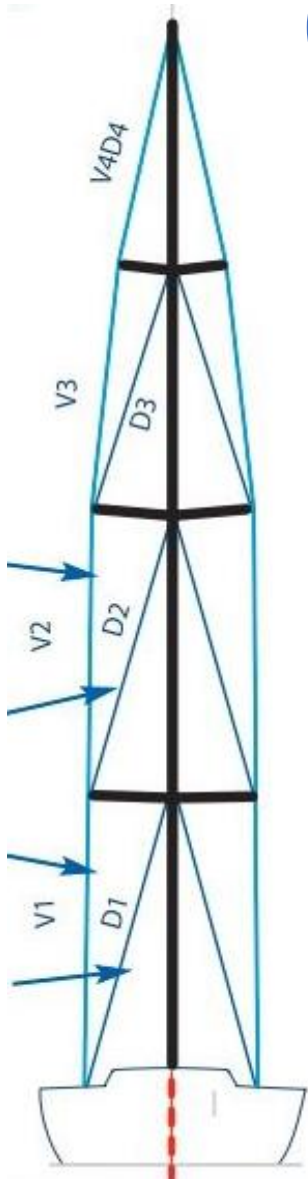


A large blue crane with "PEPA TRAS" and "PEPA TRASPORTI" branding is lifting a long, dark blue mast on a ship's deck. The mast is supported by a complex rigging system. In the background, a large white cylindrical structure, possibly a ship's hull or a large storage tank, is visible under a blue sky with scattered white clouds. The deck is paved and has several concrete blocks and other equipment scattered around.

Are you sure about your mast?

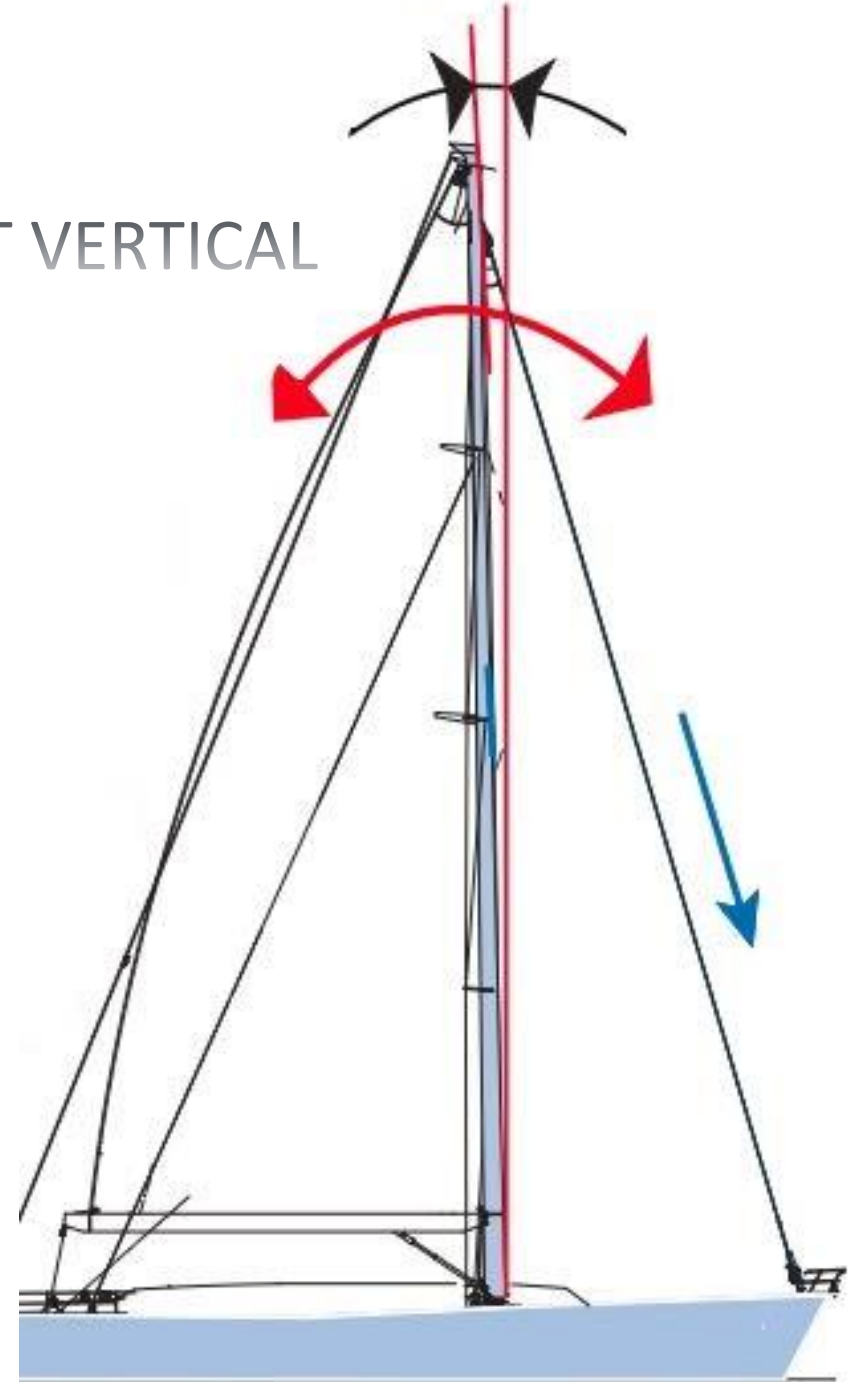
# QUICK GUIDE FOR MAST TUNE UP



- FIND RAKE
- FIND BEND
- CHECK MAST HEAD POSITION
- FIX MAST COLLAR
- DIAGONAL ADJUSTMENT

# RAKE

- HOW FAR THE MAST IS ANGLED FROM A STRAIGHT VERTICAL
- CONNECTED ONLY WITH FORESTAY LENGTH
- $0.5^{\circ}/1^{\circ}$  MAST FURLING MAINSAIL, CRUISING BOAT
- $1^{\circ}/1.5^{\circ}$  FAST CRUISING BOAT
- $1.5^{\circ}/2^{\circ}$  RACING BOAT



# RAKE CALCULATION PROCEDURE

## Example FOR 1°RAKE

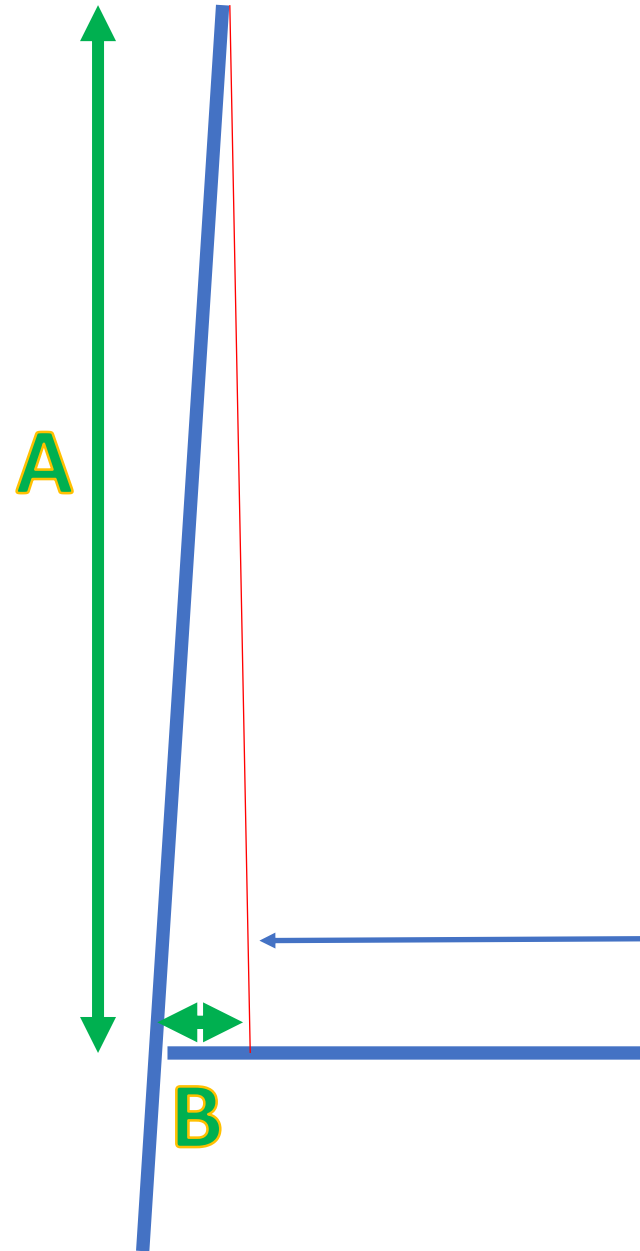
$$A = 14.000$$

$$B = 1^\circ \tan \times A$$

$$1^\circ \tan = 0.017$$

$$B = 14.000 \times 0.017 = 238$$

Mainsail halyard + weight, calm wind, boat in balance



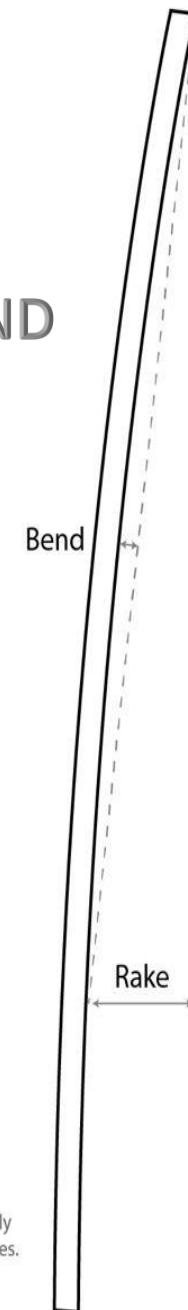
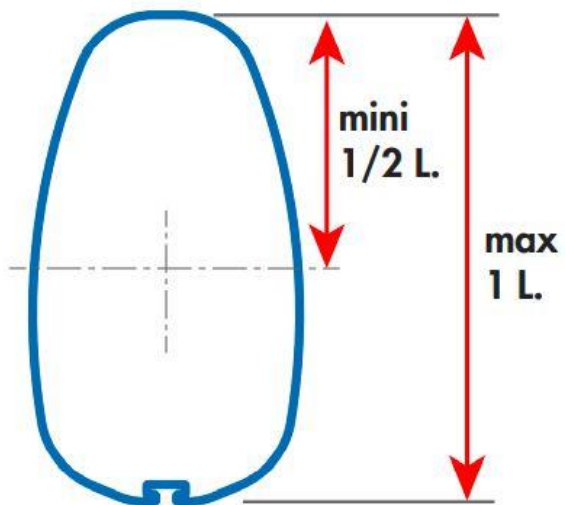


# PRE-BEND

- FORWARD SLIDING OF THE CENTRAL PART OF THE MAST TENSIONING V1
- INCREASING THE TENSION OF THE V PUSHES MAST FORWARD CREATING PRE-BEND
- CHECK THE MAST HEAD CENTER LINE POSITION

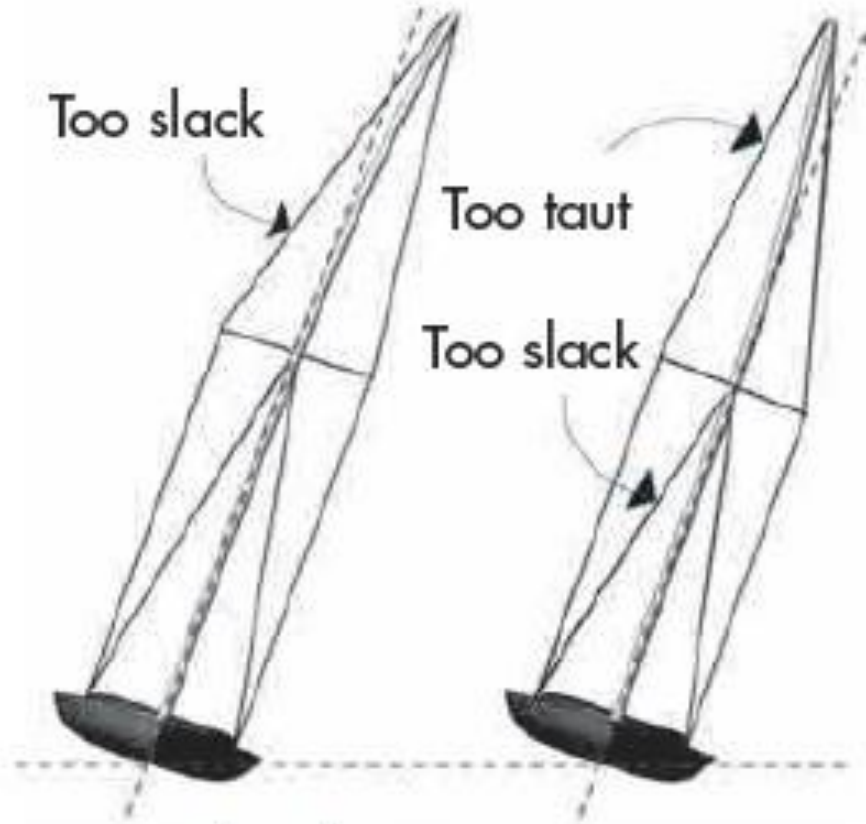
**REMEMBER TO FIX MAST COLLAR BEFORE D ADJUSTMENT**

- TIGHTENING D1/2.. WILL REDUCE THE BEND
- AFTER D ADJUSTMENT PRE-BEND MUST BE BETWEEN  $\frac{1}{2}$  AND 1 MAST SECTION



Both rake and bend are substantially exaggerated for illustration purposes.

# SAILING MAST FINE TUNING



Side adjustment



Diagonal adjustment (intermediate shrouds)

# HOW TO FIX MAST COLLAR



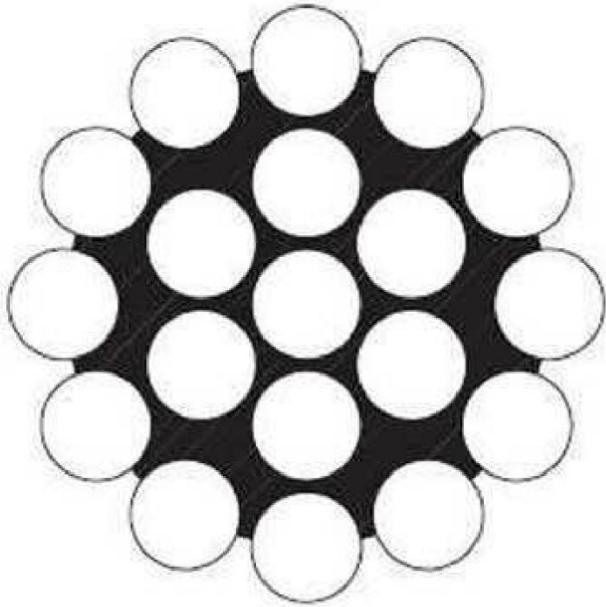
- WOODEN SPLICER
- SPARTITE



# WIRE



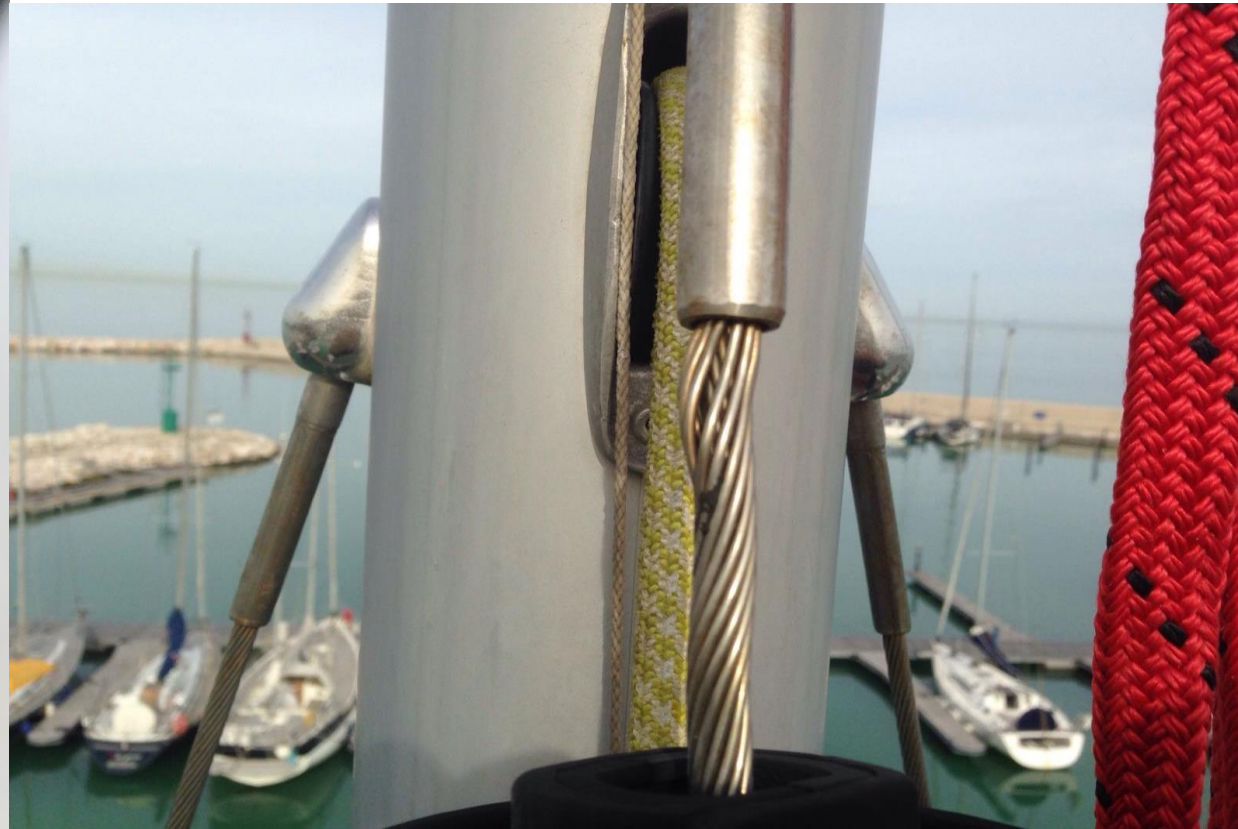
**19 fili**



- ESTIMATED LIFE 10/15 YEARS
- BREAKING LOAD 10 mm 8030 kg
- INOX STEEL AISI 316 1X19
- GOOD STRESS RESISTANCE
- MEDIUM ELONGATION



- RUST IS THE FIRST SIGNAL
- FITTINGS VISUAL CHECK
- DANGEROUS FURLING FORESTAY

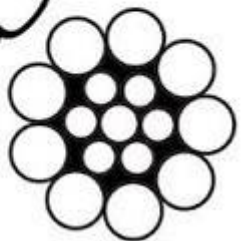
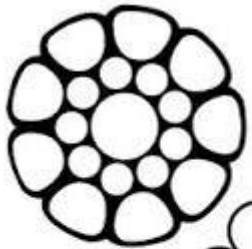


# DYFORM

- ESTIMATE LIFE 10/15 YEARS
- BREAKING L. 10 mm 9770 kg
- INOX STEEL AISI 316 COMPACT
- GOOD ELONGATION
- SAME 1X19 INSPECTION



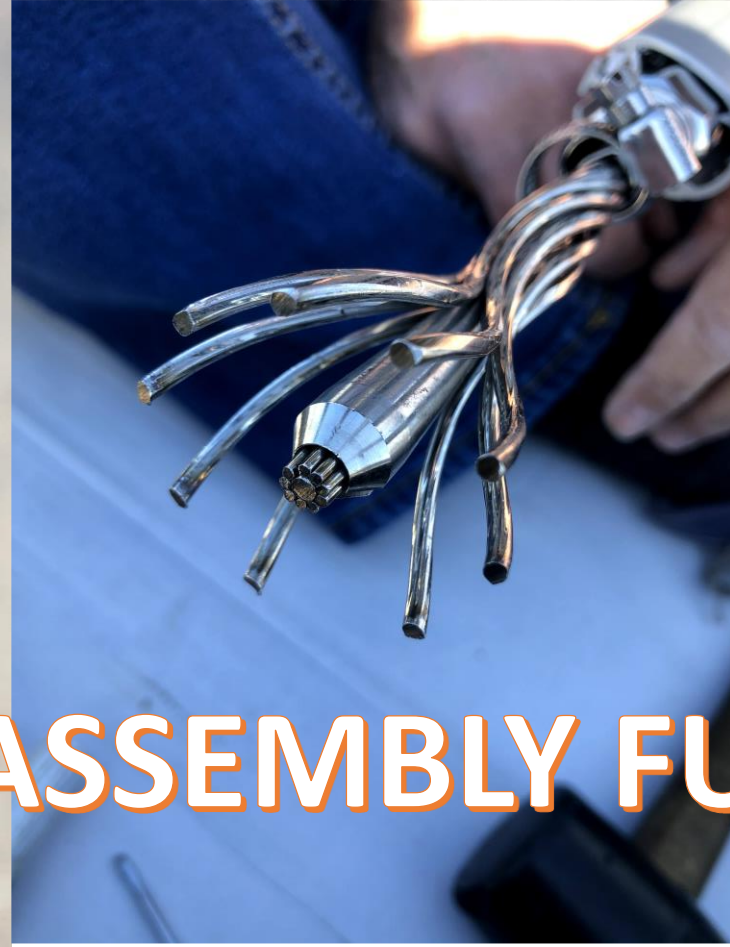
**DYFORM COMPACT**



**1 X 19**



# STA-LOCK



**NO NEED DISASSEMBLY FURLER**





# ROD

- ESTIMATED LIFE 6-10 YEARS
- BREAKING LOAD 10 mm 10220 kg
- NITRONIC 50
- MINIMUM ELONGATION
- BAD STRESS RESISTANCE



**Cracked Rod Head**





# ALUMINIUM CORROSION

- ALUMINIUM / STAINLESS STEEL
- ISOLATION NOT PRESENT
- ACETIC SILICON

