

M32 MAST ASSEMBLY MANUAL

VERSION 2020

TABLE OF CONTENTS

- | | |
|--------------------|------------------------------|
| 1 Manual summary | 3 Tuning guide |
| 2 Conversion chart | 4 Mast assembly instructions |

For further information visit
m32.world.com/manual

M32 NEW MAST MANUAL

MANUAL SUMMARY

WE WANT TO STRESS THE IMPORTANCE OF HAVING THE RIG ACCORDING TO THE RECOMMENDED SETTINGS WITH THE SPREADER ANGLE, PREBEND, DIAMOND TENSION AND MAST RAKE BEING THE KEY PARAMETERS.

- The base setting for the mast is 190 mm spreader angle, 30 of diamond tension and a 93 mm of prebend.
- Spreader angle should be between 180 and 220 mm. The prebend should be between 86 and 124 mm. The diamond tension should be between 23,5 and 43.
- When measuring the prebend the mast supports shall be placed at the first reefing point and just below the mast winch. The line for measuring the prebend should be a 2 mm dyneema line lashed to the main halyard fitting at the top, and through the friction ring for the cunningham at the bottom. Make sure the 2 mm dyneema is aligned with the mast track entry and exit (described in the manual).
- The diamond is tensioned and measured using the Loos & Co. gauge RT-10 M with the base of the gauge just above the mast winch. Make sure you have the updated stainless wheels from Aston Harald Composite and be aware of that the new EC-Six diamonds needs less tension than the old ones.
- Mast rake should be 480mm. Instructions on how to measure the rake can be found in the M32 Assembly Manual.
- The forestays and shrouds should be tight at all times. The load on the aft shrouds should be $300 \text{ kg} \pm 50 \text{ kg}$ measured with a Spinlock Rig Sense RGS/0508.
- Inspect the soft schakel for the gennaker halyard lock before each time going sailing.



IMPORTANT!

Make sure you read the manual and the EC-6 manual before assembly.

OLD RIGG AND NEW RIGG CONVERSION CHART

EC-Six	Old Diamonds	KG
16	33	400
24	38	500
30	42	600
33	47	700
38	50	800
41	52	900
44	59	1000
47	60	1100
50	61	1200
53	63	1300
55	65	1400

TUNING GUIDE

Wind (kts)	Turns \pm	Pre bend (mm)	Loose Gauge	Reef
0-4	-3	86	23,5	Full main
4 - 6	-2	90	25	Full main
6-8	-1	93	27	Full main
8-12	0 (base)	93	30	Full Main
12-14	1	97	31	Full Main
14-16	2	100	33,5	Full Main
16-18	3	104	35	1st reef
18-20	4	108	36,5	1st reef
20-22	5	111	38	1st reef
22-26	6	114	39,5	1st reef
26-30	7	118	41,5	1st reef
30 +	8	124	43	2nd reef

MAST ASSEMBLY INSTRUCTIONS

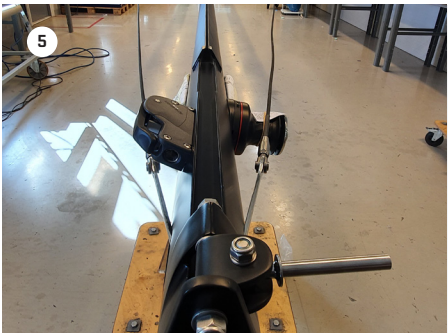
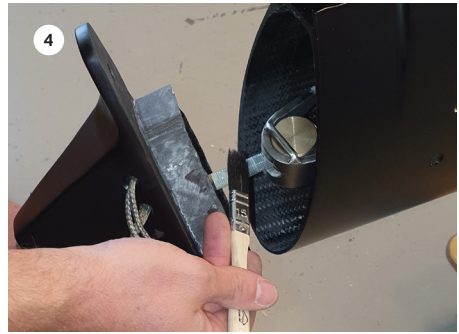
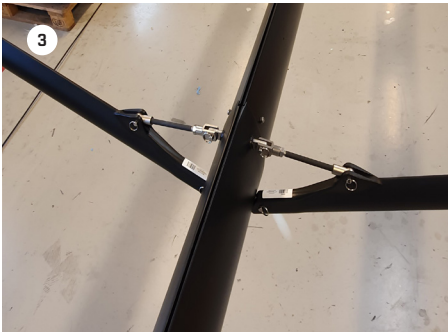
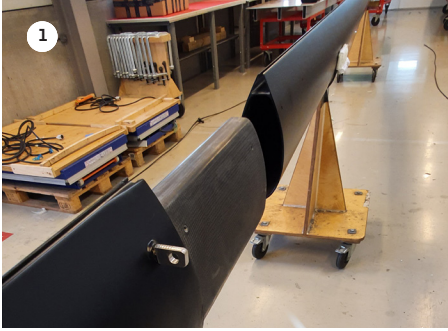
MAST ASSEMBLY

- 1 Place the lower and upper mast tubes collinear to each other either on stands or padding on the ground. Push the two mast halves together.
- 2 Insert and tighten lightly the 6 M6 screws that locks the lower and upper mast tubes together, (2 on the leading edge and 2 on each side close to the trailing edge).
- 3 Connect the spreaders to the mast; the key ring shall be on the lower side. Only the 2 Clevis pins closest to the mast shall be disconnect when removing a spreader.
- 4 The diamond turnbuckle needs to be properly greased and clean to function. It's a good opportunity to clean and service the turnbuckle when the mast is disassembled. Clean the bolt, bronze nut and washer. Put grease on the entire thread of the bolt and bronze nut + some grease on the washer. We recommend "Rocol ANTI-SEIZE Stainless".
- 5 Lube the mast joint and the mast track for easier assembly and hoisting of sails.
- 5 Attach the diamonds to the hanger. Make sure the screw is tightened and fastened with Loctite.
- 6 Attach the diamonds to the upper diamond fitting. Make sure the screw is tightened and fastened with Loctite.
- 7 Lash the diamonds to the spreader end fitting as shown on the ECSix rigging instruction.

! IMPORTANT!

Make sure the diamonds are not twisted. One tip is to make markings along the diamonds fiber with a white permanent marker. Then you can easily see if the diamonds twisted or not.

The diamond nut must be all the way down in the hanger, this must be controlled while tensioning the bolt to ensure that it is not on the side.



8 How to check the spreader angle:
Pull a shock cord tight between the spreader tips. The string should be pulled just above the end fitting on top of the diamond stay.

9 Tension the diamond turnbuckle until you get your required prebend (base 30 on the Loos Gauge).

10 Measure the distance between the string and the trailing edge of the mast straight down from the shock cord. Standard measurement is 190mm. A half turn on the turnbuckles gives approximately a 5mm change in spreader angle.

How to measure prebend:
11 Prebend is defined in this case as the distance between the trailing edge at the spreader and a 2 mm dynema line pulled between the upper most point and lowest point of the luff track (see pictures). When measuring the prebend the mast supports shall be placed at the winch and at the first reef point. Pull the string tight by hand and use the cunningham friction ring as purchase.

12 Make sure the knot for the gennaker halyard lock is tight and stitched together. The tail of the knot should be short, otherwise it can get caught in the top furler.

13 Attach the gennaker halyard lock to the soft schakel on the mast. Run the halyard below the sheave at the front end of the mast, and above the sheave closest to the sail track and down to the clutch.

14 Take out the main halyard sheave, run the halyard and put back the sheave. Pull down the halyard to the goose neck.

15 Further instructions of stepping the mast and boat assembly is found in the M32 Assembly Manual at m32world.com/manual

IMPORTANT!

The dyneema soft schakel for the gennaker halyard lock has to be inspected each time before sailing.

