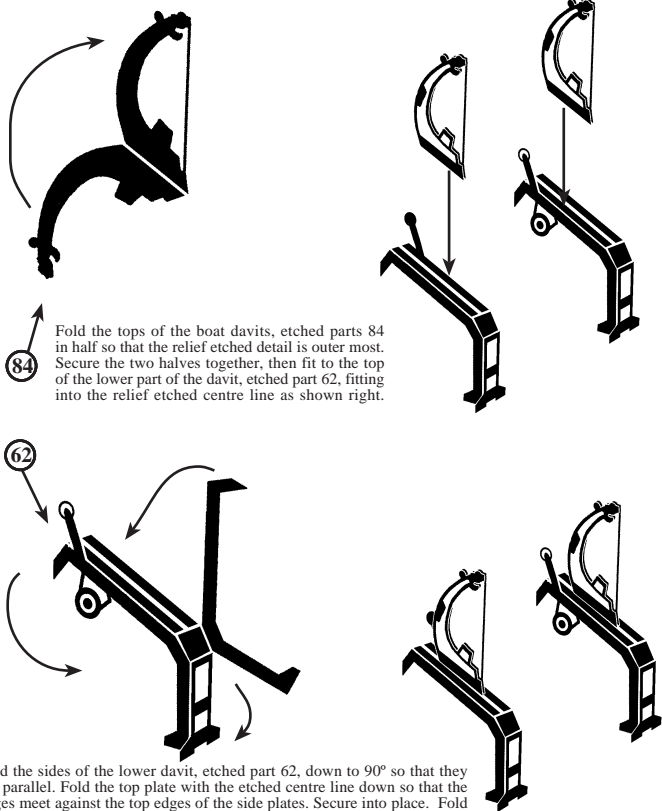
## Underwater Fittings and Running Gear

Fit the Propeller Shafts, metal parts 37, to each side of the hull skeg as shown below, with the inner end of the shaft fitting into the shaft hull opening. The White Metal propeller shafts can easily be replaced with lengths of brass or plastic rod if desired. The legs of the shaft bearing A frames may need to be trimmed to length so that the shaft sits in straight line from the hull opening.  
 Fit the propellers, metal parts 36 to the bearings on the large A frames.  
 Fit the Rudders, metal parts 38, into the two locating holes at the stern ensuring that they are parallel.



Fit the Stabiliser Fins, metal parts 39 to the locating holes on each side of the Lower Hull, fore and aft of the bilge keel.

### Boat Davit Assembly

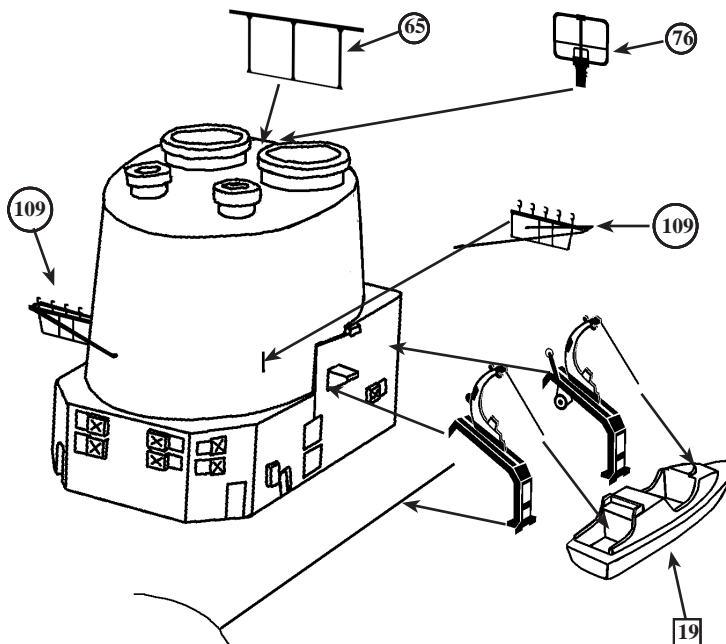


84 Fold the tops of the boat davits, etched parts 84 in half so that the relief etched detail is outermost. Secure the two halves together, then fit to the top of the lower part of the davit, etched part 62, fitting into the relief etched centre line as shown right.

62 Fold the sides of the lower davit, etched part 62, down to 90° so that they are parallel. Fold the top plate with the etched centre line down so that the edges meet against the top edges of the side plates. Secure into place. Fold the front panel down so that the edges meet the front edges of the side plates then secure into place. The davit bases come in pairs that when assembled should be mirror images of each other. Assemble one pair only for Batch 3

### Starboard Boat Location and Funnel Fittings

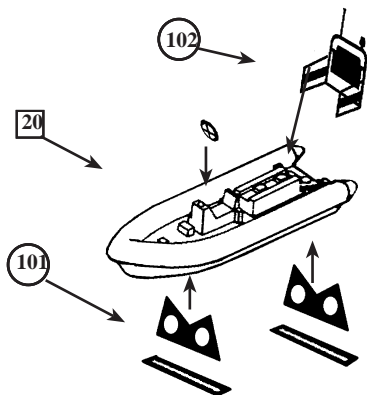
Fit the Wire Antenna Spreader, etched part 65, centrally to the top of the funnel, forward of the large exhaust uptakes. This mounts the wire antennas leading up to the Fore Mast yardarms. This was replaced in later years by the Bowman Antenna, etched part 76.



109 Fit the small Wire Antenna Spreaders, etched parts 109, to the aft sides of the funnel, as shown folding the support stays inwards and downwards, with the long leg to the rear. Attach the antenna wires to the hooks on top of the horizontal bar then fold these to the rear and lead the wires up to the main mast lower yardarms.

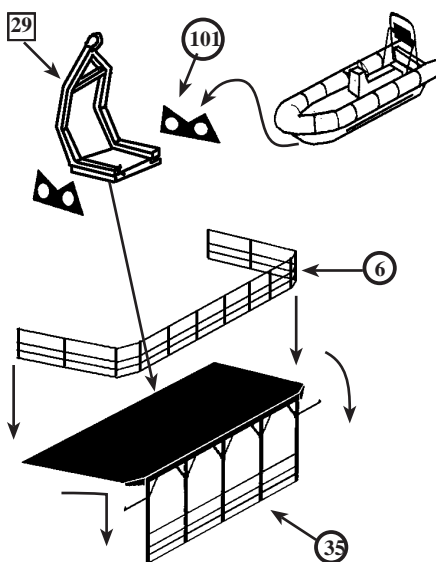
Fit the boat davit assemblies to the starboard side of the funnel housing as shown above, with the feet up to the edge of the main deck. The railing section should pass inboard of the davit legs. Fit the Cheverton Motor Boat, resin part 19, to the davit falls by drilling a 0.4mm hole right through the boat at the locations shown above, then feeding the falls through the holes. Bend the falls back vertical, taking the boat into the davits, and secure into place at the bottom.

### Pacific 22 RHIB Assembly



Assemble two RHIB as shown above, then fold the cradles, etched parts 101, in half so that they are double thickness with the relief detail outermost. Fit the RHIBs into the cradles then fit to the main deck between the main mast and the hangar. One other is placed on the port side just aft of the STWS.

### Late Fit RHIB Platforms



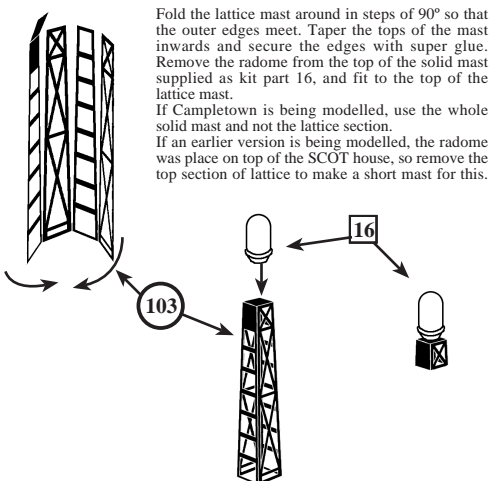
These parts have been provided in the kit so that a final fit of the Type 22 Batch 3 can be modelled. The platforms on each side of the funnel were added to carry the larger Pacific 24 RHIBs after the removal of the Cheverton on the starboard side. A third RHIB could also be carried aft between the main mast and hangar using the crane already in place there.

6 Fold the support legs on the RHIB Platform, etched part 35, down to 90°. Bend the small angled fillets on each side of the supports, inwards to the deck edge angles. Shape and fit the railings, etched parts 6, to the outer edges of the deck.

Fit the RHIB Davit crane, metal part 29 centrally to the deck of the platform, then fit the boat cradles, etched parts 101 to the fore and aft sides of the davit base.

Fit the RHIB into place on the cradles as shown. Make two of these and fit in place so that the inboard edge of the platform locates against the funnel side and the feet of the supports fit along the main deck edges.

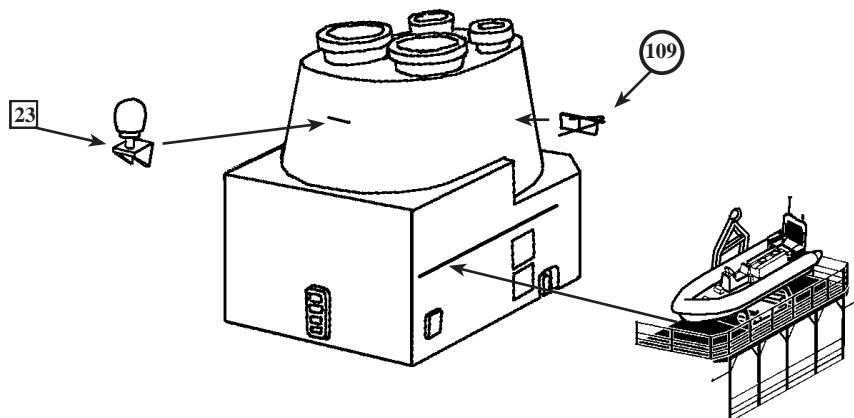
### Data Link Radome Mast



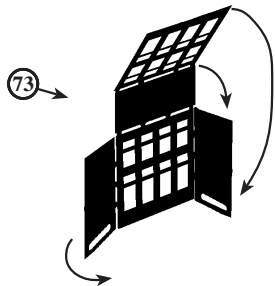
Fold the lattice mast around in steps of 90° so that the outer edges meet. Taper the tops of the mast inwards and secure the edges with super glue. Remove the radome from the top of the solid mast supplied as kit part 16, and fit to the top of the lattice mast.

If Campletown is being modelled, use the whole solid mast and not the lattice section.

If an earlier version is being modelled, the radome was placed on top of the SCOT house, so remove the top section of lattice to make a short mast for this.

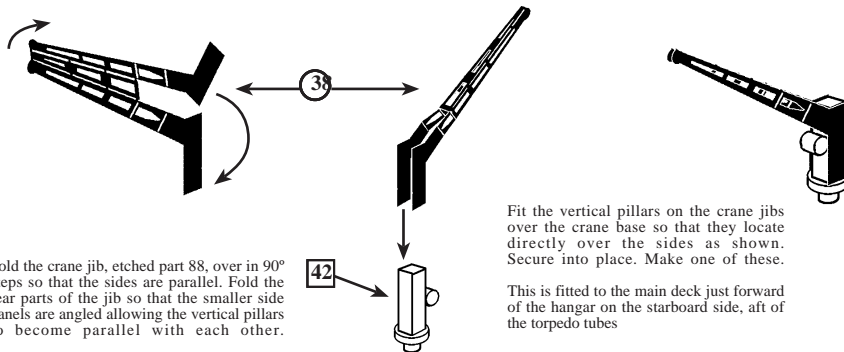


### Fuel Can Rack Assembly



Fold the sides of the fuel can rack round to 90° so that they are parallel, then fold the top and front panels down in stages of 90° so that they form a box construction rack. These racks are meant to contain the Jerry cans of fuel required by the ships boats. They are usually positioned on the edges of the catwalk to the starboard side of the hangar just aft of the ladder access opening. They have a quick overboard release capability due to the flammable contents and are usually painted red.

### Gemini Boat Crane Assembly

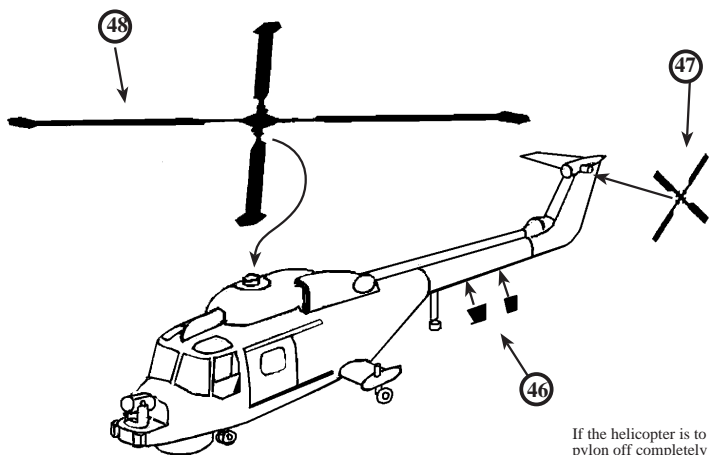


Fold the crane jib, etched part 88, over in 90° steps so that the sides are parallel. Fold the rear parts of the jib so that the smaller side panels are angled allowing the vertical pillars to become parallel with each other.

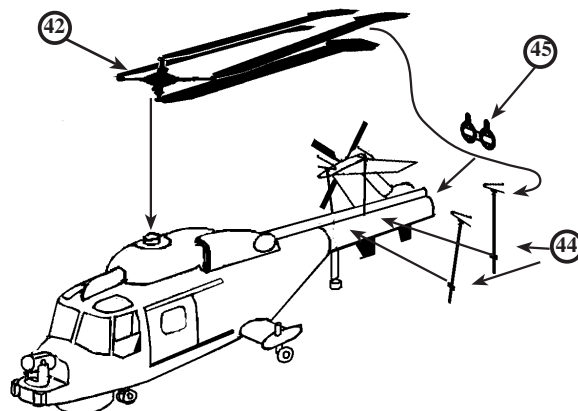
Fit the vertical pillars on the crane jibs over the crane base so that they locate directly over the sides as shown. Secure into place. Make one of these.

This is fitted to the main deck just forward of the hangar on the starboard side, aft of the torpedo tubes

### Augusta Westland Lynx HMA8 Helicopter Assembly



Fit the main and tail rotor blades, etched parts 48 and 47, as shown above. Fit the blade aerials 46 to the underside of the tail cone. A main rotor hub doubler, etched part 41, has been provided to thicken the centre of the rotor if desired.



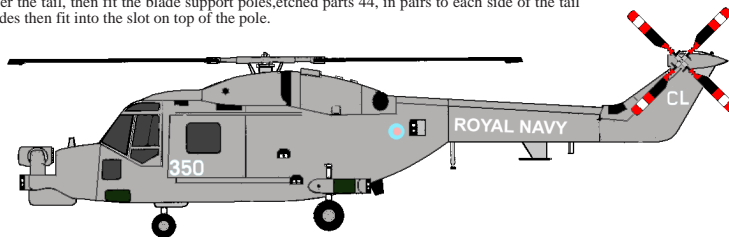
If the helicopter is to be displayed folded, use etched part 42, in the place of etched part 48. Cut the tail pylon off completely at the fold joint as shown, and fit the fold joint, etched part 45. This will allow the tail to be reattached in the folded position with ease. Fit the folded main rotor blades so that they are positioned over the tail, then fit the blade support poles, etched parts 44, in pairs to each side of the tail cone. The blades then fit into the slot on top of the pole.



Medium Sea Grey  
Humbrol 165

#### Ships Flights Codex Numbers

350 & 351/CL HMS Cumberland    338 & 339/CT HMS Campbeltown  
348/CM HMS Chatham    412 & 413/CW HMS Cornwall



Other Colours Used

Matt Black..... Wheel Tyres, Undersides of Rotor Blades.  
Olive Green..... Top Surfaces of the Rotor Blades  
Red and White .... Tail Rotor Blade Tips  
Gloss Black.... Tail Rotor Blades

### Other Instructions

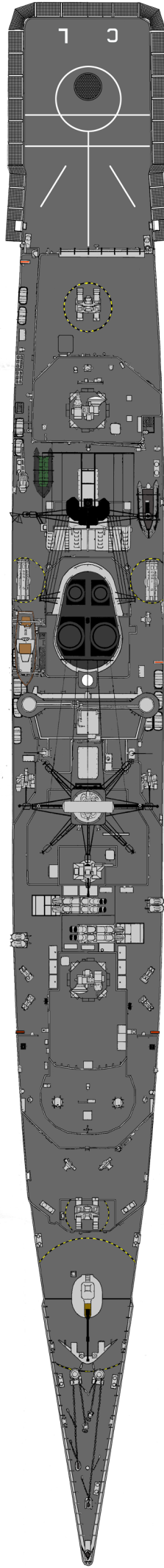
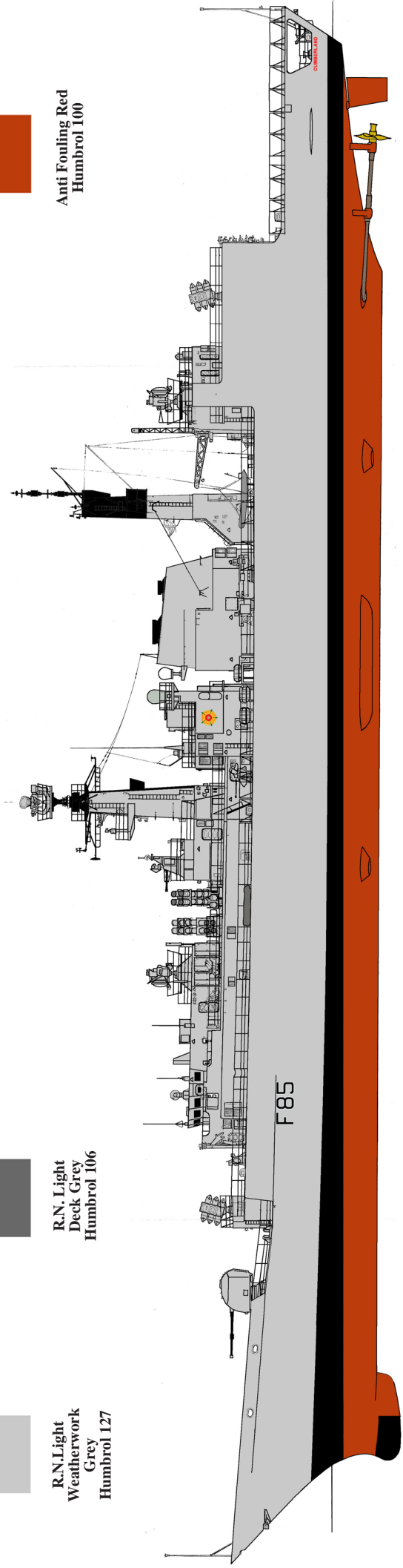
- Etched parts 112 are stock lengths of Anchor chain that can be used to fit on the focsle from the two Anchor Hawse Pipe holes, aft around the Capstans and forward to the shrouded deck ports that go down the cable lockers. There is also sufficient Anchor Chain to allow for a ship to be portrayed in a diorama, sitting at anchor with the chain running from the Hawse Pipe hole to the surface of the waterscape.
- Stock lengths of Vertical Ladder, etched parts 114, have been supplied for fitting to masts and outside vertical surfaces. See the Colour Guide for some locations. Inclined Ladders, etched parts 75, are fitted into place from the forward superstructure deck down to the main deck at the 30mm gun mounting positions. The single Inclined Ladder, etched part 72 is located at the aft hull step on the starboard side of the hangar.
- Railing Section, etched part 26, is shaped and fitted to the small platform on the port side of the hangar forward at the RHIB Crane position.
- Etched parts 79, are the door faces of the ammunition cabinets, three on each side of the bridge superstructure, forward of the Harpoon launchers. These may be fitted to the fronts of the cabinets after removing any moulded details.
- Two 20mm GAMBO Oerlikon mountings etched parts 58, have been supplied to replace the 30mm gun mountings if required. Also the DLF Decoy Pods, metal parts 32, can be fitted in this location for an even later fit.
- Please read through these instruction thoroughly before commencing any assembly work, as there may be relevant sections further along that may require attention before completing and earlier procedure.
- Prepare your model before assembly by washing all resin parts in warm soapy water and left to dry completely. There may be some resin or metal "Flash" on the edges of some that must be cleaned of, usually with a quick brush of with fine wet or dry paper. Any mould pouring lugs and ejector pin stubs must be removed from mating faces before assembly commences to ensure a snug fit.
- The decals provided in this kit are of the water slide type. Please do not try and peel them off the backing paper, as they will not. Cut out each decal and soak in luke warm water until it releases from the backing paper. The decal can then be slid into position on the model, carefully adjust the position as necessary with an artists brush. The decals are best applied to a glossy surface as this will prevent any silvering where air is trapped under the decal applied to a mat surface. Varnish the areas where the decals are to be applied with gloss varnish and allow to dry thoroughly before applying the decals. Humbrol Gloss Coat is ideal for the job as it is clear and doesn't go yellow with time. The entire areas may then be sprayed over with Matt Coat once the decals have set into position.

# Main Colour Chart and Painting Guide

 R.N. Light  
Weatherwork  
Grey  
Humbrol 127

 R.N. Light  
Deck Grey  
Humbrol 106

 Anti Fouling Red  
Humbrol 100



## Pennant Numbers Flight Deck Code Letters for all Ships of the Class

F85 HMS Cumberland CL F86 HMS Campbelltown CT  
 F87 HMS Chatham CM F99 HMS Cornwall CW

The colour guide above shows the main scheme and the areas covered. There are smaller less obvious areas that are listed below.

Matt Black.

Upper parts of Main Mast and Exhaust Stacks. Gun Barrels. Watertine Boot Topping. Funnel Top,

Off Black

Gemini Inflatable Boat, Decking in RHIBs.

Bronze

Propellers.

**ATLANTIC MODELS** © 2020

1 Hillview Grove, Easington, Durham, SR8 3NT. UK Tel. 0191 5271574  
 e.mail: peter@atlanticmodels.net Website <http://www.atlanticmodels.net>