



### History

HMS Starling was built by Fairfield Shipbuilders and Engineering Ltd, Govan and launched on 14th October 1942. She was completed to a design based on the Black Swan class of Escort Sloop but modified with better equipment and a slightly wider beam. She also had the new addition of stabilisers, which made her a good AA gun platform, which was ideal for her role as Anti Aircraft and Anti Submarine Escort ship.

Starling was completed in April 1943 and became the Leader of the 2nd Escort Group under the command of Captain F.J. Walker. Captain Johnie Walker was probably the most proficient Anti Submarine tactician of the war, and under his command Starling had a distinguished wartime record, being involved in, or responsible for, the sinking of at least sixteen U-Boats.

Six of the U-Boats were sunk in the space of one month between 31st Jan 1944 and 19th Feb 1944. This included the capturing of the crew of the U264, commanded by Hartwig Looks. This U Boat was the first to use the new Schnorkel device.

Sadly Captain Walker died of a stroke on 9th July 1944 at the age of 48, but his achievements will always be remembered.

HMS Starling survived the war and in 1948 had all of her armament removed. She became a Navigation Training Support ship with the Dartmouth Training Squadron. Large deck houses were built aft, in place of her gun housings and a lattice main mast fitted to take the additional radar and wireless antennas.

She continued in this role until 1959 when reduced to the Reserve Squadron, then finally she was sold off and broken up in 1965.

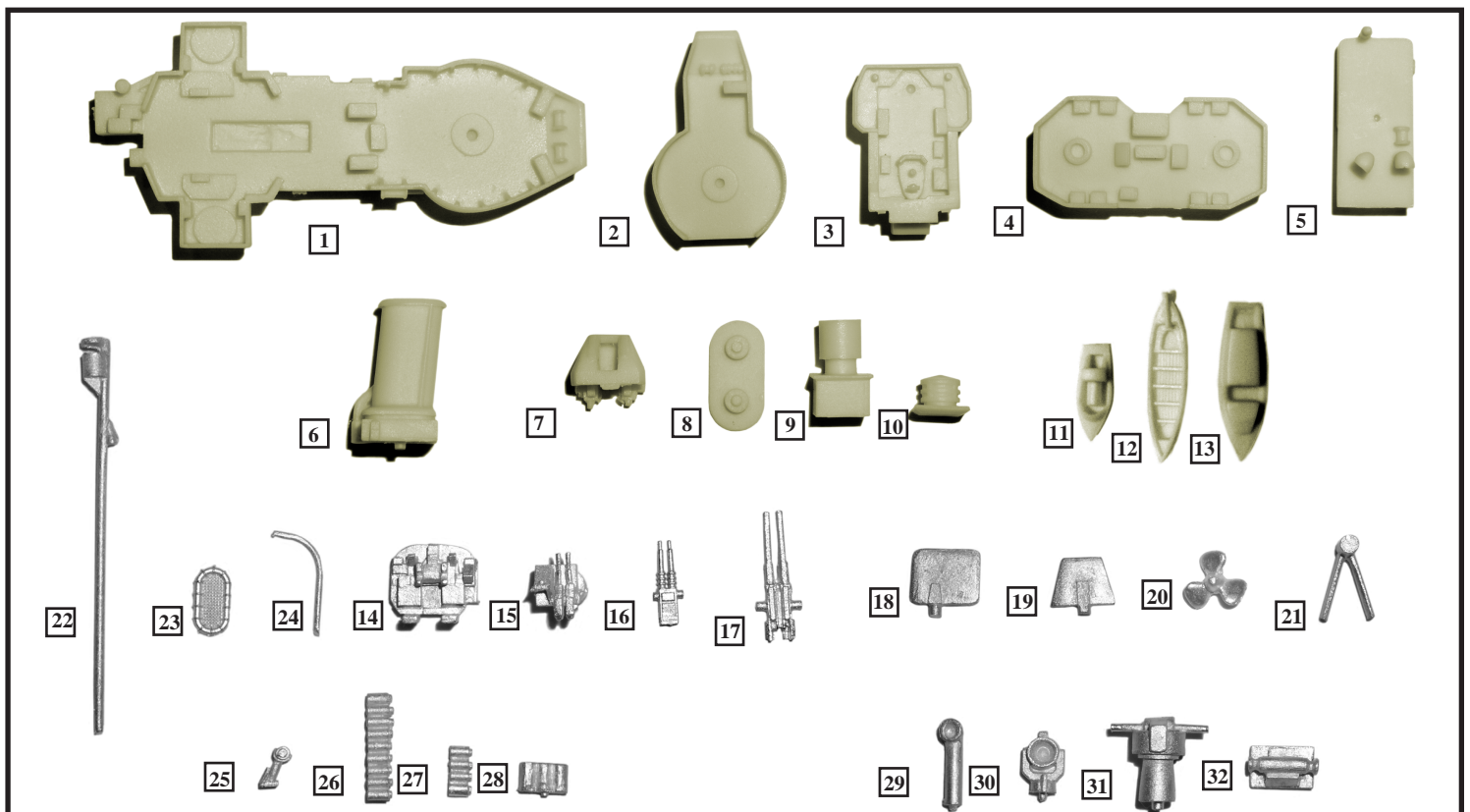
### Specifications

Length Overall 299 ft 6 ins. Beam 37 ft 6 ins. Draught 8 ft 9 ins. (11 ft Max) Speed 18.5 knots.  
Complement 192 Officers and Men.

### Armament

Six 4" Guns in 3 Twin HA/LA Mountings. 8 to 12 20mm Oerlikons in either single or twin mountings.  
2 Twin 40mm Hazemeyer mountings fitted in place of mid 20mm mountings.  
Two stern mounted DC rails and 4 DC throwers.

### RESIN & WHITE METAL PARTS IDENTIFICATION

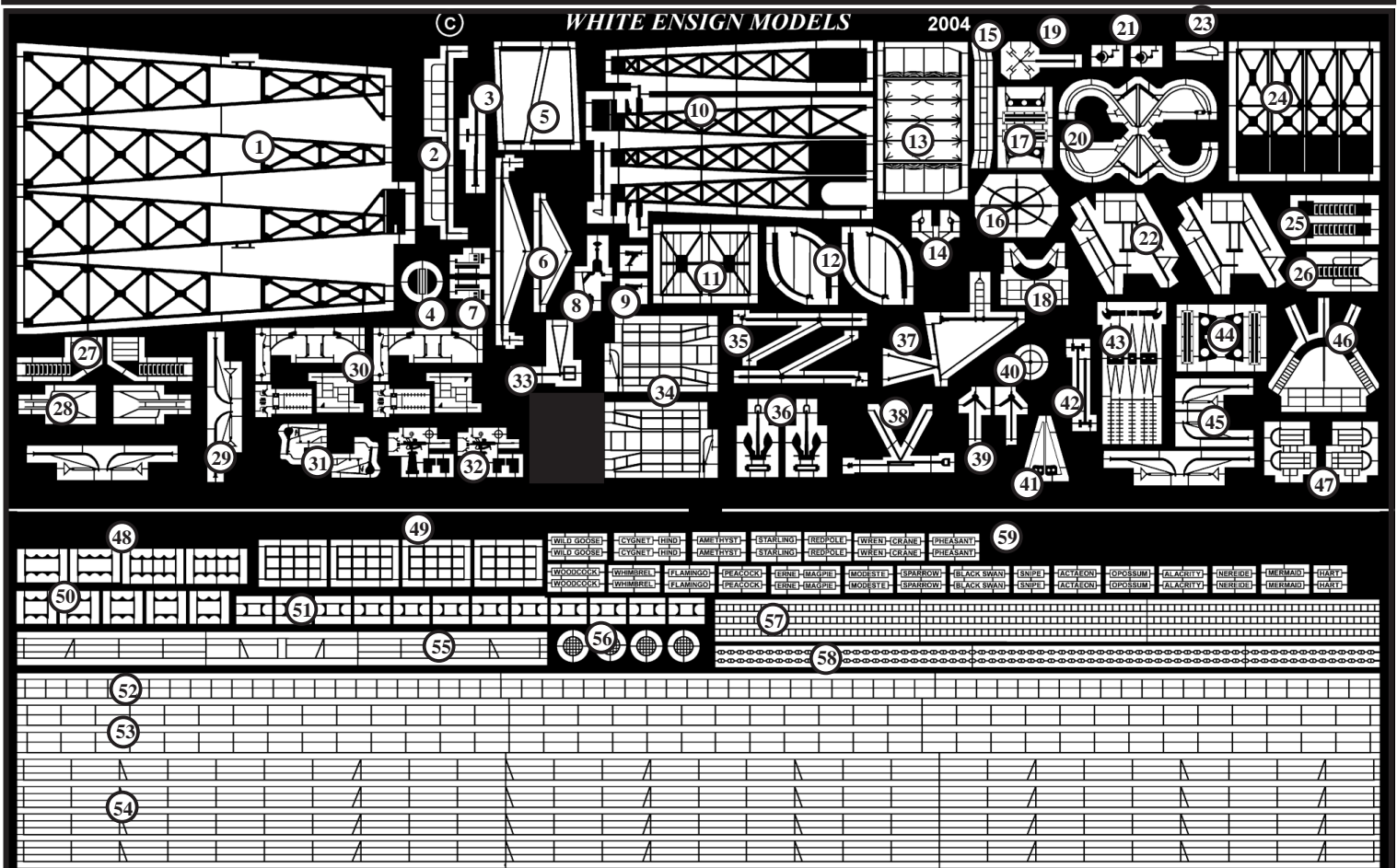


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|-----------------------------|---------------------------------|-----------------------------|------------------------------|
| 1. Forward Superstructure   | 9. Early Radar Lantern          | 17. Twin 4" Gun Barrels x 3 | 25. Depth Charge Thrower x 4 |
| 2. Aft Superstructure       | 10. Late Radar Lantern          | 18. Rudder                  | 26. Depth Charge Rail x 2    |
| 3. Bridge                   | 11. 14' Fast Motor Dinghy       | 19. Stabiliser Fin x 2      | 27. Depth Charge Stack x 11  |
| 4. Amidships AA Platform    | 12. 27' Whaler                  | 20. Propeller x 2           | 28. Smoke Generators x 2     |
| 5. Amidships Superstructure | 13. 25' Admiralty Motor Cutter  | 21. Propeller 'A' Frame x 2 | 29. Large Ventilators x 2    |
| 6. Funnel                   | 14. 40mm Hazemeyer Mounting x 2 | 22. Fore Mast Pole          | 30. Searchlight              |
| 7. 4" HA/LA Gun Turret x 3  | 15. Twin 20mm Power Mount x 4   | 23. Carley Raft x 4         | 31. HACs Mk3 Director        |
| 8. Aft AA Platform          | 16. Twin 40mm Gun Barrels x 2   | 24. Boat Davits x 4         | 32. Anchor Windlass          |

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

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

### List of Photo Etched Metal Parts

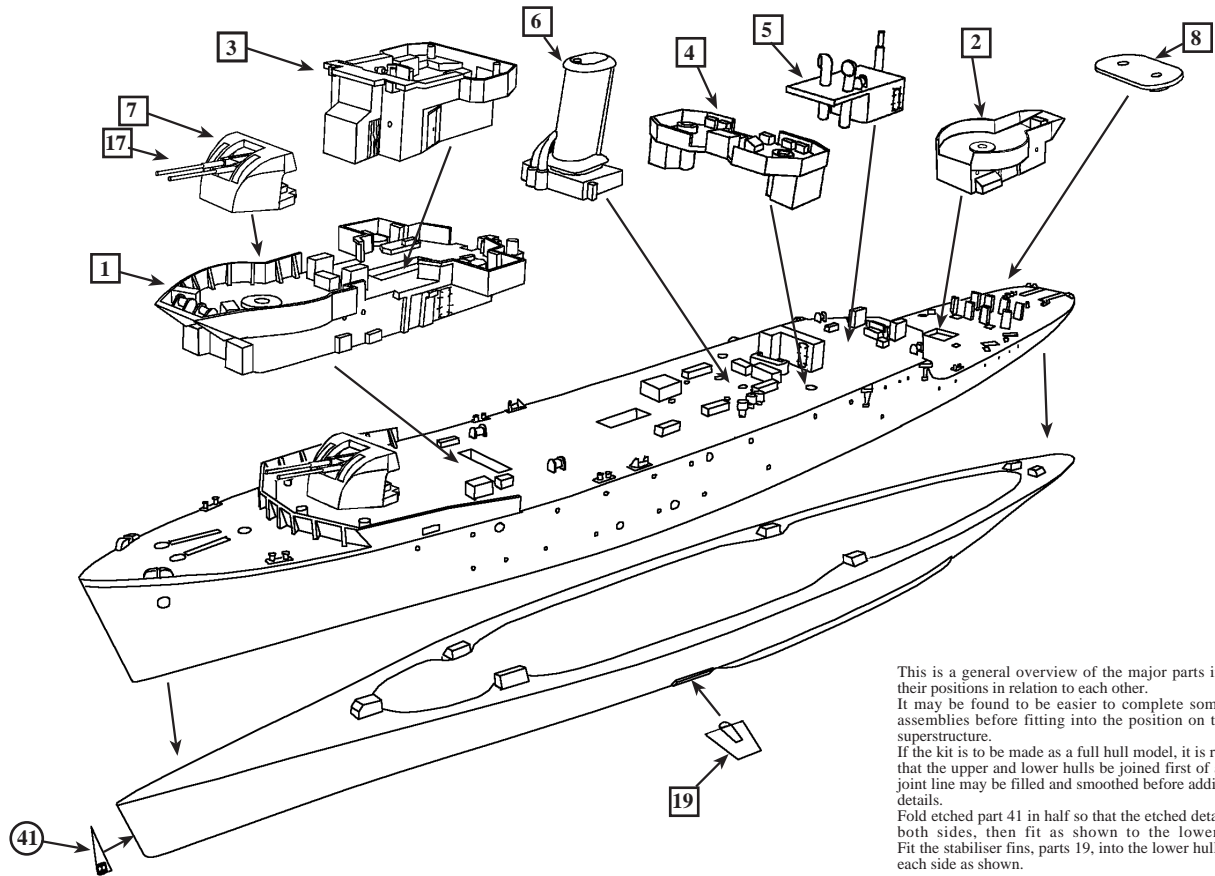


- |                                       |                                  |                                   |
|---------------------------------------|----------------------------------|-----------------------------------|
| 1. Main Mast (Lattice Version)        | 21. Signal Lamps                 | 41. Bow Plate                     |
| 2. Lattice Main Mast Yardarms         | 22. Accommodation Ladder Rails   | 42. Stove Pipes                   |
| 3. Lattice Mast Top Pole              | 23. Radar Mast Gaff              | 43. 285 Gunnery Radar             |
| 4. 293 Radar Antenna                  | 24. Radar Lantern Mast           | 44. 25' Motor Boat Cradles        |
| 5. Tripod Mast Stays (Early Mast)     | 25. Accommodation Ladder Steps   | 45. Accommodation Ladder Davits   |
| 6. Early Mast Yard Arms               | 26. Inclined Ladder              | 46. Director Catwalk Assembly     |
| 7. Navigation Light Fittings          | 27. Quarterdeck Ladders          | 47. Flare Rocket Launchers        |
| 8. Mast Light Cluster                 | 28. Quarterdeck Ladder Handrails | 48. Depth Charge Cradles (Large)  |
| 9. Lookout Sights                     | 29. Depth Charge Davits          | 49. Depth Charge Holders          |
| 10. Lattice Main Mast ( Post WW2 Fit) | 30. 40mm Hazemeyer Fittings      | 50. Depth Charge Cradles (Small)  |
| 11. Forward AA Platform Supports      | 31. Motor Boat Fittings          | 51. Single Depth Charge Cradles   |
| 12. Aft Boat Davits (Alternative)     | 32. 20mm Single Oerlikons        | 52. 2 Bar Close Stanchion Railing |
| 13. Bridge Cover & Framework          | 33. Forward DF Antenna           | 53. 2 Bar Railings                |
| 14. Funnel Sirens                     | 34. Stern Depth Charge Rails     | 54. 3 Bar Railings                |
| 15. Bridge Windscreen                 | 35. Forward Boat Booms           | 55. Foc's'le 3 Bar Railings       |
| 16. Funnel Cap Grill                  | 36. Anchors                      | 56. Cowl Vent Grills              |
| 17. Motor Dinghy Cradles              | 37. Ensign Staff & Boat Boom     | 57. Vertical Ladder Stock         |
| 18. Funnel Siren Platform             | 38. Jack Staff                   | 58. Anchor Chain                  |
| 19. 291 Radar Antenna                 | 39. Bridge Semaphores            | 59. Ships Name Plates             |
| 20. 27' Whaler Davits                 | 40. Searchlight Lens Cross       |                                   |

### General Instructions for working with Photo Etched Metal

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

## Main Component Location



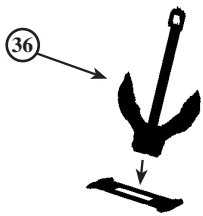
This is a general overview of the major parts in the kit and their positions in relation to each other.

It may be found to be easier to complete some of the sub assemblies before fitting into the position on to the hull or superstructure.

If the kit is to be made as a full hull model, it is recommended that the upper and lower hulls be joined first of all. Then any joint line may be filled and smoothed before adding any of the details.

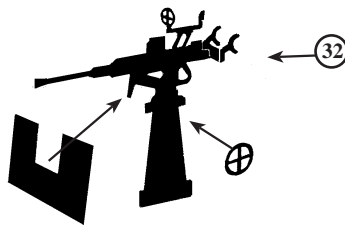
Fold etched part 41 in half so that the etched details appear on both sides, then fit as shown to the lower hull stem. Fit the stabiliser fins, parts 19, into the lower hull positions on each side as shown.

### Anchor Assembly



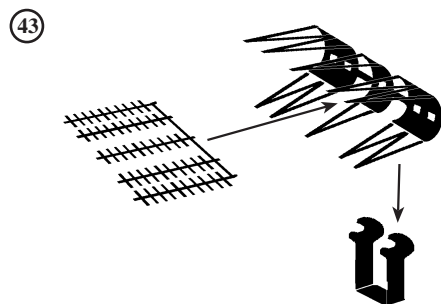
Assemble photo etched anchors 36 as shown above, by fitting the fluke base into the slot in the tipper palm.  
Fit anchors into the hawse pipes each side of the bow, after first drilling out the holes with a 1.5mm drill bit.

### 20mm Oerlikon



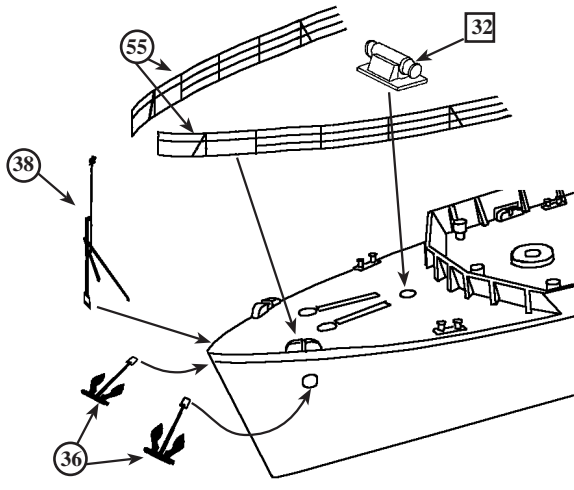
Assemble the single 20mm Oerlikons, etched parts 32, by first twisting the should braces round to 90° then bending the arms back so that they are parallel.  
Fit the shield into position centrally on the spigot below the barrel.  
These gun mountings are located on the platforms on each side of the bridge superstructure below the signal platforms.

### 285 Yagi Antenna



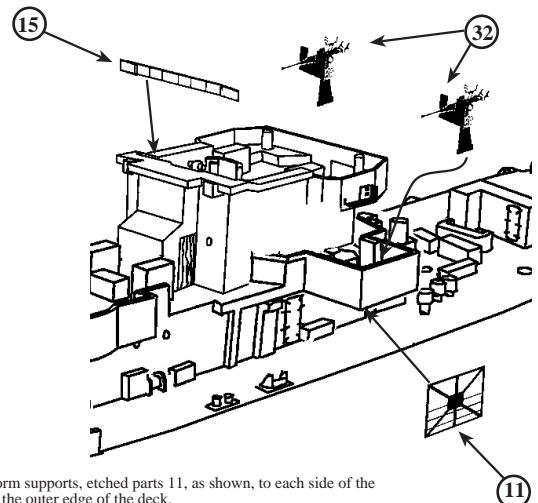
Assemble the 285 Fire Control antenna by folding a gentle curve on to the rectangular reflectors then folding over the stays so that they face forwards.  
Fit the set of dipoles centrally on to the reflector faces, locating the pegs into the slots.  
Nip the pointed ends of the stays together so that they trap the centre bar of the dipoles between them. Fit the mounting arms to the spindles between the reflectors.  
The complete assembly then fit on to the top of the main gun director part 31, so that the points face over the front of the director.

### Fo'c'sle Fittings



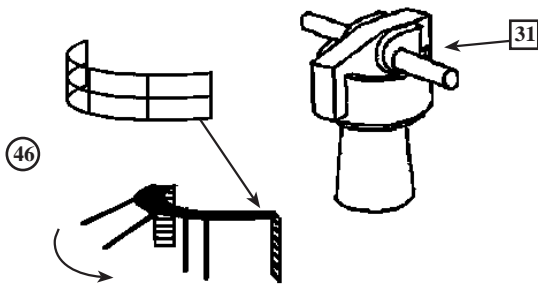
Fit the etched parts on to the fo'c'sle area as shown. Etched anchor chain, part 58, has been provided to fit between the hawse pipe holes and the Windlass, part 32.

### Forward Superstructure



Fit the gun platform supports, etched parts 11, as shown, to each side of the superstructure at the outer edge of the deck.  
Shape and fit the bridge windshield, etched part 15.

### HACs Mk3 Director Assembly



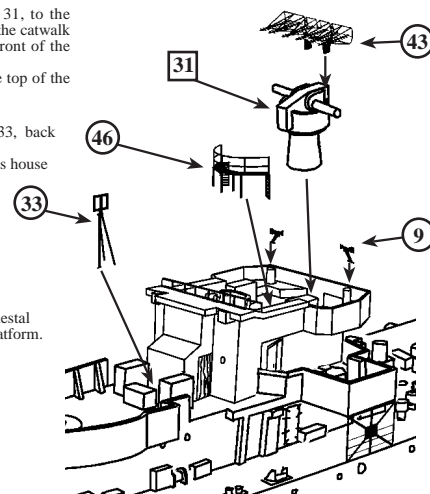
Fold the support legs and vertical ladders to 90° on the HACs Director catwalk, etched part 46. Curve and fit the safety rail as shown. Note. This catwalk does not fit directly on to the director, but sits on the bridge deck by its support frame, just in front of the director.

### Bridge and Director Fittings

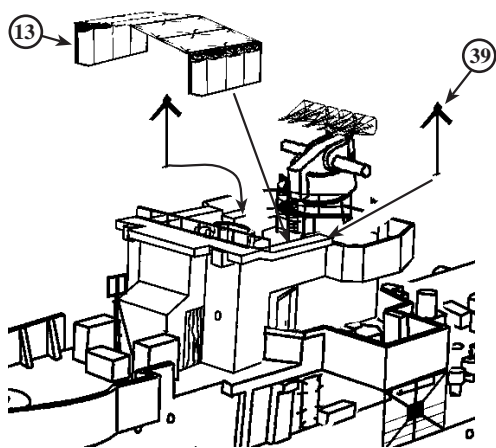
Assemble the Mk 3 Director, part 31, to the bridge deck. Then locate and secure the catwalk assembly 46, centrally and just in front of the director. Fit the 285 yagi assembly, 43, to the top of the director as shown.

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

Fit the binocular sights, 9, to the pedestal mounts on each side of the signal platform.

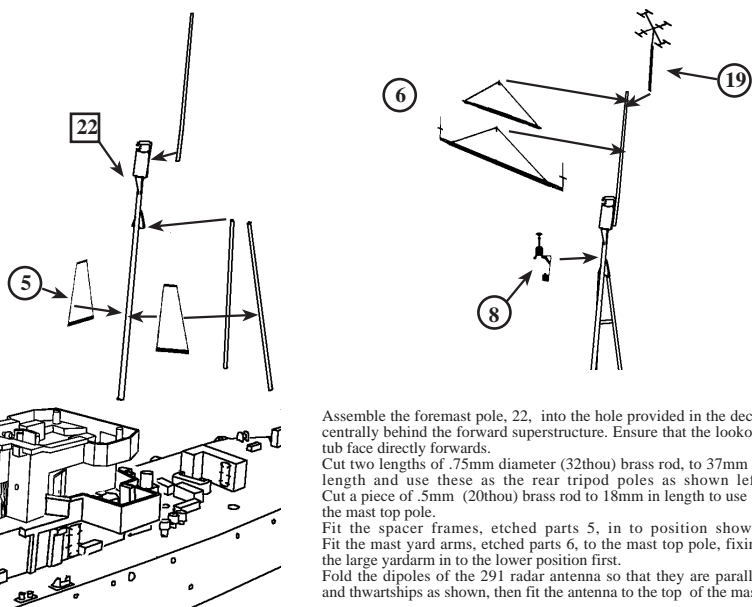


### Bridge Canopy



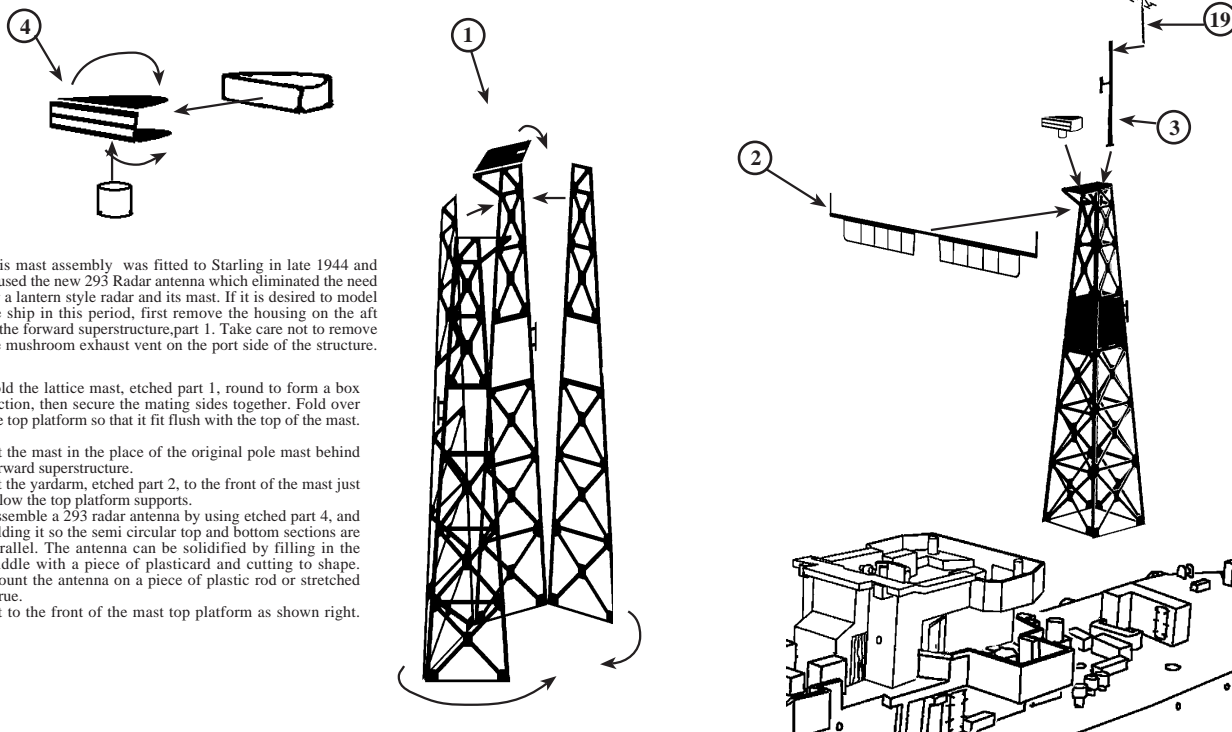
If it is desired to fit the bridge canopy, fold down the side supports of etched part 13. Fold along the centre line so that the roof has a slight run off on each side as shown above. Locate the support frame to the tops of the bridge bulwarks. For the early version of the ship, fit the semaphores, etched parts 39, against the rear uprights of the canopy frame.

### Fore Mast Assembly ( Early Fit)



Assemble the foremast pole, 22, into the hole provided in the deck, centrally behind the forward superstructure. Ensure that the lookout tub face directly forwards. Cut two lengths of .75mm diameter (32thou) brass rod, to 37mm in length and use these as the rear tripod poles as shown left. Cut a piece of .5mm (20thou) brass rod to 18mm in length to use as the mast top pole. Fit the spacer frames, etched parts 5, in to position shown. Fit the mast yard arms, etched parts 6, to the mast top pole, fixing the large yardarm in to the lower position first. Fold the dipoles of the 291 radar antenna so that they are parallel and thwartships as shown, then fit the antenna to the top of the mast.

### Fore Mast Assembly ( Late 1944 Onwards)



This mast assembly was fitted to Starling in late 1944 and housed the new 293 Radar antenna which eliminated the need for a lantern style radar and its mast. If it is desired to model the ship in this period, first remove the housing on the aft of the forward superstructure, part 1. Take care not to remove the mushroom exhaust vent on the port side of the structure.

Fold the lattice mast, etched part 1, round to form a box section, then secure the mating sides together. Fold over the top platform so that it fit flush with the top of the mast.

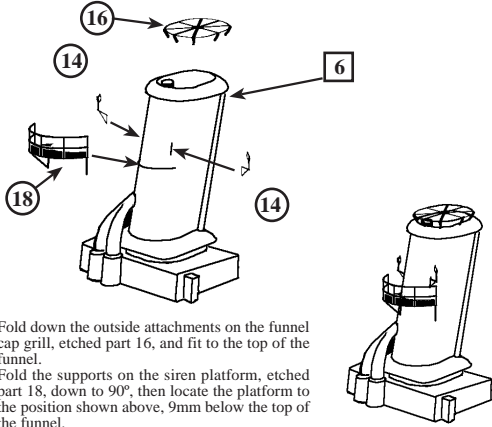
Fit the mast in the place of the original pole mast behind forward superstructure.

Fit the yardarm, etched part 2, to the front of the mast just below the top platform supports.

Assemble a 293 radar antenna by using etched part 4, and folding it so the semi circular top and bottom sections are parallel. The antenna can be solidified by filling in the middle with a piece of plasticard and cutting to shape. Mount the antenna on a piece of plastic rod or stretched sprue.

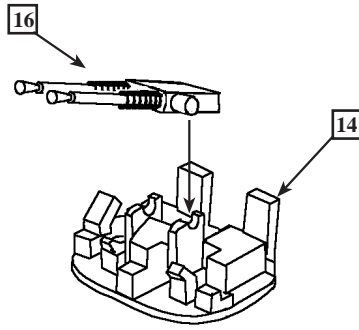
Fit to the front of the mast top platform as shown right.

### Funnel Assembly



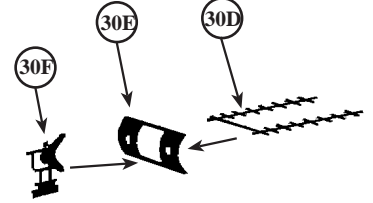
Fold down the outside attachments on the funnel cap grill, etched part 16, and fit to the top of the funnel.  
 Fold the supports on the siren platform, etched part 18, down to 90°, then locate the platform to the position shown above, 9mm below the top of the funnel.  
 Fit the sirens, parts 14, to each side. Locate the funnel assembly to the main deck just forward of the amidships AA platform.

### 40mm Bofors (Hazemeyer)



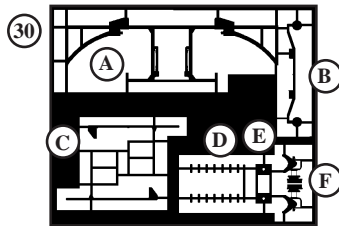
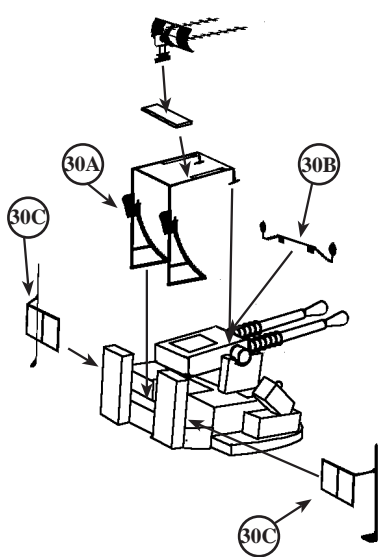
If the Starling is to be modelled from the late 1944 fit. The two amidships 20mm mounts were replaced by two twin 40mm Bofors as provided for here.  
 Assemble parts 14 and 16 into the desired positions.

### Hazemeyer Yagi Assembly



Assemble the yagi radar antennas by curving the rectangular dishes of etched parts 30E as shown. Fit the dipoles in to the holes in the centre of the dishes so that they are parallel.  
 Fold part 30F in half so that the etched detail is outermost, then attach centrally to the two joining bars between the radar dishes.

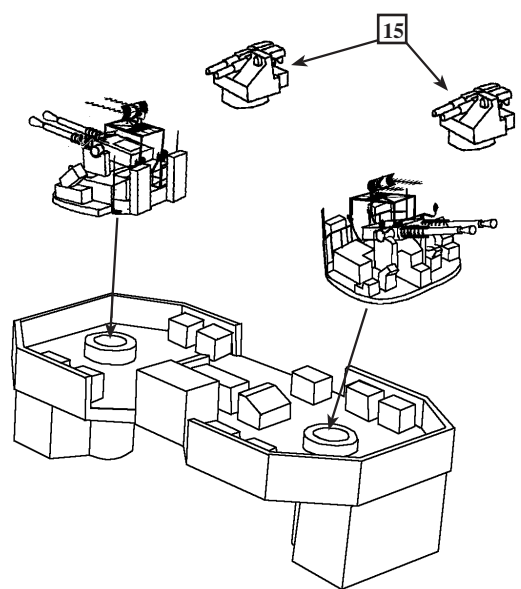
### 40mm Bofors (Hazemeyer) Assembly or 20mm Early Fit



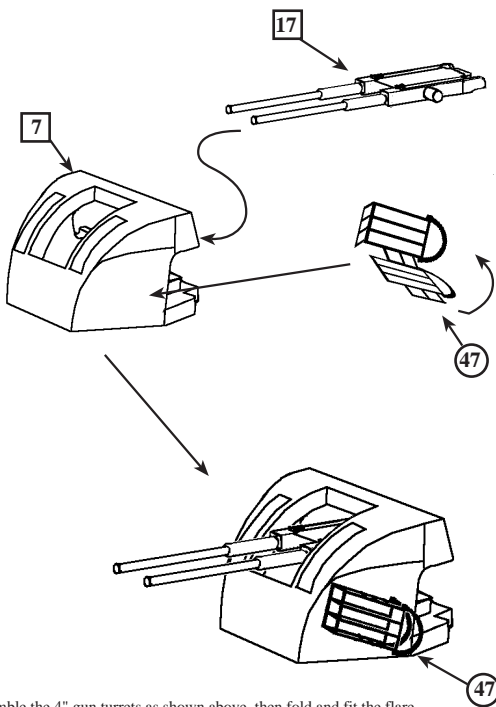
Fold the central mounting frame, part 30A, so that the sides are parallel.  
 Fit the frame so that the main legs fit behind the gun barrels and the small forward feet fit on top of the gun body.  
 Fit a small strip of thin (10thou) plasticard across the top of the frame on which to mount the yagi antenna as shown left.  
 Fit the rear railings and gunsights to the positions shown.

Fit the 40mm Bofors to the amidships AA platform as shown right, or, if the early fit is being modelled fit the two twin 20mm power mounts, parts 15.

Note. The 40mm Bofors were only fitted to Starling after the later lattice mast was fitted.

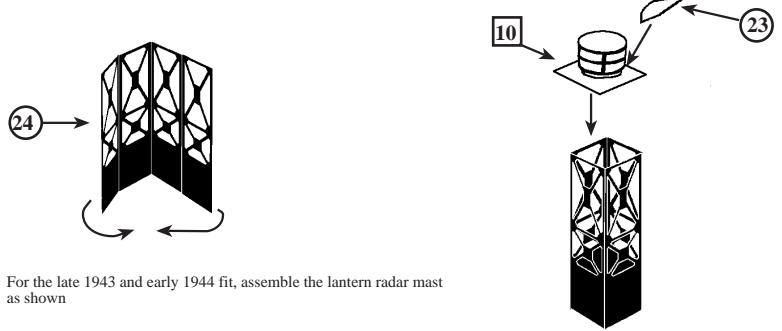


### 4" HA/LA Gun Mounting



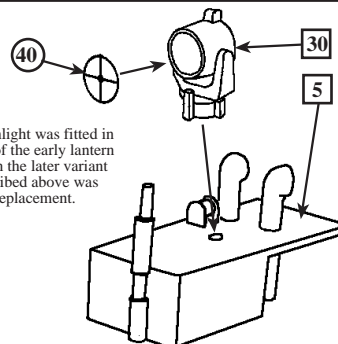
Assemble the 4" gun turrets as shown above, then fold and fit the flare rocket launcher, etched parts 47, to each side of 'B' turret only.

### Radar Lantern Mast (Late 43)



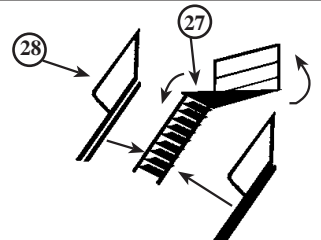
For the late 1943 and early 1944 fit, assemble the lantern radar mast as shown

### Searchlight Fitting



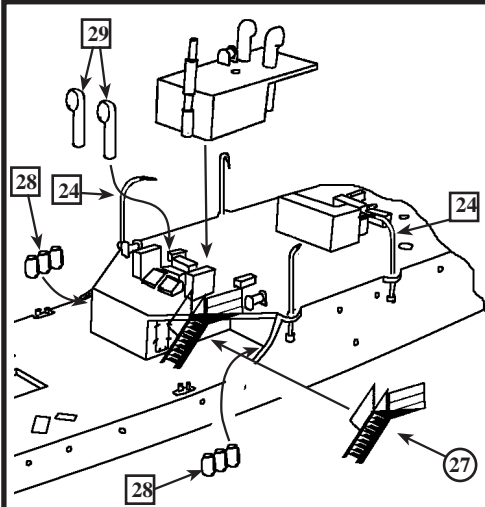
The searchlight was fitted in the place of the early lantern radar when the later variant mast described above was used as a replacement.

### Aft Ladder Assembly



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

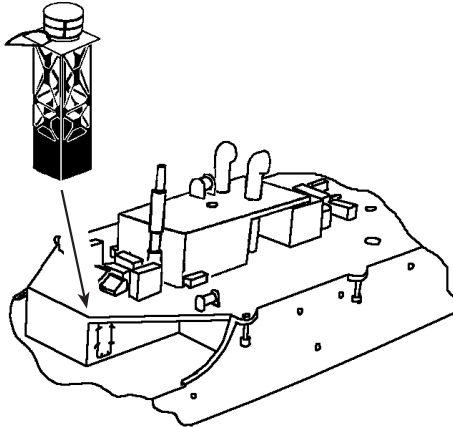
### Deck Step Area Fittings



Fit the cowl vents, parts 29, into the holes in the deck that are located between the ammunition lockers. Fit the smoke generator canisters, 28 to the deck inside the sloped fairing. Fit the aft boat davits, parts 24, to the protruding fixings as shown. Alternatively these davits have also been provided as etched parts 12.

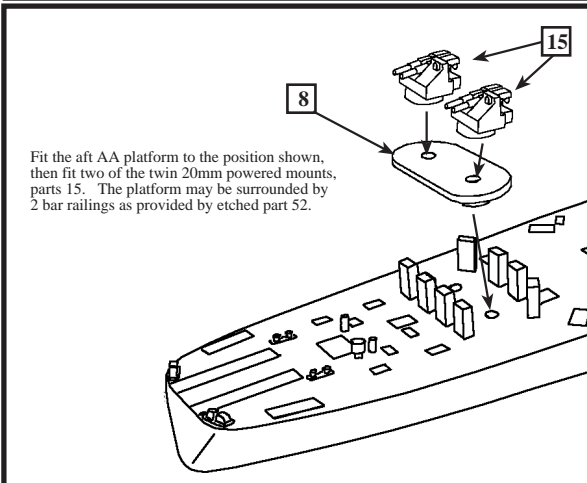
### Radar Lantern Variants

If the early version of the lantern radar, part 9, is to be used, fit directly to the top of the deck house and delete the searchlight part. Make a pole type main mast wire antenna spreader from a piece of .5mm brass rod, cut to a length of 25mm. A recess may be drilled into the deck, centrally behind the ammunition lockers, to assist with location.



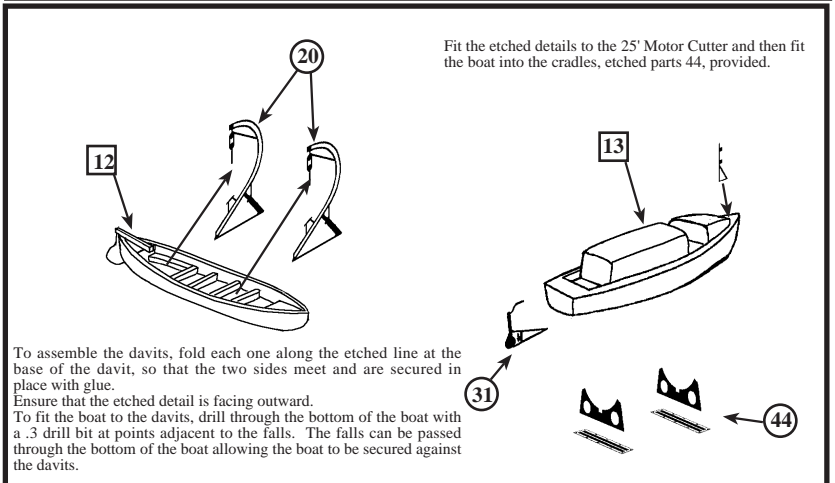
If the late type of lantern radar is to be used, fit the assembly shown left centrally to the deck behind the ammunition lockers as shown. The searchlight assembly is now located on top of the deck house behind the cowl vents.

### Aft 20mm Mounting Platform



Fit the aft AA platform to the position shown, then fit two of the twin 20mm powered mounts, parts 15. The platform may be surrounded by 2 bar railings as provided by etched part 52.

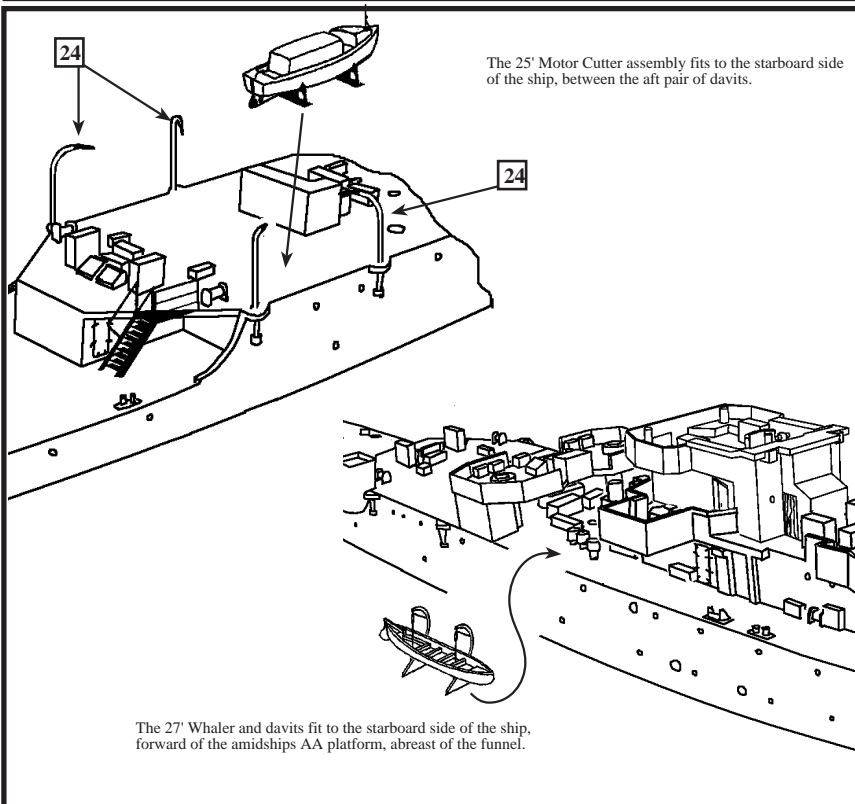
### Ships Boats Assembly



Fit the etched details to the 25' Motor Cutter and then fit the boat into the cradles, etched parts 44, provided.

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

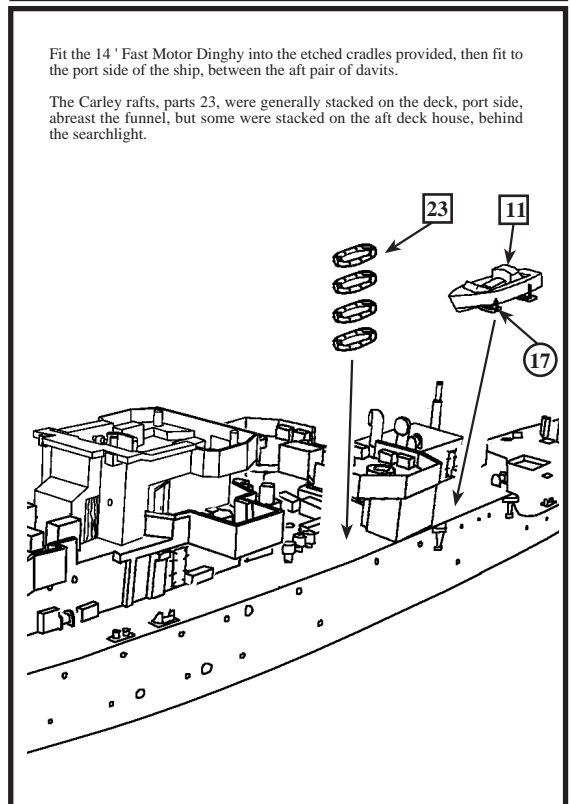
### Ships Boats Location (Starboard)



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

The 27' Whaler and davits fit to the starboard side of the ship, forward of the amidships AA platform, abreast of the funnel.

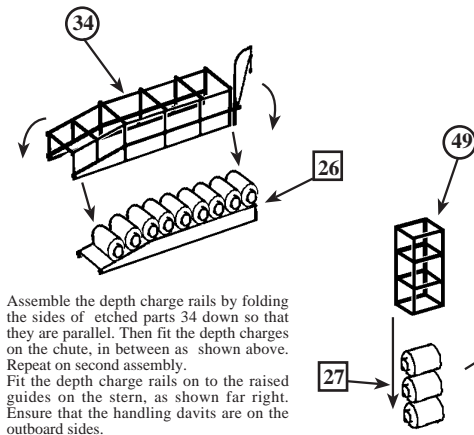
### Ships Boats Location (Port)



Fit the 14' Fast Motor Dinghy into the etched cradles provided, then fit to the port side of the ship, between the aft pair of davits.

The Carley rafts, parts 23, were generally stacked on the deck, port side, abreast of the funnel, but some were stacked on the aft deck house, behind the searchlight.

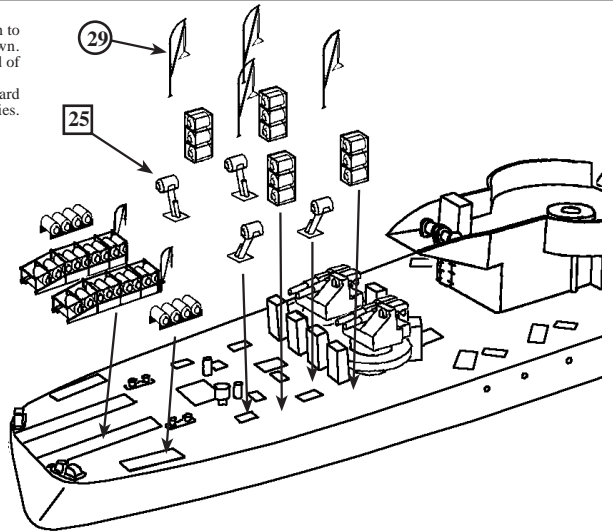
## Depth Charge Delivery Systems Assembly



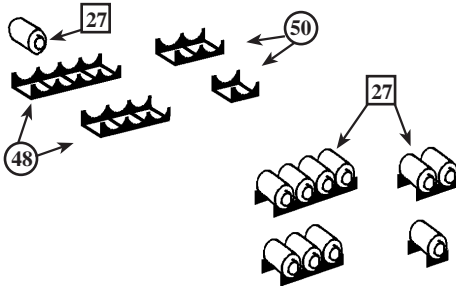
Assemble the depth charge rails by folding the sides of etched parts 34 down so that they are parallel. Then fit the depth charges on the chute, in between as shown above. Repeat on second assembly. Fit the depth charge rails on to the raised guides on the stern, as shown far right. Ensure that the handling davits are on the outboard sides.

Fold the frames of etched parts 49 around, to make a box section as shown, then fit a stack of three depth inside the frame. Make four of these. These were the ready use depth charges for the side throwers.

Fit the depth charge throwers, parts 25, on to the raised guides on the deck as shown. Fit a depth charge stack assembly forward of each depth thrower. Fit a handling davit, etched part 29, inboard of each of the depth charge stack assemblies.

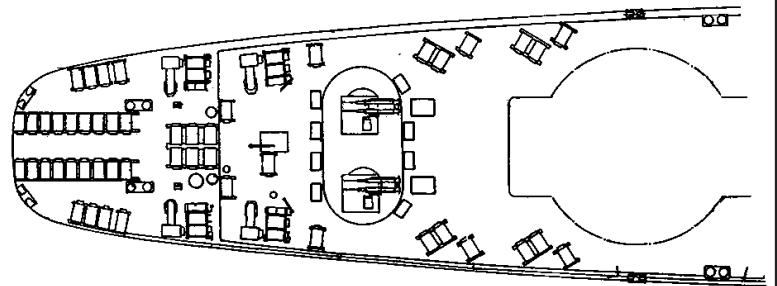


## Depth Charge Stowage Racks and Locations

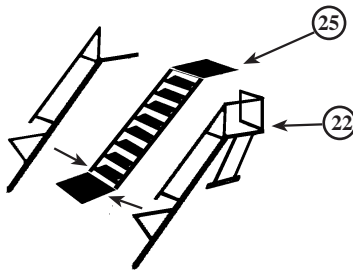


Deck stowed depth charges were placed in cradles containing varying numbers of charges. Cradles for single and up to four depth charges have been provided for in etched parts 48 and 50. Fold up the side of the cradles to 90° so that they are parallel. Cut the required number of depth charges from the strips of four provided, parts 27, and fit into the cradles.

Use the diagram on the right for the placement of these stowage cradles on the deck, in relation to other fixtures and fittings.

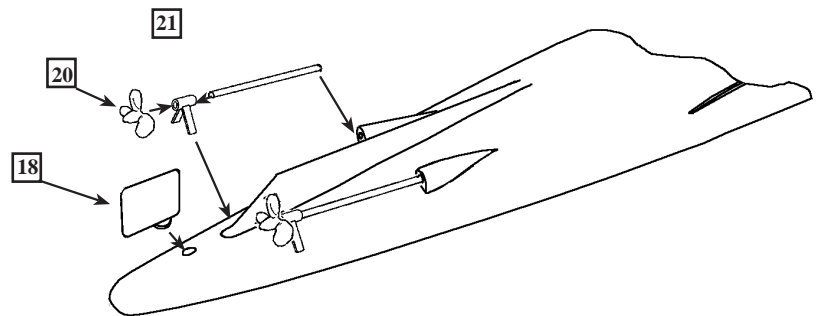


## Accommodation Ladder



If the ship is to be modelled at anchor, an accommodation ladder may be deployed for the ships boats, on the ships sides aft of the hull step. There are enough etched parts provided to make a ladder for each side of the ship, should it be desired.

## Propeller and Rudder Assembly

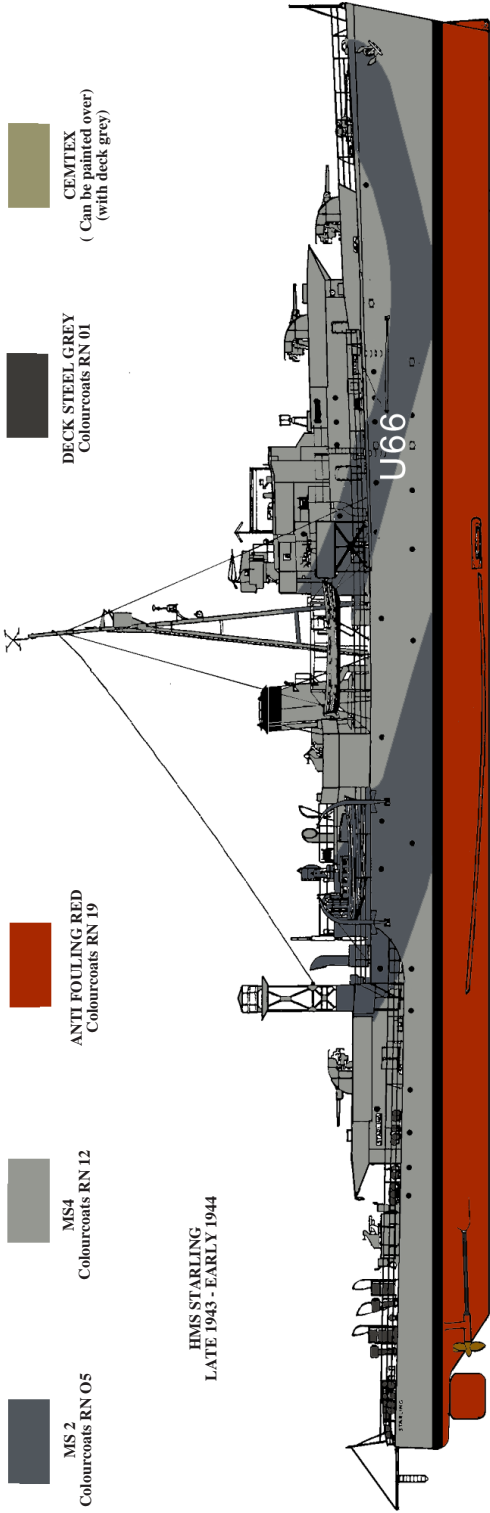


If the ship is to be modelled full hull, the running gear will be required. Fit the propellers to the 'A' frames as shown, then cut two pieces of .75mm (32thou) brass rod to the length of 15mm to use as shafts. Assemble the shafts and propellers as shown above. The legs of the 'A' frames may be over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

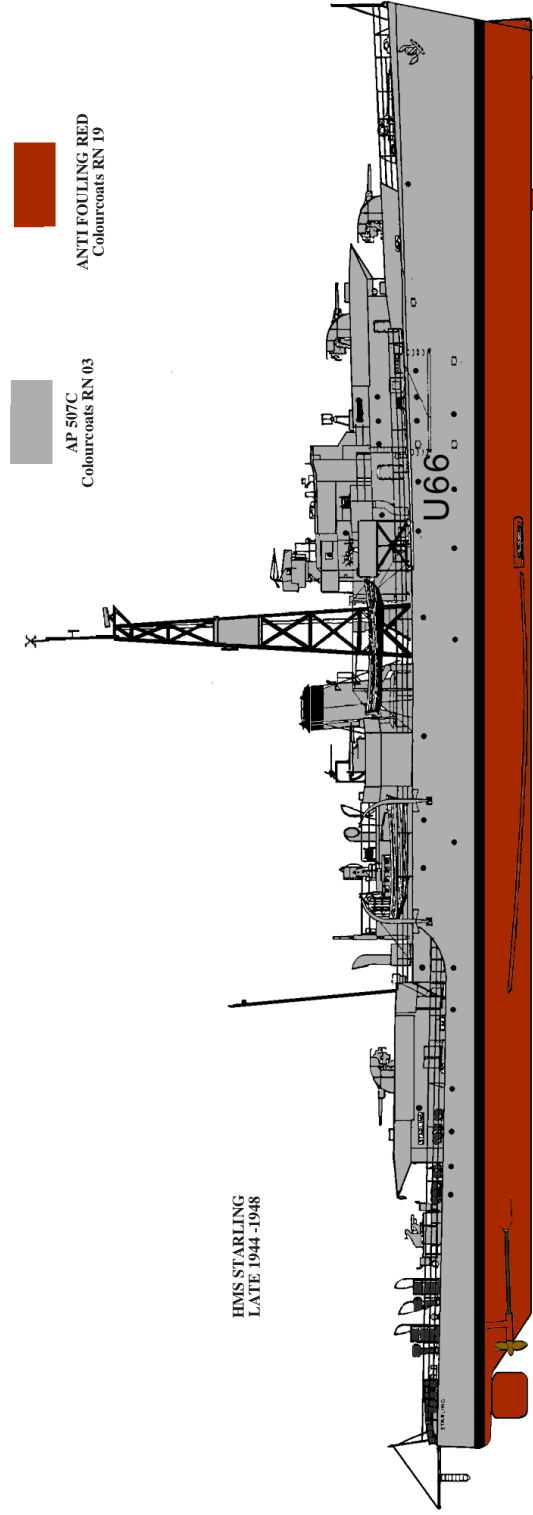
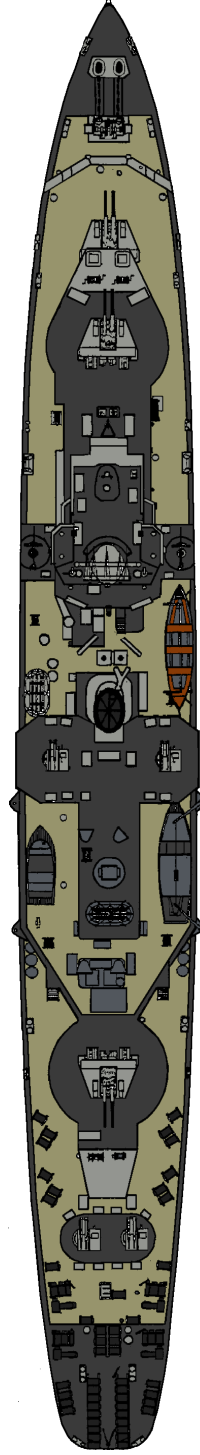
## Other Instructions

1. Cowl vent grills, etched parts 56, are provided to fit over the cowl vent openings if desired.
2. Signal lamps, etched parts 21, are provided to fit on to the bulwarks of the signal platforms on either side of the bridge.
3. Sufficient name plates, etched parts 59, have been provided to enable the modeller to build any of the war survivors of the Black Swan class. These are fitted on each side of the aft superstructure section below the aft 4" gun mounting.
4. The ensign staff, etched part 37, come with the aft boat boom fitted as an integral part. The boom may be removed with a sharp knife if desired, so that the ensign staff may be fitted clean, on the stern, between the depth charge rails.
5. Navigation lights, etched parts 7, may be folded to shape, and fitted to the outside of the bridge signal platform bulwarks.

# Painting Guide and Colour Chart



HMS STARLING  
LATE 1943 - EARLY 1944



HMS STARLING  
LATE 1944 - 1948

**Other Colours Used:-**

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

Teak Whaler Thwarts

Bronze Propellers