

# MOTORISING THE MOUNTFLEET LIGHTER NO. 7 KIT

AN INTERESTING AND DIFFERENT MODIFICATION TO A COMMERCIAL KIT

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*Mould showing release agent (the blue plastic film stuff) after removal of tunnel lay up*



*Tunnel moulding in progress*



*Tunnel removed from the mould*

This is not a kit review but a short article about how I went about motorising the Mountfleet Lighter No. 7 kit and converting it into a motor barge. I am doing this after a chat and a bit of arm-twisting by your Editor Barrie Stevens at the International Model Boat Show in Warwick.

This is something that the late Frank Hinchcliff always said could be done so I thought I would try to make it happen. It was not that easy but I love a challenge. The Lighter kit is designed to be towed behind the Cruiser Tug and makes up to be a fine model out of the box and with a retail price of about £105.00 is good value, with the extra items I have bought to motorise this model you are looking at an on the water price of about £160.00.

So here we go – this is what I did. I will use pictures to show what has been done at the different stages as this complements and gives a better idea than words alone what happens.

The first stage was to work out how to accommodate the propeller shaft as the kit hull has a dead flat bottom.

I decided to make a lifeboat style tunnel propeller housing to be moulded in GRP to do this. The mould was made from a bit of water waste pipe cut at an angle and a flat piece of styrene sheet glued together with plastic weld.

The next stage was to mark the area of the hull that had to be cut away this was then removed using a Dremel cutting disc (make sure you use a mask, this stuff is bad news for your lungs).

The tunnel was then glued in to place after things were checked for fit, for this I used 5-minute epoxy. I then made final checks to make sure all was in line and in the right place and using glass cloth tape and resin bonded the tunnel into place. This makes a very strong job. Once this was dry everything was blended in with P38 filler and sanded to a finish.



*Hull marked out*



*Checking the size before cutting*



*Tunnel taped in place for gluing*



Tunnel glassed in



Sanded back



Filled



ABOVE: Shows the propeller shaft and skeg in place on the finished model and the rudder mounting



ABOVE: The company original made by Frank as seen at Warwick 2007

After this the propeller shaft was fitted in the normal fashion I made up a skeg from a bit of brass tube and flat brass stock material silver soldered together to support the propeller shaft end, as it is a long way down the tunnel and seemed to have a lot of flex in its length.

Other modifications that were carried out included mounting a rudder by the use of an external brass mounting tube that had two brass rods silver soldered to it and then it was pinned through the back of the hull and bonded into place with slow setting epoxy. After this it was blended in and made more solid using P38 filler. To get the motor and steering servo fitted the deck and cabin were altered from the kit, this involved shortening the main hatch and making a larger cabin/wheelhouse. I based this on the old north light drawings I

had in the file as this was one of Frank's first models when he owned Caldercraft. I have used 6 volt grain of wheat bulbs for the lights and a big white LED for the front running light. These deck arrangement modifications can be seen by comparing the original manufacturer's photo and the pictures of my version.

Now the techie bit. If you want to have a go yourself, this is a list of the hardware I used for this build...

Mount Fleet Lighter No. 7 purchased by me from the company direct at Warwick in 2007, the phone number for Mount Fleet Models is 01484 851569.



Motor in place



Inside new cabin



My revised deck arrangement

The motor used is a Graupner 500 E low drain motor – from the spares box and is used direct drive onto a 45 mm brass 3-bladed propeller from SHG.

The rudder is from a cut down RadioActive brass rudder medium size from hobby stores.

The battery is a 6 volt 10 amp hour from John Poll at Model Power and with this set-up no other ballast is needed.

The speed control is by an M.troniks 15 amp Viper from Hunters and I have used a simple 2-channel radio to control everything still on 27 MHz.

The material used for the tunnel lay up was purchased from Alec Tiranti in Warren Street London WC1 0207 636 8565 (www.tiranti.co.uk)

The materials I used are listed here...

GP Polyester resin no 405-505 Liquid hardener No. 405-810.

PVA release agent No. 407-710.

They also supplied the fibreglass tape I used that was about 50 mm wide about 2 inches in old money.

I hope this inspires you to have a go and make a model that is different and also very stable on the water, it is low profile with no tall masts to get damaged when putting it in the car.

By Derek Attree Chair of Welwyn Garden City Society of Model Engineers **MMI**

**RIGHT: Completed refitted Lighter on the water**

**RIGHT: Steering links. Please note the plan is to have this done by chains when I am happy with the rudder control. The feeling is at the moment the rudder blade may need to be a bit deeper in the water**

