



7 STAGES OF BUILDING A PILOT CUTTER

Stage 5 Interior and systems

Much ingenuity goes into fitting out the interior of a Cockwells pilot cutter, marrying the provision of creature comforts for the crew with the discreet accommodation of necessary equipment – engine, tanks, pipes and cables. *By Nigel Sharp*

While there are obvious benefits for an owner to be able to consider different options for interior layouts in a custom-built boat, experience can be invaluable in making it clearer how a set of two-dimensional drawings will turn out in reality. Over a period of several months, starting before the contract was signed, discussions between Dave Cockwell and Lance Whitehead, the owner, developed the following general arrangement.

At the bottom of the companionway steps is a galley to starboard and a chart table to port; moving forward, the saloon with U-shaped seating to starboard and a seat/berth to port, a central table with a folding leaf to port, and folding pilot berths outboard on both sides; then an area originally intended to be a workshop which developed into a dressing table area, opposite a heads/shower compartment; and in the forepeak a double berth cabin. Aft of the main companionway is an owner's cabin with a central double berth, with its own en-suite heads and shower to port.

The interior fit-out began with the structural bulkheads, vertical V-grooves routed into their faces to replicate

tongue-and-groove construction. They were epoxied to the sides of the deck beams and frames, but without coming into contact with the hull planking, giving an extremely strong and stiff construction, while allowing the hull planking to move as it should do.

Next, the sole bearers were fixed between the bulkheads, with temporary soles loosely fitted to provide a good working platform for the boatbuilders.

As much as possible, joinery was constructed on the workbench prior to fitting on board. This reduces the number of craftsmen who need to be in the relatively small spaces of the boat at any one time.

All of the joinery framework is solid oak, with the panelling in cluster oak veneers, personally selected at Reliance Veneers by Lance, who preferred this to the pippy oak chosen by the owner of *Polly Agatha*, Cockwells' earlier pilot cutter.

Engineering installations

Before any of the joinery was fitted, however, consideration had to be given to some of the engineering items. The 225-litre custom-built stainless steel fuel tank and the hot water calorifier tank, for instance,



Forward access to the Nanni diesel engine

were fitted in the aft cabin before the double berth was assembled around them. Should the need ever arise, it will be perfectly possible to remove these tanks.

The same also applied to the two water tanks (total capacity around 350 litres) in the saloon seating as well as the installation of the engine exhaust pipe outboard of the starboard cupboards in the aft cabin. In fact all the plumbing and cable routes were planned from the beginning so that allowances could be made in the joinery construction and installation.

GRP boats generally have internal deckhead linings; these hide the unsightly non-gelcoat side and compensate for the poor insulation properties of that material. They also provide cover for the electrical cables to the overhead lighting, but on a timber boat such as this it is highly desirable to leave the underside of the ply sub deck (routed to replicate the seams in the teak laid deck above) and the deck beams exposed, so another solution has to be found.

Cockwells solved the problem by routing T-section channels into the top surface of first layer of the ply subdeck, once it had been fitted, following carefully planned routes. After the cables were positioned in the deep part of the channels, 1mm-thick stainless-steel strips were fixed



Fuel and calorifier tanks with the aft cabin berth being built around them

Discussions over several months developed the layout



Above: The nav area with, inset, behind the switch panel

Left: Base of the U-seat in the saloon

Plumbing and cable routes were planned from the beginning



over the top of them, to protect against damage from anyone drilling for new deck fittings without reference to the plan, and then the second layer of ply was fitted.

A Nanni N4.60HE diesel engine, selected because it is small and quiet for the 60hp it develops, and has a strong UK dealership, was installed between the companionway steps and the aft cabin dressing table with good access on three sides. It was connected via a Python Drive thrust bearing and a 1.75in-diameter stainless-steel shaft to a feathering Variprop, preferred by Lance to a fixed-blade propeller which would produce unwelcome drag when sailing.

Cooking and comfort

The galley equipment includes a Wallas gimballing diesel cooker with hob and oven, a domestic 240-volt microwave which can be used through an inverter (with careful respect for the batteries!) when shore power is not available, and a Vitrefrigo freezer (in a custom-insulated box) and fridge, each with its own keel-cooled compressor. The work surfaces in the galley (and also the heads) were made of a solid surface acrylic called Hi-Macs.

A Glemring diesel heater in the saloon also provides hot water for the small, discreetly-placed radiators in the forward and aft sleeping cabins as well as the galley and heads taps.

Both the toilets (electric aft and manual forward) were plumbed into the top of a stainless-steel holding tank which has an outlet pipe from its lowest point to a seacock. This gravity drain system is very simple - when out at sea the seacock will be kept open (and so the tank is effectively just part of the outlet pipe) and when in harbour

the seacock is closed - no additional pumps apart from those on the toilets themselves, and therefore less to go wrong. The tank can also be emptied in harbour via a pump-out fitting on deck.

Instruments

The navigation and communications equipment consists of an Icom VHF, Furuno GPS, Comar AIS, and Fleet Broadband. Sailing instruments are Tacktick's wireless system, particularly beneficial in cutting out the need for a cable in the topmast for the wind vane. It also means instrument heads can be unclipped from their brackets and not left on permanent display on deck, which satisfied Lance who was keen, as far as was practical, not to have modern displays spoiling the traditional look of the deck.

For the same reason, a brass cover plate was made for the Raymarine autopilot control unit which, through its course computer, drives a custom-made bronze-bodied hydraulic ram which had been specifically developed by Cockwells for its tiller-steered pilot cutters.

Next month: on deck; fittings and rig

Right: The well-equipped galley

Panelling in cluster oak veneers, personally selected

