

Docktune Setup Sheet



PROJECT: TP52 Beau Geste 2019
RIGGING: Future Fibres AeroSix
JOB NO: 7478
REVISION: A
DATE: 28/05/2018
DESIGNER: Marco Sevila

This dock tune sheet is only to be used with Futrue Fibres AeroSix rigging. Any other rigging supplier must supply their own calculated dock tune numbers to be used with their rigging.

Tuning & Measurement Setup

All Halyards, Aft Stays and, if applicable, Inner & Outer Forestays **MUST BE SLACK**.
 Ideally Boom should be removed, but if this is not possible, use a topping lift. **VANG MUST BE DISCONNECTED**.

Mastbase Position: Aft face of mast @ butt trim is 33 mm forward of Aft face of mast @ Deck
 Bury (Top of Deck Collar to Bottom of Baseplate): 1526 mm
 Below Deck Rake: 1.2 °

***Docktune Rake:** 2° Above Deck
 BAS Swing (To deck intersection): 2877 mm

Docktune Jack Pressures:

Cylinder Model: RAC-20*
 Number Of Cylinders: 1
 Total Cylinder Area: 31.2 cm²
 Shim Stack Height: 66 mm

Tuning Sequence	Jack Load (Incl Rig Weight) (kg)	Required pressure		Action
		PSI	Bar	
** All V's & Headstay	7,317	3,336	230	Tighten V1
***Prebend @ Spreader 2 for 'All V's & Headstay' jack pressure:			116 mm	
V1 Tension for 'All V's & Headstay' jack pressure:			3190 kg	
Headstay Tension for 'All V's & Headstay' jack pressure:			745 kg	
All V's, Headstay & D1	9,118	4,157	287	Tighten D1
All V's, Headstay & D1-2	10,256	4,676	322	Tighten D2
All V's, Headstay & D1-3	10,901	4,971	343	Tighten D3

Measurement Setup

For All Prebend and HS Tension measurements only Side Rigging & Headstay can be under tension - All Halyards, Aft Stays and, if applicable Inner & Outer Forestays MUST BE SLACK

Headstay Tension @ Full Tune: 1,020 kg
V1 Tension @ Full Tune: 4,090 kg

Mast Prebend (as setup above):

	Elevation Above Deck (m)	Prebend for Full Tune *** (mm)
P BAND	22.869	20
HEADSTAY	20.090	45
S3	15.899	76
S2	10.949	86
S1	5.599	52
BAS	1.669	0
		Note: Prebend offset excludes any track or mainsail ramp offset

Notes:

- * Docktune Rake is the minimum rake (max upright) that the mast has been designed to. If less rake is desired then the rig needs to be retuned to the jack pressures stated within.
- ** Pause tuning process at first step ("All V's & Headstay" jack pressure) and check bend of mast at given location. If actual bend differs then this indicates that either the Docktune Rake or Mastbase Position is out.
(Note, check V1 & HS tension at "All V's & Headstay" and "Full Load" Jack Pressure for load cell calibration purposes)
- *** All Prebend numbers are given from Aft Face of Mast to Fwd Edge of Main Halyard when Halyard is pulled down to BAS (Top of Gooseneck Bracket). Halyard sheave distance aft of back face of mast has been taken into account for measurements specified.
- (i) Fine tuning may be required for theoretical tune to match reality, however, the pressure deltas between steps must not exceed 10% without consent from Southern Spars. Warranty of this rig is at risk if this is not observed.
- (ii) If any vertical stays go slack under normal sailing conditions, please contact Southern Spars to address this issue.
- (iii) Take care when measuring Mastbase and Rake if boat is not at level trim. Corrections to references will need to be made.
- (iv) Contact Southern Spars for any further queries