

## THE ALBIN METHOD OF RAISING/LOWERING VEGA'S MAST WITH 2 PEOPLE

From John Sprague – Albin Vega 1492

The system described here was either standard equipment or an option from Albin in 1972. It was on our boat (# 1492) but was not described in the handbook. We met another Vega in Ontario with the same equipment; I've lost the people's name but they provided the core of the instructions given below.

Two people can easily do the actual raising or lowering in 60 seconds, but preparations and clean-up take an hour or two depending on practice. The secret is to use an A-frame and the mechanical advantage of the mainsheet. As the mast is raised, the A-frame starts in a vertical position and rotates onto the foredeck (see Fig. 1).

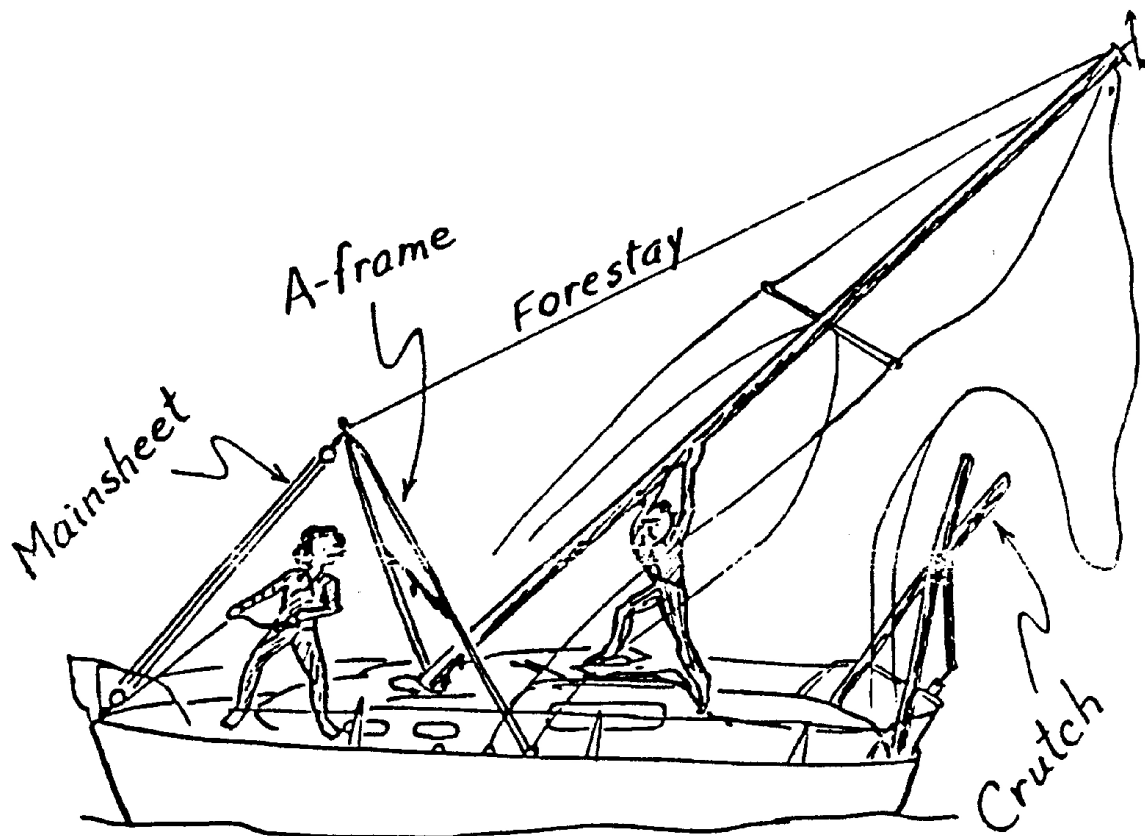


Fig. 1. General arrangement of gear, at the moment of truth!

In lowering, the A-frame starts on deck and ends up vertical. The main danger is having the mast fall off to one side when partly raised. The A frame could collapse if it is weak or misused, as happened twice before we learned the proper procedures, and we dropped the mast (luckily no real damage).

Harold Cohon wrote in the VODCA newsletter in May 1989 about the system he developed and built. It used a gin-pole pivoting from the base of the mast instead of an A-frame. Others who want to try this might decide to combine useful items from Harold's method and the method described here.

### Hardware

# Stainless *tabernacle* on rear of mast step, with horizontal rod to act as a pivot, and an angled brace welded inside (Fig. 2)

# A hook on the rear of mast rotates on the rod (Fig. 3). Obviously the tabernacle and hook must be positioned just right, since the hook is placed on the rod when the mast is nearly horizontal (resting in the rear "crutch") and stays in place while sailing, until the mast is lowered.

# A-frame. Each leg is 350.5 cm long (1' 6") from the hole at the foot to the outer tip, so that it just fails to touch the bow fitting for the forestay (Fig. 4). The Albin A-frame was stainless steel, curved to lie conveniently just inside the edge of the foredeck when not being used. It buckled when we used it wrongly; the proper shape and strength could not be restored. It had O.D. of 2.5 cm (1") and walls that were about 1.5 mm (roughly 1/16"). I would recommend something 3 or 4 times as strong with straight legs, since the built-in curve seemed to contribute to the buckling of our A-frame. I intend to make one that comes apart for storage below. Exact design is not crucial, since we once used very successfully two pieces of 2 x 4" lumber lashed together.

# The A-frame pivots on a pair of bolts inserted in fittings that are permanently installed on the aft shroud chainplates (simply made from pairs of stainless steel plates, Fig. 5).

# Stern-crutch. Two pieces of wood are joined by a bolt 130 cm or more (51"+) up from their feet, and the mast rests in the crotch above that. The feet are notched to rest on the stern cleats, where they are lashed down. A third and shorter piece of wood swings loosely behind from the same bolt, on a metal tongue. It provides a tripod when another metal tongue on its foot is secured into the flagstaff socket on the pushpit (Fig. 1). This stern-crutch also supports one end of the mast when it is on top of the boat (e.g., travelling canals). The legs don't have to be very strong, wood 1.5 x 7.5 cm (5/8 x 3") seems okay. The main legs should be almost vertical; Fig. 1 shows them leaning too far astern.

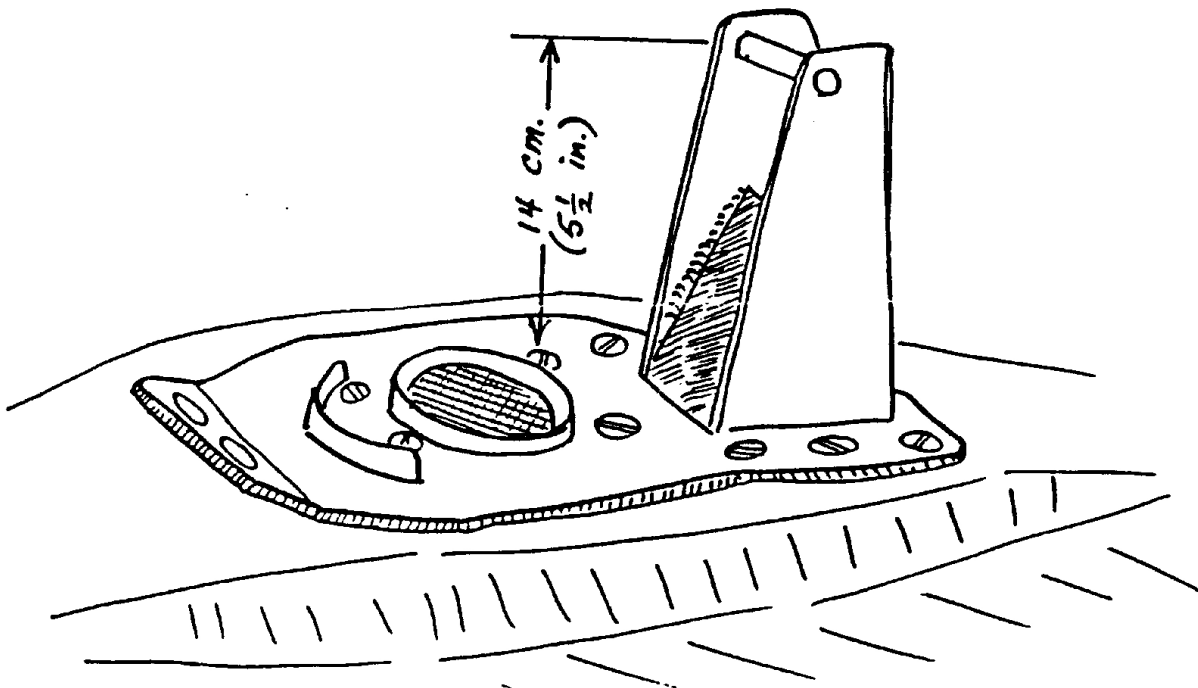


Fig. 2. Tabernacle and the step or base plate for the mast.

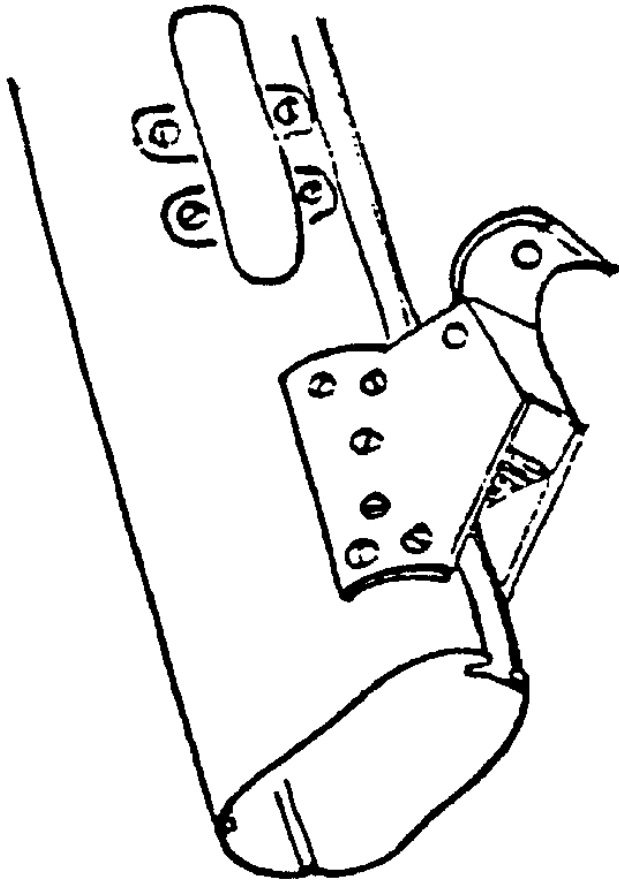


Fig. 3. Stainless steel hook on the base of the mast.

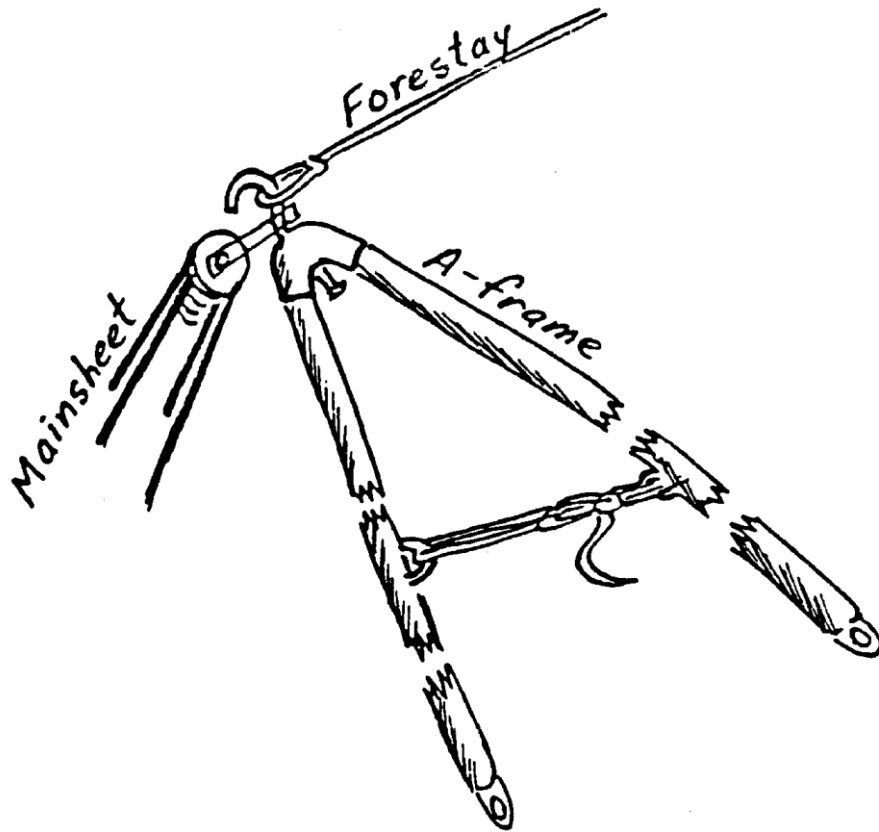


Fig. 4. Important parts of the A-frame.

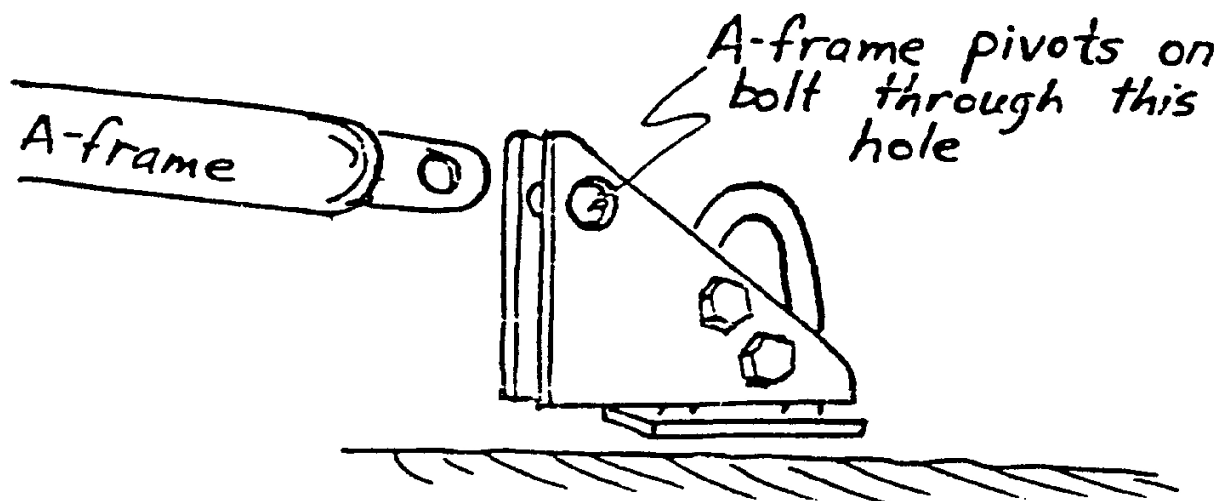


Fig. 5. The Fitting on the portside aft chain-plate (aft lower shroud).

### Raising the mast

- (1) Now is your last chance to put accessories on the mast (wind indicator, aerial, halyards, jib-furling devices on forestay if used, etc.).
- (2) Remove dodger (sprayhood) from boat.
- (3) Put mast hook onto tabernacle rod, lay mast back into stern-crutch.
- (4) Attach the backstay at the deck and dress it ahead of the stern-crutch and through the legs, so as to be correct when the mast is up.
- (5) Attach (at deck) the aft lower shrouds and upper shrouds.
- (6) Make sure there is tape around chainplate loops, to hold up turnbuckles so that they will not get bent.
- (7) Dress and secure halyards to the mast.
- (8) Dress shrouds ahead of the forward cockpit cleats.
- (9) Attach spinnaker halyard to pulpit and cleat the free end.
- (10) Lay back the A-frame, shackle forestay to hook/ring at tip of A-frame.
- (11) Shackle outboard block of mainsheet to the A-frame below hook/ring (Fig. 4). Secure other mainsheet block to the bow fitting.
- (12) Attach the cross-bracing line on the A-frame.
- (13) Insert electrical wires from base of mast part way into hole in step.
- (14) Raise A-frame to vertical, if not there. One person snugs up the mainsheet and stands by at that position.
- (15) The strong person lifts the mast at the stern, standing first in the cockpit then moving forward, eventually standing on cabin, straddling the companionway. Other person keeps tension on the mainsheet but does not attempt to actually lift until the mast is at a good angle, about as high as the strong person can lift it.
- (16) Make sure the electrical wires are okay and will not get pinched. Person holding mainsheet can do this, and adjust them if necessary.
- (17) Haul on mainsheet. Watch for fouled shrouds!!! *If it is hard to lift, something is caught*, so free it before you break something. (A third person is really handy. The person could be used to help with the initial lifting at the stern, but even more useful is to have them watch each shroud and prevent or cure fouling, and also watch electrical wires.)
- (18) When mast is vertical, secure spinnaker halyard for support. Breathe easy!
- (19) Remove mainsheet.

- (20) Secure forestay and forward lower shrouds. Untie spinnaker halyard from pulpit. Tighten standing rigging in usual way.
- (21) Connect electrical wires.
- (22) Go sailing.

### **Lowering mast**

- (1) Disconnect electrical wires. Shove them up into mast step so that they will come out easily when the time comes.
- (2) Install the stern-crutch.
- (3) Remove dodger.
- (4) Tie spinnaker halyard to pulpit as temporary forestay.
- (5) Remove forestay turnbuckle and shackle forestay to hook/ring on A-frame.
- (6) Shackle outboard block of mainsheet to A-frame, and secure inboard block of mainsheet to bow fitting.
- (7) Attach the line which acts as a cross-brace for the A-frame.
- (8) Remove the forward lower shrouds from their chain-plates.
- (9) Loosen a little, the upper shrouds and aft lower shrouds.
- (10) Holding the mainsheet, untie spinnaker halyard from pulpit.
- (11) Lower the mast *slowly*. *Check that electrical wires are not caught.*
- (12) When the mast can be reached from the top of cabin, the strong person commences to take most of load on shoulders and arms.
- (13) Strong person moves to cockpit and lowers mast into stern-crutch. (The mast will sit in that position, but a good wave could cause it to overbalance and tip into the water, so move on to step (14).
- (14) Tuck electrical wires into foot of mast. Two people move mast forward until supported by a board on pulpit and by stern-crutch. Secure it.
- (15) Remove accessories if necessary. Release and dress shrouds and halyards.

John Sprague