# JUNK RIGGFD VENUS 

## A change of rig is hard enough in your home port; it can be much more difficult stopping off on passage. But Tony Darrall-Rew found the craftsmen of Antigua keen and able to help him.

## WITH PHOTOGRAPHS BY THE AUTHOR

MY Gaff ketch Greya was built and fitted out in England between 1992 and 1996. She is one of the series of double-ended Venus designs by Paul Johnson and measures LOD 32', beam $11^{\prime} 4^{\prime \prime}$ and draught $5^{\prime} 9^{\prime \prime}(9.8 \times 3.5 \times 1.75 \mathrm{~m})$ on a displacement of 10 tons (tonnes). I set off from England in July 1996, calling at Vigo and Puerto Mogan, Gran Canaria, before departing in November 1996 for a single-handed passage to Antigua.



My crossing took 35 days, including 11 days of calms, westerlies, north-westerlies, south-westerlies and driving squalls. Without a crew, I found the gaff ketch rig tiring and heavy to handle; it was no fun doing a pas de deux on the end of a plunging bowsprit, trying to wrestle a wildly flapping jib down in a squall.

I had already read Annie Hill's masterpiece Voyaging on a Small Income and I re-read it during the crossing, thinking: "If I am finding the gaff rig difficult now - I am 50 - what is going to be like when I'm 60?' Clearly I was going to have to change the rig, so why not junk? Everything Annie says about the junk rig seemed eminently sensible. I had never sailed a junk-rigged craft before but I had spent some years in the Far East in the late 60s and always thought that the numerous junks one saw in those days had great character and 'soul'. I resolved to investigate the possibility of converting Greya but felt that it was important from the outset to seek Paul Johnson's opinion. I went to St Barts to see him and to my surprise - he designs only gaff ketches he thoroughly approved of the idea.

## Enter Mr van Loan

Upon hearing of my plans, a friend in Antigua gave me the excellent book The Chinese Sailing Rig - Designing ana Building Your Own by Derek van Loan. It is marvellous for the inexperienced; it gives clear concise instructions, including all the relevant dimensions, where to place your masts, sail areas, how to build masts, spars, partners, how to

rig the sails, everything! You simply follow Mr van Loan's instructions from beginning to end and you have a boat with a junk rig.

The next step was to decide where to do the conversion. Antigua has all the facilities needed to do the job but it is expensive during the season - December to April catering mostly for the superyacht trade where price is not a prime consideration. I had just about decided to go to Trinidad when Peter Todd, one of the owners of Tend Aloft Rigging of English Harbour, said to me: "You know we have the best carpenter in the Eastern Caribbean here and if you can wait until after Antigua Race Week when English Harbour practically closes down and if you don't mind the hurricanes and can live on chicken and rice - you could get the job done here at summer rates". Using Derek van Loan's drawings and specs, I obtained quotations from Trinidad and other craftsmen in Antigua: those 'summer rates' turned out to be slightly higher than Trinidad but I felt the standard of work would justify them, so I decided to stay put.

Several things could be done while waiting out the season, the most important of which was dismantling the old rig, which I did at anchor in English Harbour, only interrupted by the great privilege of crewing on the 1922 $107^{\prime}$ ( 33 m ) William Fife gaff ketch Kentra during the Antigua Classic Yacht Regatta week. This was followed by the race week for modern yachts which marks the end of the season. From literally hundreds of boats jammed together, it was then an amazing sight to see boats departing by the score, leaving just five visiting yachts. English Harbour became like a village and my conversion could begin.

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I moved alongside the slipway in mid-May and Tend Aloft craned out the slender old mainmast and mizzen - Mr van Loan had dictated the junk rig masts had to be $10^{\prime \prime}$ ( 250 mm ) diameter at the partners. Sandy McGaw of Sandy's Fiberglass Shop glassed over the old mast holes and I was waterproof again. I then met Jerry Bardoe, the famed "best carpenter in the Eastern Caribbean" who trades by the name of Chippy and he drove me around to introduce me to the other small businesses I would have to use. Explanations - courtesy of Mr van Loan - were needed as none of these craftsmen had been involved with junk rig before.

We emptied the boat of my possessions and I moved into a wooden shack ashore. We then built half-bulkheads and deck beams in the way of the partners to take the stresses of the unstayed masts out to the sides of the boat. For the masts and spars, Mr van Loan recommended Douglas fir which we ordered from Florida as $20^{\prime} \times 10^{\prime \prime} \times 2^{\prime \prime}(6 \mathrm{~m} \times 250 \mathrm{~mm} \times 50 \mathrm{~mm})$

planks. I then spent many happy hours at Chippy's shop in Falmouth, assisting Jerry, 'BM' and Oliver to coat each plank with WEST epoxy and laminating them to arrive at a $36^{\prime} 9^{\prime \prime}$ $(11.2 \mathrm{~m})$ foremast and a $41^{\prime} 6^{\prime \prime}(12.6 \mathrm{~m})$ mainmast. The Chippy team also made two yards, two booms and thirteen battens, plus mast wedges, from the same Douglas fir.

Total Fabrication of English Harbour, run by an amiable London born giant called Glen, had starting making the partners and mast steps from mild steel. There is no galvanizing facility in Antigua, so as soon as the steelwork had been fabricated, I primed and painted it all with a very expensive series of British-made 2-pack paints. This turned out to be useless, peeling off within a week of the partners being fitted, necessitating scraping off the lot and replacing it with 7 coats of the American primer Rustlok, which has stood up much better though weeping rust spots still appear.


Having calculated the mast positions - with Mr v L's help again - Sandy glassed in substantial floors in the fo'c's'le and saloon, onto which Glen's fabricated mast steps were bolted.

## What a Ride!

Thus came the great day when my beautiful new masts were ready to be moved from shop to slipway. With eight 'volunteers' from the local rum shop, we lifted the heavy $880 \mathrm{lb}(400 \mathrm{~kg})$ masts out through a window to lash them on a very ancient Leyland dump truck - my money was running short by now - and set off for the slipway. Antiguan roads are not good and I was alarmed to see the masts' substantial overhangs whipping like fishing rods every time the truck bounced over a pothole but Jerry assured me that this was what they were designed to do. We were following in Jerry's pickup and I became even more horrified as I watched the lashings on the foremast begin to work loose. With each violent bump, the foremast was sliding slowly off the back of the truck and into our path. The driver was concentrating so hard on avoiding the worst of the potholes that he was unaware of it - and of Jerry's horn and flashing lights! Fortunately we had almost arrived at our destination and the slipway is down a very steep hill: the angle of the truck's descent brought the masts nearly level but even so, when the truck came to a halt, the tip of the foremast was just $3^{\prime}$ ( 75 mm ) from the ground.

I now fitted the steel mast fittings which Glen had fabricated and Sandy sheathed the masts in epoxy and glass as per Vopaging on a Small Income. However, the locals who arrived daily at the slipway to monitor my progress and offer helpful advice thought this was a bad move: the sheathing
would reduce the flexibility of the masts and anyway, the fibreglass would crack - so far, it hasn't.

Mast stepping day was another turning point. I had made up the halyards and lazyjacks and shackled them to the masthead fittings. Jerry's crewhad cut new mast holes through foredeck and cabin top, into which Glen bolted his substantial partners. The Tend Aloft rigging crew arrived, the old slipway crane was fired up, Jerry placed an Eastern Caribbean dollar under on each mast step for luck and the new masts were lowered expertly into place. I had worried that the extra weight of the foremast so far forward would trim the boat down by the head but it turned out to be hardly noticeable. Jerry's crew hammered the wedges in place as locals advised on mast rake, mastboots were fitted and Greya was now a schooner!

I had already had the sails made by Chris Scanes at Sails \& Canvas in the UK, so I could now begin fastening the yards, battens and booms to them. Chris had suggested that when lashing the sails to the battens, I placed a length of 1" ( 25 mm ) diameter flexible PVC waterpipe on the opposite side. I started lashing with the yard, then the uppermost batten and waterpipe and so downwards. Each lashing was secured with a reefknot and the standing part and free ends whipped together. As each was completed, it was secured to the mast with a parrel line and the sail hoisted a little further. Fortunately the slipway is sheltered and the Leeward Islands have little wind for most of the summer. I finished by lashing the foot of the sail to the boom, then attaching sheets, downhauls, yard haul parrel, luff haul parrel and a tackline Then I started over again on the mainsail; in all, the rigging took a month.


Junk-rigged Classic
By the end of October, Greya was at anchor again in English Harbour and I spent the next month out on daysails. There were various problems with the new rig. The sheets were pulling the aft ends of the upper battens down and this was solved by changing the order in which the sheets were led through each block. The wooden battens chafed against the masts and had to be leathered. Greya sometimes rolls heavily when running, gybing the foresail, so a preventer had to be rigged from the end of the boom forward to a block in the eyes of the boat and back to the cockpit.

I took off on shakedown cruises - Guadaloupe, Dominica, St Lucia, St Vincent, Bequia and the Tobago Cays - ironing out further niggles and learning to sail the boat again. The new rig proved to be far easier to handle. With winds less than 15 knots or forward of the beam but at 10 tons on 32' LOA, she will never be a flyer. However, in April '98, Greya participated in the Antigua Classic Yacht Regatta, the first junk rigged boat to enter, and we didn't come last!

To summarize, the project took more time and money than anticipated but the result is a beautiful looking boat that is easier to sail, safe and strong, with sails and rigging that are inexpensive to maintain. I am glad I did it.

## SUPPLIERS IN ANTIGUA

Most of my suppliers are one man bands and the best way to contact them is by VHF Channel 68.

Spars: Jerry Bardoe, St John's. Tel: 2684601832.
VHF Ch. 68: "Chippy"
Steelwork: Total Fabrication, English Harbour. VHF Ch 68: "Total Fabrication"

GRP work: Sandy's Fiberglass Shop, English and Falmouth Harbours. Tel: 268460 1056. VHF Ch "Sandy's Fiberglass"

## Rigsing: Tend Aloft Rigging Co, St John's.

Tel/fax: 2684601151 VHF Ch 68: "Tend Aloft Rigging"

## SUPPLIERS IN THE UK

Sails \& Canvas, 10 Topsham Quay, Exeter, Devon EX3 OAJ. Tel: +44 (0;1392 877527. Fax: +44 (0)1392 876258.

## FURTHER READING

Voyaging on a Small Income by Annie Hill is published by Tiller Publishing, PO Box 447-W, St Michaels, MD 21663, USA. Tel: +1410745 3750. Softback $\$ 20+\$ 17.00$
overseas postage.
The Chinese Sailing Rig - Designing \& Building Your Own by Derek van Loan is published by Lyn \& Larry Pardey Books, PO Box 17372, Salt Lake City, Utah 84117, USA.
Tel: +1 8185947419 . Softback $\$ 15.99$.


