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To: Mike Johnston/UK/IBM@IBMGB
CC:
Subject: Freedom 33/35 CK Alloy Masts

Dear Mike,

I am unfamiliar with the aluminum Freedom 33 spars built for the UK built Freedoms. I know how we built two piece alum. spars for the early Freedom 40's but we never offered alum masts for the 33's and went exclusively to carbon fiber very early in the 1980s.

For what it's worth, the F 40 ketch main and mizzen were built with two alum tubes spliced together. The lower section of about 20' was straight; no taper. The upper section was spun tapered alum. This upper section was of a smaller diameter sufficient to fit inside the I.D. of the lower section. Two compression rings were machined to fit the taper at its lowest point and at the top of the lower section where they separated. A light weight fiberglass cone was fitted to the ease the transition from the lower section to the upper section. The compression rings were a press fit (banged together with the full weight of a fork truck) and then were mechanically secured with bolts that were countersunk in the wall of the lower section and tapped through the compression rings into the wall of the upper section.

These bolts were set with epoxy as they were drawn tight.

I doubt this helps much and wish you all the best of luck with your current situation. Regards and best wishes for the holidays.

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