

Tips and Hints when 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. It is recommended that the entire fret be primed with an acrylic automotive primer, such as Halfords Grey Primer before assembling any of the parts.
3. Cyanoacrylate adhesive (Super glue) or contact adhesive such as a white PVA 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 No.10 rounded 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 will give a good sharp corner, or alternatively an Atlantic Models Folding Tool ATT 01 or ATT 02 may be found to be useful
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.

INTRODUCTION

This detail set has been designed around the Airfix kit of HMS Illustrious in 1/350 scale. There are a substantial amount of parts included in this set that have not been included in the kit for reasons of difficulty in moulding and lack of space on the sprues etc. There are also several parts included to replace some of the rather heavy parts that have been moulded in plastic, with finer etched brass items.

This detail set is a basic set of parts for detailing the Airfix HMS Illustrious at the time frame portrayed in the kit. If it is wished to convert the Airfix kit to one of the other ships of the class, HMS Invincible or HMS Ark Royal, a supplementary detail set (ATEM 35012) is available to provide the alternative parts required as far as possible.

This detail set does not include parts for the aircraft that are supplied with the kit. This is because the aircraft sprue has been made available as a separate item for those wishing to increase the number of aircraft on the deck. A separate Air Wing detail set (ATEM 35007) has been made available to provide sufficient details for all the aircraft contained on one of the Airfix sprues. There are also several items of ground support equipment (GSE) also included in that set.

It is recommended that these instructions are studied thoroughly before any attempt is made at assembly, so as not to overlook any important stages or sequences that may be necessary for correct completion. The text instruction below give basic instructions and advice on general items found in this set. The more complex assemblies and location diagrams are found in the following pages.

1. A single length of stock 3 bar railing has been supplied, etched part 1, to allow for any mistakes made or any shortfalls whilst fitting the tailored to fit railing sections. Railing section 5 is a long single length section of railing to fit along the "Goofers Deck" which is 02 deck on the port side of the island superstructure. This runs from the sensor housing, etched part 40, along the port side of the deck until the deck narrows and terminates aft of the mizzen mast. The angled deep lower rail fits along the side of the deck edge and protrudes below the deck level.
Railing sections 10 are for the bow sections port and starboard that start inside the bulwark section. The angled ends of the railing turn in and attach to the bulwark at a line across just forward of the rear wall of the CIWS platform. The port side railing runs aft along the deck edge and shapes itself around the well on the port side below the ski ramp. The starboard section of railing is shorter and terminates just aft of the safety net angle section. Railing section 7 will then join on and continue the run of railing around the flight deck extension and on aft as far as the crane. This railing section would not be rigged whilst the ship is at sea. Railing section 32 is shaped to fit the inboard edge of the ski ramp. This railing would only be rigged whilst the ship is in harbour. Railing section, etched part 16, is a short section that is normally found rigged on the flight deck at the starboard side of the forward elevator. This forms a narrow walkway between the edge of the elevator and the island superstructure and is a safety feature.
The remaining sections of railing have been either covered in diagrams in this instruction leaflet or the locations of each one are listed in the parts list except the two sections, etched parts 34. These are long enough section to roll into a curve to fit to circular 1006 radar platforms that must be scratch built using plastic card. These are for use in conjunction with the HMS Illustrious Supplementary Set ATEM 35012
2. Stock lengths of vertical ladder, etched parts 4, have been supplied for those who wish to fit these ladders to platforms and access ways as desired. Further research will be required to establish the locations of open vertical ladders, though there are not many.
Caged vertical ladders have been provided in tailored lengths to fit the locations that require them. To make a caged vertical ladder, roll the cage section around a cylindrical object such as a drill bit shank until the outside edge of the cage curls all the way round and meets the opposite vertical bar on the ladders. Secure the cage into place and fit the ladders to the following positions. Etched parts 74, fit on the starboard side of the island superstructure next to the small RAS platforms. Etched part 70 runs vertically up the athwartships bulkhead from 02 deck on the starboard side to the deck at the base of the fore mast. Etched part 71 runs up the back of the bridge to the bridge roof.
3. Stock lengths of anchor chain, etched parts 158 have been supplied for those who wish to replace the molded on plastic items on the fore deck. There is also sufficient lengths to allow the modeller to build the model in a diorama with the ship at anchor with the chain running from the hawse pipe to the waters surface.
4. DF Antennas, etched parts 113, are direct replacements for kit parts 72D. Fit these as per the kit instructions.
5. Etched parts 138 and 139 are the boarding platforms, for the motor boat and the work boat. The platforms form extensions to 02 deck on the island superstructure adjacent to these two boats. The platforms are portrayed by molded plastic items on the kit parts which will need to be removed before fitting. The angled brackets with each of these platforms are the platform's supports and are fitted to each side of the platform.
6. The ships name plates, etched parts 104 are normally located, one on the starboard side on the side of the deck house next to the crane jib, and one on the port side directly below flight deck control position, just above the railing level on 02 deck.
7. Etched parts 163 & 164 are the tow hawser stowage reels. These are assembled as a pair on the mounting base in the same manner as a normal cable or hose reel. The reels are fitted in to the aft berthing bays (The opening with an accommodation ladder fitted in it). The base of the reels is fixed to the bay roof with the reels hanging down from roof parts 21C and 27C. The smaller of the two reels is the furthest aft. The mounting only has one attachment leg. This is because the inner end of the centre spindles on the reels fits into a drilled hole in the bulkhead.
8. Cable and hose reels, etched parts 156, 160 and 162, have been supplied to provide extra detail within the catwalk areas. Also the molded reels on the sides of the island superstructure may also be replaced with the etched items if desired. Refer to the diagram on page 9 for the assembly guide. Further research of available plans will be necessary to establish the exact location of each type of reel.
9. Etched parts 148, are direct replacements for the small RHIB davits kit parts 45D. These are folded in half along an etched line across the base and fixed together to give the davits extra thickness.
10. References and plans are available from Jacobin Plans, who provide excellent detail diagrams and drawings of the ship at various stages of her career.

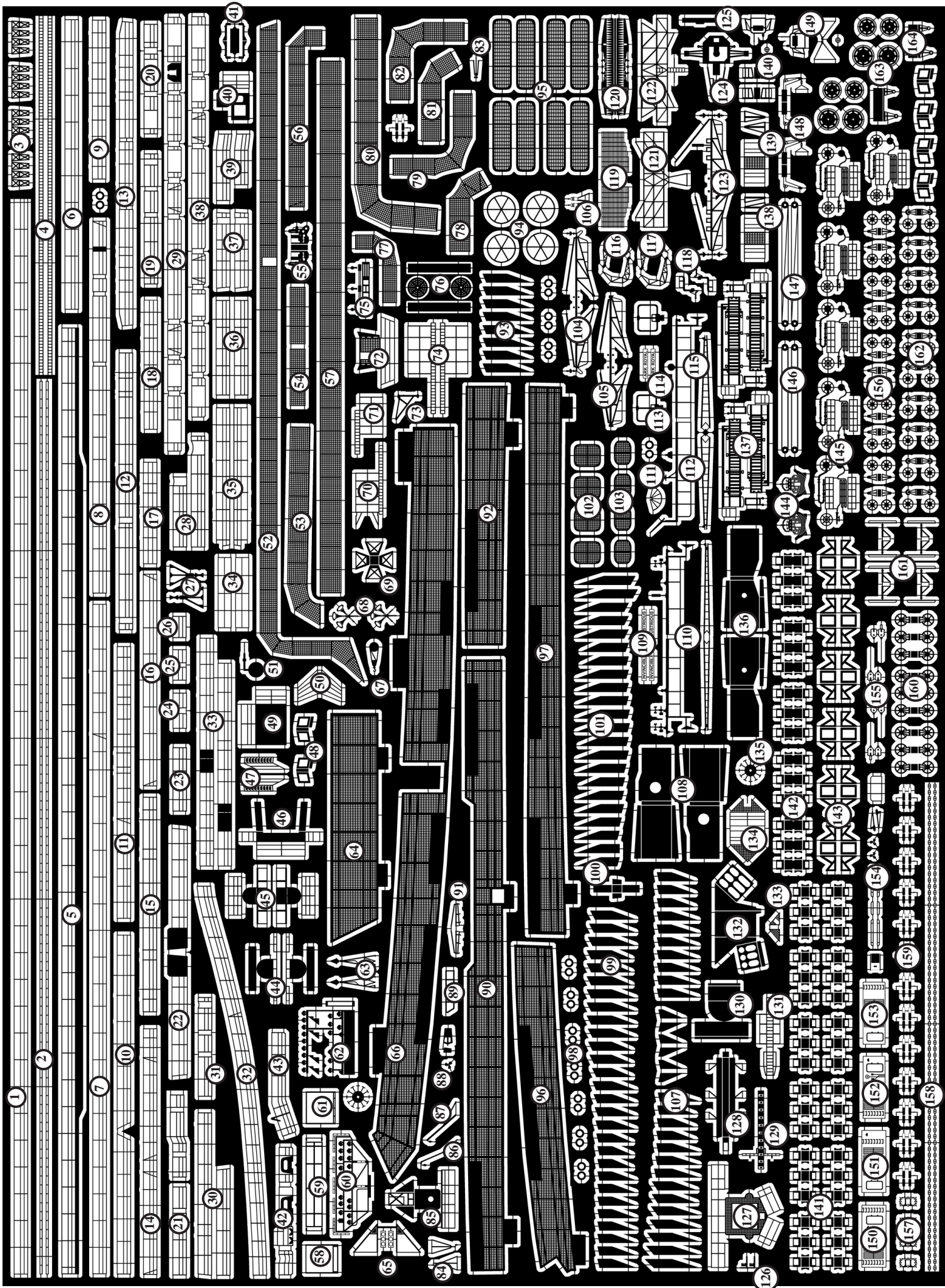
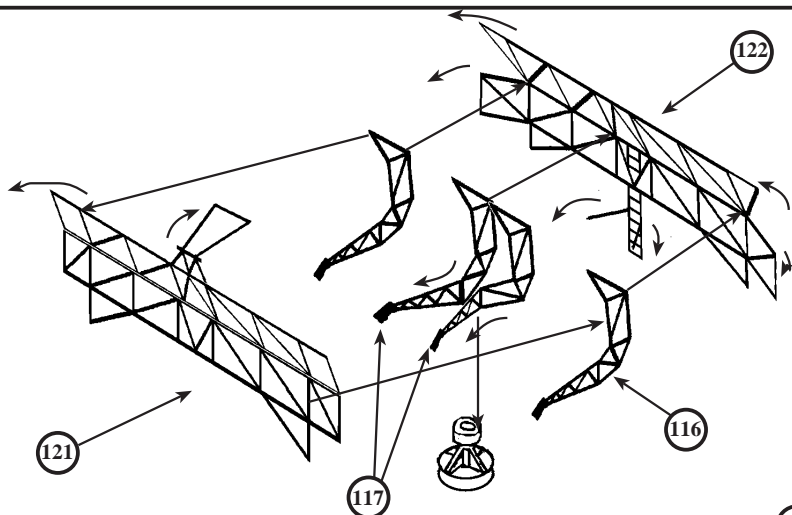


Photo-Etched Parts List

- | | | | |
|---|--|---|---|
| <ol style="list-style-type: none"> 1. Railing (Stock 3 Bar) 2. Flight Deck Deck Comms Loop (Stock) 3. CIWS Gun Barrel Support Frames 4. Vertical Ladder (Stock) 5. Railing (Goofers Deck) 6. Railing (Flight Deck Stbd Aft) 7. Railing (Flight Deck Stbd Forward) 8. Railing (Flight Deck Stbd Amidships) 9. Railing (Mizzen Mast Radome Platform) 10. Railings (Flight Deck Bow Sections) 11. Railings (Forward Superstructure Deck) 12. Railings (Aft 909 Superstructure Deck) 13. Railings (Mizzen Mast Platform) 14. Railings (Forward CIWS Platform) 15. Railings (Aft Radome Platform) 16. Railings (Forward Elevator) 17. Railings (996 Radar Platform) 18. Railings (Main Mast Top Platform) 19. Railings (Stbd 20mm Platform) 20. Railings (Starboard RAS Platform) 21. Railings (Aft Funnel Base) 22. Railings (Main Mast Lower Platforms) 23. Railing (Fo'c'sle Ladder Access) 24. Railings (Forward Funnel Base Aft) 25. Railings (Mizzen Upper Aft Platform) 26. Railings (Port Aft CIWS Platform) 27. ESM Sensors (Aft Platforms) 28. Railings (02 Deck Stbd Forward) 29. Railings (Weather Decks Stbd) 30. Railings (Port 20mm Sponson) 31. Railings (Fore Mast Base Deck) 32. Railings (Flight Deck Ski Jump Inboard) 33. Railings (Bridge Roof) 34. Railings (1006 Antenna Platform) 35. Railings (Main Mast Upper Platforms) 36. Railings (Aft Funnel Platform) 37. Railings (Mizzen DF Antenna Platforms) 38. Railings (Weather Decks Port) 39. Railings (Starboard CIWS Platform) 40. Sensor Housing (Fwd Goofers Deck) 41. Aft Radome Platform Antennas | <ol style="list-style-type: none"> 42. Railings (Quarterdeck Stern) 43. Railings (Quarterdeck Stbd) 44. Bridge Roof Searchlight Platforms 45. Bridge Roof Signal Platforms 46. Main Mast Upper Platform Catwalk 47. Main Mast Catwalk Ladders 48. Life Ring Ejector Racks 49. Railing (Approach Light Platform) 50. Main Mast Wire Antennas Feeds 51. Fore Mast Top Antenna Disc 52. Safety Nets (Starboard Forward) 53. Safety Nets (Ski Jump Front) 54. Safety Nets (Front CIWS Platform) 55. 996 Radar Antenna Mounting 56. Safety Nets (Stbd CIWS Platform) 57. Safety Nets (Ski Jump Port Side) 58. Aft Floodlight Gantry (Port Brace) 59. Aft Floodlight Gantry (Rear Frame) 60. Aft Floodlight Gantry (Light Bars) 61. Aft Floodlight Gantry (Stbd Brace) 62. Forward Floodlight Gantry 63. Aft Funnel Platform Antennas 64. Catwalk Decking (Kit Part 12A) 65. Flight Deck Aircraft Launch Signals 66. Catwalk Decking (Kit Part 13A) 67. Crane Hook 68. Funnel Badges (Illustrious) 69. Aft Whip Aerial Mounting 70. Caged Ladder (Bridge Rear Down) 71. Caged Ladder (Bridge Rear Up) 72. Aft Flight Deck Escape Platform 73. Loading Crane (Aft Funel Port) 74. Caged Ladders (Superstructure Stbd) 75. 996 Radar Antenna Face Plate 76. NATO Satcom Antennas 77. Safety Nets (Port 20mm Platform) 78. Safety Nets (Stbd 20mm Platform) 79. Safety Nets (Port Aft CIWS Platform) 80. Safety Nets (Flight Deck Aft) 81. Safety Nets (Port Aft Quarter) 82. Safety Nets (Flight Deck Port Aft) | <ol style="list-style-type: none"> 83. Bridge Front Antenna 84. Whip Aerial Supports (Small) 85. 1022 Mast Forward Platform 86. Fore Mast Top Gaff 87. Main Mast Top Gaff 88. Work Boat Prop & Rudder 89. Access Ladder (Main Top) 90. Catwalk Decking (Kit Part 5B) 91. Wire Antenna Spreader (Main) 92. Catwalk Decking (Kit Part 5B) 93. Stern Catwalk Supports 94. Funnel Cap Grills 95. Plenum Chamber Grills (Large) 96. Catwalk Decking (Kit Part 4B) 97. Catwalk Decking (Kit Part 4B) 98. Life Rings 99. Catwalk Supports (Port Aft) 100. 1022 Mast Forward Platforms 101. Catwalk Supports (Stbd Aft) 102. Plenum Chamber Grills (Med) 103. Plenum Chambe Grills (Small) 104. Yardarms (Aft Funnel) 105. Yardarms (Fwd Funnel Front) 106. Stern Catwalk Sensor 107. Catwalk Supports (Port Fwd) 108. Main Mast Upper Platforms 109. Ships Name Plates (Ark/ Inv) 110. Yardarms (Fore Mast Front) 111. Shield Antenna Frame 112. Yardarm (Fore Mast Rear) 113. Bowman Antenna 114. Ships Name Plates (Illustrious) 115. Yardarm (Fore Mast Rear) 116. 1022 Support Frames Outer 117. 1022 Support Frames Inner 118. CCTV Cameras 119. 1022 Antenna Screen 120. 1022 Transducer Horns 121. 1022 Forward Support Frame 122. 1022 Rear Support Frame 123. Yardarms (Fwd Funnel Rear) | <ol style="list-style-type: none"> 124. 996 Radar Antenna Platform 125. 1022 IFF Interogator 126. Light Cluster (Main Mast Top) 127. 1022 Mast Top Catwalk 128. Main Mast Approach Light Support 129. Main Mast Approach Light Bank 130. Bridge Roof Forward Lookout Tub 131. Stern Escape Ladder 132. Approach Light Array Platform 133. Mizzen Mast Top Platform Grates 134. Mizzen Mast Mid Platform Grates 135. Disc Antenna Array 136. Main Mast Lower Platforms 137. Accommodation Ladders (Stowed) 138. Work Boat Boarding Platform 139. Motor Boat Boarding Platform 140. Aft Funnel Platform Whip Aerial Bases 141. Life Raft Canister Racks (Single) 142. Life Raft Canister Racks (Double) 143. Life Raft Canister Racks (Angled) 144. Funnel Badges (Ark Royal) 145. Aircraft Refueling Hose Points 146. Crane Rigging (Outer) 147. Crane Rigging (Inner) 148. Gemini Inflatable Boat Cranes 149. Pacific Sea Boat Parts 150. Forward Funnel Face Plate (Front) 151. Forward Funnel Face Plate (Rear) 152. Aft Funnel Face Plate (Front) 153. Aft Funnel Face Plate (Rear) 154. Motor Boat Fittings 155. Boat Falls 156. Superstructure Power Cable Reels 157. Watertight Doors 158. Anchor Chain 159. Bridge Window Wipers 160. Aircraft Refueling Hose Reels 161. ECM Antennas (Kit Parts 31D & 32D) 162. Flight Deck Power Cable Reels 163. Towing Hawser Reels 164. Towing Hawser Reel Mountings |
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1022 Radar Antenna Assembly



Cut the circular mounting base from the kit part or make a similar item for use with this assembly. Fit the frames, etched parts 117 to each side of the circular boss on the plastic mounting, so that they are perfectly parallel. When secure bend the lower legs outwards as shown.

Gently curve the mesh screen, etched part 119, then fit in to place on the support frame assembly. The top edge of the mesh screen fits along the top edge of the support frame with the recess on the lower part fitting over the centre lattice legs.

Fit the IFF transmitter, etched part 125, to the top of the central mounting bracket. This item may be thickened by adding a strip of 20 thou plastic card to the rear surface.

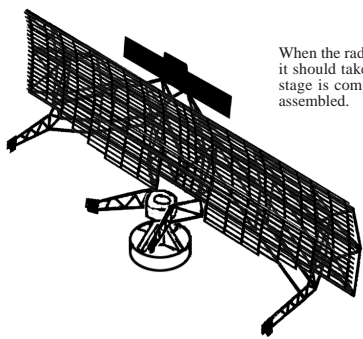
Fold the top section of the forward frame, etched part 121, forwards slightly, then fit the two frames 116 to the outer upright bars, so that the lower legs rest against the angled stay on the bottom of the frame.

Fold the top of the rear frame, etched part 122, forwards slightly then fit to the rear of etched parts 116 and 117.

Fold the end sections of the rear frame forward until they touch the outer uprights on the front frame. Secure them in place.

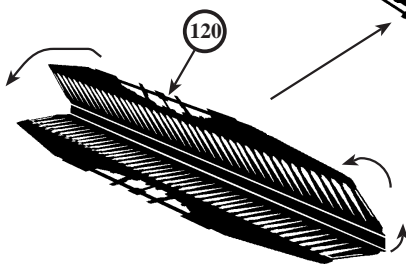
The upper portion of the angular bracket on top of the forward frame folds rearwards and downwards until it attaches to the rear central horizontal bar on the rear frame. Secure this in to place.

When the radar antenna support frame and mesh screen are assembled, it should take the form as shown in the picture on the left. Once this stage is complete, the transmitter dipole array is the next part to be assembled.

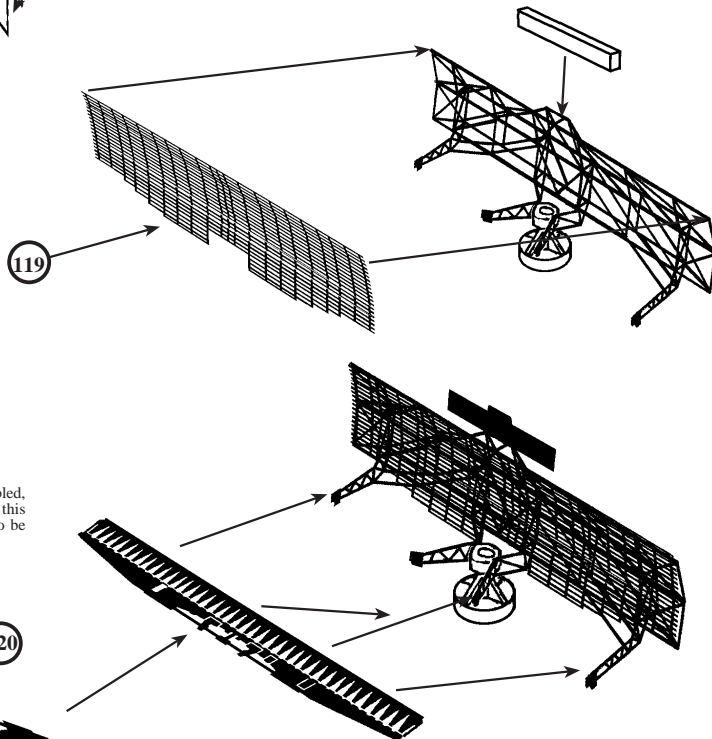


Fold the dipole array along the two etched lines so that the long thin strip is vertical and the two sets of horns are parallel. Bend the upper and lower rear halves outwards so that when the two halves are brought together they will meet flat at the rear, with the horns on the upper and lower halves angled by the same amount up to the front strip.

When complete secure the two rear halves together.



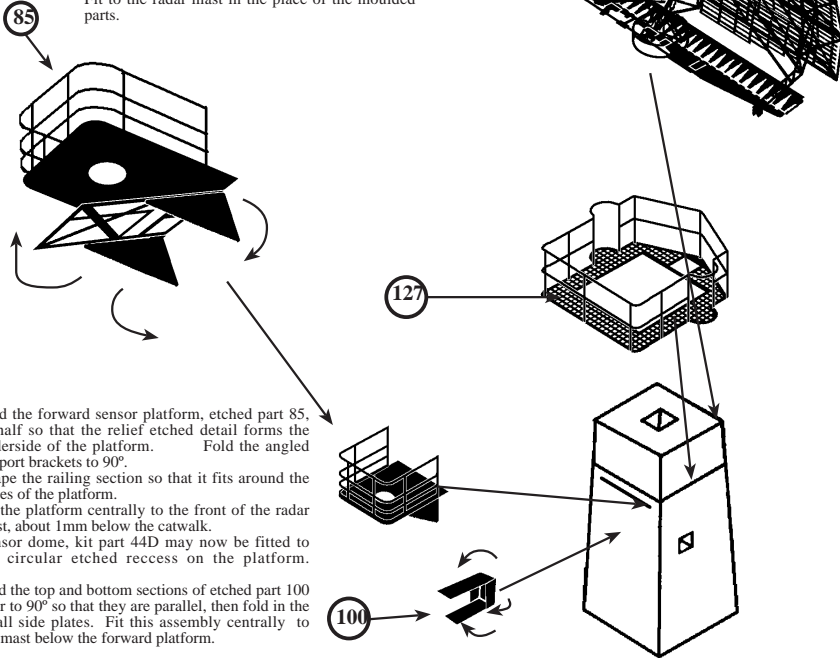
Fit the transmitter horn array on to the four lattice legs, so that it is parallel to the mesh screen face. The complete assembly can now replace any part supplied in a kit or be fitted to a scratch built model.



1022 Radar Mast and Catwalk Assembly

Fit the 1022 radar antenna assembly directly in place of kit parts 69 and 81D.

Remove the molded plastic catwalk and platform from the assembled kit parts 56 and 57C. Fold the railings on etched part 46 to 90° and shape them so that they fit around the edges of the catwalk as shown right. Fit to the radar mast in the place of the moulded parts.

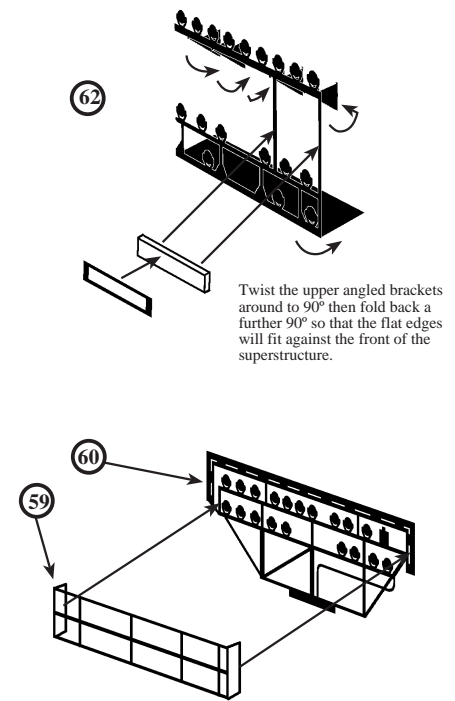


Fold the forward sensor platform, etched part 85, in half so that the relief etched detail forms the underside of the platform. Fold the angled support brackets to 90°. Shape the railing section so that it fits around the edges of the platform. Fit the platform centrally to the front of the radar mast, about 1mm below the catwalk. Sensor dome, kit part 44D may now be fitted to the circular etched recess on the platform.

Fold the top and bottom sections of etched part 100 over to 90° so that they are parallel, then fold in the small side plates. Fit this assembly centrally to the mast below the forward platform.

Floodlight Gantry Assembly

Replace kit parts 64D, 66D and 68D Fore and Aft floodlight gantries with the etched items assembled as shown below.

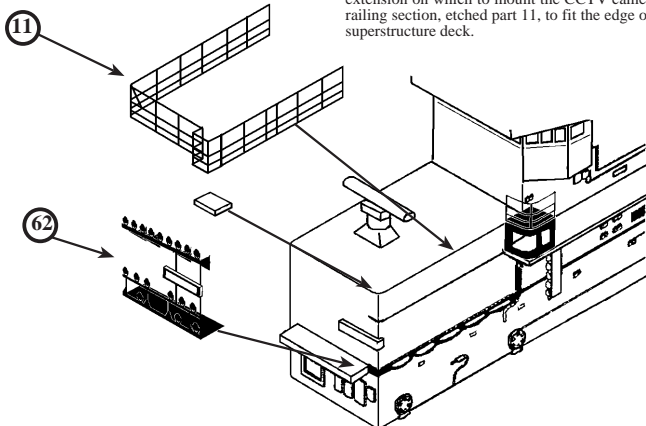


Twist the upper angled brackets around to 90° then fold back a further 90° so that the flat edges will fit against the front of the superstructure.

Fold the end sections of the rear support frame, etched part 59, to 90° so that they are parallel then fit the vertical end bars to the back of the aft light gantry, etched part 60, as shown.

Forward Floodlight Gantry Location

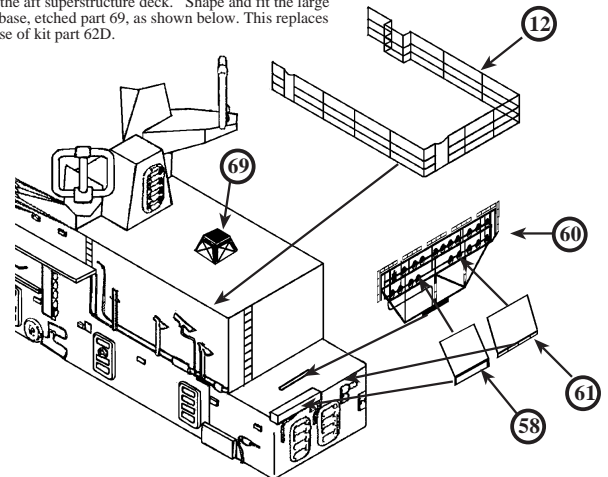
Cut a small rectangle of plastic card to serve as a platform extension on which to mount the CCTV camera. Shape the railing section, etched part 11, to fit the edge of the forward superstructure deck.



Fit the assembled forward lighting gantry, etched part 62, on to the molded platform on the front of the superstructure. Secure the upper angled brackets to the front of the superstructure.

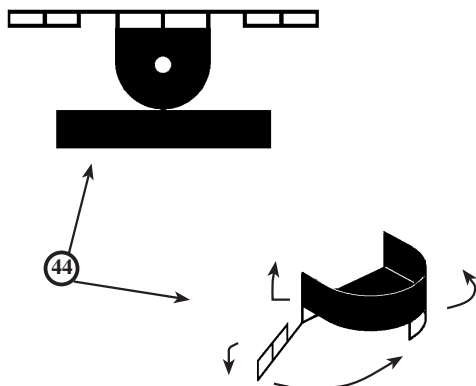
Aft Floodlight Gantry Location

Shape and fit the railing section, etched part 12, as shown and fit to the edge of the aft superstructure deck. Shape and fit the large whip antenna base, etched part 69, as shown below. This replaces the molded base of kit part 62D.



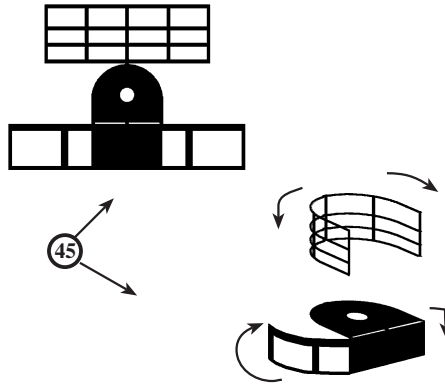
Fit the etched lighting gantry 60 as a direct replacement of kit part 66D. Fit the aft support brackets between the aft superstructure and the front of the gantry as shown.

Searchlight Platform Assembly



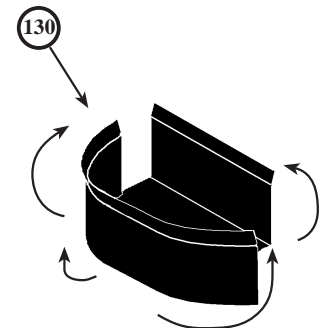
This is the first of two pairs of platforms missing from the kit, that fit to the bridge roof. Assembly is simple in that you fold the short legs section to 90° and gently curve it on both sides until it fits around the curved deck plate. These are the platforms feet. Fold up the solid bulwark to 90° and curve it around the edges of the base as well. Secure in to place. Make two of these small platforms.

Signal Lamp Platform Assembly



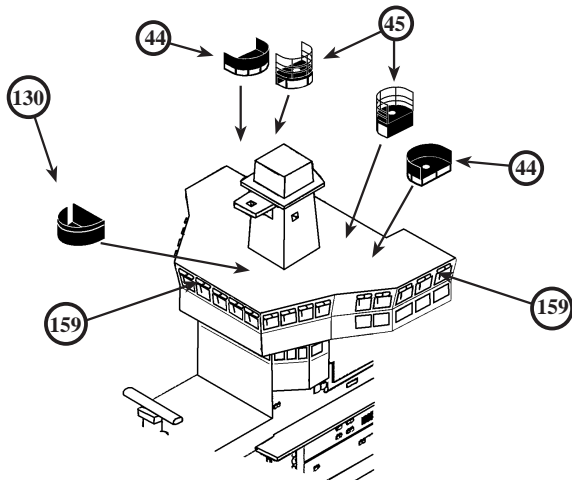
Fold up the railings section to 90° and curve around the base plate edges. Secure in to place. Fold the base plate legs down to 90° and curve the side sections around the base plate until they meet at the apex. Secure into place. Make two of these. Signal lamps and searchlights are not included in the kit, but they can be scratch built by using plastic rod as a stem and cutting a small section of a slightly larger diameter rod and fitting it on it's side to the top of the stem. Alternatively the spares box can be raided to acquire unused items from other kits.

Lookout Platform Assembly



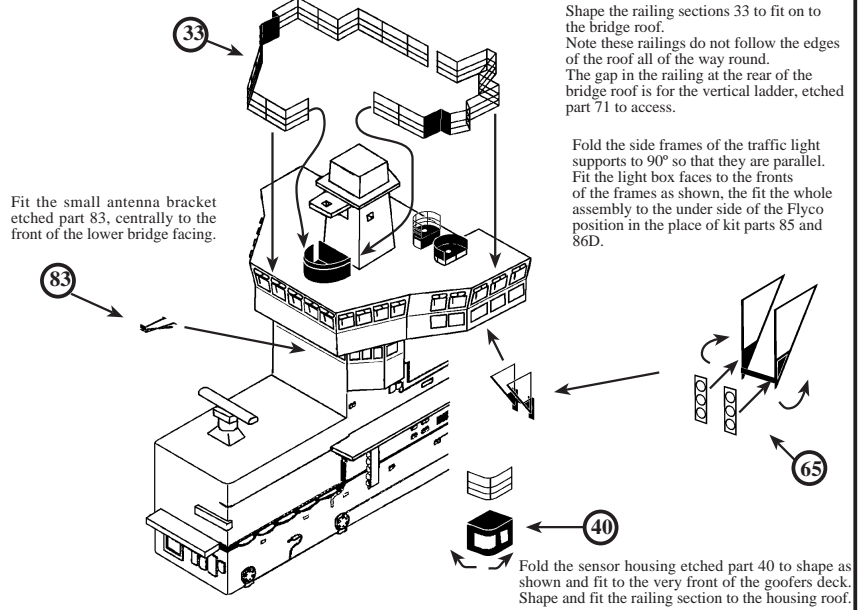
Another item missing from the bridge roof is a semi circular lookout or range-finder tub. This is provided for in etched part 130 and is simply assembled as shown above. Note that the curved bulwark does not meet the rear bulwark on the starboard side as this is an entry way.

Bridge Roof Platform Locations



Fit the signal lamp platforms and searchlight platforms to the positions on the bridge roof as shown above. These are mirrored to each other on both sides. They are positioned slightly aft of the radar mast.
Fit the lookout tub 130 centrally 2mm in front of the radar mast. Etched parts 159 are the windscreen wiper fittings. These fit individually above each window with the wiper blade protruding downwards. The wiper motor box has a doubler section that is folded over and fixed down to increase the thickness of the motor box.

Bridge Details



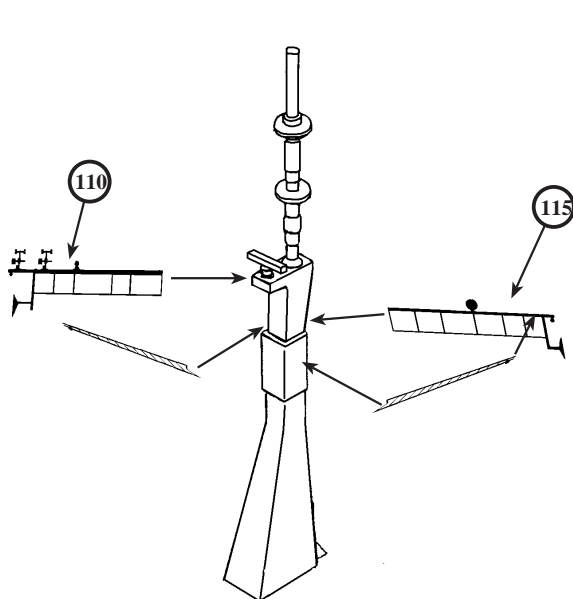
Fit the small antenna bracket etched part 83, centrally to the front of the lower bridge facing.

Shape the railing sections 33 to fit on to the bridge roof. Note these railings do not follow the edges of the roof all of the way round. The gap in the railing at the rear of the bridge roof is for the vertical ladder, etched part 71 to access.

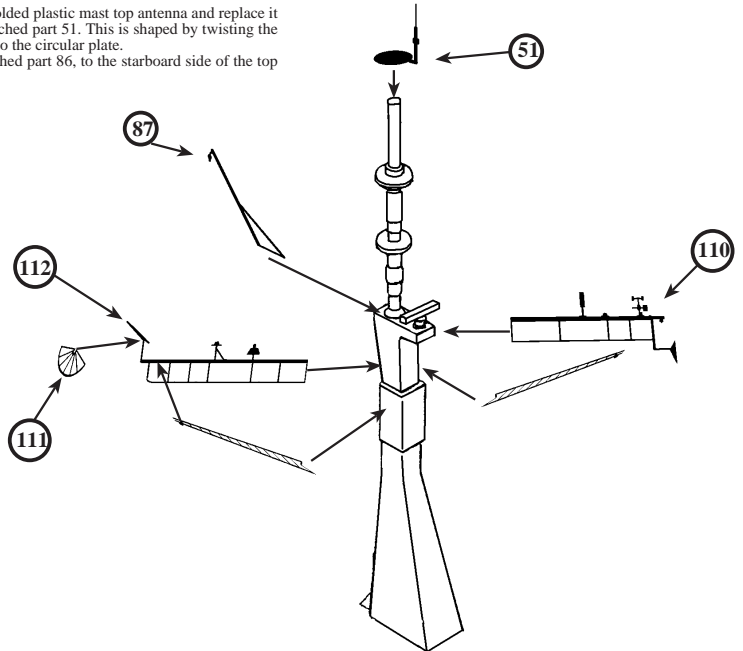
Fold the side frames of the traffic light supports to 90° so that they are parallel. Fit the light box faces to the fronts of the frames as shown, fit the whole assembly to the under side of the Flyco position in the place of kit parts 85 and 86D.

Fold the sensor housing etched part 40 to shape as shown and fit to the very front of the goofers deck. Shape and fit the railing section to the housing roof.

Fore Mast Yardarms and Fittings



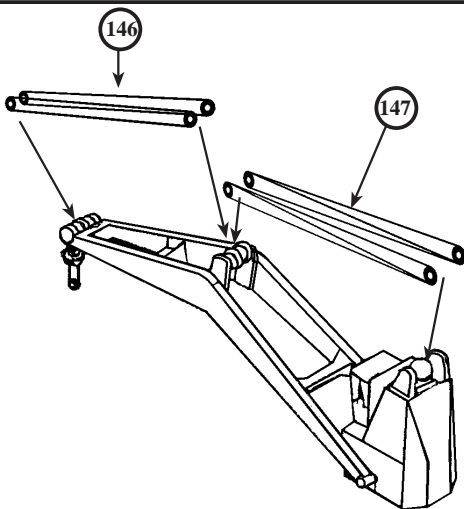
Remove the molded plastic mast top antenna and replace it directly with etched part 51. This is shaped by twisting the antenna to 90° to the circular plate.
Fit the gaff, etched part 86, to the starboard side of the top platform.



Fit the yardarms on to the fore mast so that they are at 45° and form a diagonal cross when viewed from above. Yardarms 110 are the front pair and are positioned so that the top horizontal bar is level with the small radar platform and just behind the platform protrusion. The two weather vanes are positioned on the starboard side of the mast with the single weather vane on the port side. Fit the yardarm stays so that the forks at the pointed end fit under the top bar at the outer end from the front of the yardarm.
When the lower end of the stays are secured to the mast the footbars on the yardarm are angled rearwards by the stays.

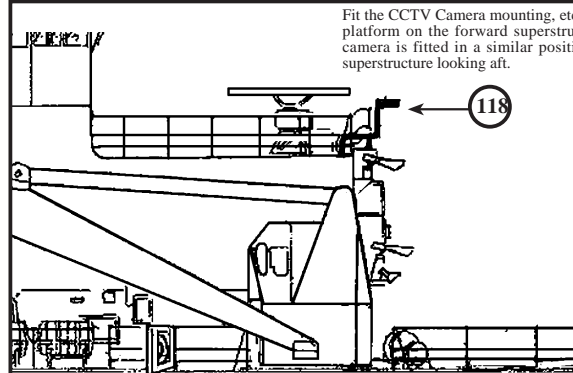
Fit the rear pair of yardarms, etched parts 112 and 115, so that the footbars are just above reinforced section of the mast.
Fit the forks on the pointed ends of the stays from the rear. The footbars are automatically angled forwards by the shape of the back of the mast.

Ships Crane Rigging

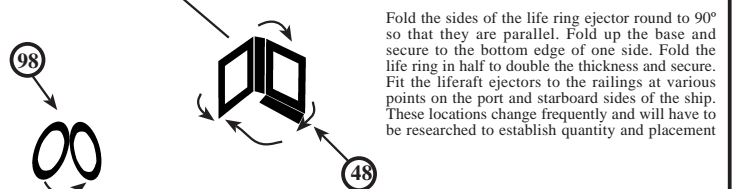


To fit the cranes rigging cables, the pulley wheels must be cut through on each side to allow the etched parts to be slotted down in to the pulley assemblies. The jib at the outer end, behind the pulley wheels, may need to be trimmed down to allow the lower cables clearance.

Forward Superstructure Details Location

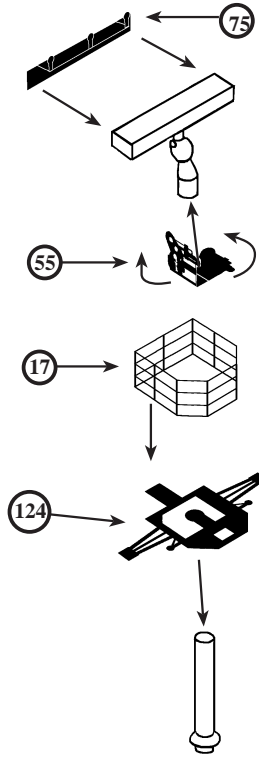


Fit the CCTV Camera mounting, etched part 118, to the small platform on the forward superstructure as shown. Another camera is fitted in a similar position on the side of the aft superstructure looking aft.



Fold the sides of the life ring ejector round to 90° so that they are parallel. Fold up the base and secure to the bottom edge of one side. Fold the life ring in half to double the thickness and secure. Fit the liferaft ejectors to the railings at various points on the port and starboard sides of the ship. These locations change frequently and will have to be researched to establish quantity and placement.

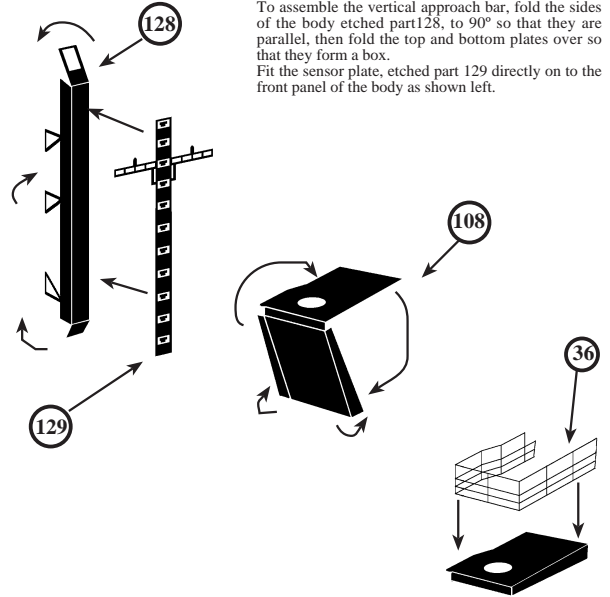
996 Radar Antenna and Access Platform Assembly



Remove the radar antenna from the top of kit part 17D and fit the face plate, etched part 75 as shown left after folding the top plate rearwards to 90° then folding the small antennas back to vertical. Fold up the sides of the antenna mechanism etched part 55 and fit to the upright on the base of the kit part.

Remove the platform from the kit part 17D completely so that you are left with the mounting pole. Fit the etched platform 124, so that the top of the pole locates in the lug in the middle of the platform. Fit the railing, etched part 17 around the edge of the platform.

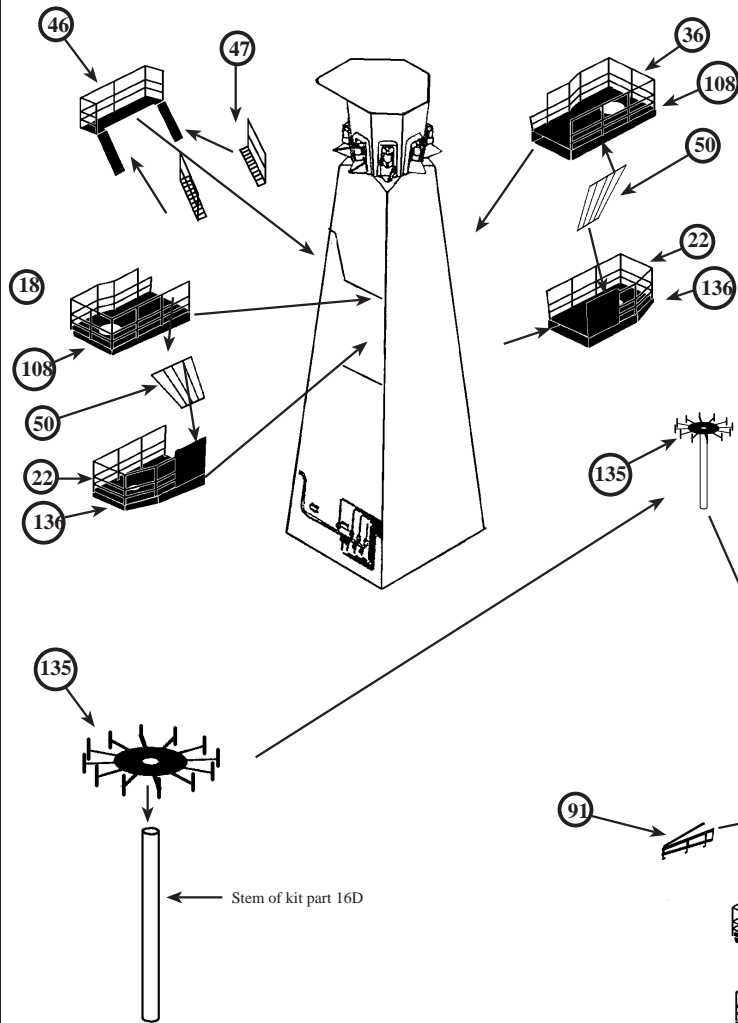
Main Mast Platforms and Approach Lights



To assemble the vertical approach bar, fold the sides of the body etched part 128, to 90° so that they are parallel, then fold the top and bottom plates over so that they form a box. Fit the sensor plate, etched part 129 directly on to the front panel of the body as shown left.

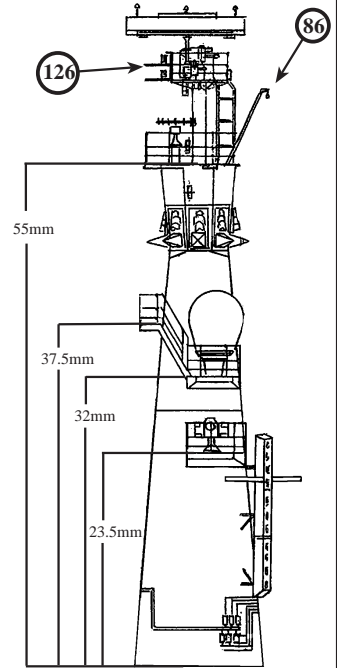
To assemble the main mast platforms, a similar method of folds is used on all of them, making them hollow boxes effectively. Fold up the front and rear side strips to 90° on all of the platforms. Shape the sides as necessary to follow the contour of the upper and lower plates. Fold the end strips to 90° then follow the deck plates over a further 90°. Secure the tops of the side strips to the edges of the deck plates. Shape and fit the designated sections of railing to the edges of the platform decks. These platforms are for fitting as direct replacements for the kit parts 9A, 10A, 39C and 40C if desired. The radomes supplied in the kit along with kit parts 49D can be fitted normally to these platforms as per kit instructions.

Main Mast Fittings Assembly



If the replacement main mast platforms are being used, the molded inter platform catwalk must first be removed from the front of the mast. Any locating slots for the kit parts must also be filled and smoothed before fitting the replacement parts. Mark out the positions of the new platforms using the height guide provided right.

Fit the upper and lower platforms to each side of the mast as shown left so that the rear edges of the platforms are flush with the rear edge of the mast.



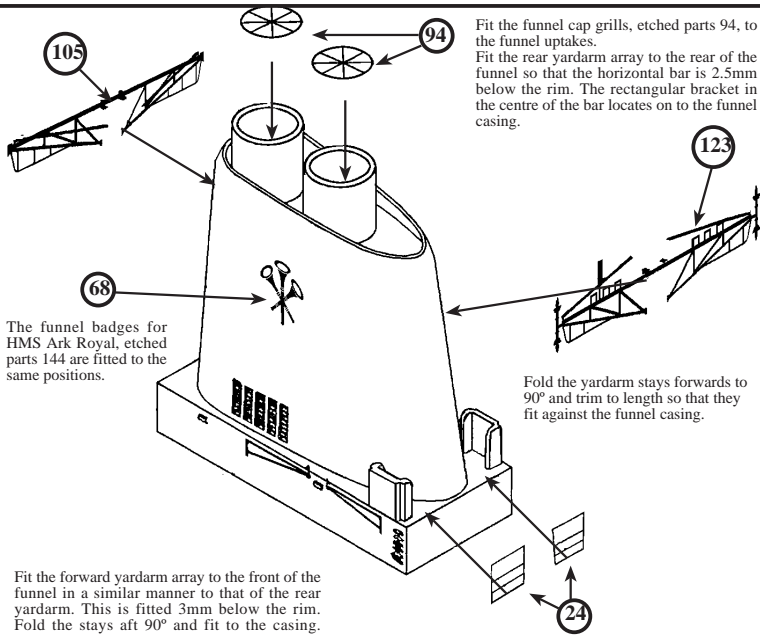
Fit the mast top radar assembly to the top platform as a direct replacement for kit part 17D. Fill and smooth the locating hole provided on the kit part and drill a new locating hole on the starboard side of the platform as shown left. Shape and fit the railing section, etched part 18, to the top platform as shown.

Fit the two small wire antenna spreaders, etched parts 91, centrally to the sides of the mast after first folding the single stays forwards to 90°.

Twist the end of each of the dipoles on etched part 135 around so that the bars run vertically as shown. Remove the flat plastic disc from the top of kit part 16D and replace it on the stem with the etched part. Fit to the mast top platform as per the kit instructions.

Stem of kit part 16D

Fore Funnel Yardarms and Fittings Assembly



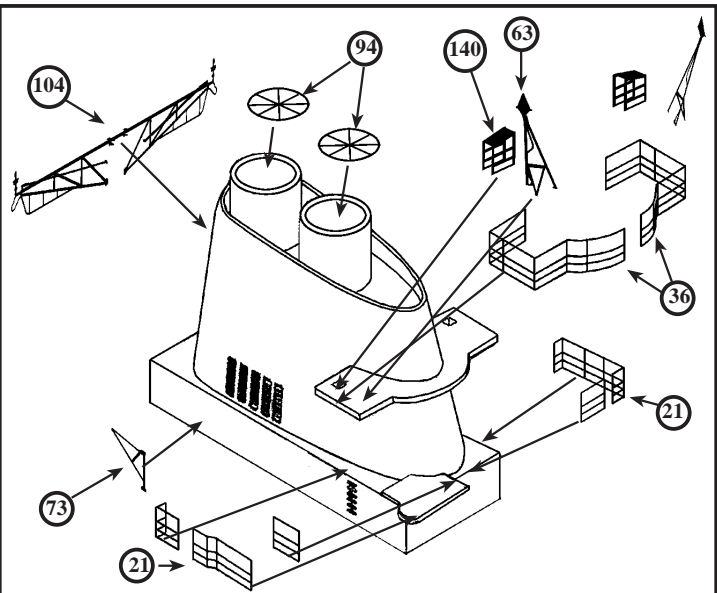
Fit the funnel cap grills, etched parts 94, to the funnel uptakes.
Fit the rear yardarm array to the rear of the funnel so that the horizontal bar is 2.5mm below the rim. The rectangular bracket in the centre of the bar locates on to the funnel casing.

The funnel badges for HMS Ark Royal, etched parts 144 are fitted to the same positions.

Fold the yardarm stays forwards to 90° and trim to length so that they fit against the funnel casing.

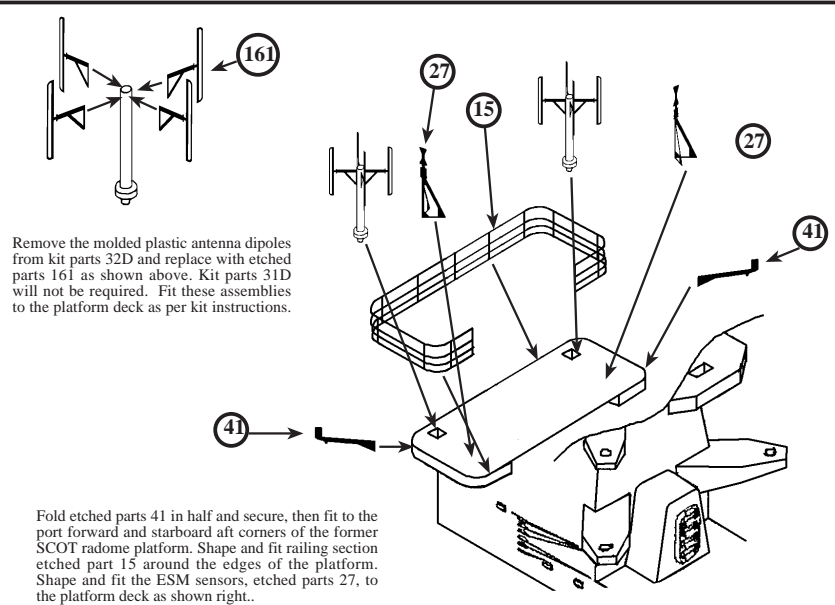
Fit the forward yardarm array to the front of the funnel in a similar manner to that of the rear yardarm. This is fitted 3mm below the rim. Fold the stays aft 90° and fit to the casing.

Aft Funnel Yardarms and Fittings Assembly



Fit the funnel yardarm array to the aft funnel, in a similar manner to that described for those on the forward funnel. The horizontal bar fits centrally 3.5mm below the funnel rim.
Shape and fit the ESM antennas, etched parts 63, to the funnel platform corners at 45° so that they just clear the tops of the railings. Shape and fit the whip antenna bases, 140 and fit kit parts 61 to these after shortening.

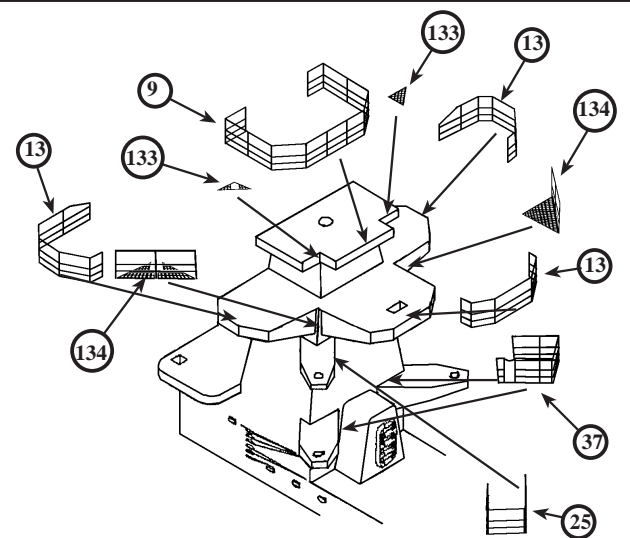
Aft Sensor Platform Fittings Location



Remove the molded plastic antenna dipoles from kit parts 32D and replace with etched parts 161 as shown above. Kit parts 31D will not be required. Fit these assemblies to the platform deck as per kit instructions.

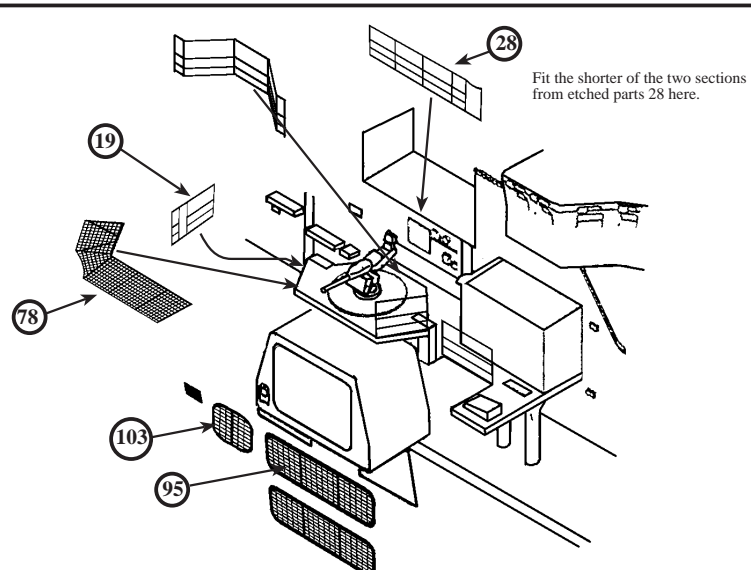
Fold etched parts 41 in half and secure, then fit to the port forward and starboard aft corners of the former SCOT radome platform. Shape and fit railing section etched part 15 around the edges of the platform. Shape and fit the ESM sensors, etched parts 27, to the platform deck as shown right.

Mizzen Mast Fittings



Using a sharp modeling knife, remove the molded plastic angled fillets from the rear of the top and mid position mizzen mast platforms so that the mast platforms appear as shown above. Fit the small perforated angled fillets, etched parts 133, to the top platform, with the ladder opening on the port side. Shape and fit the larger perforated fillets, etched parts 134, to the mid platform again with the ladder opening to port. Shape and fit the railing sections provided for the mast platforms as shown above.

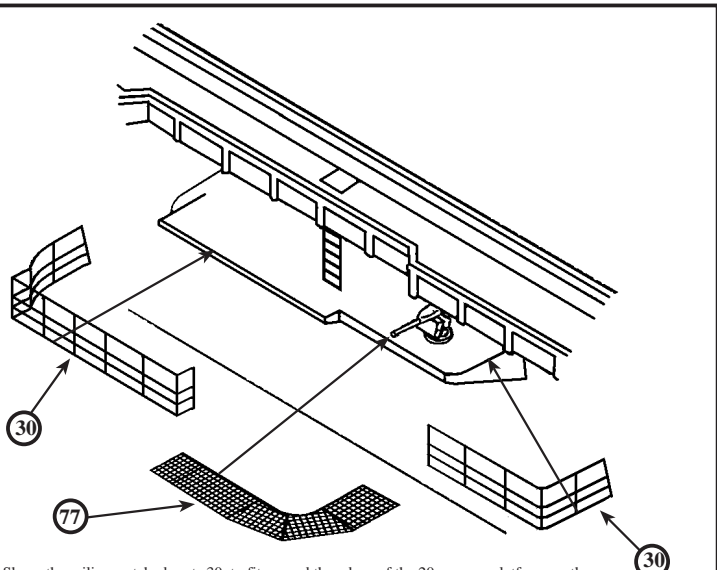
Starboard 20mm Gun Platform Fittings



Fit the shorter of the two sections from etched parts 28 here.

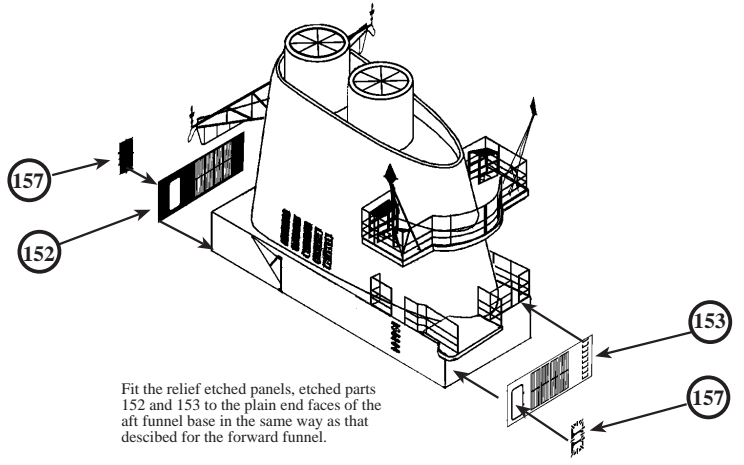
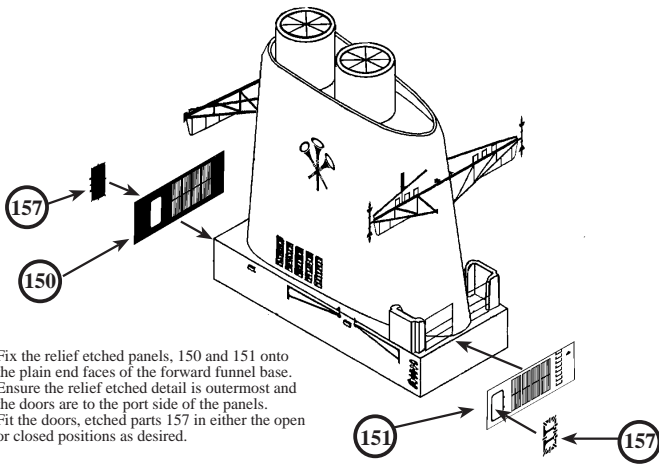
Fitting the railings and safety nets to the 20mm gun platform is straight forward. The long section of railing 19 is shaped to fit the rear of the platform while the small sections are fitted between the superstructure side and the platform, and also along the edge of the lower platform to the crane jib.

Port 20mm Gun Platform Fittings

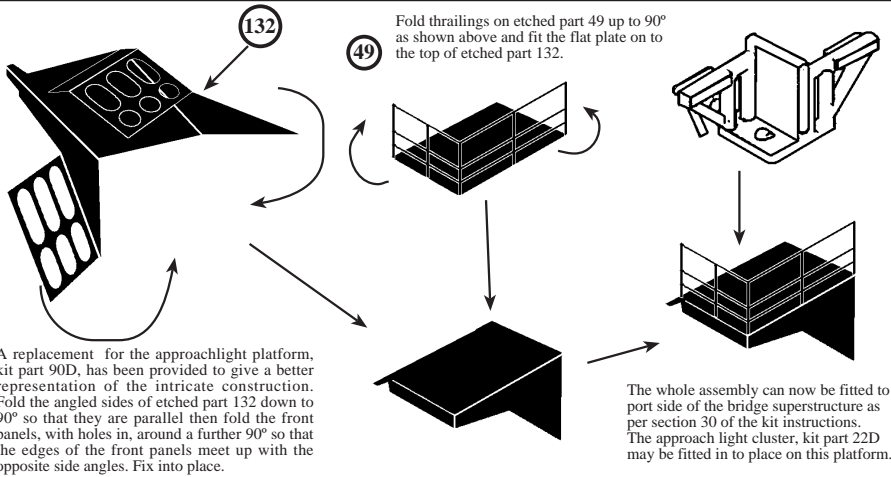


Shape the railings, etched parts 30, to fit around the edges of the 20mm gun platform on the port side of the ship. The safety nets, etched parts 77, would also be fitted but if the gun was in use then the small section of railings around the gun would have been removed.

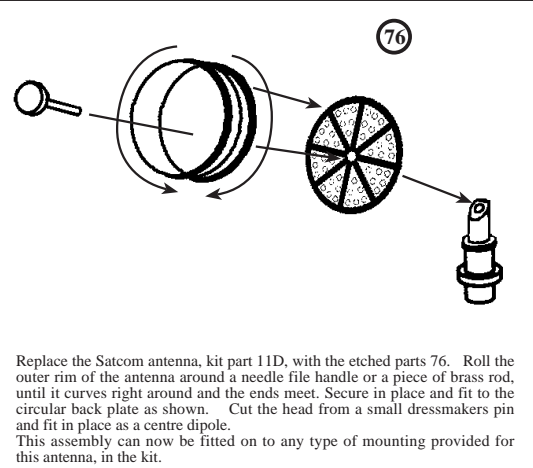
Funnel Base Bulkhead Panel Locations



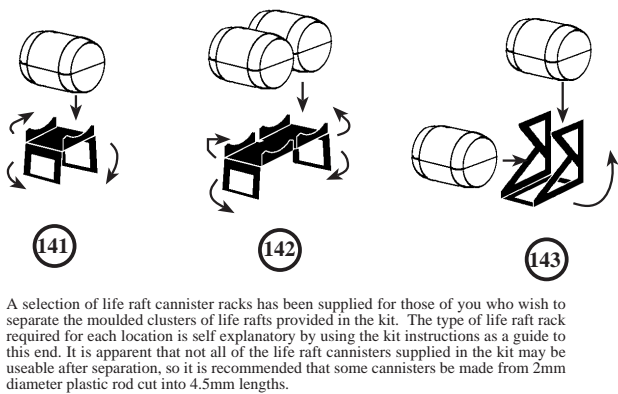
Approach Light Mounting Platform Assembly



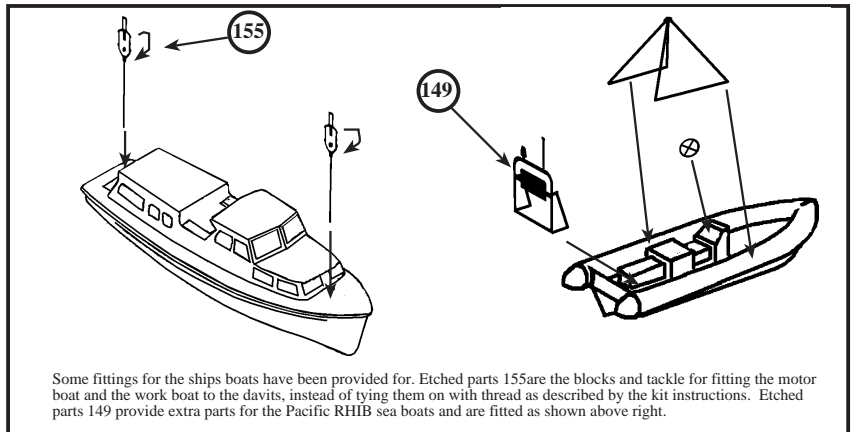
NATO SATCOM Antenna Assembly



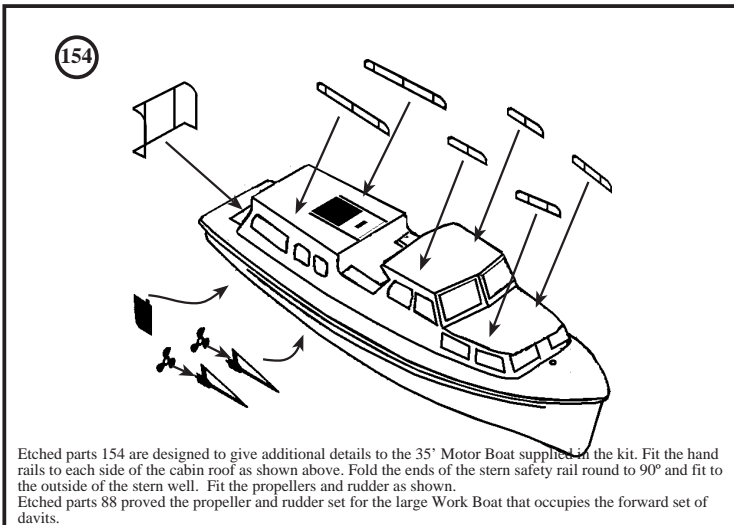
Life raft Canister Rack Options



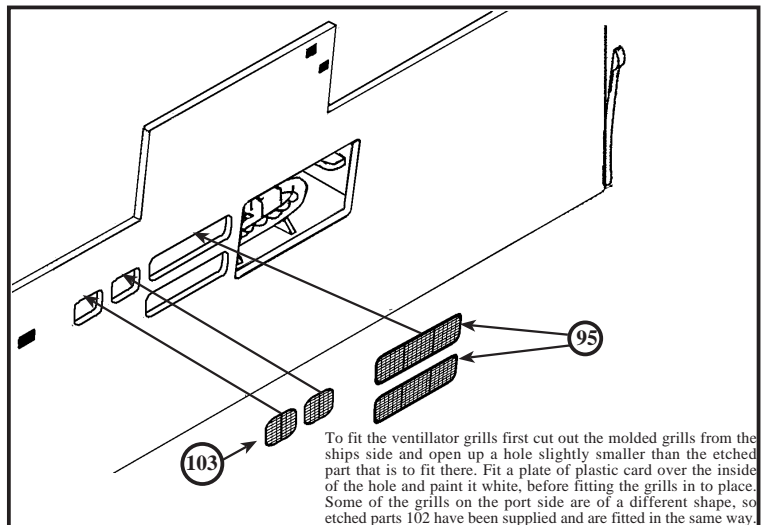
Ships Boats Details



Motor Boats Details

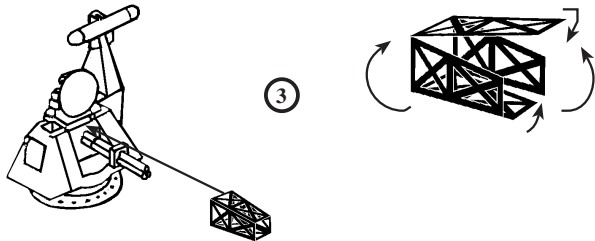


Plenum Chamber Grill Location



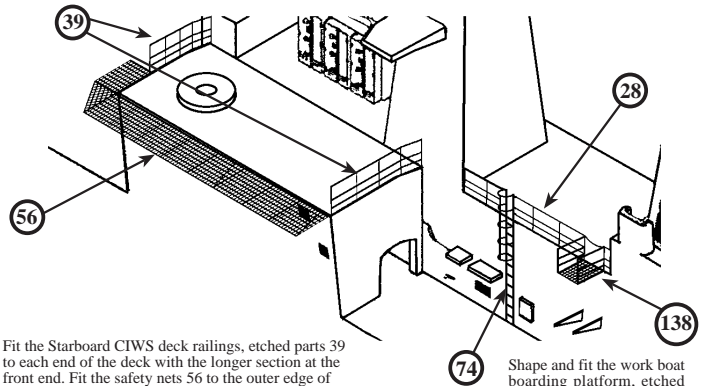
Goalkeeper CIWS Gun Barrel Support Frame

If the modeller wishes for a bit more detail to the CIWS Goalkeeper gun mountings, the molded plastic impressions of the lattice barrel supports must first be removed from around the gun barrels, leaving a small rectangle of plastic half way along the barrel cluster.



Fold the four lattice sides of etched parts 3 around, and taper them so that the edges come together to form a lattice box. Secure the edges with adhesive, then fit the wider end over the barrels until it fits in against mounting body. The narrow end should locate on the small rectangle of plastic half way along the barrels.

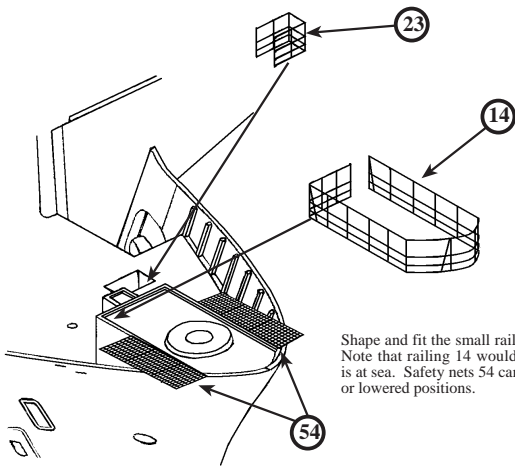
Starboard CIWS Platform Details



Fit the Starboard CIWS deck railings, etched parts 39 to each end of the deck with the longer section at the front end. Fit the safety nets 56 to the outer edge of the deck as shown. Fit the longer section of etched railings 28 to the edge of the superstructure deck.

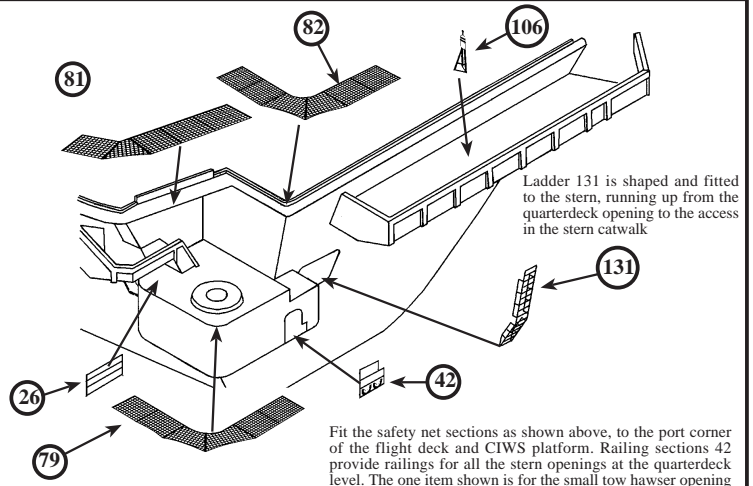
Shape and fit the work boat boarding platform, etched part 138, at the gap in the railing.

Forward CIWS Platform Details



Shape and fit the small railings sections as shown here. Note that railing 14 would not be fitted when the ship is at sea. Safety nets 54 can be fitted in either the raised or lowered positions.

Port Aft Quarter CIWS Platform Details

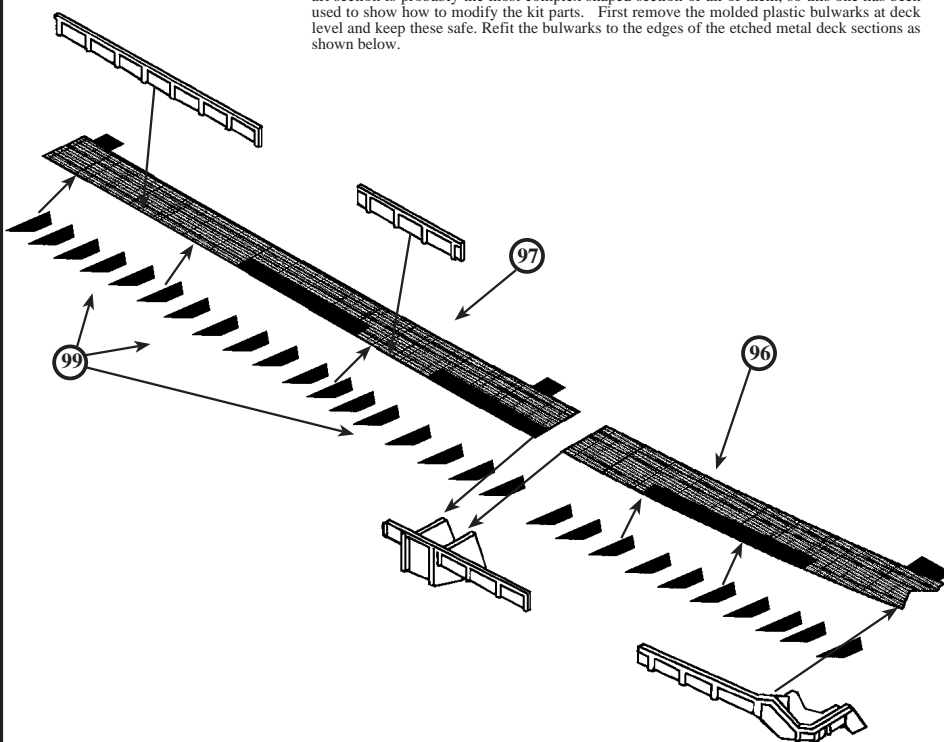


Ladder 131 is shaped and fitted to the stern, running up from the quarterdeck opening to the access in the stern catwalk.

Fit the safety net sections as shown above, to the port corner of the flight deck and CIWS platform. Railing sections 42 provide railings for all the stern openings at the quarterdeck level. The one item shown is for the small tow hawser opening.

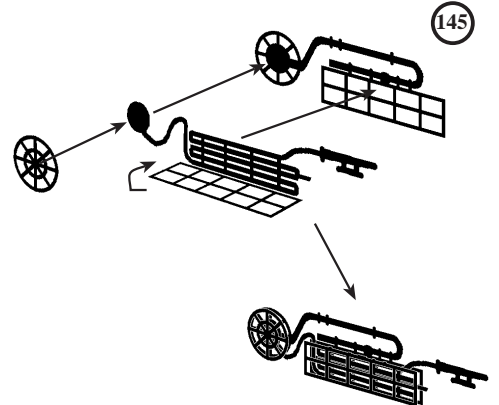
General Catwalk Assembly Method

The catwalks on the *Illustrious* were upgraded at the last refit in 2005 and widened slightly. This gave rise to the need for additional support brackets on the underside as well as having a perforated decking to allow adequate drainage. Because the perforations are very small, they are too fine to be molded in plastic, so the kit parts will have to be modified to take etched metal deck plates. The sections of catwalk shown below are taken as an example and the port aft section is probably the most complex shaped section of all of them, so this one has been used to show how to modify the kit parts. First remove the molded plastic bulwarks at deck level and keep these safe. Refit the bulwarks to the edges of the etched metal deck sections as shown below.



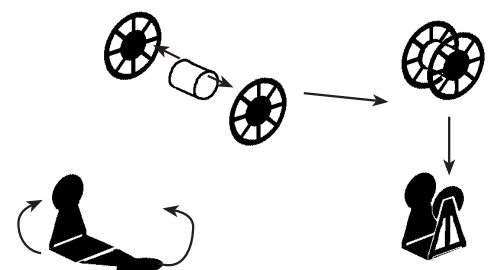
When the adhesive has set, fit the catwalk sections in to the locating slots in the ship's side and secure in to place. Fit the angled support brackets to the undersides of the catwalks along the thicker lateral bars on the decking. These catwalk decks and support brackets have been made to the same dimensions as that of the kit parts to ensure a good fit to the hull. The support brackets are different sizes to compensate for the different widths and angles. As a rule of location on the fret the brackets are placed from left to right in sequence as they would fit from fore to aft on the catwalk.

Refuelling and Fire Point Assembly



Assemble the fire hose baskets as shown here and fit two of these to the port side of the island, one forward and one aft. The remainder fit in the catwalks on the port and starboard sides against the ship's sides.

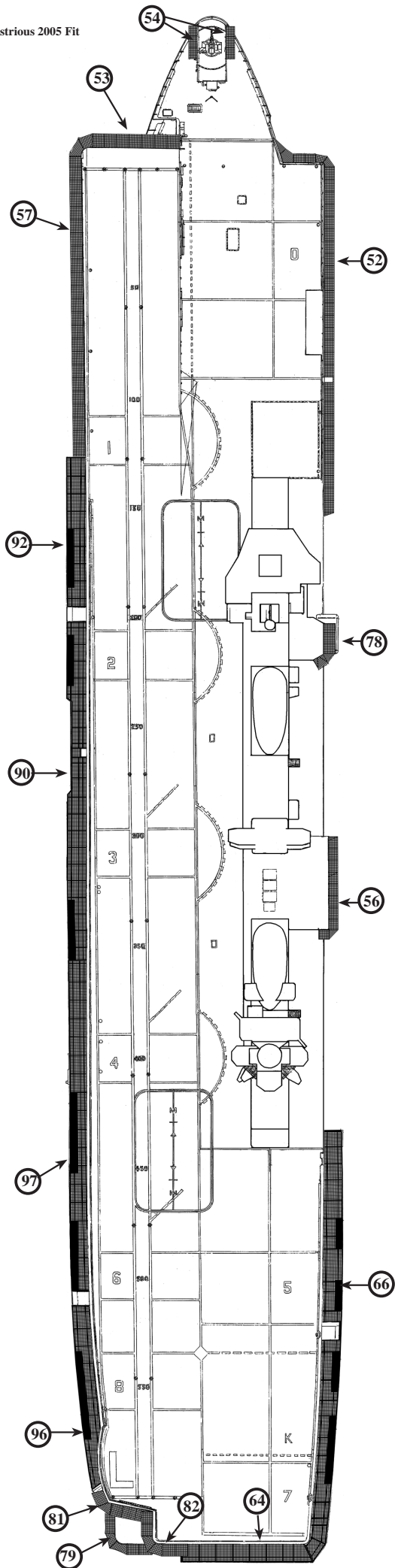
Cable and Hose Reel Assembly



To assemble the hose and cable reels, first fold up each of the drum ends to 90° so that they are parallel. Take care that the joiner strips along the base are not damaged. Cut a length of plastic rod to fit between the ends as the centre spindle.

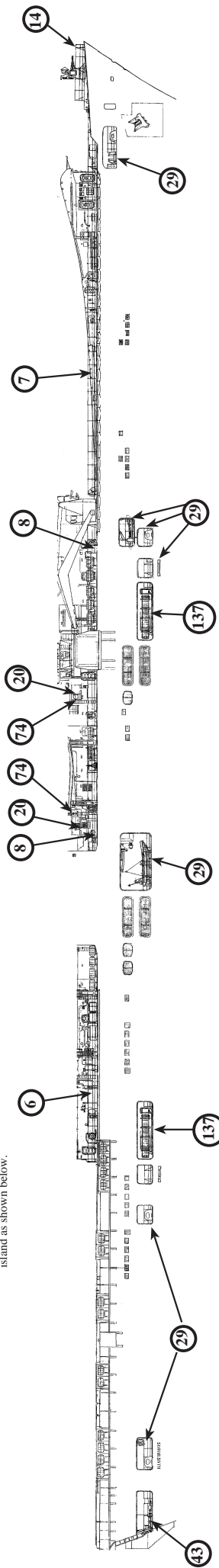
Catwalk and Safety Nets Locations

Illustrious 2005 Fit



Weather Deck Railings Locations

Fit the main deck railings sections to the starboard side of the island as shown below.



The railings for the weather deck openings, etched parts 29 and 38 are placed as a set in a strip for each side of the hull. The small strips of railing that have gap in them are positioned where there is a fairlead in the opening. The remaining sections are tailored to fit the opening in sequence from front to rear.

Vertical caged ladders 74 are fitted to the starboard side of the superstructure located as shown above.

Fit the stowed accommodation ladders etched parts 137, to the openings on both sides of the hull, with the small section of railing forward. The ladders are the correct size, for the openings.

Railing sections, etched parts 42 are divided in to small parts that fit the quarterdeck opening across the stern. The largest section 43 has an angle, which needs to be bent to 90° and fitted to the starboard quarter opening as shown above.