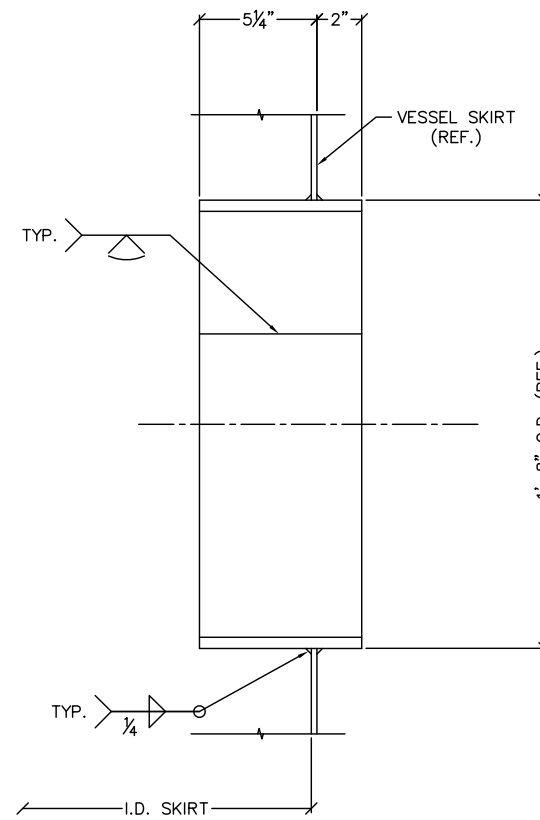


ANCHOR BOLT CHAIR DETAIL

DETAIL 6
SCALE: 1"=1'-0" 01



SKIRT ACCESS OPENING "SA" DETAIL

DETAIL 7
SCALE: 1"=1'-0" 01

BILL OF MATERIAL (C-4411)												
Ref.	Item	Qty	Description	Remarks	Material	Wt/ Unit	Width	Length	Wgt (lbs)			
HEAD	01	1	36" I.D. 3/16" NOM. THK. 2:1 ASME ELLIP. HD.	BOTT. HD. (2" S.F.)	SA-240 GR.304	96			96			
HEAD	02	1	36" I.D. 3/16" NOM. THK. 2:1 ASME ELLIP. HD.	TOP HEAD (2" S.F.)	SA-240 GR.304	96			96			
RING #1	03	1	PLATE 1/4" THK.	SHELL RING #1	SA-240 GR.304	10.34	3'-6"	9'-5 7/8"	343			
RING #2	04	1	PLATE 1/4" THK.	SHELL RING #2	SA-240 GR.304	10.34	4'-10 1/2"	9'-5 7/8"	478			
RING #3	05	1	PLATE 1/4" THK.	SHELL RING #3	SA-240 GR.304	10.34	4'-10 1/2"	9'-5 7/8"	478			
RING #4	06	1	PLATE 1/4" THK.	SHELL RING #4	SA-240 GR.304	10.34	4'-10 1/2"	9'-5 7/8"	478			
RING #5	07	1	PLATE 1/4" THK.	SHELL RING #5	SA-240 GR.304	10.34	4'-10 1/2"	9'-5 7/8"	478			
RING #6	08	1	PLATE 1/4" THK.	SHELL RING #6	SA-240 GR.304	10.34	1'-8 1/2"	9'-5 7/8"	168			
RING #7	09	1	PLATE 1/4" THK.	SHELL RING #7	SA-240 GR.304	10.34	4'-10 1/2"	9'-5 7/8"	478			
A1/A2	10	2	24" SCH. 10 PIPE	M.W. NECK	SA-312 TP304	64.3		1'-0"	129			
A1/A2	11	2	24"-150LB F.F., S.O. FLANGE	M.W. FLANGE	SA-105	204			408			
A1/A2	12	2	24"-150LB F.F. BLIND FLANGE	M.W. BLIND FLANGE	SA-105	415			830			
A1/A2	13	2	PLATE 1/4" THK. x 27 1/4" O.D. x 23 1/2" I.D.	M.W. FLG. LINER	SA-240 GR.304	10.34	2'-3 1/4"	2'-3 1/4"	107			
A1/A2	14	2	PLATE 3/8" THK. x 27 1/4" O.D.	M.W. BL. FLG. LINER	SA-240 GR.304	15.51	2'-3 1/4"	2'-3 1/4"	160			
A1/A2	15	2	PLATE 3/16" THK. x 28" O.D. x 24 1/8" I.D.	M.W. RE-PAD	SA-240 GR.304	7.76	2'-4"	2'-4"	84			
A1/A2	16	2	1/16" THK. 24" ASME B16.5 RING GASKET	GARLOCK 3000	P.T.F.E.	1			2			
A1/A2	17	40	1 1/4" DIA. x 5 1/2" LG. HEX HD BOLT	M.W. BOLTING	SA-193 GR.B7	5.15			206			
A1/A2	18	40	1 1/4" HEX NUT	M.W. BOLTING	SA-194 GR.2H							
B	19	1	18" SCH. 40 PIPE	NECK	SA-312 TP304	99.14		5"	41			
B	20	1	18"-150LB F.F., S.O. FLANGE	FLANGE	SA-105	112			112			
B	21	1	PLATE 1/4" THK. x 21" O.D. x 16 7/8" I.D.	NOZZ. FLG. LINER	SA-240 GR.304	10.34	1'-9"	1'-9"	32			
C	22	1	8" SCH. 40 PIPE	NECK	SA-312 TP304	29.12		7 1/4"	18			
C	23	1	8"-150LB F.F., S.O. FLANGE	FLANGE	SA-182 F304	27			27			
D	24	1	4" SCH. 40 PIPE	VERT. NECK	SA-312 TP304	11.01		14'-10"	163			
D	25	1	4" SCH. 40 PIPE	HORIZ. NECK	SA-312 TP304	11.01		1'-6"	17			
D	26	1	4" SCH. 40 90 DEGREE ELBOW	ELBOW	SA-234 WP304	9			9			
D	27	1	4"-150LB R.F., S.O. FLANGE	FLANGE	SA-182 F304	13			13			
E, H1 & H2	28	3	3/4" 3000LB. THREADED HALF COUPLING	COUPLING	SA-182 F304	0.21			1			
F	29	1	6" SCH. 40 PIPE	NECK	SA-312 TP304	19.35		1'-0"	19			
F	30	2	6"-150LB R.F., S.O. FLANGE	FLANGE	SA-182 F304	18			36			
J	31	1	12" SCH. 40 PIPE	NECK	SA-312 TP304	7.6		6"	4			
J	32	1	12"-150LB R.F., S.O. FLANGE	FLANGE	SA-182 F304	59			59			
J	33	1	12"-150LB R.F. BLIND FLANGE	BLIND FLANGE	SA-182 F304	102			102			
J	34	1	1/16" THK. 12" ASME B16.5 RING GASKET	GARLOCK 3000	P.T.F.E.	0.25			0			
J	35	12	7/8" DIA. x 4" LG. HEX HD BOLT	FLG. BOLTING	SA-193 GR.B7	1.2			14			
J	36	12	7/8" HEX NUT	FLG. BOLTING	SA-194 GR.2H							
K1 & K2	37	2	1/2" 3000LB. THREADED HALF COUPLING	COUPLING	SA-182 F304	0.14			0			
L, M, G1&2	38	4	3" SCH. 40 PIPE	NECK	SA-312 TP304	7.6		6"	15			
L, M, G1&2	39	4	3"-150LB R.F., S.O. FLANGE	FLANGE	SA-182 F304	9			36			
L	40	1	3"-150LB R.F. BLIND FLANGE	BLIND FLANGE	SA-182 F304	12.5			13			
L	41	1	1/16" THK. 12" ASME B16.5 RING GASKET	GARLOCK 3000	P.T.F.E.	0.25			0			
L	42	4	5/8" DIA. x 3" LG. HEX HD BOLT	FLG. BOLTING	SA-193 GR.B7	0.461			2			
L	43	4	5/8" HEX NUT	FLG. BOLTING	SA-194 GR.2H							
Q1 & Q2	44	2	2" SCH. 40 PIPE	SKIRT VENT	SA-312 TP304	3.7		2 1/4"	1			
SA	45	1	PLATE 1/2" THK.	SKIRT ACCESS	SA-516 GR.70	20.4	7 1/4"	5'-4 3/8"	66			
SO	46	1	12" SCH. 40 PIPE	SKIRT OPNG. FOR D	SA-53 GR.B	53.6		5 3/8"	24			
B. PLATE	47	1	PLATE 3/4" THK. x 3'-7" O.D. x 2'-8" I.D.	BASEPLATE	SA-516 GR.70	30.6	3'-7"	3'-7"	393			
CHAIR	48	8	PLATE 1" THK.	CHAIR TOP PLATE	SA-516 GR.70	40.8	3 1/4"	6"	44			
CHAIR	49	16	PLATE 3/8" THK.	CHAIR GUSSET PL.	SA-516 GR.70	15.3	3 1/4"	10 1/4"	57			
LUG	50	2	PLATE 5/8" THK.	LIFTING LUG	SA-240 GR.304	25.9	7 1/2"	1'-6"	49			
LUG	51	2	PLATE 1/4" THK.	GROUNDING LUG	SA-516 GR.70	10.34	2"	2 1/4"	1			
STIFF.	52	2	BAR 2" x 1/4" (ROLLED THE HARD WAY)	VACUUM STIFF. RING	SA-36	1.72		12'-0 15/16"	42			
SUPPT	53	3	BAR 2" x 1/4" (ROLLED THE HARD WAY)	INT. SUPPORT RING	SA-240 GR.304	1.72		10'-10 13/16"	56			
DAVIT	54	2	2 1/8" DIA. BAR	ARM	CARBON STL.	12.06		3'-6"	84			
DAVIT	55	2	3/4" DIA. ROD	EYEBOLT LUG	CARBON STL.	1.5		1'-0"	3			
DAVIT	56	2	7/8" DIA. EYE BLT w/ 1 3/4" I.D. EYE x 7 1/2" lg	EYEBOLT	CARBON STL.	2.5			5			
DAVIT	57	2	3" XS PIPE	ARM SLEEVE	SA-53 GR.B	18.6		8 1/2"	26			
DAVIT	58	2	PLATE 5/8" THK. x 3 1/2" O.D. x 2 3/16" I.D.	COLLAR	CARBON STL.	25.5	3 1/2"	3 1/2"	4			
DAVIT	59	2	PLATE 5/8" THK.	ARM SLEEVE PLATE	CARBON STL.	25.5	1 1/2"	7 1/2"	4			
N. PLATE	60	1	PLATE 1/4" THK.	NAMEPLATE MOUNT	SA-240 GR.304	10.34	6 1/2"	6 1/2"	3			
N. PLATE	61	1	PLATE 1/4" THK.	NAMEPLATE MOUNT	SA-240 GR.304	10.34	4"	6 1/2"	2			
FEED PIPE	62	1	PLATE 1/4" THK.	SUPPORT CLIP	SA-240 GR.304	10.34	3"	6 1/2"	1			
IN. SUPPT.	63	1	L4" x 3" x 1/4"	AT TOP HEAD	SA-36	5.8		12'-7 1/4"	73			
IN. SUPPT.	64	1	L3 1/2" x 2 1/2" x 1/4"	AT BOTTOM HEAD	SA-36	4.9		12'-5 11/16"	61			
IN. SUPPT.	65	8	BAR 3" x 1/4"	CLIPS AT BOTT. HD.	SA-36	1.7		2 1/2"	3			
IN. SUPPT.	66	1	BAR 3/8" DIA.	SUPPORT ROD	SA-36	0.376		9'-6"	4			
RING #SR1	67	1	PLATE 1/4" THK.	SKIRT RING #SR1	SA-240 GR.304	10.34	6"	9'-5 1/8"	49			
RING #SR2	68	1	PLATE 1/4" THK.	SKIRT RING #SR2	SA-516 GR.70	10.2	1'-7 3/4"	9'-5 1/8"	158			
RING #SR3	69	1	PLATE 1/4" THK.	SKIRT RING #SR3	SA-516 GR.70	10.2	7'-10 1/2"	9'-5 1/8"	757			
RING #SR4	70	1	PLATE 1/4" THK.	SKIRT RING #SR4	SA-516 GR.70	10.2	7'-10 1/2"	9'-5 1/8"	757			
									Total Weight	8481		

DWG. NO.	REFERENCE DRAWING
7798-MM-C4411-01	C-4411 - ASSEMBLY

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A	ISSUED FOR APPROVAL	F.T.P.	08-20-07	DESIGNED BY	F. PIRILLO	07-09-07	7798
0	ISSUED FOR CONSTRUCTION	DGB	09-10-07	DRAWN BY	J. RHODIG	07-09-07	CAD FILE 7798-MM-C4411-04
1	CERTIFIED AS-BUILT	AGB		DRFTG. SUPVR.	P. WHITE	07-09-07	SCALE AS NOTED
							LATEST REV DATE

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ALTRA BIOFUELS
CARLETON, NEBRASKA
C-4411-ACID REDUCTION COL.#2- BOM & DETS.
MECHANICAL
DWG. NO. 7798-MM-C4411-04 REV 1