# Gub Magazine



a club NOT just for boats ....

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## **EDITORIAL**

A belated happy new year to everyone, I trust you have made some excellent resolutions for the new year, like building some new models (get your priorities right) you could even write an article or two about their build for the Club Magazine?

On Sunday 1<sup>st</sup> January The Club took to the lake for its first sail of 2023. I took the opportunity to take some pictures of Members and their boats who ventured out to celebrate the New Year by sailing them on Wardown Lake. It was a chilly day and the Lake water was high almost up to the seating, but it was nice and clear as you will observe from the following photos





During the winter after we had encountered one of those winter storms a forceful wind was strong enough to snap the trunk of the large lake-side tree depositing the upper part into the lake. I am told that the younger generation found it an excellent climbing frame, thus the Council were forced to have the offending tree removed. You will also observe that the lake water level was still very high, well above our paved seating area and has remained so for some time.



I have included details of the 2023 Chairman's Challenge scheduled for the 7<sup>th</sup> March. Do hope you all are in the build/planning stages and intend to take part.

## **CHAIRMANS CHALLENGE 2023**

A reminder regarding the 2023 Chairman's challenge. This will take place down at the lake in Wardown Park on Sunday 7<sup>th</sup> May. The following items must be incorporated into a new boat build. No commercial hulls may be used. Radio Control if required will be up to the individual.

#### **ITEMS TO BE USED**

- 1. 2 x Plastic Bottles 1.5ltr or above
- 2. 1 x Dowel minimum 18" in length
- 3. 1 x Carrier bag
- 4. 1 x Pen
- 5. You must incorporate a box or cradle to hold 1 item 60mm x 60mm
- 6. 5 x Plastic bands of your choice

The plan is to get the models to sail on the water for 5 minutes minimum.

Prizes (Jelly Babies) will be awarded for:

- 1. Best Design
- 2. Longest Time on the water
- 3. Best Sinking

Good luck to all those brave competitors planning to take part.

### CHRISTMAS DINNER DECEMBER 2022

The first of our Club Christmas gatherings was held at the BRIM & CROWN PH (Luton) on Monday December 12<sup>th</sup> 2022. It was all pre-booked with a start time of 7pm. I arrived with Derek at about 6.30 to find most people were already there and seated, however we found ourselves two seats and organised a drink each, prior to the meals being served. The following pictures tell the story?











## SHUTTLEWORTH IPMS 2023

Up early Sunday morning 12<sup>th</sup> February, washed, dressed followed by a light breakfast before departing to pick up Derek Thompson on the way to Shuttleworth airfield for the IPMS model show. I had packed the car the previous evening with the required models (all plastic) a bag of bits including Radio, Camera, Table Covers, Model Labels and a couple of chairs. The journey turned out to be un-eventful arriving at the side entrance about 7.30am. After a short discussion with the gate keeper about parking we managed to position the car next to the hanger doors. I collected the table covers from the car and proceeded to search for out display tables within the hanger and to my surprise we had been allocated three tables as requested by Pete our Secretary (should have brought more models?).

First job was to adorn the tables with the blue covers and then go-get the models from the car. Fortunately Martin Gazeley was availably to give us a hand thus it only took a couple of trips to do the unloading. After extracting the models from their box's they were placed on the tables and re-arranged a few times in order to make the display took respectable. Tony Martin came over and offered a couple of models in order to help fill our large space. Notices were placed at the front of the tables announcing that the display was on behalf of the LUTON & DISTRICT MODEL BOAT CLUB together with name tags being placed in front of each model containing basic information regarding their construction and that they were Radio Controlled.

The next important job was some refreshments these were provided free of charge for all exhibitors in the form of **do-it-yourself** tea or coffee (no biscuits) arrangement positioned at the back of the hanger.

Having completed the display set-up it was time to take some photos of the exhibition displays for an article in our Club Magazine. This year I decided to concentrate on one or two models from each stand rather than taking photos of all the stands as the pictures are fairly small in our magazines and this may produce photos of models with greater detail,

As far as the exhibition was concerned there were a number of retailers selling books and model kits, what was missing were the retailers selling tools and glues/paints etc. I found the exhibition enjoyable and worth the trip, particularly if you buy your ticket in advance. The organisers decided to have the big hanger doors open all day which made it freezing cold for exhibitors close to the front of the exhibition hanger; however we did take it in turns to go to the restaurant for a warm up.

Trust you have found this short article of interest including the following photographs

**Tony Dalton** 





L&DMBC Shuttleworth Show Stand





Wisbech IPMS - Two Nice Traction Engines and a Stevenson's Rocket





The Early Risers Model Club - Interesting Characters in right hand Photo





CLUB? - Another Stephenson's Rocket and a Nice Old Car Under Construction?



Italia SIG – Model Fiat CR.42 Falco



Doughnut Models - Bristol Boxkite and Northrop YB-35 Flying Wing



Letchworth Scale Model Club - Bad Landing? Is this Wing Bent or Folded?



British Model Soldier Society - A Fighting Elephant





Brampton Scale Model Club – German AGO C11 and Short Long Rang Bomber





South Atlantic SIG - HMS Ardent and ARA Veinticienco de Mayo



Fenland and Spalding Model Club





IPMS Gloucester – F82F Twin Mustang and AWACS





Aviation Near The Poles SIG



Japanese Aviation SIG





Thurrock Scale Model Club – RMS Titanic and Servicing a Spitfire





Bedford & District Scale Model Club





Romsey Modellers – Matilda II and T4-76 Tank's









Mildenhall Scale Model Club









Brampton Scale Model Club – HMS Rodney





North Essex Modellers Club

## ITALIAN MOTOR TORPEDO BOAT

Wandering around the Shuttleworth model exhibition (January 2022) I came across a nicely constructed model of an Italian Motor Torpedo Boat (MAS 563/568 - Italeri kit No.5626) which I considered to be a suitable model for conversion to Radio Control, thus later on during the year I purchased the kit.

Motoscafo armato silurante (torpedo-armed motorboat), commonly abbreviated as MAS, was a class of fast torpedo-armed vessels used by the Regia Marina (Italian Navy) during World War I and World War II. Originally, "MAS" referred to motobarca armata SVAN (armed motorboat SVAN, Società Veneziana Automobili Navali (Naval Automobile Society of Venice).

MAS were widely employed by Regia Marina during World War I, 1915 to1918. Models used were directly derived from compact civilian motorboats, provided with petrol engines which were compact and reliable (characteristics which were not common at the time). They were used not only in the anti-submarine patrol role, but also for daring attacks against major units of the Austro-Hungarian Navy **Photo 01**.



**Photo 01**. The Italian torpedo boat MAS *528* on Lake Ladoga in June 1942

Italian MAS continued to be improved after the end of World War I, thanks to the availability of Isotta Fraschini engines. The MAS of World War II had a maximum speed of 45 knots, two 450 mm torpedoes and one machine gun. In 1940 there were 48 MAS 500-class units available. Older units were used in secondary theatres, such as in Italian East Africa. The obsolescence of small MAS became apparent during the conflict, and they were increasingly replaced by larger Yugoslavian E-boats built in Germany and by new improved versions, classified "MS" (Moto Siluranti) by the Regia Marina.

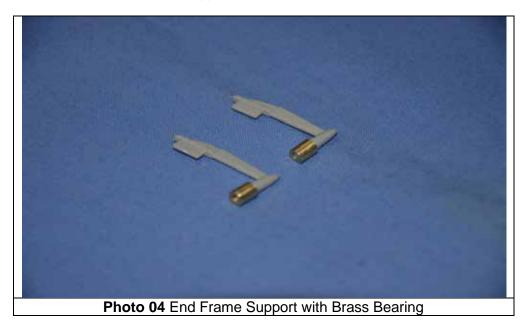
The kit of parts is shown in **Photo 02** which comprises a one piece hull plus stern plate, deck moulding (which is a screw fit to the deck), four moulded frames of small parts, photo etched brass sheet of parts, a sheet of pre-cut clear plastic windows, thick and thin rope, screws to fit the deck and an instruction booklet.



For this size of model I decided on 2mm diameter stainless steel for the propeller shafts and 3mm diameter brass tube having a 2.1mm diameter bore for the running tubes. The holes in the bottom of the hull were drilled out and elongated using a Swiss type round file, allowing the brass running tubes to be slide fitted through the hull bottom. With this job completed the stern plate was trial fitted and then glued into position on the stern of the hull **Photo 03**.



There are no 'A' frames or 'P' frames to support the propeller shafts/running tubes on this type of model but it has what I have termed an 'E' frame (End Frame) and it does just what it says, it supports the end of the propeller shafts. **Photo 04** shows the plastic 'E' frame support modified with the addition of a brass bearing fitted that supports the propeller shaft end, this also required me to order two brass propellers of suitable diameter but the threaded shaft hole drilled and tapped right through the centre of the propeller hub allowing the shaft to pass through the propeller hub and into the 'End Frame' support.

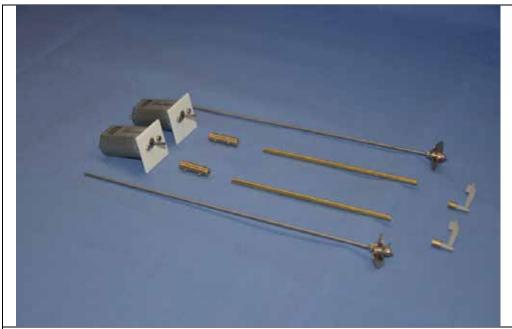


Next I selected a couple of motors from my little store of such items and made two support brackets from 2mm thick plasticard, using M1.6 screws to secure the motors to the brackets as shown in **Photo 05**.



The motors and end frames were trial fitted to allow the propeller shafts and running tube lengths to determine. They were then cut to the required size including making two solid couplings **Photo 06**.

The rudder in the actual model is controlled by a cable running along both sides of the deck the down shaft being fitted to the outside of the transom. I decided to simplify the system by fitting the rudder down tube on the inside of the transom in order to couple the rudder to the control servo within the hull.

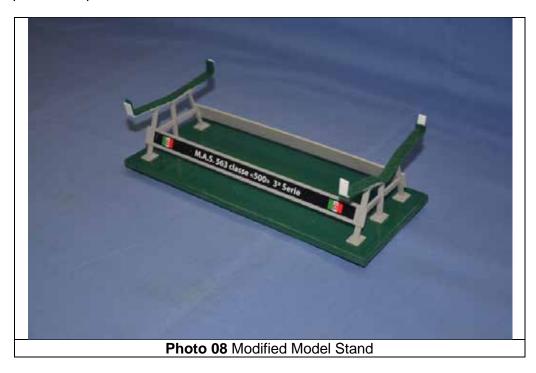


**Photo 06** Motors, Shafts, Running Tubes, Couplings, Propellers and End Supports.

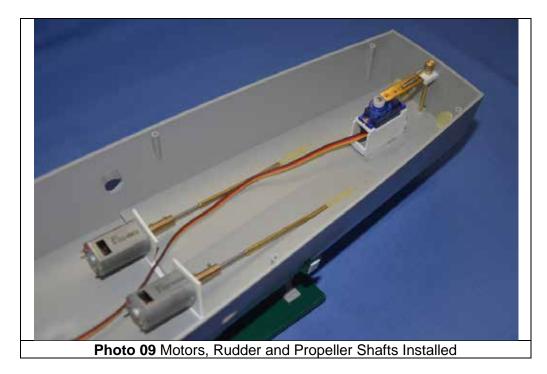
The original plastic rudder blade was used but had a brass shaft inserted and bonded into its pivot bush. A hole was drilled in centre of the bottom of the hull into which a brass down tube was inserted together with a support block. A plasticard servo holder was made to support the servo in the centre of the hull in line with a brass tiller arm. **Photo 07** shows all the rudder parts prior to installation.



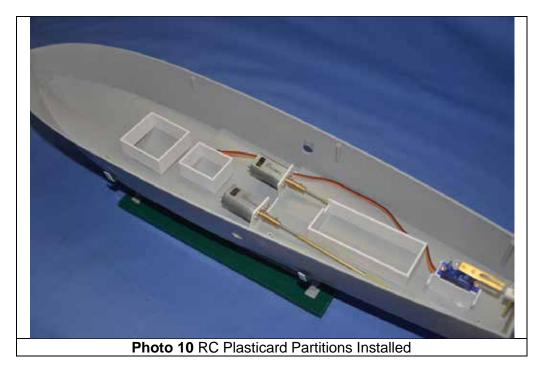
Although I had assembled the basic stand as supplied with the kit I found it to be unstable allowing the model to slide off the supports. To correct this, first I mounted the stand onto a sheet of plywood to stabilise the stand and then extended the support arms including adding up-turned ends to prevent the model from sliding off sideways. The mating surfaces were then lined with green felt to protect the paint finish. The modified stand is shown in **Photo 08**.



With all the propulsion parts made it was time to install the motors and propeller shaft assemblies. With all the parts fitted and aligned within the hull, the motor mounts were bonded into position followed by the propeller shafts and running tubes sealed into position using plastic padding. The rudder was installed complete with its down tube, servo and mounting shown in **Photo 09**.



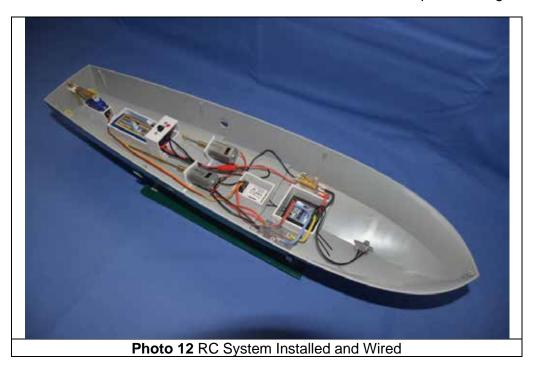
Next was the installation of the Radio Control System and in order to keep all the items in place within the hull I made some plasticard partitions for the Speed Controller, Radio Receiver and the battery **Photo 10**.



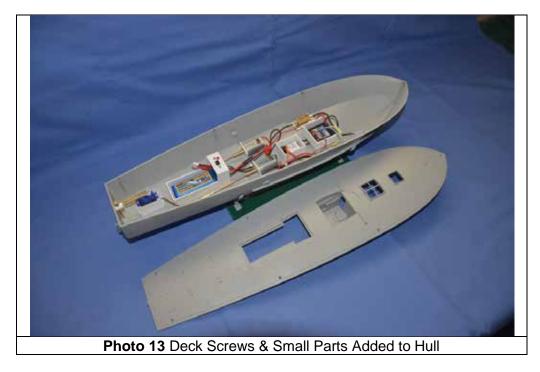
One morning I noticed that one of the brass propellers was missing (found on the floor). On closer inspection of the model, an end support had broken off which allowed the propeller to become detached from its shaft. It was evident that the plastic end supports were not strong enough to withstand the shaft vibrations; the answer to this problem was to make new supports from brass, see **Photo 11**.



With the RC module boxes installed it was time to fit and wire the Radio Control System. On one side of the ESC I bonded a copper clad board in place to support a fuse and fuse holder, allowing the wiring from the battery and the ESC power leads to be combined. On the opposite side a similar board was bonded into position to combine the leads from the ESC output and the leads from the two motors to be connected. A bridge support was positioned above the battery partition to support an ON/OFF power switch. It was positioned such that the switch would be in line with one of the deck hatches when the deck was fitted. **Photo 12** shows the completed wiring.



I decided to dispense with the self tapping screws to hold the deck in position and use M2 stainless steel screws in their place. This required the holes in the hull moulding to be drilled and tapped M2. The exhaust outlets were fitted and glued into position together with a number of Photo etched parts that required to be attached to the sides and bottom of the hull **Photo 13**.



With the Hull assembly complete it was time for painting. To do this it was necessary to remove the rudder assembly and both propeller shafts. The rudder removal was quite simple, but to remove the two propellers and shafts entailed removing the motors in order to withdraw the propeller shafts out through the motor mounts. They cannot be removed from the stern as the propeller shaft end supports are bonded and fixed into place.

Having removed the rudder and shafts the open hull was masked to prevent any paint getting into the radio installation which then allowed the hull to be lightly sanded down before being given two coats of Halfords grey primer paint. Another light rub down to remove any minor blemishes before being given another coat of grey primer followed by a final coat of Humbrol clear satin varnish.

The upper hull was then masked from the water line upwards and the lower section painted black all over, it was also given a final coat of Humbrol clear satin varnish. All the masking was then removed allowing the decals to be attached to the sides and the stern.

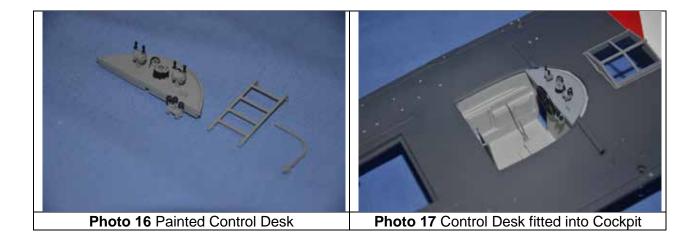
The propellers and motors were re-assembled together with the rudder assembly. RC system wiring re-connected which allowed a final test of the Radio system to be carried out to ensure that all was functioning correctly. The hull was then stored away until required for assembly of the deck **Photo 14**.



The first thing to do when assembling the deck was to identify and drill out all the location holes for the items that will be fitted during the build process. With this action completed the deck was masked to allow the hatch and skylight items to be painted light grey and then sprayed with clear satin varnish. All the masking was then removed and the fore deck, hatch and skylight were masked to allow the bulk of the deck area to be painted dark grey followed by a coat of satin varnish. All the masking was then removed and the dark gray area completely masked over to allow the foredeck to be painted white. When the white paint was dry it was masked to allow red diagonal stripes to be painted and when dry the masking was removed to allow the complete deck to be sprayed with Humbrol clear satin varnish. The finished painted deck trial fitted into position on the hull **Photo 15**.

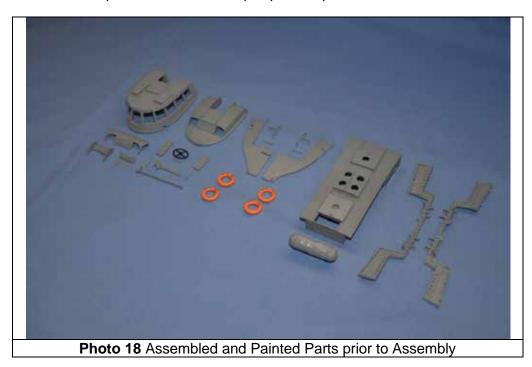


Within the fore cabin there is a control console comprising a semicircular desk with engine controls and compass. These parts were individually painted and then assembled together including a hand rail and an access ladder **Photo 16.** When the assembly was completed the individual parts were fitted and glued into position within the deck cockpit **Photo 17.** 



I decided to trim and paint all the parts for building the two cabins prior to assembling them; this comprised some 25 individual parts. Most of the items were painted with Halfords grey primer except for the ships wheel which was painted black and the life belt rings which were bright orange plus MAS decals. The holders for the life rings were made from etched brass but were required to be formed to the required shape in accordance with the instructions to become the holders.

The aft cabin was built using four moulded sides and a roof which was fairly straight forward. The forward sliding hatch will be glued into the shut position but the aft hatch needs to be opened in order to gain access to the power switch. All the pre-painted parts are shown in **Photo 18.** 



With all the individual parts prepared for the cabins it was time to assemble them. The first action was to glaze all the windows, including the skylights using the printed pre-cut plastic sheet provided. In addition some etched brass circular rotating window clearers are provided which need to be glued to the glazing prior to fitting them into their frames. **Photo 19** shows the Fore Cabin assembled and ready to be fitted into position on the deck.



The assembled aft cabin is shown in **Photo 20** this required the circular skylight windows to be glazed. The front sliding hatch was glued into the shut position but the aft hatch is required to be opened in order to gain access to the power switch mentioned earlier. To this end the hatch was modified by adding a spring retaining clip to its underside.

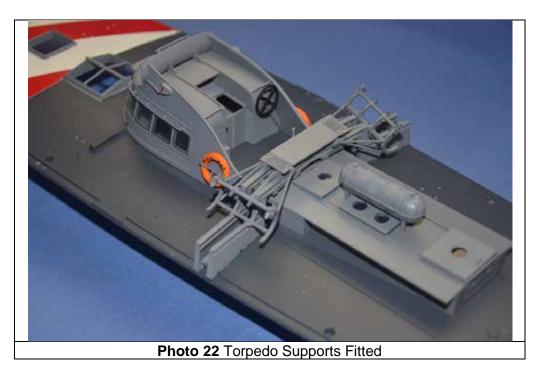


With both the cabins assembled they were trial fitted and glued into position on the deck **Photo 21**.

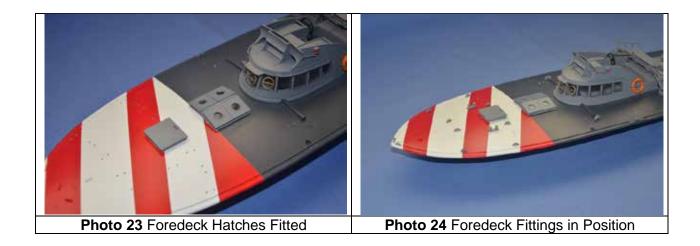


The two main torpedo support girders that traverse the deck were trial fitted into position and glued into place having be previously trimmed and painted. The Torpedo holding frames (left and right hand) were removed from their mouldings, each comprising of four parts. Any moulding marks were trimmed away allowing each assembly to be trial fitted and then glued together. The assemblies were then placed on a flat surface to ensure they remained square. When the glued was cured the two frames were painted with Halfords grey primer.

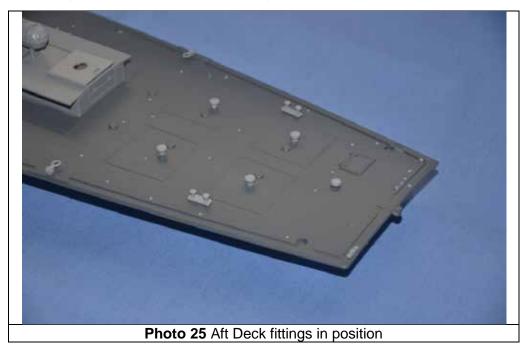
There is also an access platform associated with the holding frames made up of three photo etched parts, these were removed, formed to shape and painted light grey all over. The two holding frames and platforms were now mounted onto the support girders and glued into position **Photo 22**.



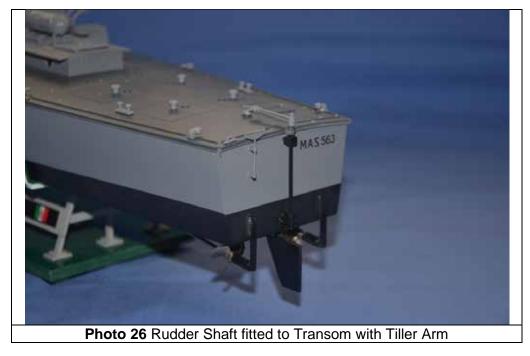
Next to be assembled and fitted were the foredeck hatches one required a small handle to be fitted to the Hatch the others required circular glazed windows to be fitted but not before being trimmed and then painted. **Photo 23** shows the completed items secured into position.



There were many small items to be painted and secured in place on the foredeck including bollards and cleats securing rings and cable pulleys for the rudder cable all shown fitted into place on the deck in **Photo 24**. The aft deck was similar and therefore treated the same as the foredeck in that the small items of cleats, bollards and pulleys after being removed from their frames were cleaned, painted and then secured into position on the deck **Photo 25**.



As mentioned earlier in this article this models rudder being servo operated was installed within the hull. The actual vessels rudder was cable operated, the cable running along the top face of the deck and secured to a tiller arm connected to the rudder down shaft mounted on the outside of the transom. To achieve this and still allow the deck to be removed the down shaft was mounted onto the transom between the existing mounting at the bottom of the hull and a new mounting block made of plasticard positioned at the top. The surplus length of shaft was removed and used to secure the tiller arm to the mounting bush at the end of the deck. All these items were painted prior to being secured in position on the vessel **Photo 26**.



To make and mount the two torpedoes I initially removed the two sets of twin torpedo propellers cleaned them and painted them gold I also removed two sets of torpedo fins and cleaned them ready for painting. Both these sets of parts were put aside until required.

The main torpedo body parts were removed from the frame and assemble together, when cured the joints were cleaned and any blemishes removed from the bodies. Etched brass straps detached from the photo etched frame were bonded into position on the bodies of the torpedoes. The torpedo's were then painted with Halfords grey primer all over including the separate additional fins. The front section of the torpedo was then masked and the aft section and fins painted gunmetal, when dry, the aft section was mask and the front section painted black all over. When all the paint was dry the propellers and fins were assembled and glued into position on the torpedo body, the completed assemblies were put to one side to await fitting to the holders.

The two small torpedo tripod and single bipod cradles together with the aft end stop for each torpedo were removed from their frames, cleaned of any burrs and dry assembled onto the deck. The upper common joint of the tripods were glued and allowed to cure. All the items were removed from the deck and painted using Halfords grey primer. When dry these small assemblies were fitted and glued into their respective positions on the deck.

With all the mountings fitted and secured into position the two painted torpedoes were placed into position within their cradles such that the aft propeller fins are butted up against the back stops. They were then glued into position **Photo 27**.

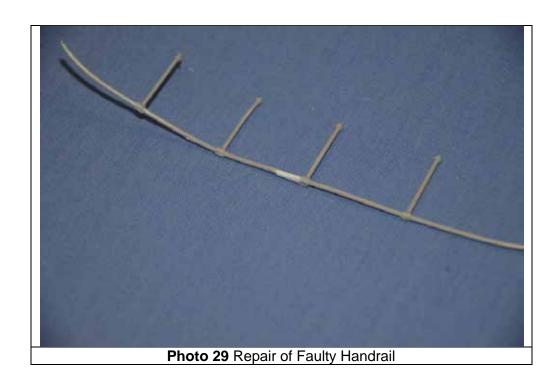


More fittings were added to the fore deck including the anchor (painted black), glued to three mountings moulded into the deck complete with retaining clamp. Antenna's fitted to the fore deck cabin, two long poles (do not know what these are called) complete with mountings. The

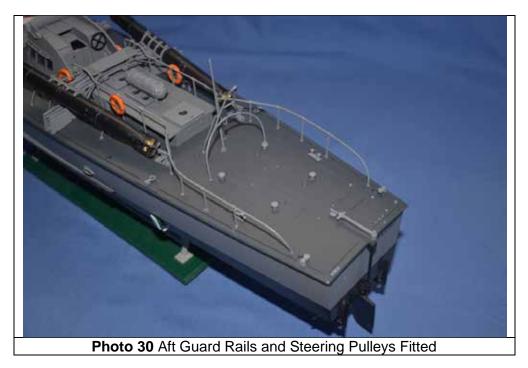
mountings partly covered the holes for the deck retaining screws. These were modified by opening up the access holes to clear the screw heads. The front mast (Jack staff) required repositioning slightly forwards to clear another deck securing screw. **Photo 28** 



When removing one of the two aft hand rails I discovered that one of them had not been moulded correctly in that there was a short section of the rail (about 10mm) missing. I decided to repair the rail by inserting a short length of plasticard rod (1.8mm dia.) to replace the missing section **Photo 29.** 



With the repair completed both the port and starboard handrails were painted and then fitted in position on the aft deck. Next the aft cable pulley, which forms part of the rudder control system, was repositioned to allow access to another pair of deck retaining screws all shown in **Photo 30**.



With the quantity of small vulnerable parts now assembled it was time to consider how to protect the model from becoming damaged during storage and transit. I trial fitted the model into the cardboard box it was supplied with. It did fit into the box but only diagonally and I considered this to be satisfactory. On that basis I proceeded to modify the box by adding cardboard panels to its sides to increase the depth to ensure that there was plenty of clearance for the superstructure and masts. The box was lined with foam sheet to prevent the model sliding about during transportation **Photo 31.** 



When assembling the smoke dispenser comprising of ten items, I found three part identification errors. Parts 44f and 45f should be marked as 44e and 45e. Another item not identified at all was the extended shaft that connects to handle 47f should be identified as 49e. The remainder of the items on the instructions are identified correctly. I assembled the base and the pressurised smoke canister as separate assemblies which were then painted with Halfords grey primer except for the handles which were painted black. When the paint was dry all the items were trial fitted and then glued together. To ensure correct parts alignment they were placed in position on their deck location and then glued into position.

The six smoke canisters comprising of two parts each were glued together and when dry all joints cleaned of surplus glue. They were then painted black all over followed by a coat of clear varnish.

The release/holding frame for the depth charges comprising nine plastic parts and two photo etched parts were sequentially assembled together and then glued into place. When the glue was dry the complete assembly was painted with Halfords grey primer followed by a coat of clear satin varnish. With the holding frame completed the depth charges were slotted into place within the frame and glued into position.

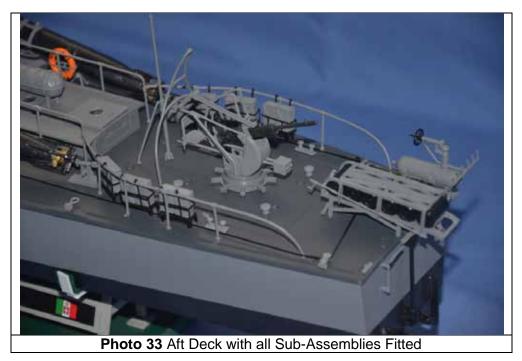
The aft deck gun is made up of seventeen plastic moulded items these were removed from their frames and cleaned of any mould marks. The gun barrel assembly comprises three items which were trial assembled, then glued together before being painted with grey primer and then given a final a coat of gunmetal.

The remaining parts that formed the gun mounting were all painted with Halfords grey primer. The base was assembled together using a small amount of glue in order to allow the gun base to rotate on its axis. The seat and side frames were fitted and glued together around the gun such that it allowed the barrel to elevate. The complete assembly was given a final coat of Humbrol clear satin varnish. **Photo 32** shows the Smoke unit, Depth Charge and Gun assembly completed ready for fitting to the aft deck.



The deck mounted steering cable needed to be fitted. I did not use the thread provided, but decide to use some plastic thread (often used for threading necklace beads) it is elasticised to a limited extent. Initially a length of this thread was cut and attached to the tiller arm leaving two equal lengths either side. These loose lengths were then passed around the deck pulleys on both sides of the deck and finally into the narrow tunnels on each side of the wheel house where they were secured together below the wheel house structure completing the steering cable installation.

The Smoke Unit, Depth Charge and Deck Gun assemblies were then positioned and glued into position on the deck. **Photo 33** shows these units in position together with the steering cable.



The final operation was to fit the rigging/radio antenna from the Jack Staff to the radio mast on the wheel house an on to the aft mast using thin twin supplied. The completed model on its stand is shown on **Photo 34.** 





Finally **Photo 35** the completed model on the water



Also supplied with the kit was the Crew complete with Gang Plank, Life Ring and a deck side mooring set which I decided to assemble and paint **Photo 36**. Sometime in the future I may decide to make a Quay side diorama?

Do hope you have enjoyed reading this article about building and installing radio control into this plastic model of an Italian MAS536 Motor Torpedo Boat.

Happy modelling

**Tony Dalton.**