

PHRF of Narragansett Bay

Quick Reference to Asymmetrical SMG measurement

Spinnaker Mid Girth (SMG) = mid girth length from midpoint of luff to midpoint of leech.

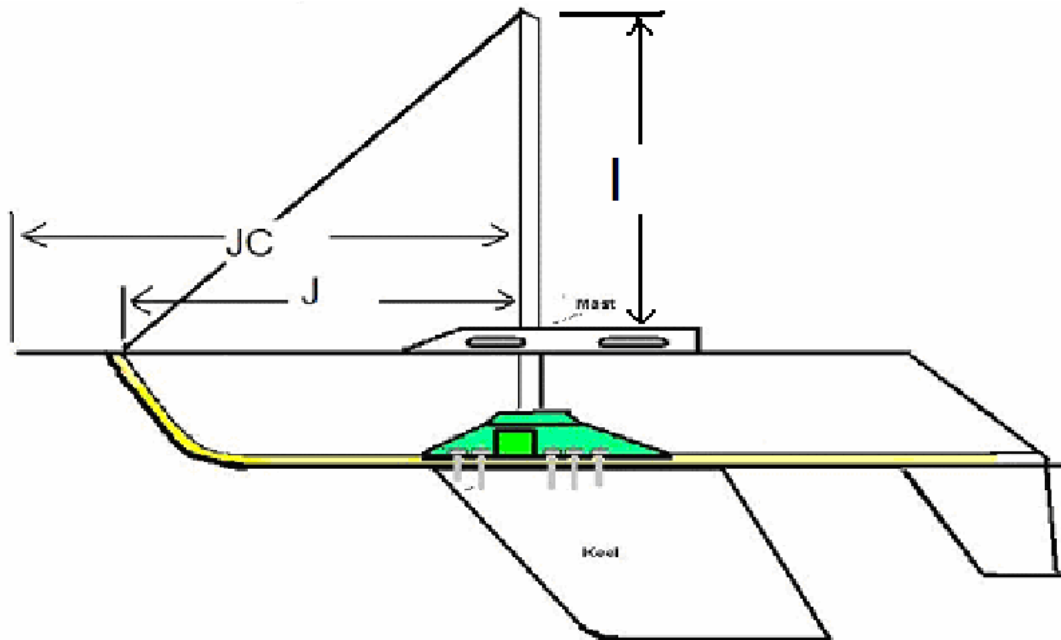
Luff = the forward edge of fore-and-aft sail

Leach = the after edge of a fore-and-aft sail

J = the measurement from the bottom of your head stay to the front of the mast.

JC = the additional length in front of the head stay away from the front of the mast that you attach you spinnaker tack to.

I = the measurement from the top of the mast to the top of the deck.



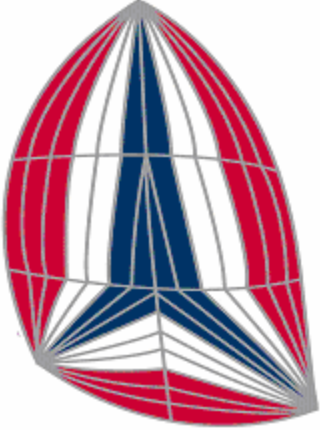
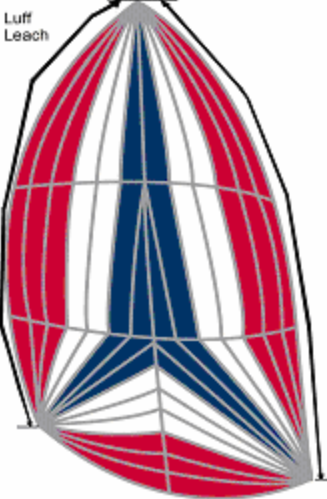
What is an Asymmetrical?

A Spinnaker is an Asymmetrical when the leach and luff differ by more than 4% i.e. $((\text{leach} - \text{luff}) / \text{leach})$. Example: Johns spinnaker has a leach of 42 and a luff of 40 therefore the calculation would be $42 - 40 = 2 / 42 = 5\%$.

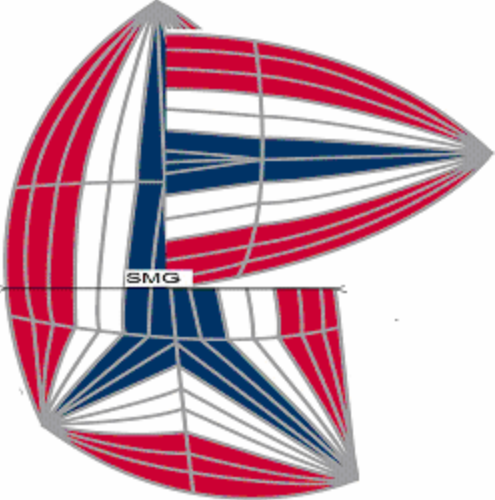
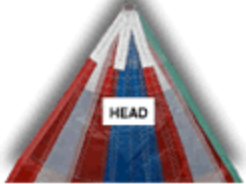


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How do I determine the Spinnaker Mid Girth?

For this measurement, pull the sail tight enough to pull the wrinkles out but not tight enough to stretch the sail. The measurements are supposed to be taken from the theoretical middle of the sail, but sometimes that's impractical. Just give it your best, honest effort. Although it helps to have a large room to spread the sail out, this can be done in a wreck room, long hallway, or front yard. The process is easy to break up into manageable steps.

Steps	Directions	Visual
Spreading out sail	Spread out sail flat and hold down the three ends. Pull the sail tight enough to pull the wrinkles out but not tight enough to stretch the sail	
Determine where to measure the SMG from	<p>There are two ways you can accomplish this:</p> <p>1) Fold the sail in half along the luff and mark the midpoint with a piece of tape. Then do the same for the leech.</p> <p>2.) Measure the length of the Luff and divide by 2 now measure that distance from the foot and mark with tape. Next measure the leech and divide by 2 then measure up that distance from the foot and mark with tape.</p>	

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<p>Measuring SMG</p>	<p>Now once you have the two marks, measure the distance between the two marks. Record this number (SMG)</p>									
<p>SMG</p>	<p>Record the number (SMG) on the PHRF form</p>	<p>Spinnakers to be used Weight (Sym) / SMG (Asym)</p> <table border="1" data-bbox="846 835 1101 989"> <tr> <td>Spinnaker #1</td> <td>Spinnaker #2</td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td colspan="2">Spinnaker #3</td> </tr> <tr> <td colspan="2"></td> </tr> </table> <p>← SMG = 22'</p> <p>Cruising Headsail Credit <input type="checkbox"/></p> <p>SMG = 22' is an example could be 22' 6"</p>	Spinnaker #1	Spinnaker #2			Spinnaker #3			
Spinnaker #1	Spinnaker #2									
Spinnaker #3										
<p>Spinnaker top</p>	<p>Head</p>									
<p>Spinnaker attach to bow</p>	<p>Tack</p>									
<p>Spinnaker attach to sheets</p>	<p>Clew</p>									

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What is the calculation for a PHRF Asymmetrical?

Remember a spinnaker is asymmetrical if the leach and luff differ in length by more than 4 percent. The PHRF Asymmetrical standards are as follows: the average of the luff and leech must not exceed 0.95 times the square root of I squared plus JC squared (where JC is the length reported for the spinnaker pole or bowsprit to which the asymmetrical spinnaker will be attached); the maximum width does not exceed 1.8 times JC ; and the mid girth must be greater than 75% of the foot (if the mid girth is less than 75% of the foot, the sail is treated as a headsail).