

# A Simple Single-Handed Mast Lifting Device

By Richard Shaw, Shrimper 218 (*Gamba*) (April 2010)

In summer 2009 Avril and I cruised *Gamba* (218) along the Thames. Our route, from Caversham to Wallingford and back to Staines involved passing under a number of bridges, but with good stretches of open water between, we wished to retain *Gamba's* ability to sail, hence the need to provide a simple method of lowering and raising the mast & spars. Since we were living aboard, it was also more convenient to raise the mast for overnight stops, thus leaving the cockpit uncluttered. The system adopted, which is a combination of fittings developed by the previous owner and myself, is easy to rig and works well. With a few simple fitting changes the mainsail can remain fully attached and ready to use as soon as the mast has been raised.

The following description and photos should provide a good overview of our mast lifting rig and how it is used.

## Description

The main components of the system are two spars each fitted with a spring loaded hook on each end. Mine are fitted with spinnaker pole fittings, as shown in photo 1, but any similar fitting would suffice provided it can be quickly and easily unlatched. You will need four in total. The length of the spars is not critical, but they must be stiff and strong. Mine are 216 cm long x 4 cm square in section and are made of ash.



Two eyes are fitted on the deck, one port, one starboard, just inboard of the gunwale and above the porthole (i.e. in line with the mast tabernacle) as shown in photo 2. The eyes fitted to *Gamba* are bronze and stand about 3 cm high.



In use the lower ends of the spars are clipped into the eyes and the free ends joined together using a 5 cm dia x 4 mm dia section metal ring.

To make the system more effective for use on the river I made two temporary changes to the rig.

1. The fore stay (the plain wire one, not the one carrying the jib furler) was replaced with a shorter one to allow space for a three part tackle to be rigged to the end of the bowsprit. The shortened forestay is not necessary if you are only going to raise and lower the mast occasionally, but for cruising on the Thames it was essential. The tackle is arranged with the hauling line leading aft from the bowsprit end and must be long enough for the free line to reach the cockpit with the tackle fully extended.
2. The vertical eyebolt through the gooseneck onto which the tack of the mainsail is shackled was replaced by a similar sized bolt with a plain flat head. This allows the boom to fold close against the mast but still remain connected when the mast is lowered. Without this modification it is necessary to disconnect the gooseneck and the gaff jaws from the mast each time the mast is lowered. When sailing the tack of the mainsail is secured to forward end of the boom with a short lanyard.

- An old fashioned mast crutch, in the form of an "X", supports the mast when lowered and the outboard end of the boom and gaff rest on the traveller.

### The method

The accompanying photos show the rig in use on the Thames. I also use it to raise and lower the mast whenever I am single handed, e.g. at the beginning and end of the season.



**Photo 3 – Spars rigged ready to lift mast**

Photo 3 shows the mast lowered with the spars rigged ready for lifting. The tackle is connected to the outer end of the bowsprit and to the 5 cm diameter ring joining the ends of the spars. The free end of the shortened forestay is also attached to the ring.

Photo 4 shows the mast part raised. At this point the tackle and the forestay are in a straight line and the spars are no longer useful, so they should be unclipped from the ring and laid on deck.



**Photo 4 – Mast part raised**



**Photo 5 – Mast raised with tackle still attached**

With the spars disconnected continue to haul (from the cockpit) on both the running part of the tackle and the jib halyard to bring the mast to the vertical position, as shown in photo 5. Both lines should then be tensioned and cleated to secure the rig.

For normal cruising (not requiring frequent lowering of the mast) the tackle can then be disconnected and the end of the forestay secured with a lanyard to the bowsprit end fitting as normal. The spars can be disconnected and stowed ashore.



For the Thames cruise I left the tackle in place with the forestay attached to the 5 cm ring. The aft ends of the spars remained attached to the deck eyes and were laid forward across the anchor well alongside the bowsprit, where they were secured with a short line to keep them in place, as shown in photo 6.



**Photo 6 – Spars stowed alongside bowsprit**



**Photo 7 – Gamba under way with mast lowered**

Photo 7 shows *Gamba* under way with the rig lowered and the mast stowed on the X crutch.