



www.denverrope.com

For customer service and inquiries please call John 303-809-7274 or email john@denverrope.com.
Please email the completed worksheet back to John of Denver Rope

Mooring Bridle / Mooring Pendant Worksheet

- Working Load: Generally, try to match the W.L. of the Boat's Anchor Line / Anchor Chain
- Denver Rope is always concerned not to exceed a customer's budget. If you would like to give us a budget not-to-exceed, we will work with you
- Please fill out this worksheet the best you can and return to Denver Rope
- OK to reply using email, pictures, descriptions, and or a sketch to describe your assembly

Please describe below your boat's specifications to include the size of the anchor line / anchor chain.

Please describe below what you are specifying / information we need to know about your application on this worksheet: Y-Mooring Bridle, Single Leg Mooring Pendant, Features, Requirements, etc.

* Denver Rope – Mooring Bridle Assembly *

Specify Design Elements A thru F for a complete Mooring Bridle Assembly.
If just a Bridle Assembly, then specify design elements A thru C.

A. Bow Bridle Legs

1. Specify Length _____ (2x beam, 2x freeboard, customer specified)
2. Specify Material _____ (6ft min unless 3-Strand. DBN is Standard)

We will assist the customer in selecting the diameter of rope that matches the W.L. of the line. Choose double braid nylon for working loads typically equating to rope not much more than 1-0" in diameter. For larger working loads, switch rope material to high performance 12-strand dyneema rope as it is much lighter, stronger, floats, but no stretch.

B. Bow Connection (choose between 1 or 2 below)

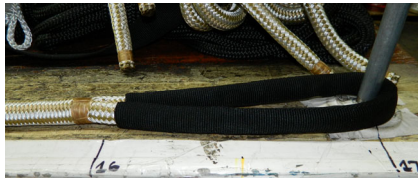
1. Specify Bitter Ends _____ (y/n)
2. Specify Eye Splice _____ (y/n – customer specified below)
 - a. Eye Splice Size _____ (12", 18", 24" are typical)
 - b. Chafe Guard _____ (y/n - covered eyes are recommended)

Chafe Guard can be placed in additional locations down the line. See additional requirements.

C. Y-Point Connection (choose between 1 or 2 below. No.1 is standard)

1. 3 Covered Eye Splices _____ (y/n – standard – recommended for Lt Weight)
 - a. Eye Splice Size _____ (6" eye splice is standard)
 - b. Chafe Guard _____ (y/n - covered eyes are standard)
2. Hardware Connection _____ (y/n - customer specified below. See Note)

Custom Made-to-Order Mooring Bridles & Mooring Pendants



18" Covered Eye Splice



Spliced Y-Point Connection using 3 Covered Eye Splices



S/S Hard Eye Bridle Connection using a S/S Bow Shackle. A shackle can also collect soft covered eye splices. Many Hardware Options Exist.

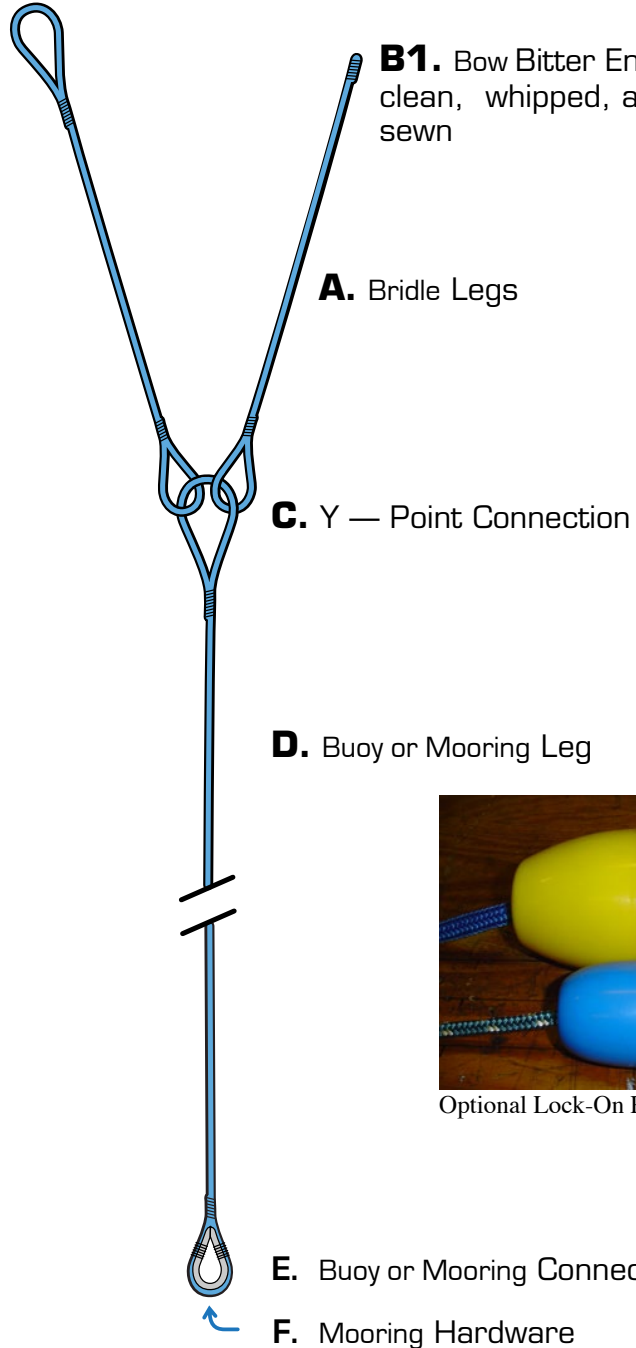


S/S HD Wire Rope Thimble Splice to a Safety Bolted Shackle



Light Duty S/S Thimble Splice to a S/S Anchor Shackle to S/S Swivel Eye Hook

B2. Bow Eye Splices are hand sewn, whipped, and made-to-order



B1. Bow Bitter Ends melted clean, whipped, and hand sewn

A. Bridle Legs

C. Y — Point Connection

D. Buoy or Mooring Leg

E. Buoy or Mooring Connection

F. Mooring Hardware



Optional Lock-On Rope Floats



Mooring Pendant Assembly with 3 Rope Floats and Lt Duty S/S Thimble Splices on each end



We offer a wide selection of S/S and Galvanized Hardware to choose from



www.denverrope.com

For customer service and inquiries please call John 303-809-7274 or email john@denverrope.com.
Please email the completed worksheet back to John of Denver Rope

3. Hard Eye Thimble Splice _____ (y/n – Galvanized Thimbles Available)
 a. Light Duty s/s Thimble _____ (std for recreational lake applications)
 b. Heavy Duty s/s Thimble _____ (std for commercial and ocean applications)
-
-

Note for part C: Some customers may want to disassemble their bridle at the Y-Point. Therefore, choose from any combination of the following options: stainless or galvanized hardware, soft or hard eyes, chafe guard, thimbles (Lt Duty or HD), bow or bolted shackles, quick release snap shackles, trigger release shackles, and or a master link. See F below.

D. Buoy or Mooring Leg

1. Specify Length _____ (customer specified)
2. Specify Material _____ (customer specified)

We will assist the customer in selecting the diameter of rope that matches the W.L. of the line. Choose double braid nylon for working loads typically equating to rope not much more than 1-0” in diameter. For larger working loads, switch rope material to high performance 12-strand dyneema rope as it is much lighter, stronger, floats, but no stretch.

* Note: Can add optional rope floats to Mooring Leg Segments, parts A and or D *

E. Buoy or Mooring Connection (choose between 1 or 2 below)

1. Hard Eye Thimble Splice _____ (y/n – Galvanized Thimbles Available)
 a. Light Duty s/s Thimble _____ (std for recreational lake applications)
 b. Heavy Duty s/s Thimble _____ (std for commercial and ocean applications)
2. Soft Eye Splice _____ (y/n – customer specified below)
 a. Eye Splice Size _____ (12”, 18”, 24” are typical)
 b. Chafe Guard _____ (y/n - covered eyes are recommended)
3. Specify Bitter Ends _____ (y/n)

F. Mooring Hardware (choose from the hardware listed below, stainless or galvanized)

1. Bow Shackle _____ (y/n)
2. Bolted Safety Shackle _____ (y/n)
3. Swivel Eye Hook _____ (y/n)
4. Quick Release Snap Shackle _____ (y/n)
5. Trigger Release Shackle _____ (y/n)
6. Swivel, specify type _____ (y/n)
7. Customer Specified _____ (y/n)
8. Omit Hardware Connection _____ (y/n, Std when E3 selected)

We will assist the customer in selecting the hardware that matches the W.L. of the line



www.denverrope.com

For customer service and inquiries please call John 303-809-7274 or email john@denverrope.com.
Please email the completed worksheet back to John of Denver Rope

Additional Requirements for Mooring Bridle Assembly:

**** Denver Rope – Single Leg Mooring Pendant Assembly ****

Specify Design Elements C thru F for a Single Leg Mooring Pendant Assembly.

C. Bow Connection (choose between 1 or 2 below. No.1 is standard)

- 1. 3 Covered Eye Splices _____ (y/n – standard – recommended for Lt Weight)
 - a. Eye Splice Size _____ (6” eye splice is standard)
 - b. Chafe Guard _____ (y/n - covered eyes are standard)
- 2. Hardware Connection _____ (y/n - customer specified below. See Note)
- 3. Hard Eye Thimble Splice _____ (y/n – Galvanized Thimbles Available)
 - a. Light Duty s/s Thimble _____ (std for recreational lake applications)
 - b. Heavy Duty s/s Thimble _____ (std for commercial and ocean applications)

Note for part C: Some customers may want to disassemble their bridle at the Y-Point. Therefore, choose from any combination of the following options: stainless or galvanized hardware, soft or hard eyes, chafe guard, thimbles (Lt Duty or HD), bow or bolted shackles, quick release snap shackles, trigger release shackles, and or a master link. See F below.

D. Buoy or Mooring Leg

- 1. Specify Length _____ (customer specified)
- 2. Specify Material _____ (customer specified)

We will assist the customer in selecting the diameter of rope that matches the W.L. of the line. Choose double braid nylon for smaller working loads typically equating to rope not much more than 1-0” in diameter. For larger working loads, switch rope material to high performance 12-strand dyneema rope as it is much lighter, stronger, it floats, but no stretch.

* Note: Can add optional rope floats to Mooring Leg Segments, parts A and or D *

E. Buoy or Mooring Connection (choose between 1 or 2 below)

- 1. Hard Eye Thimble Splice _____ (y/n – Galvanized Thimbles Available)
 - a. Light Duty s/s Thimble _____ (std for recreational lake applications)
 - b. Heavy Duty s/s Thimble _____ (std for commercial and ocean applications)
- 2. Soft Eye Splice _____ (y/n – customer specified below)
 - a. Eye Splice Size _____ (12”, 18”, 24” are typical)
 - b. Chafe Guard _____ (y/n - covered eyes are recommended)
- 3. Specify Bitter Ends _____ (y/n)



www.denverrope.com

For customer service and inquiries please call John 303-809-7274 or email john@denverrope.com.
Please email the completed worksheet back to John of Denver Rope

F. Mooring Hardware (choose from the hardware listed below, stainless or galvanized)

1. Bow Shackle _____ (y/n)
2. Bolted Safety Shackle _____ (y/n)
3. Swivel Eye Hook _____ (y/n)
4. Quick Release Snap Shackle _____ (y/n)
5. Trigger Release Shackle _____ (y/n)
6. Swivel, specify type _____ (y/n)
7. Customer Specified _____ (y/n)
8. Omit Hardware Connection _____ (y/n, Std when E3 selected)

We will assist the customer in selecting the hardware that matches the W.L. of the line

Additional Requirements Mooring Pendant:



MOORING BRIDLE / MOORING PENDANT STRENGTH GUIDE

The Best Custom Boat Lines, Custom Colored Ropes, & Special Assemblies made to Your Specifications

NYLON DOUBLE BRAID (DBN) Single Leg Pendant				DBN Y-Bridle Configuration with each bridle leg at least 2x the boat's beam (min)		12-STRAND DYNEEMA Single Leg Pendant or Buoy Mooring Leg to Join the Bridle Legs				S/S Bow Shackle	S/S Safety Bolted Shackle	GALV Safety Bolted Shackle	Quick Release Snap Shackle	Trigger Release LB Shackle	Wire Rope or HD Thimble
Diameter		Tensile	WLL 5:1	Tensile	WLL 5:1	Diameter		Tensile	WLL 5:1						
inches	mm	pounds	pounds	pounds	pounds	inches	mm	pounds	pounds						
1/2"	13	7,300	1,460	12,167	2,433	5/16"	8	12,300	2,460	1/2"	1/2"	7/16"	W2776	T12	Reqd
5/8"	16	14,600	2,920	24,333	4,867	3/8"	10	17,600	3,520	5/8"	5/8"	1/2"	W2776	T20	Reqd
3/4"	19	19,000	3,800	31,667	6,333	1/2"	13	30,600	6,120	1-0"	3/4"	5/8"	W2777	T20	Reqd
7/8"	22	28,100	5,620	46,833	9,367	5/8"	19	47,500	9,500	1-1/4"	7/8"	3/4"	W2778	T30	Reqd
1-0"	25	33,200	6,640	55,333	11,067	3/4"	19	58,000	11,600		1-0"	7/8"	W2778	T30	Reqd
1-1/4"	32	52,000	10,400	86,667	17,333	7/8"	22	81,700	16,340		1-1/4"	1-0"		T30 T40	Reqd
1-1/2"	38	74,000	14,800	123,333	24,667	1-0"	25	98,100	19,620		1-1/4"	1-1/8"		T40	Reqd
1-5/8"	41	92,100	18,420	153,500	30,700	1-1/4"	32	149,000	29,800			1-1/4"		T50	Reqd
1-3/4"	45	109,500	21,900	182,500	36,500	1-1/2"	38	205,000	41,000			1-1/2"		T50	Reqd
2-0"	51	129,700	25,940	216,167	43,233	1-1/2"	38	205,000	41,000			1-1/2"			Reqd
2-1/4"	57	179,400	35,880	299,000	59,800	1-3/4"	45	302,000	60,400			1-3/4"			Reqd
2-1/2"	64	196,000	39,200	326,667	65,333	2-0"	51	343,000	68,600			2-0"			Reqd
2-5/8"	67	221,000	44,200	368,333	73,667	2-0"	51	343,000	68,600			2-0"			Reqd
2-3/4"	70	237,000	47,400	395,000	79,000	2-1/8"	56	411,000	82,200						Reqd
3-0"	76	274,000	54,800	456,667	91,333	2-1/4"	57	484,000	96,800						Reqd
3-1/4"	83	339,000	67,800	565,000	113,000	2-1/2"	64	529,000	105,800						Reqd

These figures are for brand new rope. Age, wear, sunlight exposure, splices, and fraying will further reduce these figures over time

All hardware sizing is approximate where thimble size and rope thickness may require a larger shackle to fit properly

Heavy Duty Towing Thimbles are available to include NEWCO, Blue Line, NAVSEA, GN Rope Fittings, Rope Connectors, etc.

We also supply towing plates, wire rope assemblies, stud link chain, and additional hardware as required

Additional fiber and rope construction styles are available

When the bridle legs are 2x the length of the beam, the inside angle formed by the legs is very acute and the bridle leg strengths are additive

The inside bridle leg angle shall be 60deg or less where 30deg is very acute, but not to exceed 90deg

Most conservative is to approximately match the single leg strengths (DBN - Dyneema) and design the inside bridle leg angle to be acute

Note a Mooring Bridle / Mooring Pendant Assembly can be configured based on the customer's application

Note a Anchor Chain Snubber Bridle / Anchor Chain Snubber Pendant Assembly can be configured based on the customer's application

For customer service and inquiries please call John 303-809-7274 or email john@denverrope.com;

www.denverrope.com