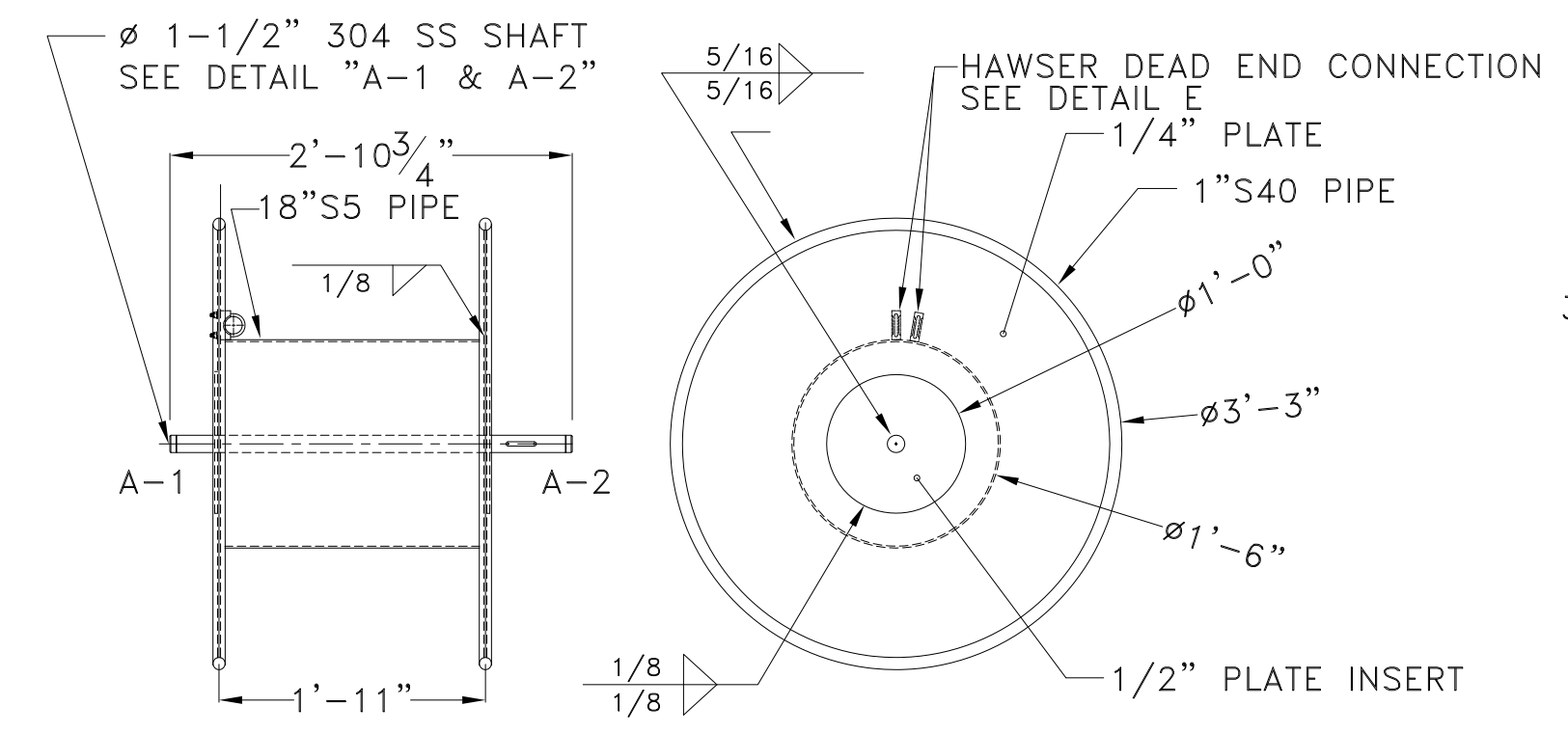
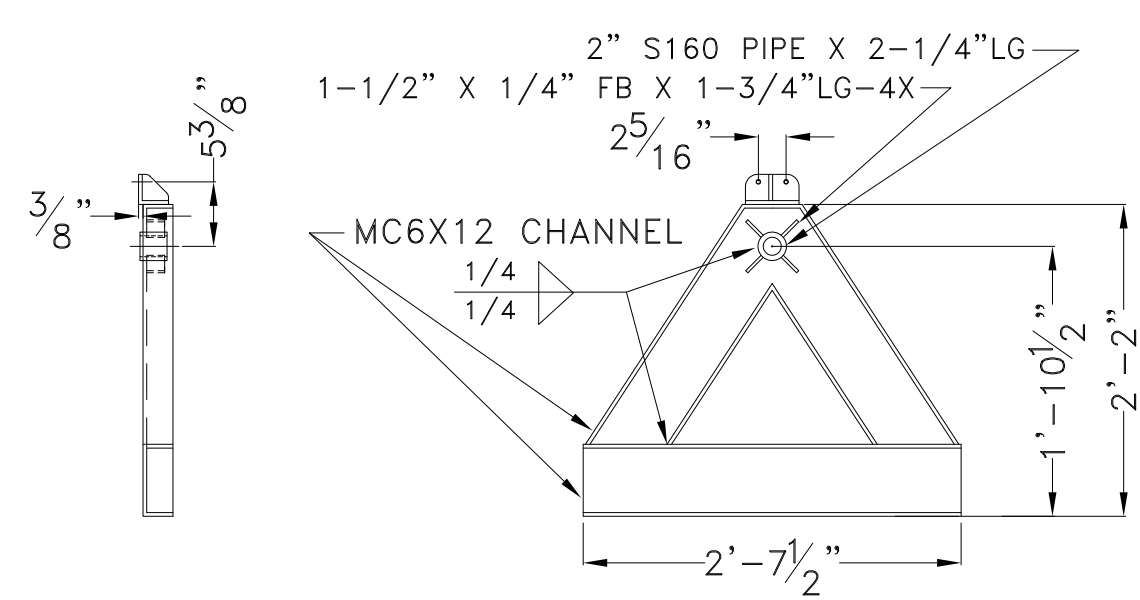


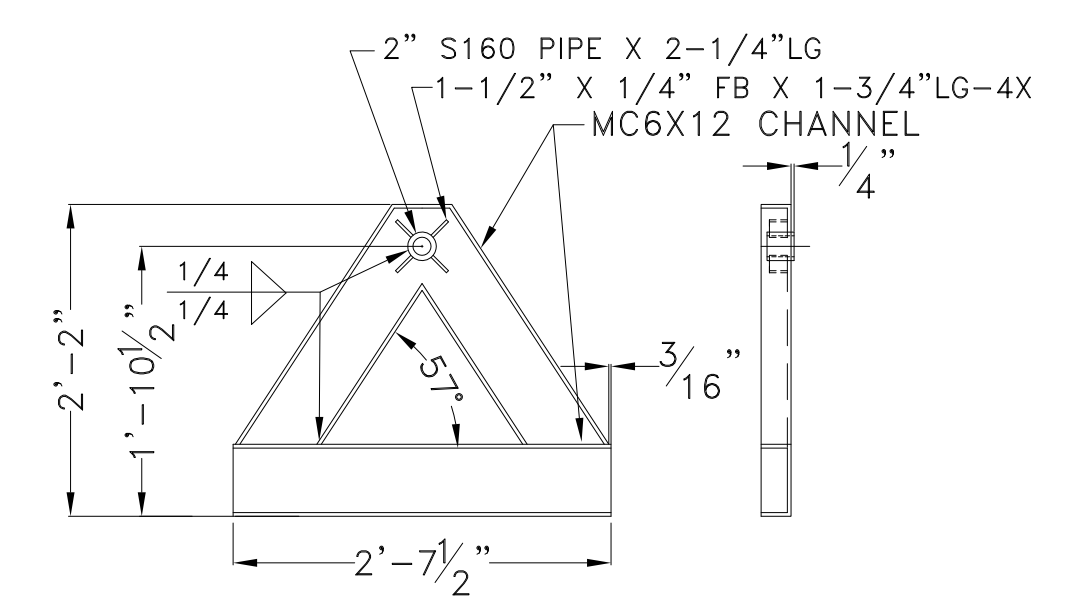
**1 HAWSER REEL ASSEMBLY**  
 MATERIAL : A36 STEEL, ASTM A53 PIPE,  
 UNLESS OTHERWISE NOTED  
 SCALE: 3/4" = 1'



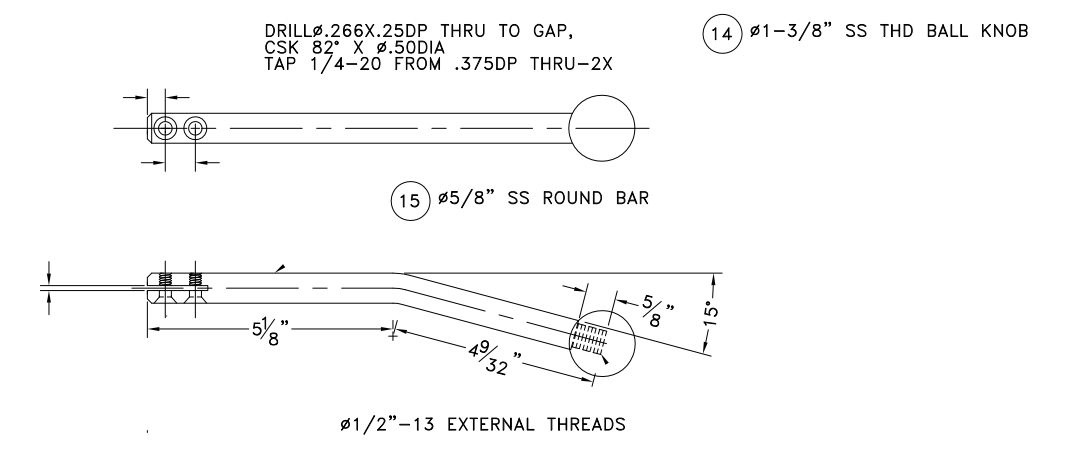
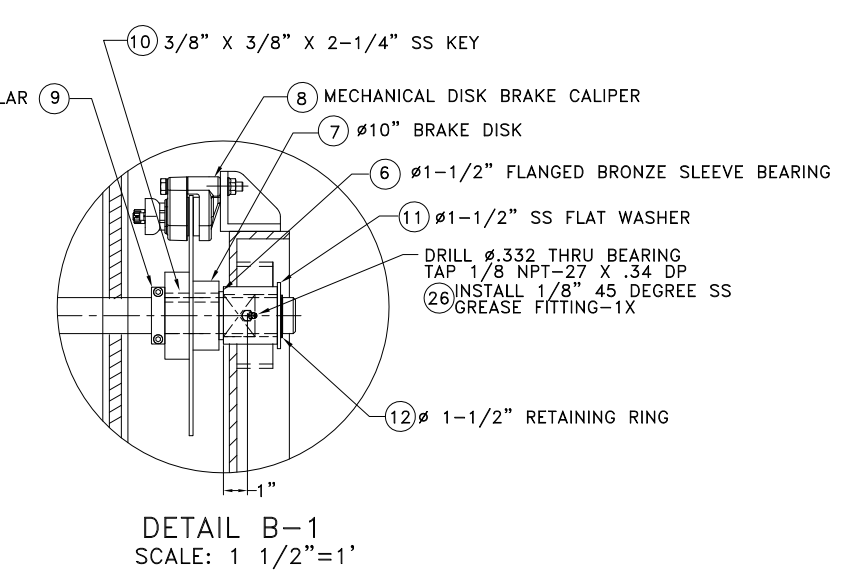
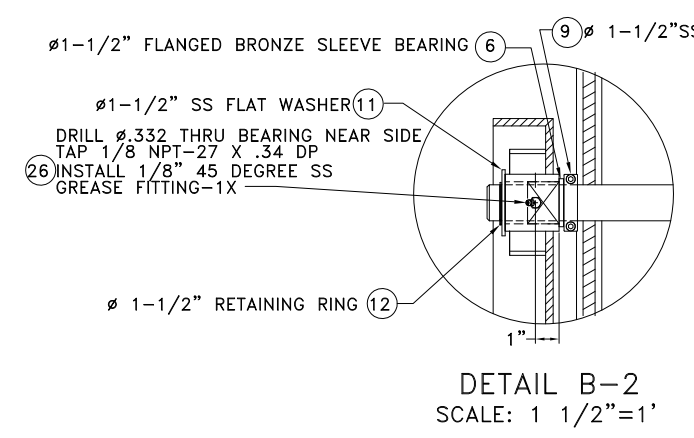
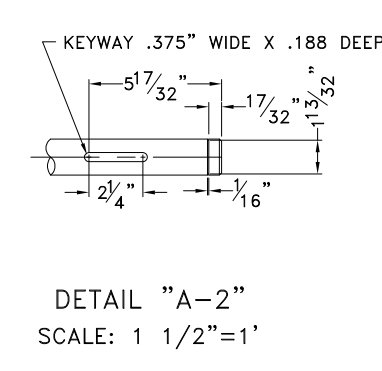
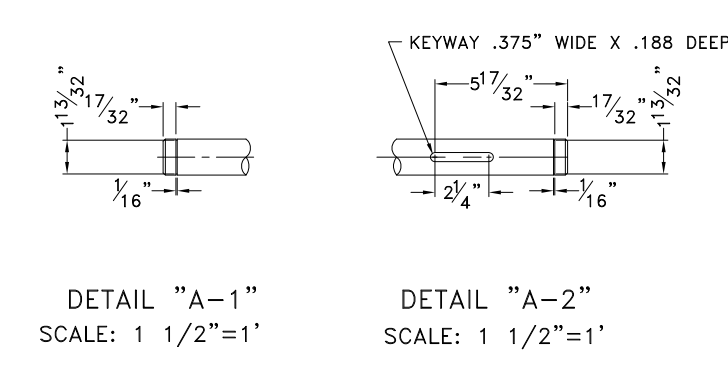
**2 HAWSER REEL**  
 MATERIAL : A36 STEEL, ASTM A53 PIPE,  
 UNLESS OTHERWISE NOTED



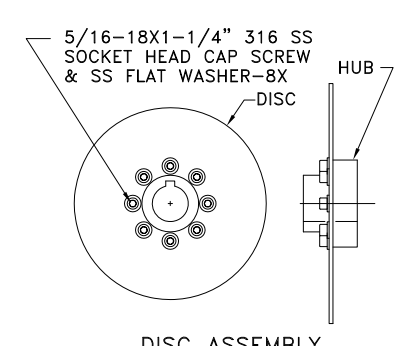
**3 HAWSER REEL FRAME, STBD**  
 MATERIAL : A36 STEEL, ASTM A53 PIPE,  
 UNLESS OTHERWISE NOTED



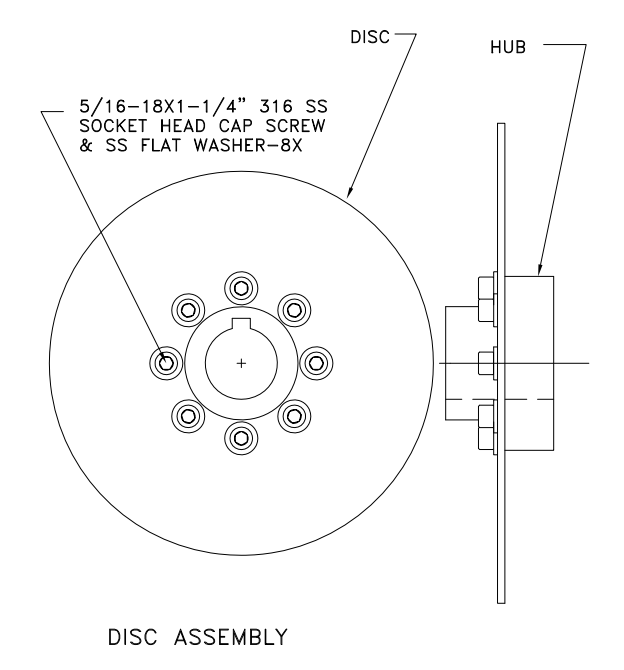
**4 HAWSER REEL FRAME, PORT**  
 MATERIAL : A36 STEEL, ASTM A53 PIPE,  
 UNLESS OTHERWISE NOTED



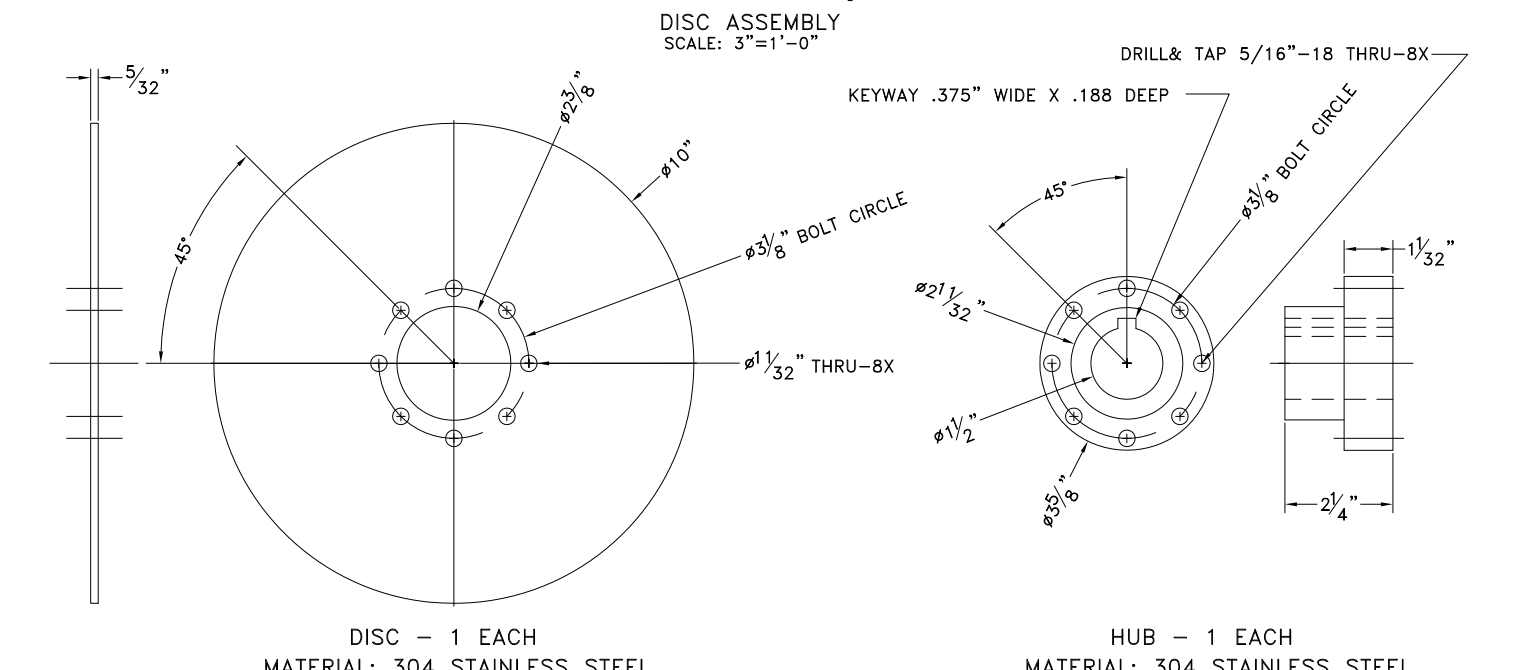
**DETAIL C**  
 BRAKE HANDLE  
 SCALE: 3" = 1'



**DETAIL D**  
 BRAKE DISC ASSEMBLY  
 SCALE: 3" = 1' UNLESS OTHERWISE SPECIFIED

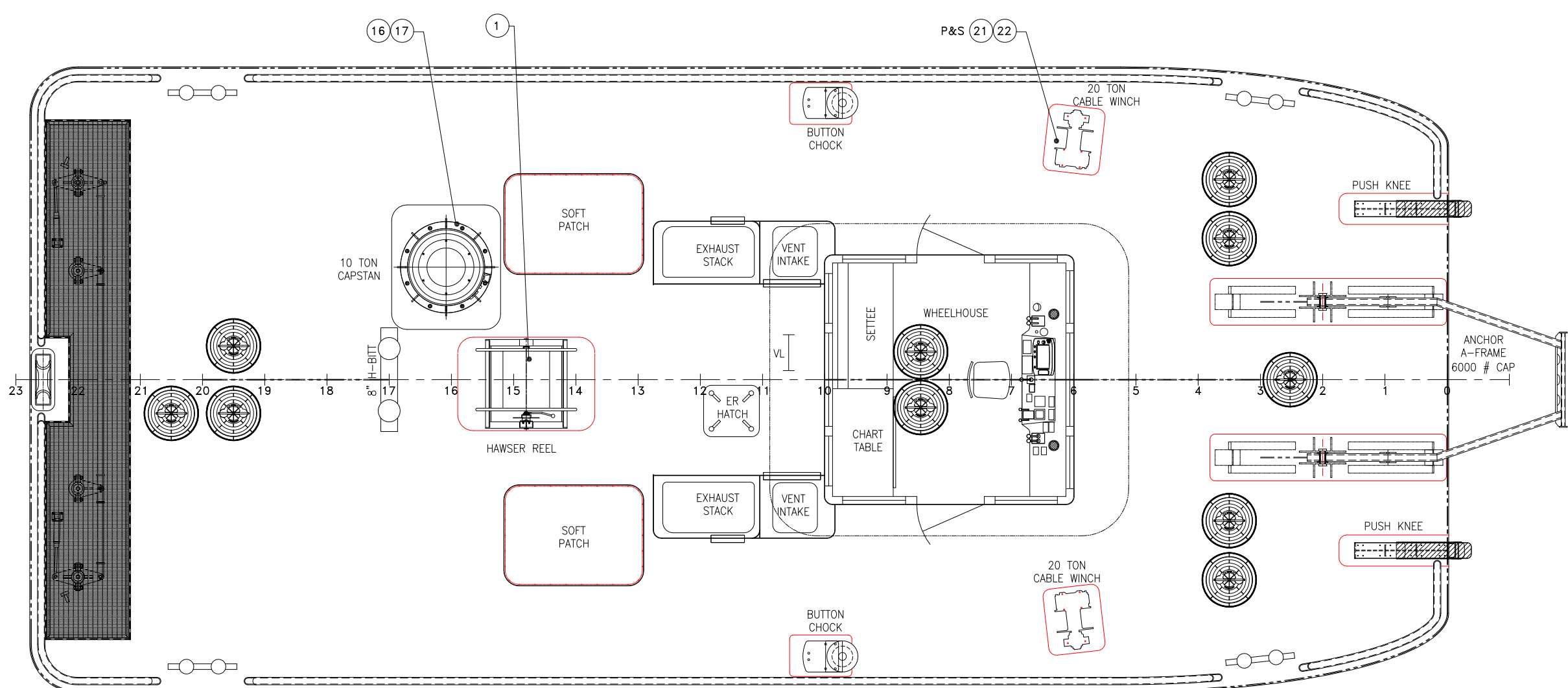


**DISC ASSEMBLY**



**DISC - 1 EACH**  
 MATERIAL: 304 STAINLESS STEEL

**HUB - 1 EACH**  
 MATERIAL: 304 STAINLESS STEEL



**MAIN DECK PLAN**  
 SCALE: 1/4" = 1'-0"

**BILL OF MATERIALS**

ITEM	QTY.	DESCRIPTION	MANUFACTURER #/MATL	REMARKS	ITEM	QTY.	DESCRIPTION	MANUFACTURER #/MATL	REMARKS
1	1	HAWSER REEL ASSEMBLY	SEE DWG		16	1	CAPSTAN FOUNDATION		SEE DWG
2	1	HAWSER REEL	SEE DWG		17	1	CAPSTAN, HORIZONTAL, 5 TON, HYDRAULIC		SEE DWG
3	1	HAWSER REEL FRAME, STBD	SEE DWG		18	8	BOLT, 3/4" x 10 x 3-1/2"	316 STAINLESS STEEL	
4	1	HAWSER REEL FRAME, PORT	SEE DWG		19	8	NUT, W/LOC, 3/4" x 10	316 STAINLESS STEEL	
5	1	1-1/2" OD X 34.75" LONG SHAFT	304 STAINLESS STEEL		20	16	WASHER, FLAT, 3/4"	316 STAINLESS STEEL	
6	2	1-1/2" ID FLANGED SLEEVE BEARING	SAE 462 BRONZE		21	2	20 TON CABLE WINCH FOUNDATION		SEE DWG
7	1	10" BRAKE DISK, 1-1/2" ID HUB, 15# THICK DISK	304 STAINLESS STEEL	SEE DETAIL "D"	22	2	20 TON CABLE WINCH		
8	1	DISC BRAKE CALIPER, MECHANICAL, FIXED, FLOATING CALIPER, ALUMINUM	TOOL/MFG MEDIAN	OR EQUAL	23	8	BOLT, 3/4" x 10 x 2-1/4"	316 STAINLESS STEEL	
9	2	1-1/2" DIAMETER LOCKING COLLAR	303 STAINLESS STEEL		24	8	NUT, W/LOC, 3/4" x 10	316 STAINLESS STEEL	
10	1	3/8" X 3/8" X 2-1/4" LG. KEYSOCK	316 STAINLESS STEEL		25	16	WASHER, FLAT, 3/4"	316 STAINLESS STEEL	
11	2	WASHER, FLAT, 1-1/2"	316 STAINLESS STEEL		26	2	GREASE FITTING, 45 DEGREE, 1/8" PTF	303 STAINLESS STEEL	
12	2	MECHANICAL RING, EXTERNAL, 1-1/2" OD.	17-7 STAINLESS STEEL	SEE DWG	27	2	U-BOLT	316 STAINLESS STEEL	SEE DETAIL "E"
13	2	SOCKET, DUAL HEAD, PHILLIPS 1/4-20 X 5/8" LG.	316 STAINLESS STEEL	SEE DWG	28	2	NUT, W/LOC	316 STAINLESS STEEL	SEE DETAIL "E"
14	1	WASHER, BALL, 1-1/2" DIA, THK 1-1/2" x 3/8" DP	303 STAINLESS STEEL	SEE DWG	29	2	WASHER, FLAT	316 STAINLESS STEEL	SEE DETAIL "E"
15	1	5/8"x1 1/2" LG. SS ROUND BAR	304 STAINLESS STEEL		30	2	CLAMP, HAWSER	WELON	SEE DETAIL "E"

PROPRIETARY RIGHTS  
 This document discloses matter in which DeJong & Lebel, Incorporated has proprietary rights. Neither receipt nor possession thereof confers or transfers any right to reproduce, disclose or use in any manner this document in whole or in part or any information contained herein, except by written permission, or written agreement with DeJong & Lebel, Incorporated.  
 In the event of a purchase of this document the purchaser is authorized to construct no more than one device in accord herewith, unless otherwise signed to it, writing by DeJong & Lebel, Incorporated.  
 © 2018 by DeJong & Lebel, Inc.

**DeJong & Lebel, Inc.**  
 Naval Architects  
 Marine Engineers  
 Consultants  
 Surveyors  
 1734 Emerson Street  
 Jacksonville, Florida 32207  
 www.dejongandlebel.com  
 Phone: (904) 599-3673  
 Fax: (904) 599-1532  
 Info@dejongandlebel.com

Title: 45.5'x20'x6.5' NCDOT PUSHBOAT  
**DECK CAPSTAN INSTALLATION & HAWSER REEL DETAILS**

Dwg. No. 17-1393-685  
 Date: DECEMBER 19, 2018  
 Sht. 1 of 2  
 App'd By: JAH  
 Scale: AS NOTED  
 ABS App'l: \_\_\_\_\_  
 USCG App'l: \_\_\_\_\_

