Imara Berthing Tug

Built by Fran Oakey

The 'Imara' was typical of the thousands of contracts fulfilled by the British ship building yards for home and overseas owners. The tug was built to a Crown Colonies Contract dated 20.8.30 specifying the construction of a Twin Screw Berthing Tug and its delivery on completion to Dar-es-Salaam.

Fleming and Ferguson Ltd built Imara in 1930/31 for the Tanganyika Railway Co. She was 109ft long with a 28ft 6in moulded breadth and was powered by two triple expansion steam engines of about 500HP each. After about a year in Africa she was bought by the Royal Navy and renamed Perseverance. She was based at Chatham dockyard until being broken up in 1958.

The 1/32nd scale model was built from the Caldercraft kit with some of the whitemetal parts being remade from stronger materials, such as brass or aluminium, and some reworked, e.g. the roller fairleads, where the cast rollers have been replaced with rollers that rotate. The windlass has been reworked to allow the anchors to be lowered and raised. The windlass gypsies have been replaced with turned aluminium wheels over which the anchor chain can run. The white metal chains have been replaced with brass chain that will easily run over the gypsies. The winch drums have been replaced with drums whose profile is more like the profile of full size winch drums, with the rear flange larger in diameter than the front.

The binnacle/steering wheel platform has been made removable to allow access to the cabin and binnacle lamps for easy replacement should they fail. Three switches are mounted beneath the fore companionway. One to power the lighting, which is a centre off switch, the centre switch is for the radio, and the third switch to turn on the motor power via relays.

The mast has been made so that it can easily be removed for transportation, to prevent it being damaged. The navigation lights are on miniature plugs and sockets and can be replaced very easily should they fail. The capstan has been modified to be a working capstan with the rope around the capstan drum loosely wound, Araldite has been used to keep its shape. There is as small gap between the rope and drum to allow the drum to rotate. Both ends of the rope guards are slotted and engage in pins in the rope guard end supports that are mounted on the bulwark capping.

The heart of the control system is a JR 388 transmitter and a PPM receiver at the on board end of control system. The JR388 transmitter has channel mixing capability, so differential mixing of the motors can be employed to give the model good manoeuvrability. The rudder is controlled with the aileron channel and is mixed, in the transmitter, to the elevator and aux2 channels. The elevator channel is used for the throttle and is mixed into the aux2 channel. Control of the capstan is accomplished using the aux1 channel and an Electronize switching unit. The model is powered by two 12v Decaperms with Electronize ESCs, the differential mixing to these motors can be switched in or out from the transmitter. The lighting is powered separately from a 5 cell (6volt) Nicd pack.