

## Dock Line Guidelines for Double Braid Nylon

<b>American Boat and Yacht Council Safe Working Load (in pounds)</b>			
<b>Nylon Double Braided Rope</b>			
Diameter"	Approx. Breaking Strength	ABYC Safe Working Load	Safe Working Load %
1/4	1,390	420	30%
5/16	2,170	680	31%
3/8	3,120	960	31%
1/2	5,550	1,630	29%
5/8	8,670	2,800	32%
3/4	12,490	3,600	29%
7/8	17,000	5,300	31%
1	22,210	6,260	28%



Boat Length	Dock Line Diameter		Typical Eye splice Length
	Average	Heavy	
Up to 20' ( 6m)	3/8"	3/8"	6-12"
20' - 30' ( 6 - 9m)	7/16"	1/2"	6-12"
30' - 40' ( 9 - 12m)	1/2"	9/16"	7-14"
40' - 50' (12 - 15m)	5/8"	3/4"	8-16"
50' - 60' (15 - 18m)	3/4"	1"	9-18"

Rope Diameter (in.)	Fid Diameter (typ. 75-80%)	Typ. Fid Length (typ. 22 x Dia.)	Short Section (Away from pointed end, typ. .35-.40 Fid Len.)	Long Section Measure
1/4		5.50	2.00	3.50
3/8		8.25	3.00	5.25
1/2	3/8	11.00	4.00	7.00
5/8	1/2	13.75	4.75	9.00
7/8		19.25	6.75	12.50
1	3/4	22.00	7.75	14.25

<b>Other Dock line Considerations</b>	
1	Not all rope is sold as true diameters. Some brands are typically 1/16" undersized (e.g. 1/2" D really 7/16" D).
2	Need for chafing protection and associated size restrictions. Consider clear PVC nylon reinforced fresh water hose that is seized into place.
3	Dock line 'eye' usually secured on board. Ensure adequate clearances around, under and/or through cleats.
4	Utilize UV protected snubbers where shock absorption is important.
5	Nylon dock lines are suitable for anchor rode. Higher breaking strength but less stretch and more susceptibility to chafing than 3-strand nylon. Dacron, Kevlar, Vectran and other 'low-stretch' materials should not be used as rode or dock lines.
6	Dock line length approximately 2/3 boat length for bow/stern; full boat length for forward/aft spring lines; and, 1/2 boat length for breast lines. More for high tidal ranges.
7	Utilize SS thimbles and proper shackles for semi-permanent moorings and docks. Do not let galvanized &
8	Use a proper belaying knot for making dock lines fast to cleats. Flemish unused dock lines for safety, even drying and a 'Bristol' look.
9	Fender boards are useful when cruising Atlantic Canada and using Government wharves. Avoid getting dock lines pinched between fenders or fender boards and wharves.