Denver Rope - Towing Hawser Worksheet

- Working Load: For Ocean and Commercial Towing Applications the W.L. is chosen to be equal to the fully loaded weight of the towed vessel as a minimum. For lighter duty applications, practicality, pleasure marine, and lake applications the W.L. is often chosen to be 1/3 – 1/2 the fully loaded weight of the towed vessel.
- Denver Rope is always concerned as not to exceed a customer’s budget. However, the Captain is legally responsible for the safety of his passengers and equipment; therefore, it is always better to err on the conservative side when specifying a Towing Hawser.
- Please fill out this worksheet the best you can and return to Denver Rope. Thank you.

Please describe below your towing vessel and the towed vessel. Include weight, location, etc.
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

Please describe below what you are specifying on this worksheet; towing hawser, tow line, other.
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

Suggested emergency towing arrangement from Naval Ship’s Technical Manuel
Endless combinations exist. Specify each end using sections B1, B2, C1, and C2.
A. Specify Rope Construction & Material

1. Choose from below (customer specified from list below)
   a. Double Braid Nylon (y/n – standard)
   b. 3-Strand Twisted Nylon (y/n – standard)
   c. 12-Strand Dyneema (y/n – inquire)
   d. other (y/n – specify below and inquire)

2. Specify Length (300-600 ft is typical – customer specified)

3. Specify Diameter (*Denver Rope Strength Guide*)

4. Specify Color (white is standard, for other colors inquire)
   *DR will assist the customer in selecting the diameter of rope and hardware that matches the W.L. of the line.

B1. Bitter End (Specify a Bitter End or B2 below)

1. Bitter End (y/n – standard)

2. Finishing Options (y/n – customer specified below)
   a. Taped & Cut (y/n – standard)
   b. Melted / Sealed (y/n – end cut fibers are melted and sealed)
   c. Whipping (y/n – bitter end is whipped and sewn)

B2. Working End Connection (choose between 1 or 2 below)

1. Heavy Duty Hard Eye (y/n - standard)
   a. Towing Thimble - Mandal Fairlead Shackle and Sheave Assembly (y/n – customer specified)

2. Soft Eye / Loop (y/n – customer specified below)
   a. Eye Splice Size (36”, 48”, 72”, are typical)
   b. Chafe Guard/Covered Eye (y/n - covered eyes are recommended)

3. Hardware Options (shipped loose) (y/n - customer specified below)
   a. Detachable Link (y/n – customer specified)
   b. Shackle (y/n – customer specified)
   c. Master Link/NATO Link (y/n – customer specified)
   1. Galvanized Hardware (y/n – customer specified)
   2. Stainless Hardware (y/n – customer specified)
C1. Bitter End
(Specify a Bitter End or C2 Below)
1. Bitter End 
   ____________ (y/n – standard)
2. Finishing Options 
   ____________ (y/n – customer specified below)
   a. Taped & Cut 
      ____________ (y/n – standard)
   b. Melted / Sealed 
      ____________ (y/n – end cut fibers are melted and sealed)
   c. Whipping 
      ____________ (y/n – bitter end is whipped and sewn)

C2. Working End Connection
(choose between 1 or 2 below)
1. Heavy Duty Hard Eye 
   ____________ (y/n - standard)
   a. Towing Thimble - Mandal Fairlead Shackle and Sheave Assembly 
     ____________ (y/n – customer specified)
   b. Rope Connector – Nylite Spool, Shield, and Safety Bolted Shackle Assembly 
     ____________ (y/n – customer specified)
   c. Newco Towing Thimble with Rope Shields or Blue Line Tube Thimble 
     ____________ (y/n – customer specified)
   d. Extra Heavy Duty Galvanized Thimble 
     ____________ (y/n – customer specified)

2. Soft Eye / Loop 
   ____________ (y/n – customer specified below)
   a. Eye Splice Size 
      ____________ (36”, 48”, 72”, are typical)
   b. Chafe Guard/covered eye 
      ____________ (y/n - covered eyes are recommended)

3. Hardware Options (shipped loose) 
   ____________ (y/n - customer specified below)
   a. Detachable Link 
      ____________ (y/n – customer specified)
   b. Shackle 
      ____________ (y/n – customer specified)
   c. Master Link/NATO Link 
      ____________ (y/n – customer specified)
   1. Galvanized Hardware 
      ____________ (y/n – customer specified)
   2. Stainless Hardware 
      ____________ (y/n – customer specified)