Royal Navy
'Ton Class' Minehunter
H.M.S. NURTON
1/350 Scale

The *'Ton'* class of Minesweepers were built in the 1950s for the Royal Navy to meet the threat of seabed mines in shallow coastal waters, rivers and estuaries, ports and harbours. The design of the class was led by John I. Thornycroft and Company, with the contracts being tendered out to various yards throughout the UK.

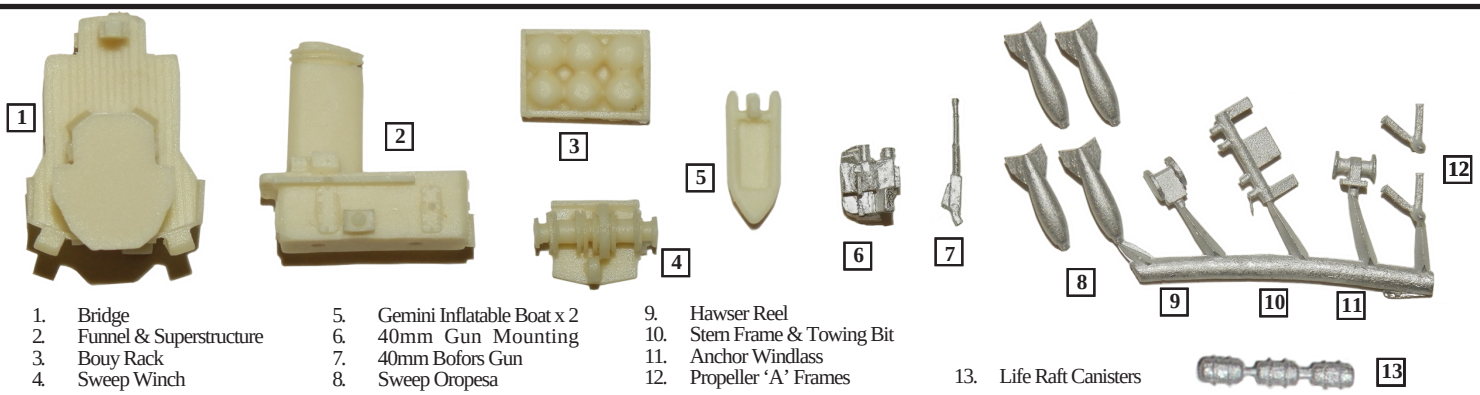
The construction of these vessels was mainly of wood and non-magnetic materials, and with a shallow draught to protect against pressure and contact mines they could operate well in shallow inshore waters.

Several of the class were bought from the Royal Navy by overseas operators such as the South African, Australian and New Zealand navies, and were also converted to perform other roles and duties during their careers. Some were used by the Fisheries Protection Squadron around UK water and others as Patrol Craft in Hong Kong, Malaysia and Borneo. Many of the class were converted to minehunters which included the installation of the Type 193 Sonar and the enclosed bridge.

HMS Nurton was built by Harland & Wolff, Belfast and commissioned in November 1957 for the 101st MSS based at Dundee. She was converted to a Mine Hunter between September 1964 and and December 1965 at Portsmouth from where she was transfered to the HMS Vernon squadron.. In 1969 Nurton was involved with the lifesaving and salvage operations at Gothenburg after a serious storm, and in 1983 was seriously damaged after a collision with the Hunt class MCMV HMS Brocklesby. HMS Nurton had the distinction of being the last operational 'Ton' in the Royal Navy and was paid off in December 1993. She was broken up in June 1995 via Pounds, Portsmouth.

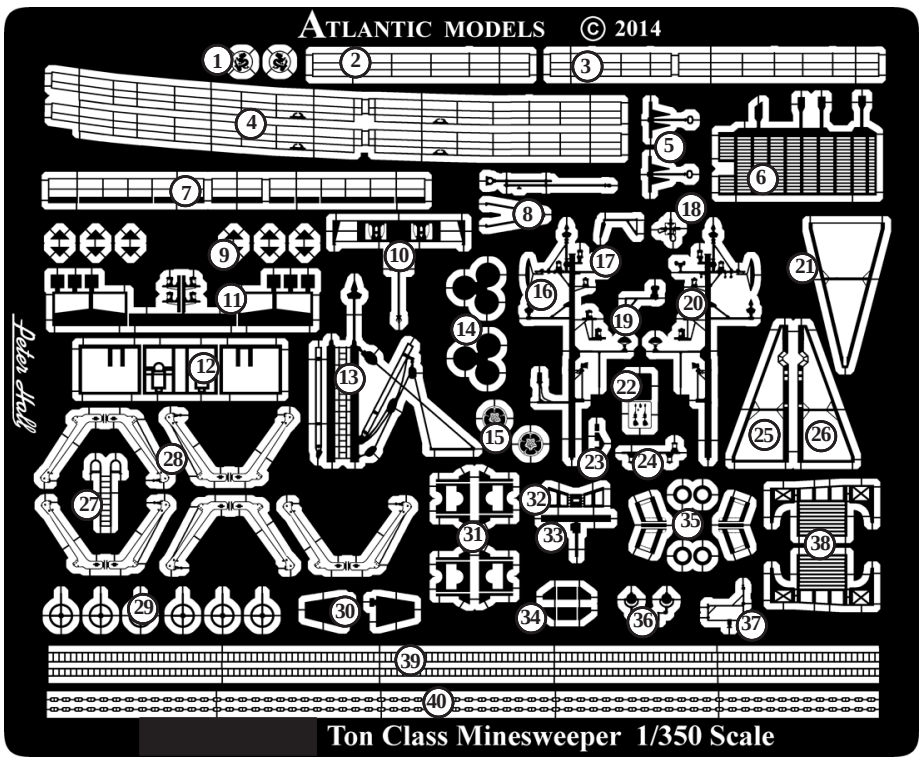
Displacement 440 tons. Dimensions 152ft x 28 ft x 8ft. Speed 15 kts. Complement 33 Officers and Ratings
Armament 1x 40mm Bofors Gun.

Resin & White Metal Parts



1. Bridge
2. Funnel & Superstructure
3. Bouy Rack
4. Sweep Winch
5. Gemini Inflatable Boat x 2
6. 40mm Gun Mounting
7. 40mm Bofors Gun
8. Sweep Oropesa
9. Hawser Reel
10. Stern Frame & Towing Bit
11. Anchor Windlass
12. Propeller 'A' Frames
13. Life Raft Canisters

Photo-Etched Metal Parts

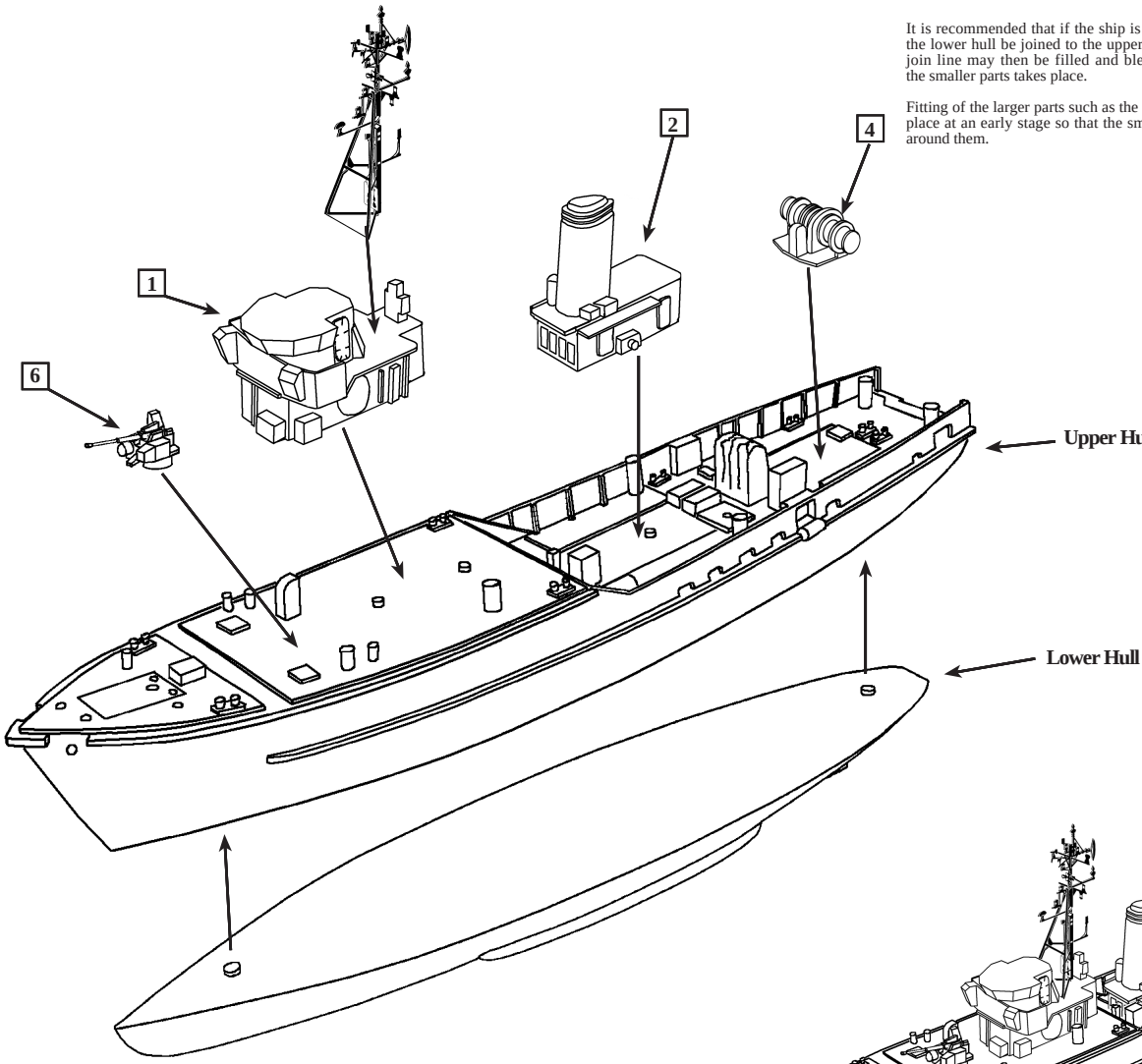


1. Funnel Badges (Hong Kong Squadron)
2. Railings (Boat Deck)
3. Railings (Funnel Deck)
4. Railings (Foc's'le Deck)
5. Anchors
6. Boat Deck
7. Railings (Bridge)
8. Jack Staff
9. Radar Reflector Fins
10. Stern Gear
11. Bouy Rack Frame
12. Sweep Winch Frame
13. Boat Derrick
14. Propellers
15. Funnel Badges 1st MCM Squadron
16. Mast Starboard Side
17. Yardarm (Starboard)
18. Sensor Cross
19. Yardarm (Port)
20. Mast (Port Side)
21. Mast Forward Tripod
22. Control Box Face
23. Mast Platform
24. Mast Platform Support
25. Mast Brace (Port Side)
26. Mast Brace (Starboard Side)
27. Bridge Roof Ladder
28. Sweep Crane Jibs
29. Sweep Crane Handwheels
30. Rudders
31. Oropesa Cradles
32. Radar Mounting Frame
33. Radar Antenna
34. Stern Sweep Cable Guides
35. Life Ring Ejector Racks
36. Signal Lamps
37. Bridge Roof DF Antenna
38. Life Raft Racks
39. Vertical Ladder Stock
40. Anchor Chain

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.

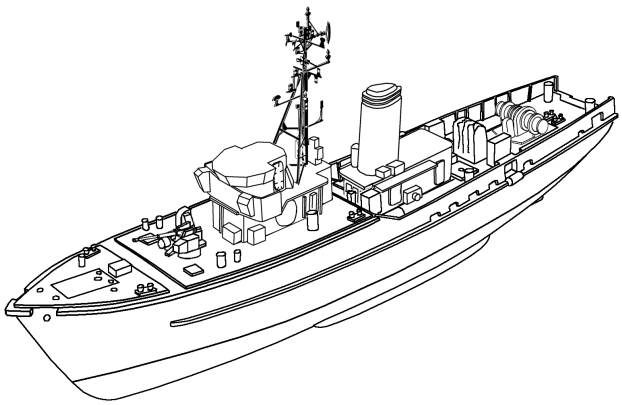
Main Parts Location



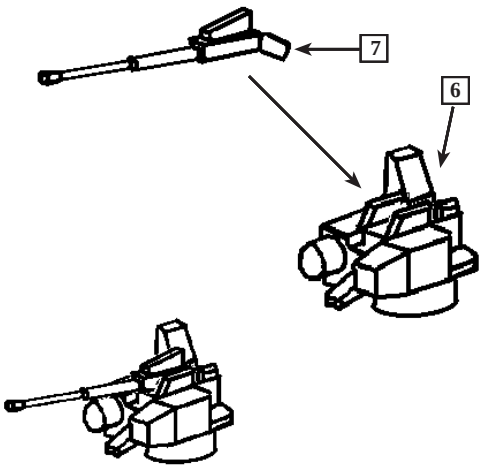
It is recommended that if the ship is to be modeled in full hull form, that the lower hull be joined to the upper hull first of all. Any seam along the join line may then be filled and blended in, before any construction of the smaller parts takes place.

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.

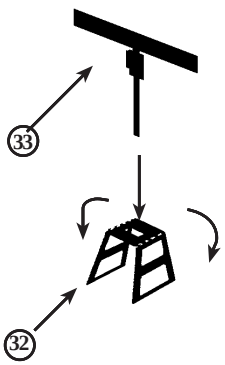


40 mm Bofors Gun Mounting



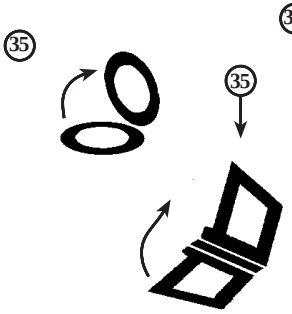
Fit the body of the 40mm Bofors gun, part 7, into the recess on the top of the Gun Mounting, part 6. The gun may be set at any desired angle of elevation before securing into place.

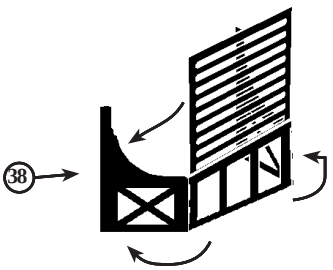
Navigation Radar and Life Raft Rack Assembly



Fold down the side frames of the radar mounting so that they are slightly toed outwards.
Fit the radar antenna shaft down through the slot in the top platform of the mounting frame.
When fitting the assembly to the bridge roof, the shaft will need to be cut down length to match the height of the side frames.

Fold the life rings in half as shown, to make them double thickness.
Fold up the sides of the ejector rack, etched parts 35 to 90º so that they are parallel. Fit the life ring inside the ejector rack after painting.

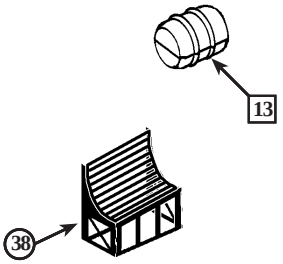


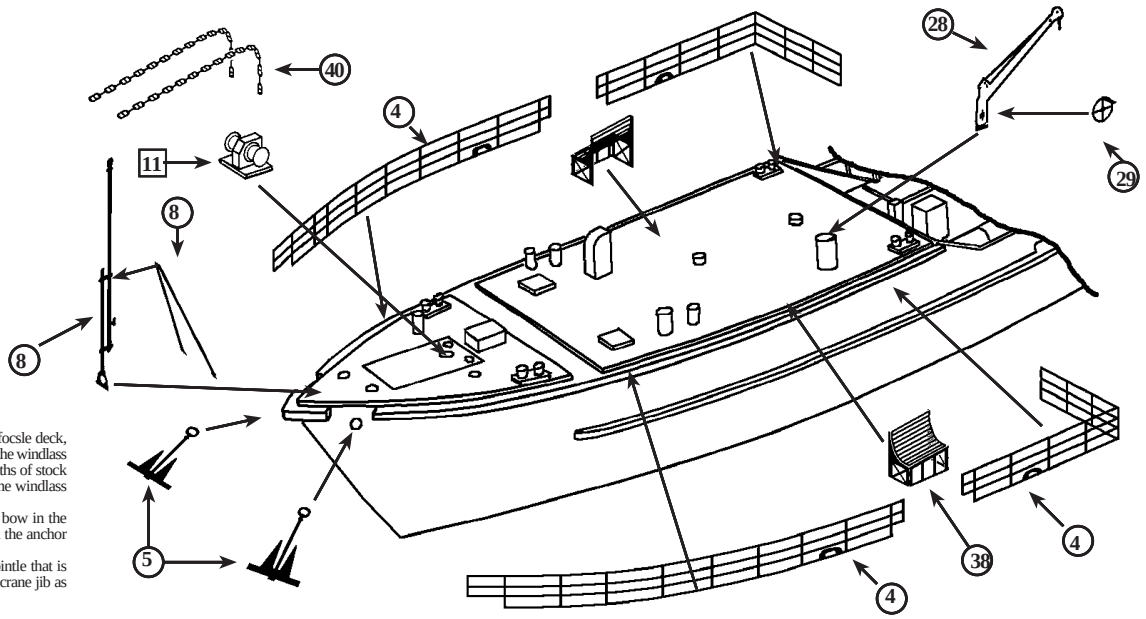


Fold the sides of the life raft stowage racks to 90º so that they are parallel. Gently curve the central slatted section to fit the curved end sections, then secure into place.
Note that the bottom rail on the centre frame is angled to match the upward flare of the deck. Make two of these to be mirror images.

Fo'c'sle Deck Fittings Location

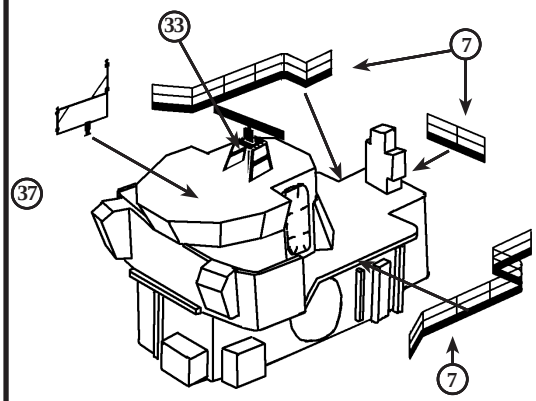
Fit one life raft canister to each rack as shown below. Fit the life raft racks on each side of the focsle deck so that the angle of the bottom rail taper upwards towards the bow.





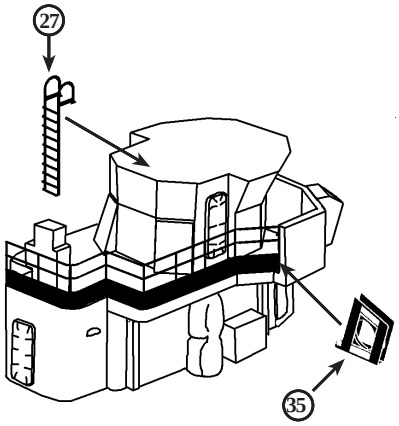
Shape and fit the railing sections around the edges of the focsle deck, allowing a gap to fit the life raft racks into on each side. Fit the windlass metal part 11, centrally to the fore deck, then cut two lengths of stock anchor chain to fit between the anchor hawse pipes and the windlass drums.
Fit the anchors into the hawse pipes on each side of the bow in the recesses in the rubbing strake. Trim the shank down until the anchor sits flush against the ships side.
Fit the crane assembly, etched part 28 to the top of the pintle that is moulded to the deck. Fit the handwheel to the side of the crane jib as shown right.

Bridge Fittings Location

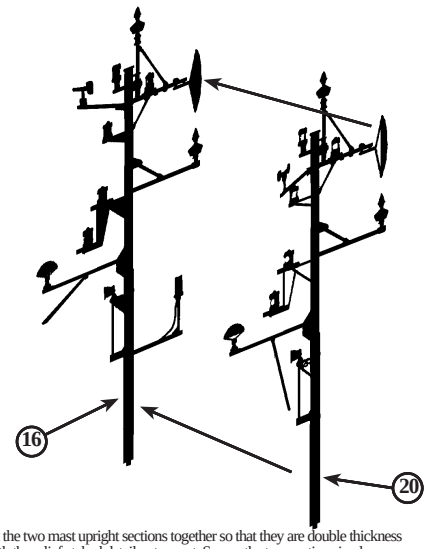


Shape the railings sections, etched parts 7, to fit the open edges of the bridge deck, as shown above. Fit the radar antenna assembly centrally to the bridge roof so that the front feet of the mounting are placed on a line taken across the front of the door recesses.
Fit the large DF antenna, etched part 37, centrally towards the front of the bridge roof.

Shape the vertical ladder, etched part 27, as shown below, and fit to the rear wall of the bridge so that the top handrails fit over the edge as shown. Fit the assembled life ring ejectors to the rear edge of the bridge bulwarks.

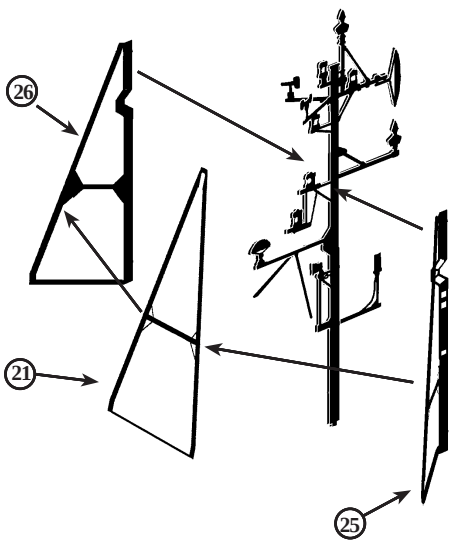


Mast Assembly



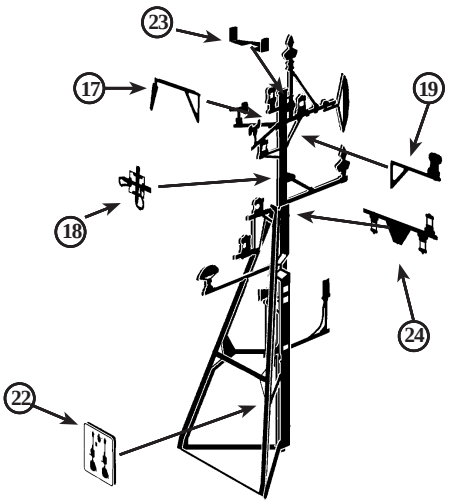
Fit the two mast upright sections together so that they are double thickness with the relief etched detail outermost. Secure the two sections in place.
Bend the two stays on the forward lower yard outwards. These attach to the tripod braces when fitted.

Mast Supports and Yardarm Locations

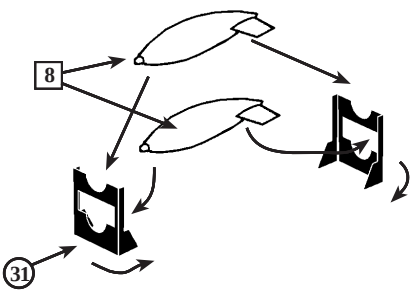


Fit the upright parts of etched parts 25 and 26 to the outsides of the mast pole and secure into place so the mast will then be quadruple thickness. Bend the angled braces outwards and fit etched part 21 in between them with the top of part 21 hooking over the top of the forward light cluster. Secure into place.

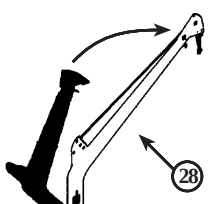
Fit the yardarms, etched parts 17 and 19 to each side of the mast pole on the same level as the weather vane yards.
Shape and fit the small platform as shown to the top of the mast upright.
Fit the sensor cross array, etched part 18, to the front of the mast upright.
Fit the small sensor yardarm, etched part 24 to the rear of the mast upright so that it fits under the rear yardarm.
Fit the electronic panel to the bottom of the mast as shown below, after first folding in half to make it double thickness.



Oropesa Stowage Rack & Crane Assembly

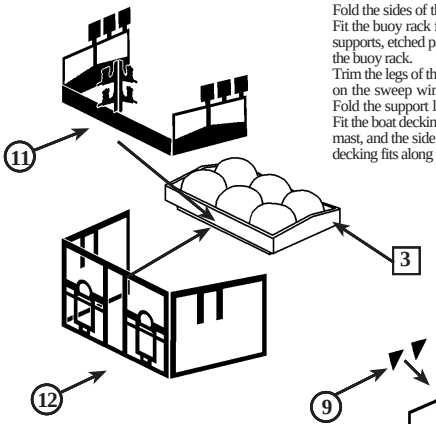


Fold the side supports on the Oropesa stowages to 90º so that they are parallel as shown above. Fit the Oropesa bouys into place on the semi circular recesses and secure into place. Make two sets.

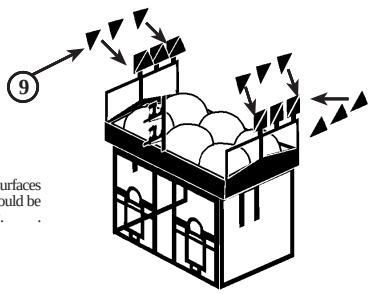


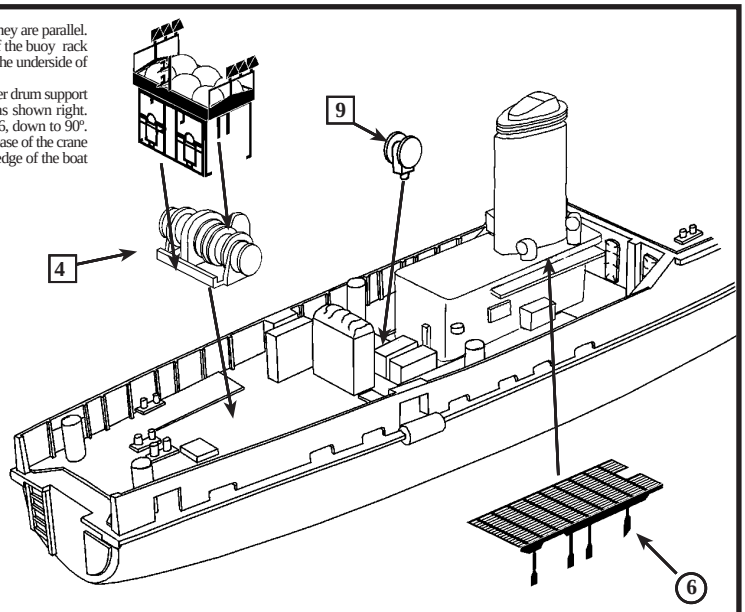
Fold the sweep cranes, etched parts 28, in half so that they are double thickness with the relief etched detail outermost. Secure into place.

Sweep Winch & Bouy Stowage Assembly



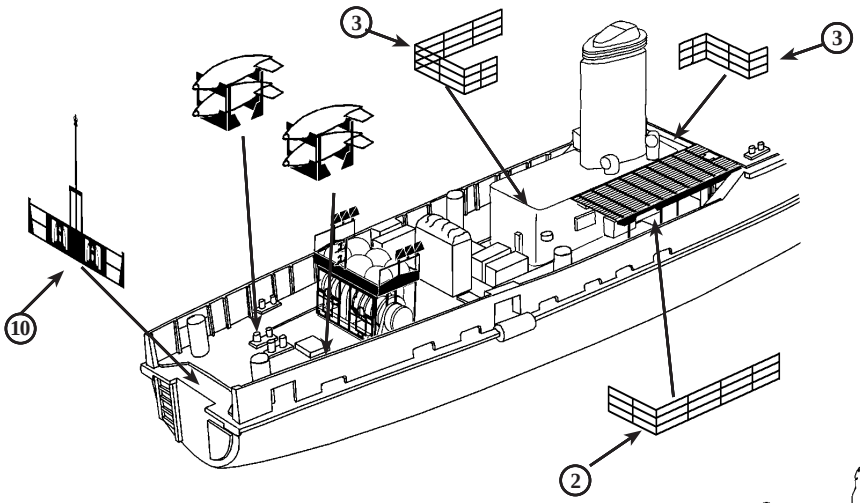
Fold the sides of the buoy rack frame, etched part 11, round to 90º so that they are parallel. Fit the buoy rack frame to the buoy rack as shown. Fold the side frames of the buoy rack supports, etched parts 12, around to 90º so that they are parallel, then fit to the underside of the buoy rack.
Trim the legs of the end support forks, so that they fit onto the top of the outer drum support on the sweep winch, when the buoy rack assembly is fitted into place as shown right. Fold the support legs and support beam on the boat decking, etched part 6, down to 90º. Fit the boat decking so that the square opening in the front end fits over the base of the crane mast, and the side supports fit down the inside of the bulwarks. The inner edge of the boat decking fits along the edge of the funnel deck.





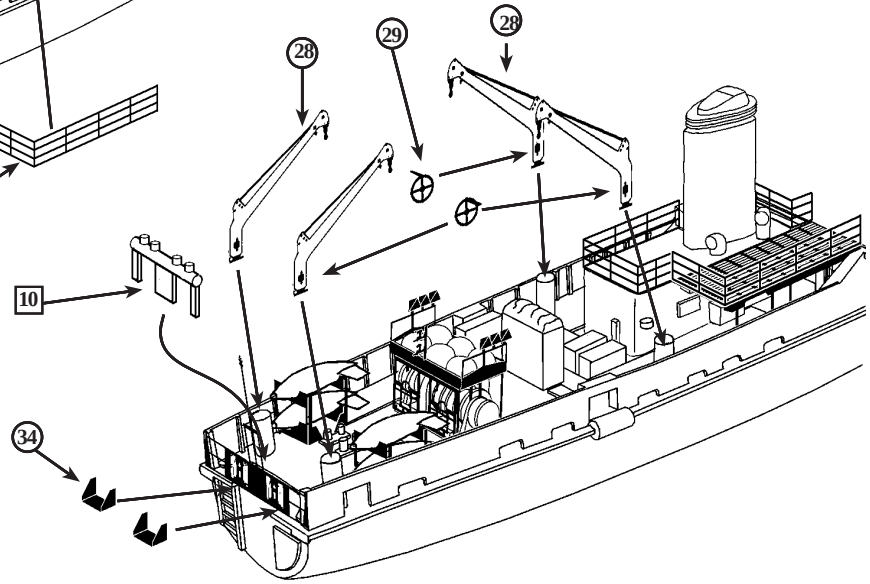
Fit the small angled fins to the centre of the flat surfaces of the radar reflectors, etched parts 9. These would be painted in dayglo orange for high visibility. .

Sweep Deck Fittings Location



Shape the railings, etched parts 3, to fit around the outsides of the funnel deck as shown left. The short front section is folded so that it runs forward along the inner edge of the boat decking.
Shape the railing section, etched part 2, so that it fits around the outside of the boat deck. Fit the stern section of railings and hawser guides, etched part 10, across the stern opening attaching to the rear bulwark pillars.

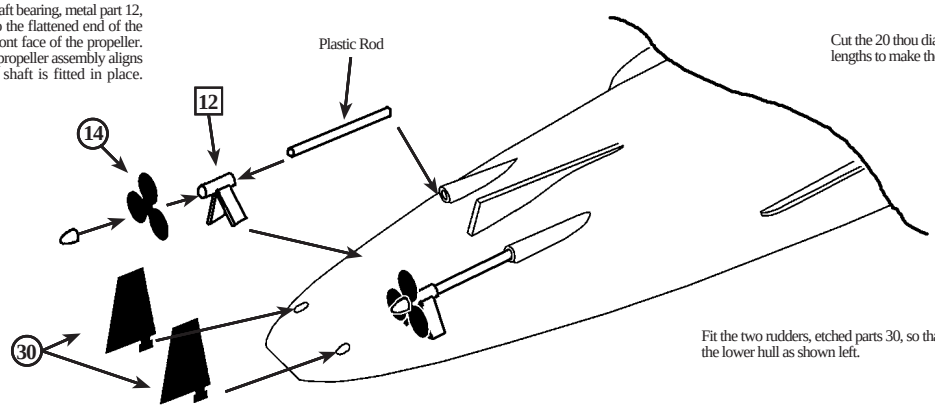
Fit the Oropesa stowage's so that they are outboard between the rear crane pintles and the sweep winch housing.



Fit the Towing Bit frame, metal part 10, across the stern inside etched part 10. Ensure that the openings and support posts line up so that the towing bit is fitted centrally.
Fit the assembled Oropesa cranes, etched parts 28 to the tops of the crane pintles as shown right. Fit the hand wheels to the sides of the crane jibs. Shape and fit the lower hawser guide chutes, etched parts 34, to the lower rear bar of etched part 10.

Propeller and Rudder Assembly

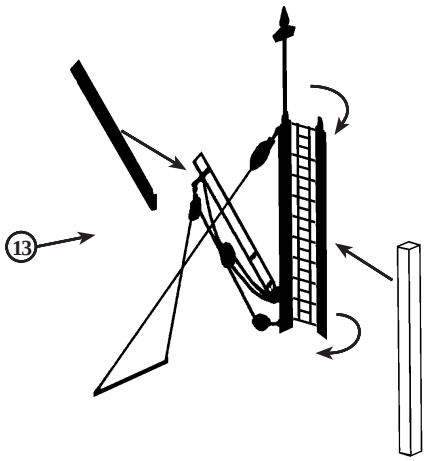
Cut the shaped hub from the end of the shaft bearing, metal part 12, and fit the propeller, etched part 14, onto the flattened end of the bearing. Refit the hub, centrally to the front face of the propeller. Trim the bearing support legs, so that the propeller assembly aligns with the propeller shaft tube when the shaft is fitted in place.



Cut the 20 thou diameter plastic rod supplied into two 7.5mm lengths to make the propeller shafts.

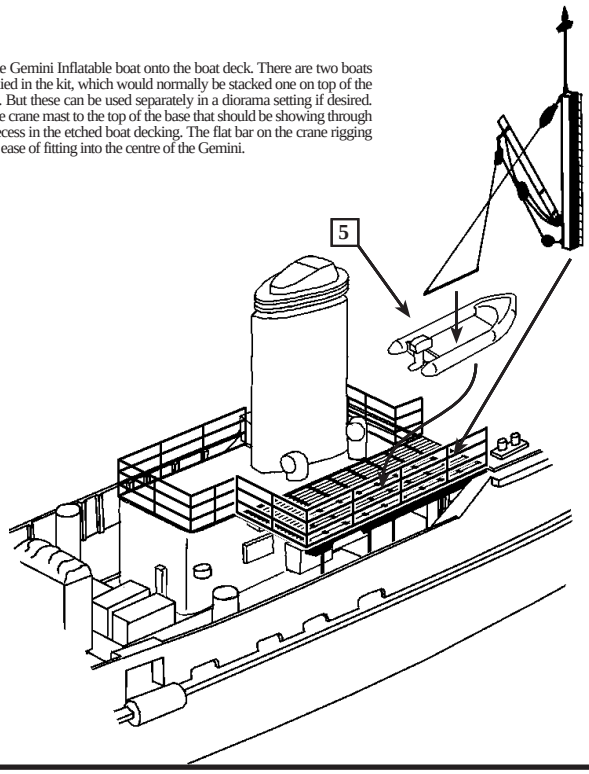
Fit the two rudders, etched parts 30, so that the locating fot fits into the recesses in the lower hull as shown left.

Boat Crane Assembly & Location



Fold the two sides of the boat crane mast, etched part 13, around so that they are parallel with the ladder standing away from the mast.Fit the square section plastic strip between the two uprights as an infill.
Fit the doublers part to the blank side of the crane jib, making sure the relief detail is outer most.

Fit the Gemini Inflatable boat onto the boat deck. There are two boats supplied in the kit, which would normally be stacked one on top of the other. But these can be used separately in a diorama setting if desired. Fit the crane mast to the top of the base that should be showing through the recess in the etched boat decking. The flat bar on the crane rigging is for ease of fitting into the centre of the Gemini.



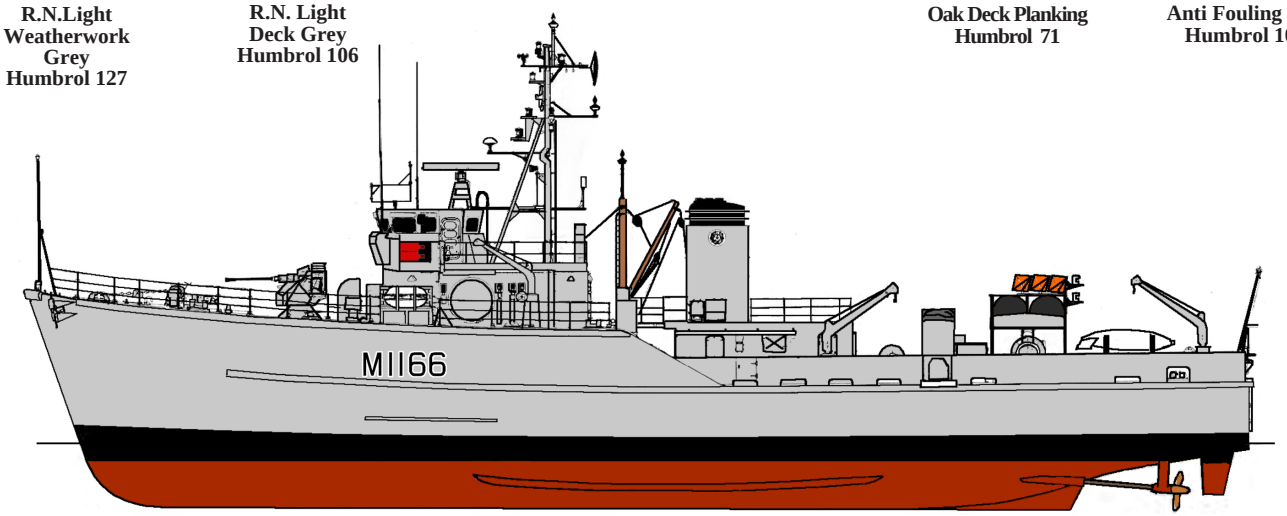
Painting Guide & Colour Chart

R.N.Light Weatherwork Grey Humbrol 127

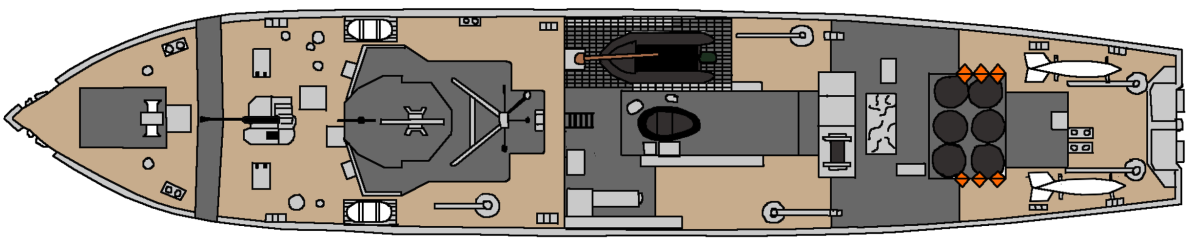
R.N. Light Deck Grey Humbrol 106

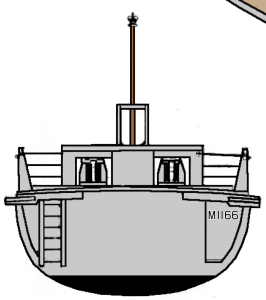
Oak Deck Planking Humbrol 71

Anti Fouling Red Humbrol 100



HMS Nurton 1989





Stern View

Other Colours

Matt Black	Waterline Boot Topping, Funnel Cap, Gun Barrel, Marker Buoys.
Dark Grey	Gemini Inflatable Boat,
Dayglo Orange	Radar Reflectors
Wood Brown	Boat Crane Mast and Jib

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