

Mast Bend Test

From Goodall Yacht Sails

MAST BEND TEST FOR TAIPAN 4.9 MASTS

For this test you will require 2 saw hawses, a G-clamp, a 20 kg weight and a tape measure.

Remove the diamond wires from the diamond arms.

TEST: 1A Tip Deflection - "Fore-aft"

Position the mast sail track DOWN and clamp the mast base so that it does not move

Place a support under the hound position, 6000mm from the base so that the mast will pivot at this point

Place a 20kg weight at the tip and measure its deflection downwards

TEST 1B: Tip Deflection - "Sideways"

Same as for test 1A except lie the mast on its side

Typical bend test figures for these tests are 35 - 45 mm fore-aft, and 140 - 170 mm sideways

TEST 2A: Lower mast bend - "Fore-aft"

Position the mast sail track UP and clamp the mast base so that it does not move

Place a support under the hound position, 6000mm from the base so that the mast will pivot at this point

Place a 20 kg weight midway between these two supports and measure its deflection downwards

TEST 2B: Lower mast bend - "Sideways"

Same as for test 2A except lie the mast on its side

Typical bend test figures for these tests are 8-10mm fore-aft and 38-48mm sideways

TEST 3A: Full length mast bend. - "Fore-aft"

Position the mast sail track UP and clamp the mast base so that it does not move

Place a support under the head of the mast so that the distance between the two supports is 8400 apart

Place a 20 kg weight midway between these two supports and measure its deflection downwards

TEST 3B: Lower mast bend - "Sideways"

Same as for test 2A except lie the mast on its side

Check the mast for fore aft straightness

Note any permanent bend in the mast as this will effect the required luff curve in the sail.