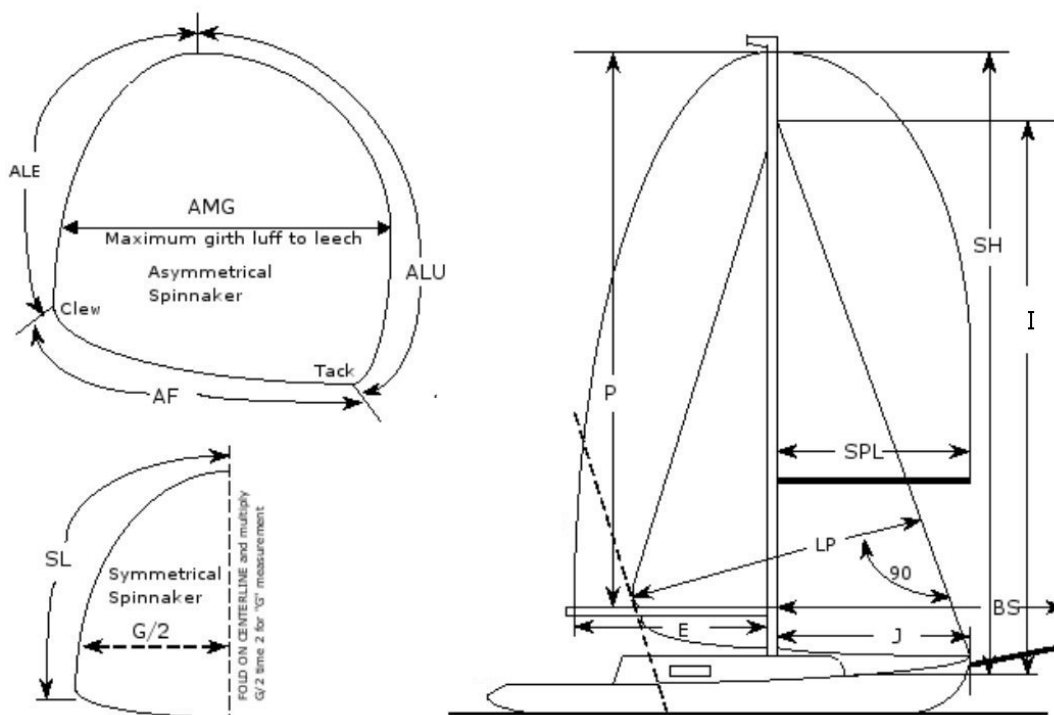


## Lake Norman Keelboat Council Boat and Sail Measurements Guide



<u>MEAS</u>	<u>LIMITS</u>	<u>DEFINITIONS</u>
LOA		Length Over All (LOA) of the hull. Note bowsprit and or boomkins separately.
LWL		Loaded Water Line (LWL). If unmeasured, use brochure LWL.
BEAM		Maximum beam of the vessel.
DRAFT		Deepest draft of hull. If centerboard or daggerboard sailboat include draft with board up and down.
DISPL		Vessel displacement in pounds without crew, water, fuel, stores aboard. If unmeasured use brochure DISPL.
BAL		Ballast (BAL) of vessel in pounds. Note any additions or deletions from standard and the location.
I		Height of fore triangle measured from deck sheer line abeam the mast to highest point of sail attachment.
J		Distance perpendicular from fore side of mast line to the point of intersection of the forestay with deck or fixed bow sprit.
P		Luff length of mainsail measured from boom to head board in its highest position.
E		Foot length of mainsail measured from the mast to clew in its most outboard position.
P2		Luff length of mizzen (two masted boats only) measured same as P.
E2		Foot length of mizzen (two masted boats only) measured same as E.
SH		Symmetric spinnaker Hoist (SH) measured from the deck sheer line abeam the mast to the highest point of spinnaker attachment.
SH%	100%	SH measurement expressed as a percentage of I.
AH		Asymmetric spinnaker Hoist (AH) measured same as SH.
LP		Length of the Perpendicular (LP). Distance perpendicular from the luff to the clew of the largest headsail.
LP%	155%	LP measurement expressed as a percentage of J.
SPL		Spinnaker (or whisker) Pole Length (SPL) measured with the pole in fitting and in a horizontal position athwart ship.
SPL%	100%	SPL measurement expressed as a percentage of J.
BS		Bow Sprit (BS) distance measured perpendicular from the fore side of mast line to the point of intersection with the outermost point of sail attachment with the bow or bow sprit. BS is equal to SPL if the sail is tacked at a spinnaker pole.
G		Symmetric spinnaker maximum Girth (G), measured luff to luff. Fold on centerline, measure width, multiply by 2.
G%	180%	G measurement expressed as a percentage of J.
SL		Length of symmetric Spinnaker Luff (SL) measured along luff tape from head to clew on the largest spinnaker.
SL%	95%	SL measurement expressed as a percentage of the square root of $(I^2 + J^2)$ .
ALU		Length of Asymmetric spinnaker Luff (ALU) measured along longest luff tape from head to tack.
ALU%	110%	ALU measurement expressed as a percentage of the square root of $(AH^2 + BS^2)$ .
ALE		Length of Asymmetric spinnaker Leech (ALE) measured along shortest tape from head to clew.
AF		Length of Asymmetric spinnaker Foot (AF) measured along foot tape from tack to clew.
AF%	180%	AF measurement expressed as a percentage of BS.
AMG		Asymmetric spinnaker Mid Girth (AMG) measured from mid-point on luff to mid-point on leech.
AMG%	75%	AMG measurement expressed as a percentage of AF shall be not less than 75%.

NOTE: Critical Dimensions for production sailboats can be found at <http://www.ussailing.org/phrf/Critical%20Dimensions.pdf>.