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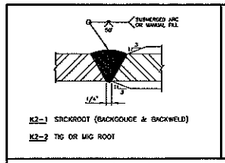
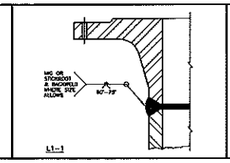
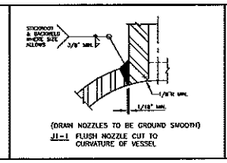


PM-126/127/147



PM-109/126/132



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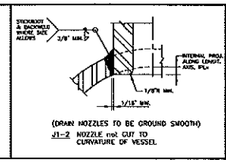

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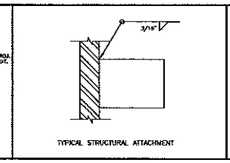

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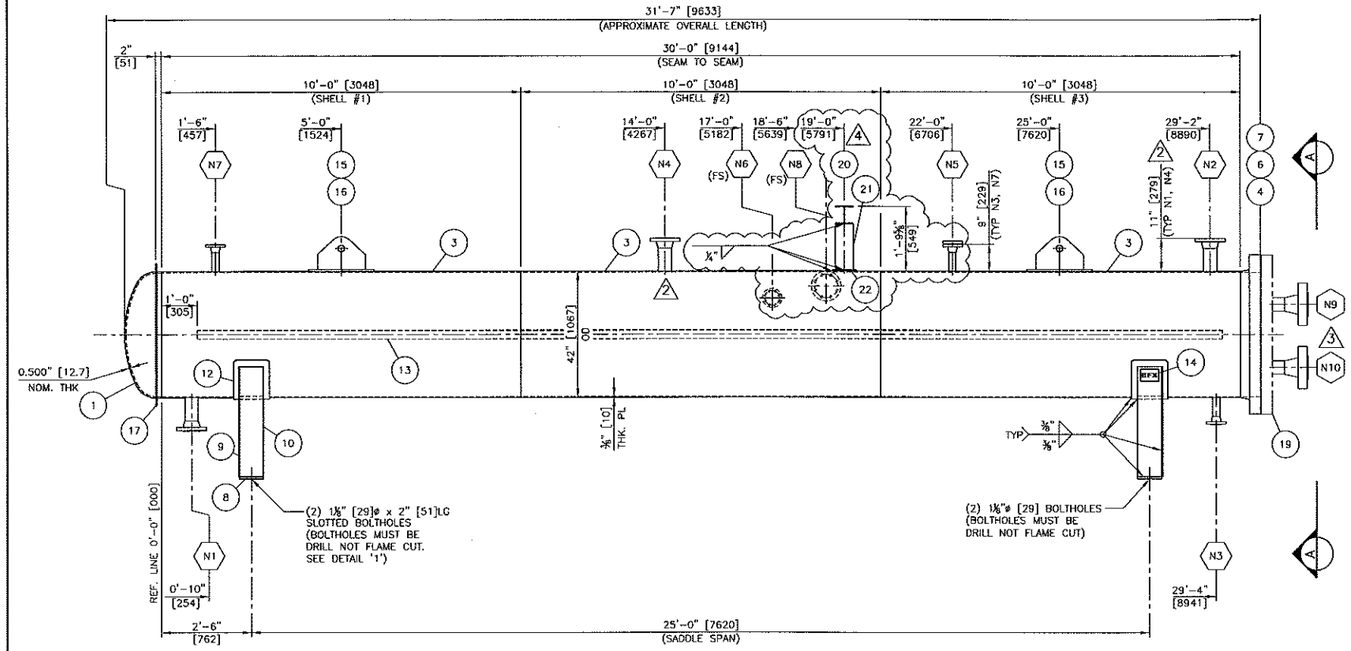
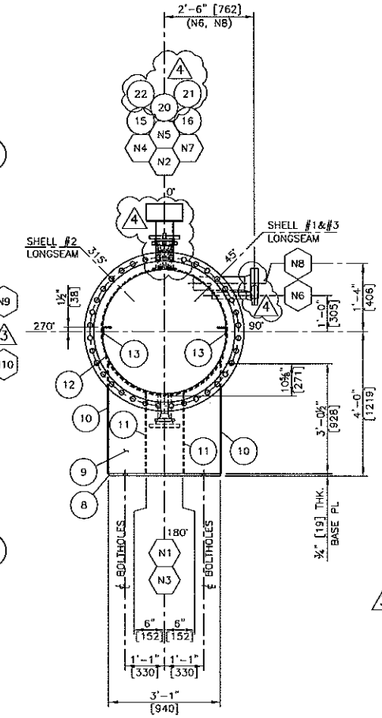
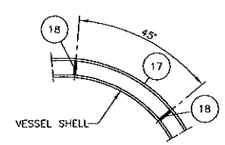
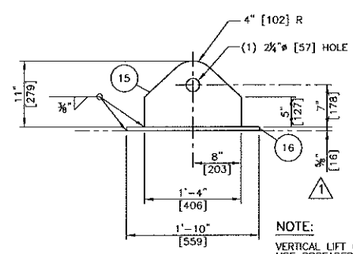




A VEIW "A-A"

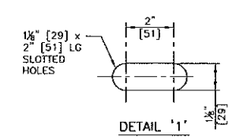


INSULATION RING DETAIL



NOTE:
VERTICAL LIFT ONLY
USE SPREADER BAR

LIFT LUG DETAIL



DETAIL '1'

NOTES:

1) ALL BOLTING TO BE SA-193-B7M AND SA-194-2HM CADMIUM PLATED MATERIAL.
2) ALL GASKETS TO BE SPIRAL WOUND 316 SS WITH FLEXIBLE GRAPHITE FILLER AND 316 SS INNER AND CENTRING RINGS (GREY STRIPE).
3) SHELLS AND HEAD ARE EXEMPTED FROM IMPACT TESTED PER UCS-66(a).
   GMAW ROOT PASS ARE IMPACT TESTED PER UG-84..
   TEST TEMP.: -40°F
   TEST RESULTS: 12 ft-lbs MIN. 15 ft-lbs AVG.
   PROQUICTION IMPACT TEST COUPONS REQUIRED.
   COIL IS EXEMPT PER UG-20(f). ALL OTHER COMPONENTS EXEMPT PER UCS-66(g).
4) ALL WELDED JOINTS OF GOOD QUALITY AND HAVING UNIFORM APPEARANCE SHOULD NOT BE GROUND.
5) SEAL WELD INTERNAL ATTACHMENTS WHERE ACCESSIBLE.
6) VESSEL EXTERIOR TO BE COMMERCIALLY SANDBLASTED PER SSPC-SP6.
7) SANDBLASTING SHALL NOT BE CONDUCTED ON SURFACES THAT ARE LESS THAN 3°F ABOVE DEWPOINT, OR WHEN THE RELATIVE HUMIDITY OF THE AIR IS GREATER THAN 80%.
8) VESSEL EXTERIOR TO RECEIVE (1) COAT INTERTHERM 228.
9) VESSEL TO BE INSULATED WITH 3" THK MINERAL WOOL INSULATION c/w SMOOTH ALUMINUM JACKET. INSULATION TO BE DONE BY OTHERS.
10) ALL DIMENSIONS IN [ ] ARE IN mm.
11) SHOP NOTE: "FS" DENOTES FAR SIDE.
12) REFER TO DWG #B7563-00-DR-20-001-002 FOR COIL DETAILS.

* COIL ASSEMBLY MDMT: -20°F

WELDING NOTES

VESSEL SERIAL NUMBER: B7563-20
SERVICE: SWEET

WELDING PROCEDURES: WP-719.2
REF. DRAWING NUMBER: STD-2008 (FABRICATION TOLERANCES FOR PRESSURE VESSELS)
LONG SEAM WPS: PM-126/127/147
CIRC. SEAM WPS: PM-126/127/147
NOZZLE TO FLG WPS: PM-109/126/132
OTHER WELD WPS: PM-109
PRE-HEAT TO: 70°F (21°C) MIN.

TESTING NOTES

QUALITY CONTROL PROGRAM: AQP-1077
HYDROSTATIC TEST PRESSURE 247 PSIG (1703 kPag)
RADIOGRAPHY: 100% PER RT-1
IMPACT TESTS: SEE NOTE #3

DESIGN DATA

CODE: ASME SECTION VIII, DIV. 1, 2007 EDITION A-08 ADDENDA
DESIGN PRESS. 190 PSIG (1310 kPag), DESIGN TEMP. 400 °F (204 °C)
EXTERNAL PRESS. – PSIG (– kPag), DESIGN TEMP. – °F (– °C)
* MIN. DESIGN METAL TEMP. -40 °F @ 190 PSIG (-40 °C @ 1310 kPag)
M.A.W.P. 190 PSIG @ 400 °F (1310 kPag @ 204 °C), (LTD BY: DESIGN)
M.A.P. NEW & COLD – PSIG @ – °F (– kPag @ – °C)
CORROSION ALLOW. 0.125 " (3.175 mm)
P.W.H.T. 60 min. @ 1150°F (±25°F) PER UCS-56 & UW-40
HEAD # TYP THK NOM. 0.5 " (12.7 mm), MIN. 0.4375 " (11.11 mm)
HEAD # N/A THK NOM. N/A " (N/A mm), MIN. N/A " (N/A mm)
SHELL # TYP THK NOM. 0.375 " (9.525 mm), MIN. 0.375 " (9.525 mm)
SHELL # N/A THK NOM. N/A " (N/A mm), MIN. N/A " (N/A mm)
MASS (EMPTY) 10600 lbs (4808 kg), MASS (HYDRO) 29650 lbs (13449 kg)
VOLUME 305 cu. ft. (8.65 cu. m) (DOES NOT INCLUDE COIL ASSEMBLY)

BILL OF MATERIALS

MARK	PART	DESCRIPTION	QTY	MATERIAL	WELD SYM
1	HEAD	42" OD x 1/2" NOM. THK 2:1 SE HEAD c/w	1	SA-51670N	K2-2
		2" SF (HOT FORMED)			
3	SHELLS #1, #2&#3	42" OD x 3/8" PL x 10'-0" LG	3	SA-51670N	K2-1/K2-2
4	FLANGE	42" CL. 150 ASME B16.47 SERIES 'A' RFWN FLG	1	SA350LF2CL1	L1-1
		(41 1/4" BORE)			
6	BOLTING	1 1/2"ø x 1'-0" LG STUDS c/w (2) HEX NUTS EA	36	NOTE #1	
7	GASKET	42" CL. 150 ASME B16.47 SERIES 'A' 1/8" GASKET	1	NOTE #2	
8	BASE PLATE	8" x 3/4" PL x 3'-1" LG	2	SAG40.2144W	
9	FACE PLATE	3'-0 1/2" x 3/8" PL x 3'-1" LG	2	SAG40.2144W	
10	SIDE PLATE	8" x 3/8" PL x 3'-0 1/2" LG	4	SAG40.2144W	
11	STIFFENER PLATE	8" x 3/8" PL x 2'-2 3/4" LG	4	SAG40.2144W	
12	WEAR PLATE	1'-0" x 3/8" PL x 4'-1" LG (ROLL TO 42" ID)	2	SA-51670N	
13	COIL SUPPORT	3" x 3" x 1/4" ANGLE x 28'-6" LG	2	SAG40.2144W	
14	NAME PLATE	STANDARD NAME PLATE c/w 'I' BRACKET	1	SAG40.2150W	
15	LIFT LUGS	11" x 1" PL x 1'-4" LG (SEE DETAIL)	2	SA-51670N	
16	LIFT LUG REPADS	4" x 5/8" PL x 1'-10" LG (ROLL TO 42" ID) △1	2	SA-51670N	
17	INSULATION RING	3/8" RB x 13'-0" LG (ROLL TO 47 1/2" OD)	1	SAG40.2144W	
18	INSULATION POSTS	3/8" x 3/8" PL x 2 3/8" LG	8	SA-51670N	
19	BLIND & COIL	REFER TO DWG #B7563-00-DR-20-001-002			
20	PIPE SUPPORT	W6 x 15# x 1'-0" LG	1	SAG40.2144W	
21	PIPE SUPPORT	W6 x 15# x 1'-3 1/2" LG △4	1	SAG40.2144W	
22	REPAD	8" x 3/8" PL x 8" LG (ROLL TO 42" ID)	1	SA-51670N	
N1	HM INLET	4" CL. 300 SCH XXH RFWN FLG	1	SA350LF2CL1	L1-1
		4" SCH XXH SMLS PIPE x 8 1/8" LG	1	SA-333GR6	J1-2
N2	HM OUTLET	4" CL. 300 SCH XXH RFWN FLG	1	SA350LF2CL1	L1-1
		4" SCH XXH SMLS PIPE x 8 1/8" LG	1	SA-333GR6	J1-2
N3	DRAIN	2" CL. 300 SCH 160 RFWN FLG	1	SA350LF2CL1	L1-1
		2" SCH 160 SMLS PIPE x 6 5/8" LG	1	SA-333GR6	J1-1
N4	PSV △2	4" CL. 300 SCH XXH RFWN FLG	1	SA350LF2CL1	L1-1
		4" SCH XXH SMLS PIPE x 8 1/8" LG	1	SA-333GR6	J1-2
N5	PG	2" CL. 300 SCH 160 RFWN FLG	1	SA350LF2CL1	L1-1
		2" SCH 160 SMLS PIPE x 6 5/8" LG	1	SA-333GR6	J1-2
		2" CL. 300 RF BLIND FLG	1	SA350LF2CL1	
		2" CL. 300 RF x 1/8" THK GASKET △4	1	NOTE #2	
		5/8"ø x 3 1/2" LG STUDS c/w (2) HEX NUTS EA.	8	NOTE #1	
N6	TG	2" CL. 300 SCH 160 RFWN FLG	1	SA350LF2CL1	L1-1
		2" SCH 160 SMLS PIPE x 11 3/8" LG	1	SA-333GR6	J1-2
		2" CL. 300 RF BLIND FLG	1	SA350LF2CL1	
		2" CL. 300 RF x 1/8" THK GASKET △4	1	NOTE #2	
		5/8"ø x 3 1/2" LG STUDS c/w (2) HEX NUTS EA.	8	NOTE #1	
N7	PT	2" CL. 300 SCH 160 RFWN FLG	1	SA350LF2CL1	L1-1
		2" SCH 160 SMLS PIPE x 6 5/8" LG	1	SA-333GR6	J1-2
N8	LSLL	4" CL. 300 SCH XXH RFWN FLG	1	SA350LF2CL1	L1-1
		4" SCH XXH SMLS PIPE x 1'-5" LG	1	SA-333GR6	J1-2
		4" CL. 300 RF BLIND FLG	1	SA350LF2CL1	
		4" CL. 300 RF x 1/8" THK GASKET △4	1	NOTE #2	
		3/4"ø x 4 1/2" LG STUDS c/w (2) HEX NUTS EA.	8	NOTE #1	
N9	GAS INLET	REFER TO DWG #B7563-00-DR-20-001-002			
N10	GAS OUTLET	REFER TO DWG #B7563-00-DR-20-001-002			

NO.	REVISION	BY	CHECKED	DATE
4	ADDED PIPE SUPPORT; ADDED BLIND FLANGES ON N5, N6 & N8	VY		09/07/29
3	REVISED TITLEBLOCK, ADDED NOZZLE TAGS	SB		09/07/02
2	REVISED N4, WAS 3"	JD		09/06/08
1	REMOVED HOLD ON LIFT LUGS	VY		09/06/08
0	ISSUED FOR CONSTRUCTION	VY		09/06/05

ENERFLEX

PRODUCTION & PROCESSING

CUSTOMER: BG INTERNATIONAL LIMITED
CUSTOMER REF. NO.: T.B.A.
JOB NO.: B7563-20
PROJECT: OJAY D SOUR GAS SATELLITE d-A21-C/93-I-16 △3
TITLE: PREHEATER VESSEL (E-200)

42" OD x 30'-0" S/S x 190 PSIG @ 400°F
1067 mm OD x 9144 mm S/S x 1310 kPag @ 204°C

CERTIFIED AS BUILT

DRAWN	CHECKED	APPROVED	SCALE	DATE	DWG NO	SHT	REV
VY			1/2"=1'-0"	09/05/27	B7563-00-DR-20-001-001	TTL 2	△4