

MAST SECTION:

Metric: Min size 134 x 228mm, 7.9 to 8.9kg/m,
Min. Moments:
I_{TT} 5.2 x 106 mm⁴,
I_{LL} 20.4 x 106 mm⁴

Imperial: Min. size 5.3" x 9", 5.3 to 6.0lbs/ft,
Min. Moments :
I_{TT} - 12.5 in⁴
I_{LL} - 49 in⁴

Size and weight are approximate and can vary. Use optional forward diamonds if ILL moment is not obtainable, without an excessively heavy mast. The larger fore and aft dimension of a wing mast gives a high ILL moment and is thus preferable if available. The necessity of forward diamonds is debatable, the aft pull from the sail also doing the same job, and forward diamonds are not used on smaller trailerable designs. But they may be a safer choice on an offshore boat.

STANDING RIGGING

Synthetic line: (recommended, with Colligo deadeyes - www.colligomarine.com).
Min req. breaking strain of 14000kg (30,800lbs)
Line types is continually improving and include Dynex Dux, Samson Lightning or Dyneema SK75 uncovered or Vectran or Techora covered.

Wire (optional): Min req. breaking strain of 11500kg (25,300lbs) eg. 12.7mm (1/2") 1 x 19 s.s. wire or 11mm (7/16") Dyform 1 x 19 wire.

Diamonds: 9mm (3/8") 1 x 19 s.s. wire or 8mm (5/16") Dyform 1 x 19 wire.

GENERAL NOTES:

Halyards are internal, using custom mast step for exiting mast base.

Rotator to use two separate bolts each side to prevent interference with internal halyards. Lower Diamond stay mount to require separate mounts (no thru bolt)

if needed, 8mm (5/16") Vectran or Spectra line inner forestay can be rigged where shown for additional mast support when heavily reefed (only if required). This will help prevent any mast inversion, particularly with smaller fore and aft mast dimensions.

Reefing lines and outhaul must cleat on boom, otherwise rotation will be restricted.

Tensioner can be rigged up as shown to tension stays when required.

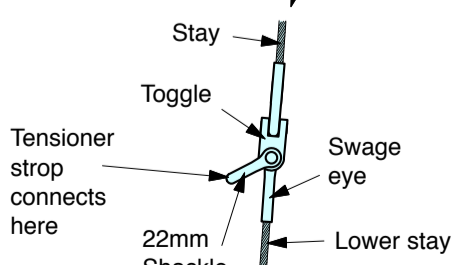
Mainsheet should be angled forward as shown to induce mast rotation

Aft Cockpit Sheeting

Precourt deadeyes

F-39 Sheet 46

Optional 'kick-up' daggerboard rudder shown



Wire stays can be setup as shown for tensioner

Mast height from deck is:

F-39 : 15.96m (52' 4")
F-39R: 16.85m (55' 3")

Mast rake is 4 to 4.5°

Masthead fitting. Min. 80mm/3" sheave(s) recommended. 2:1 halyard optional - see also Sheet 49

Sidestay anchor plate as per Fab. Parts. Bias as far forward as possible.

Forestay Bracket - as per separate drawing. Single fixed nose tab with shackle is optional for forestay, but is more prone to chafe and wear, which is not good on an offshore boat,



Suitable spreaders with 20 to 25° rake

Screacher recommendations are on Sheet 47

Optional inner forestay (removable)

14080 46.19' pin to pin

Boom 750 650 2.14' 13 - both sides 165

Trim mast cnr. if required

Revised August 10th, 2010

F-39 Sheet 46

MAST AND RIG

A Design By Farrier Marine

Scale 1 : 56

All Metric Dimensions are in Millimetres unless otherwise specified