

BUILDING A SEVERN TROW IN 1/12th SCALE: “ASHMEAD”

Following from an earlier text on this subject, I would like to give a bit more detail, and rather than write loads, try to tell the story in pictures and captions.

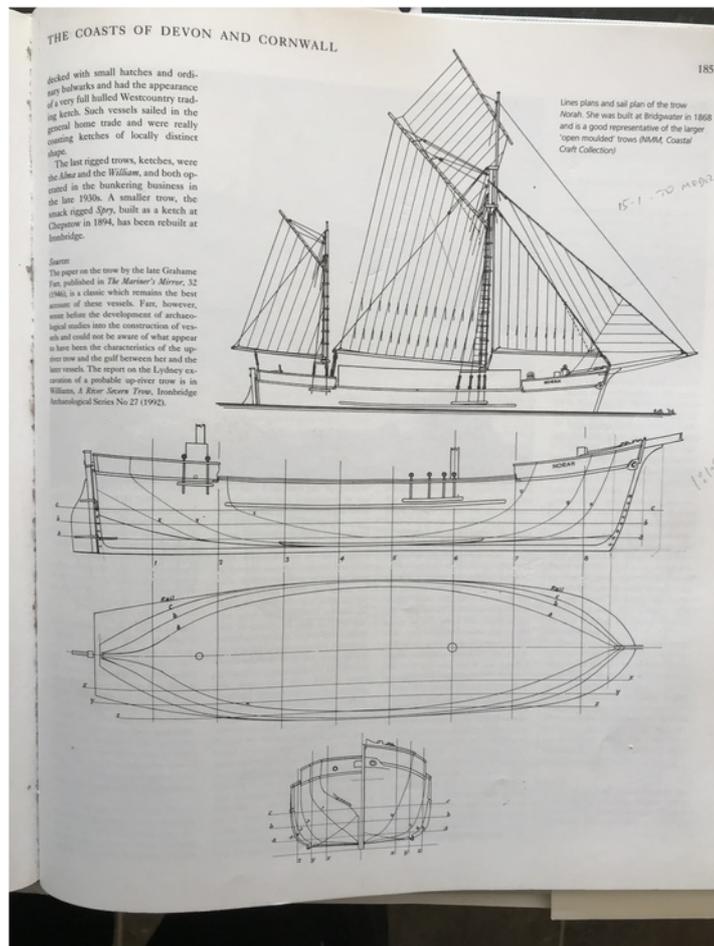
Note the general shabby appearance of this hard working sailing barge. Heavy canvas sails, a barrel water butt, ropes and gear. She has just unloaded coal at the Combwich warehouse on the marsh downriver from Bridgwater, and awaits the tide.



DECK VIEW OF THE EMILY, A FULLY DECKED TROW.



ANOTHER DECKED TROW, THE LARGE "JONADAB", WITH 3 JIBS ON THE BOWSPRIT.



LINES PLANS OF THE "NORAH", NO DIMENSIONS, BUT RATHER SMALLER.



HOW TO MOVE IT. THE MODEL BASED LOOSELY ON THE "NORAH"

The launch trolley is constructed from box section aluminium, and bolted together. A pair of gas struts (as used for bonnets and tailgates) lifts one end to level with the van floor. This is compressed and locked down for launching bows first. Raising the bowsprit up and back shortens the rig, and lowers the mainmast. The topmast has also been lowered to lay in front of the mainmast.

MODEL PHILOSOPHY

The plan was for a large size, that would sail well and as realistically as possible, that would allow more detail, and look good on display without the centreboard installed. Because of the large size and height, the complex rig would need to fold back to fit in a medium size van, as shown above. 18kg of ballast is removed for travel and for sliding in and out of the van, and this is quick and easy to do. Size also helps me to build, and certainly helps with controls. Even the small sails can pull the sheets out from the hull in all but the lightest airs.



VERY COMFORTABLE UNDER REEFED MAIN, 2ND JIB, AND TOPSAIL, WHICH WAS LATER EASILY REMOVED AS THE WIND GOT UP.

SAILS

There are 3 sizes of topsail, and 3 sizes of jib. The brown staysail, the main and the mizzen sails can each be reefed, exactly as traditionally done. The boat can sail with the topmast up or down. The two headsails can be backed independently of the rest to help turn the vessel or to lie hove-to. With the staysail pulled to windward and the main sail eased, she will jog along in a straight line whilst I answer the phone or take a picture. The full sail plan of 2,300 sq. ins. can be reduced to the 1900 shown above or further reduced to about 1200, at which point, it is probably time to retrieve.

The sails are cotton, dyed and dirtied, roped with natural fibre laid ropes of various diameters, patched, mismatched, and then wind and waterproofed with a Barbour compound pulped with tent waterproofer. Bolt ropes sewed in to port, hems and tablings (reinforcing) to starboard. The topsail is the very old fashioned quadrilateral gaff type.



HEELING TO A BREEZE.



A VIDEO CAMERA ON BOARD TAUGHT ME TO SAIL IT MUCH BETTER.

HULL DIMENSIONS

78" on deck, 17" beam, 5" draft of hull half loaded, which is 130 lbs, or 60 kg



THE HULL AND CENTREBOARD CASE MINUS DECK, WHICH WAS LATER FITTED IN ONE PIECE.

CONSTRUCTION

Centreline is mahogany and 6mm marine ply. Frames are 12mm marine ply. Planks are 5mm lime wood from Jotika, a purpose cut batch of laths which had to be shaped. Because of the length these were supplied in 1200 and 800mm lengths, and butt jointed in stagger formation. The very tight curves at the bow used 2 x 2.5mm laths laminated. Fixings were some 1500 SS wood screws and the glue epoxy resin, further reinforced with the coating seen inside. Deck: 6mm marine ply. The rudder tube is 15mm Table X copper and the rudder stock is 12.7mm dia. Naval brass round bar. A neat fit, well greased.

BALLAST

15lb of lead in the fore hold, 20lb amidships, 10lb aft, and 17lb on the bottom of the daggerboard, bolted 15" below the waterline.



SENSITIVE ELECTRICS UNDER THE WATERPROOF FORE HATCH



THE "MACHINE ROOM" WITH THE DAGGERBOARD IN PLACE AND BRACED TO THE SIDE DECKS.



REEFED AND READY TO GO, WITH HALF A LOAD.

CONTROLS

5 sail winches control the lower 4 sails, 2 required for the brown staysail. A further sail winch sweeps the tiller, a 14" swing. The principle is the standard tensioned "continuous" loop powered by a sail winch to a dumb return pulley. The sail sheet (control line) is attached and pulled to bring the sail in for windward work, and eased right out as the boat turns off the wind. Each sail is independent, except the topsail, which is just an extension of the mainsail. The staysail requires 2 winches because the distance from being close hauled on one tack, to running off on the other is more than the max. 4 turns of a 38mm diameter winch.

Much of the rigging uses hooks fashioned from soft galv. steel garden wire, some with eyes, others S hooks. This means changes can be made quickly, sails removed and added, without fiddly shackles, likely to fall in the water lakeside. All the pulley blocks are metal bound with built in eyes and hooks to suit, from the same wire. Often flattened, forged, heated and quenched to make them more rigid once formed.

DISPLAY

It was always intended to display the model at open days and exhibitions. After all, most of the detail is difficult to appreciate once the boat is out on the water. A diorama was built to represent a trow, aground up a muddy creek,

unloading at a small farm wharf out on the Somerset salt marsh. That and the accessories helped to while away lock down no.3.



LIFE ON BOARD, LOGS FOR PIT PROPS HAVE BEEN LOADED.





THE SHIP'S BOAT, READY TO TAKE LINES ASHORE OPPOSITE AND TURN HER ROUND ONCE THE WATER COMES BACK. SAILS DRY IN THE MEANTIME.