



Flat-Packed Fleet

Even if you've never built a boat before, with a pre-cut kit you can. Cat and Simon Holman went to Cumbria to see how it's done.

With photographs by the authors

The day after Phil Smith handed in his letter of resignation as a British Army officer, he headed to the Lake District to buy a boat - and went home with a business to go with it. The boat was a Chesapeake Light Craft Mill Creek 16.5 and the business was Fyne Boat Kits.

Started by boatbuilding brothers Paul and Hugh Stanistreet, Fyne Boat Kits has been producing both self-build boat kits and custom-built boats since 1998, pioneering CNC technology for modern boatbuilding methods. Today, the portfolio includes designs from John Harris, Paul Fisher, Graham Byrnes, Michael Storer, Nick Schade, Colin Cumming, Mike Lavecchia and Klaus Metz. When Phil first visited back in 2009, business was booming despite the recession, but other demands on the brothers' time meant the company was informally for sale, luckily just as Phil was looking for a new career direction.

Initially located on the shores of Lake Coniston, Hugh and Paul later moved to Walkers Boathouse at Ferry Nab at the south end of Windermere, traditionally the home of local boatbuilding. Having outgrown their lakeside premises, for the past five years Fyne Boat Kits has been based in Gatebeck, a few miles south of Kendal, where we visited them in late February,

in the wake of Storm Eunice. The company's site is the old cooorage of a 19th century gunpowder works, but these days the wood here is bent into boats not barrels.

Cutting it Fyne

With over 120 different designs of boat all precision manufactured into kits in the Fyne Boat Kits workshops, it's no surprise that pride of place in the workshop is taken by the CNC machine. Using a spinning router cutter, the machine can navigate the surface of a sheet of plywood, cutting parts from a CAD computer file. From there, parts are packed into boxes, and shipped out across the UK and Europe.

We watch as a freshly cut kayak kit is taken off the cutting table, checked over and packed in cardboard, while nearby, three boxes containing a complete kit for a 10' (3m) Tenderly dinghy from Chesapeake Light Craft are ready for the courier. Kits are made to order. The wide range of boats and associated profiles means batch cutting is not an effective option; this custom production means kit components can be ordered for ease of build. Quality control is high. "We get very little damage", Phil explains, "We've learned to look after these parts over the years."



Above: The CNC table cuts kits for over 120 different designs

Below: Fyne Boat Kits owner Phil Smith with a set of profiles for a clever locking hatch design from Nick Schade of Guillemot Kayaks
Facing page: A Chesapeake Light Craft Outrigger Junior on Derwentwater. Photograph: Fyne Boat Kits

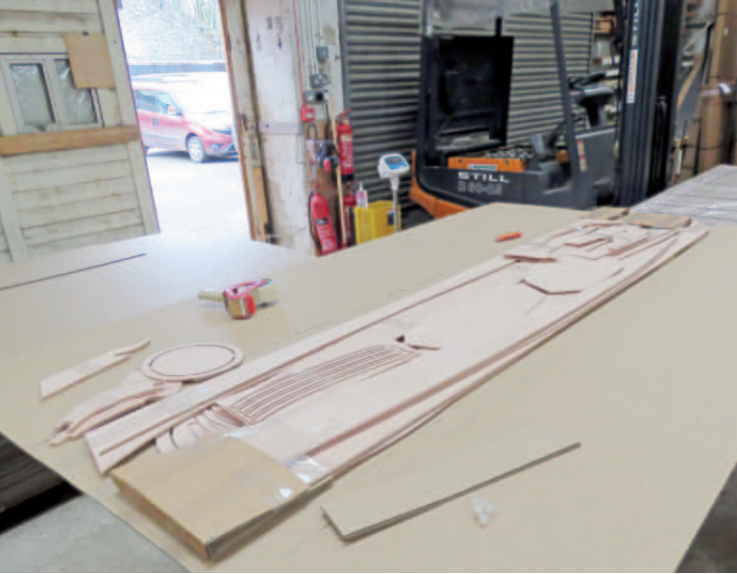
The beauty of CAD design and CNC machining is the speed and accuracy with which materials can be cut and assembled. In the last 25 years, Phil explains, not much has changed for the plywood boatbuilder when it comes to epoxy, copper wire and fibreglass but the advancement in design has improved the tolerances of kits beyond recognition, allowing for complete interaction of parts without any need for adjustment or fitting. "That's where 3D design has really been the game changer."

Phil shows us a Nick Schade designed plywood Guillemot Kayak kit which was cut earlier that morning. With pre-drilled stitching holes, pre-cut bevels and cleverly interlocking puzzle joints, everything has been designed to locate quickly and correctly, with no need for the builder to follow dimensioned plans or rely on more than basic tools. What's really special about these boats, Phil explains, is how quickly you can go from a series of 2D shapes to a 3D structure, by glueing and wiring up the flat panels of the hull. "You don't even need a tape measure. It can only fit one way. It can only be right."

Sustainable stock

Fyne aim to source and supply all the materials needed for each kit, no mean feat when the timber and sheet material shortages caused by Covid and Brexit has forced them to increase their stock holding. "We try and do everything in house", explains Phil. "So everything that goes in the box we've got a handle on and we control."





Above: Parts for a Guillemot Kayak are checked and packed
Below: Phil with Si in the CNC workshop, where healthy stocks of FSC Okoume plywood are ready for cutting.

The majority of the okoume plywood used in FBK's kits is from FSC sources, as is the packing card used for shipping kits, and Douglas Fir is PEFC approved. Some non-FSC sapele ply is used for decks but Phil tries to supply only the most sustainable

timber and is constantly aiming to improve the environmental credentials of Fyne's stock.

One of the biggest success stories is Paulownia. Although the tree is native to China, Fyne source their Paulownia timber from Europe, where a hybrid has been developed to be plantation grown in the Spanish climate. Although not as strong as cedar, it is about 20% lighter and very fast growing, taking between 7 and 15 years from planting to harvest. Paulownia grows mostly straight, but with a pith hole running up the centre, meaning that once this is removed, planks are not overly wide – around 4"-6" (100-150 mm). This means it works very well as a strip building timber for producing lightweight hulls strengthened by fibreglass sheathing. "At the moment we're using about two thirds Paulownia to one third cedar in the kits", Phil explains, something he is looking to increase all the time.

Epoxy is supplied by Professional Epoxy Coatings, whose solvent free, low odour product with built in UV resistance and a slow initial cure time of around 45 minutes is ideal for first-time boatbuilders. The company's emphasis is on environmentally-friendly epoxy systems and the resin in their flagship product has 20% bio content, but kits are also available from Fyne with a 40% bio-based system as an alternative upgrade.



A boat in a box

Fyne's kits are comprehensive and designed to provide everything you need to build your boat. "We try to streamline everything so it's as efficient as possible, to keep the cost of the kit down but equally we're trying to create the complete kit. So everything is there in the box to build the boat."

It helps having the right people on board, all "old enough to understand that it's got to be right and sensible enough to check things." With a full time staff of seven, the Fyne Boat Kits team are variously members of the Cumbrian Mountain Rescue team, sailors, surfers, rowers, expert canoeists and swiftwater paddlers. Phil appreciates the importance of having a good crew with broader interests that complement the job. "All the people here are fantastic; they're all very good at what they do."

The Chesapeake connection

One of the biggest selling kits is the Chesapeake Light Craft Skerry – see W122 – a 15' (4.6m) open sail and oar boat, whose sleek double-ended design evokes both traditional Nordic boats and New England dories, thanks to its wide clinker planking and fine entry. As well as good looks, its versatility is key to its success. Big enough to carry two or three adults but light enough to be car-toppable, the Skerry's impressive performance both rowing and sailing makes it popular with dinghy cruisers and racers. Easy to sail singlehanded, happy to be beached and dry in a bit of a sea, there's even a Raid version of the design, modified by designer John Harris. Two-thirds decked, with increased stability, one Skerry Raid completed an anti-clockwise circuit of the US East Coast.

With more than 40,000 boats built from kits and plans, US-based CLC are world leaders when it comes to pre-cut boat kits. With each design meticulously tested – prototypes are built by 'blind' testers – CLC's talent for allowing novice boatbuilders to build a high quality boat at home is remarkable, Phil explains. "I'm obviously biased, but I think they are at the absolute top of their game."

CLC's patented LapStitch™ construction is part of the secret. Using a pre-cut rebate which enables plywood panels to be precisely aligned and joined using stitch and glue construction reinforced with epoxy, LapStitch™ allows a clinker hull to be built without the need for moulds or rolling bevels. Fyne Boat Kits also use LapStitch™ under licence in kits from other designers in their portfolio.

Fyne's links with CLC date back to the earliest days of the business when Hugh and Paul Stanistreet, looking for a better kit than what was available on the UK market at the time, came across a magazine advert for the company. Since 1999, Fyne Boat Kits have been manufacturing CLC kits as European agents, offering the complete range of plans and kits. Anyone buying a CLC kit from Fyne can count on not only the support of CLC's legendarily comprehensive manuals but also – as with all kits Fyne sell – free technical advice from Phil and his team, via email, over the phone or on the Fyne Boat Kits forums.



Above: A Nick Schade Night Heron in build in the boatbuilding workshop and classroom, with a CLC kit-built tote to carry the tools
Below and next page: The CLC Skerry - pictured here in the showroom and on the water with the balanced lug rig option- is a bestseller. Photo: Fyne Boat Kits



Helping people build boats

Like Chesapeake Light Craft, Fyne's strong relationship with customers has naturally evolved into offering boatbuilding courses, allowing people to assemble a boat from one of Fyne's kits under expert tuition with all tools and equipment supplied. Most courses take place over 5 days; show up on the Monday morning and by Saturday you can take away your completed hull, to be painted or varnished at home.

For anyone lacking the confidence to tackle a kit build, there is also a half-day Introduction to Epoxy course, designed to explain epoxy techniques and give hands-on practice with materials. Phil shows us the bespoke classroom, complete with Covid-safe mechanical ventilation and radiators to keep a constant temperature for epoxy curing times.

Although no courses were running during our visit, the classroom was a hive of activity. Also used as a boatbuilding workshop for custom commissions professionally built by the Fyne Boat Kits team, workshop space can also be hired by members of the public, either to complete a boatbuilding project of their own, or to do the finishing work to a build after the duration of a course. At one end of the workshop, a commissioned build of a Skerry nears completion, while at the other end Colin Cumming, civil engineer and experienced home boatbuilder and designer – see W65 – and his granddaughter Jessica are making the most of half-term and using the workshop to build a camp cruiser to Jessica's design.



Above: *FBK have over 30 different kayak designs in their range*

Phil's positivity and pragmatism is infectious; it's clear how much he enjoys helping people achieve their boatbuilding dreams. "At the end of the day it's tangible. There is something you can put your hand on and say 'I've made this.'"

As we go to leave, he presents us with a small CNC plywood kit, not for a boat but for a bird box. Ever forward-thinking, Phil has teamed up with the local wildlife trust to produce self-assembly bird boxes for them from offcuts, with three different sizes of entrance holes to suit different species of avian inhabitants. Small details make a big difference.

www.fyneboatkits.co.uk

