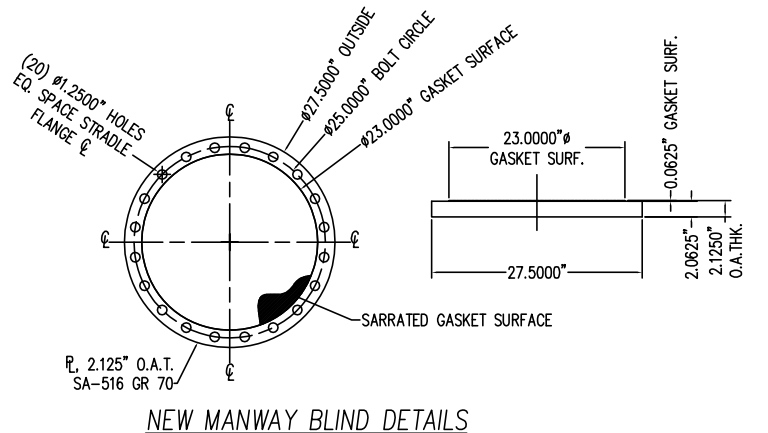
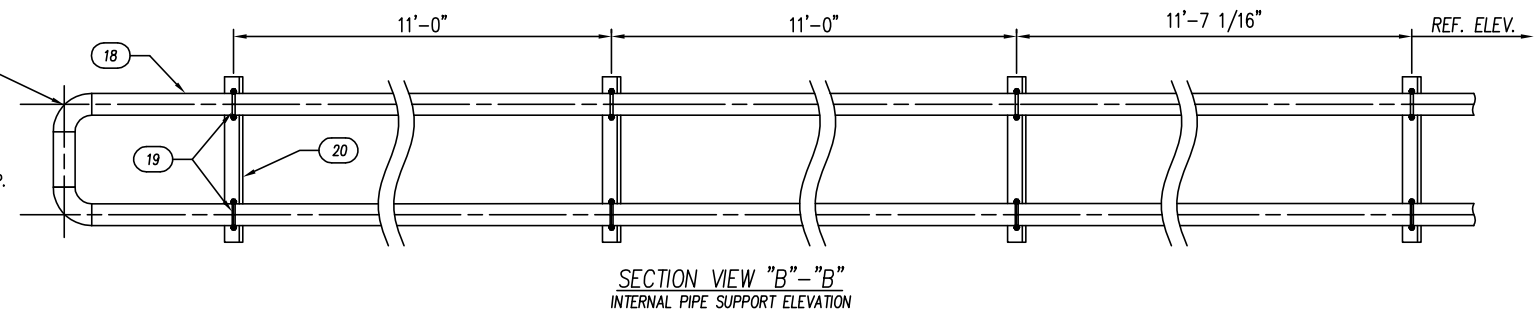
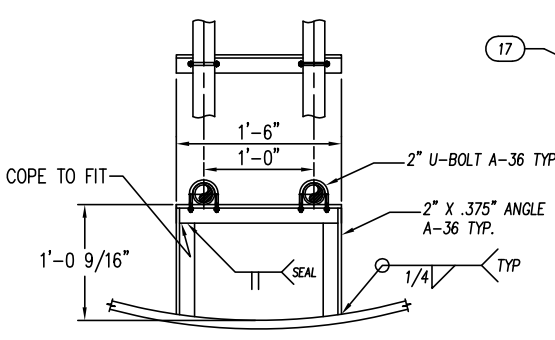


Total Energy Fabrication Corp
ISSUED FOR APPROVAL
 Date 10/1/10
 Initials REM

MARK	QTY	MATERIAL	SERVICE	DESCRIPTION
1	2	SA-105	FLANGE	12", CL 150# RFWN FLANGE, SCH 80 BORE
2	2 FT	SA-106-B	NECK	12" X SCH 80 PIPE, BBE
3	2	SA-516-70	REPAD	PL. 23.5" OD X 12.875" ID ROLL TO A 62.75" INSIDE RADIUS
4	1	SA-234-WPB	ELBOW	12" X SCH 80 LR ELBOW
5	2	SA-105	FLANGE	2", CL 600# RFWN FLANGE, SCH 80 BORE
6	4 FT	SA-106-B	NECK	2" X SCH 80 PIPE, BBE
7	2	SA-105	FLANGE	4", CL 150# RFWN FLANGE, SCH 80 BORE
8	2 FT	SA-106-B	NECK	4" X SCH 80 PIPE, BBE
9	2	SA-516-70	REPAD	PL. 8.5" OD X 4.625" ID ROLL TO A 62.75" INSIDE RADIUS
10	1	SA-516-70	BLIND	PL. 11.25" THK X 28" DIA. (SEE DETAIL THIS SHT.)
11	20	SA-193-B7	STUDS/NUTS	1.125" DIA. X 8" LONG W/ 2 NUTS EACH
12	1	SA-105	FLANGE	6", CL 150# RFWN, SCH 80 BORE
13	6 IN	SA-106-B	NECK	6" X SCH 80 PIPE, BBE
14	1	SA-516-70	REPAD	PL. 11.75" OD X 6.75" ID ROLL TO A 62.75" INSIDE RADIUS
15	5	SA-105	FLANGE	2", CL 150# RFWN FLANGE, SCH 80 BORE
16	3 FT	SA-106-B	NECK	2" X SCH 80 PIPE, BBE
17	2	SA-234-WPB	ELBOW	2" SCH 80 LR ELBOW
18	46 FT	SA-106-B	PIPE	2" SCH 80 PIPE, BBE
19	8	A-36	U-BOLT	5/16" DIA. X 3.1875" INSIDE LENGTH FOR 2" NPS
20	40 FT	A-36	ANGLE	2" X 2" X .375" ANGLE

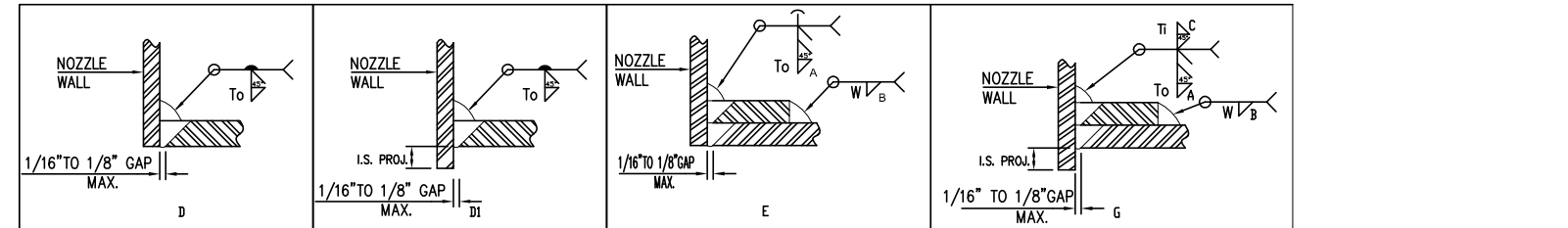


VESSEL INFORMATION:
 (FROM ORIGINAL DATA REPORT / PLATE / STAMPING)
 MANUFACTURER ACF INDUSTRIES, INC.
 YEAR BUILT 1956
 CONSTRUCTION CODE ASME
 ADDENDA 1952
 SERIAL No. 14-875-11, 14-875-14
 VESSEL TAG No. -
 NATIONAL BOARD No. 4546, 4552
 RADIOGRAPH % / JOINT EFFICIENCY:
 (GIRTH SEAMS) 100% .95
 (LONG SEAMS) 100% .95
 HEAT TREATMENT:
 (GIRTH SEAMS) YES
 (LONG SEAMS) YES
 THICKNESSES:
 (HEADS) 15/16" ELLIP. DR HEMI.
 (SHELL) 15/16"
 CORROSION ALLOWANCE: -
 PRESSURES / TEMPERATURES
 MAWP 250 PSI @ 650 °F
 MDMT - °F @ - °F
 VACUUM PRESSURE - PSI
 HYDRO TEST PRESSURE 400 PSI
 CONSTRUCTION SAFETY FACTOR - RATIO
 MATERIALS:
 SHELLS: SA-212 GR B
 HEADS: SA-212 GR B
 RE-PADS: -
 FLANGES: -
 PIPE NOZZLES: -
 CAPACITY / WEIGHT & SERVICE
 U.S. GALLONS/WEIGHT 30K 70,000
 ORIGINAL SERVICE PROPANE STORAGE
 NOTES / REMARKS
 R1E-RATING TO 200° F PER NORTH DAKOTA
 JURISDICTIONAL AUTHORITY (SEE ALTER. NOTE 4)

SECTION VIEW "A"-A'
 INTERNAL PIPE SUPPORT (4) REQ.

- GENERAL NOTES:**
- SHIP LOOSE ITEMS TO BE PALETIZED AND SHRINK WRAPPED WITH ITEM TAG #S
 - AVOID DIRECT CONTACT WITH ANY TYPE OF LIQUID/CHEMICAL TO GASKET SURFACES.
 - DEMISTER & HOUSING SUPPLIED BY ACS. REF. ACS QUOTE # Q10-15315
- FABRICATION NOTES:**
- ALL FLANGE BOLT HOLES TO STRADDLE TRUE VESSEL CENTER LINES
 - CLEAN VESSEL THOROUGHLY AND PROTECT ALL OPENINGS FOR SHIPMENT
 - LENGTHS SHOWN IN B.O.M. FOR REFERENCE ONLY. DRAWING DIMENSIONS TAKE PRECEDENCE
 - MINIMUM FILLET WELD SIZES SHALL BE 3/8" UON
 - ELEVATION DETAILS ARE FOR ELEVATION CLARITY ONLY. SEE ORIENTATION VIEW FOR TRUE ORIENTATION.
 - LENGTHS SHOWN IN B.O.M. FOR REFERENCE ONLY. DRAWING DIMENSIONS TAKE PRECEDENCE
 - COMMERCIAL BLAST TO SSPC SP-6 WITH ONE COAT OF SHOP PRIMER

- ALTERATION NOTES:**
- ALTERATIONS TO BE IN ACCORDANCE WITH THE ORIGINAL CODE OF CONSTRUCTION.
 - DESIGN CALCULATIONS TO BE IN ACCORDANCE WITH ORIGINAL STRESS VALUES PER THE NBIC, LATEST EDITION.
 - A R2 "REPORT OF ALTERATION" TO BE COMPLETED AND ALTERATIONS TO BE REGISTERED IN ACCORDANCE WITH CUSTOMER, CODE, AND TEF QUALITY CONTROL PROGRAM.
 - DE-RATING MAX. OPERATING TEMPERATURE TO 200° F PER LOCAL JURISDICTIONAL AUTHORITY AND THE NBIC, 2007 FOOT NOTE 10.
 - ADDED NOZZLES TO BE LOCAL PNEUMATICALLY TESTED IN LIEU OF HYDROSTATIC TESTING IN ACCORDANCE WITH UG-100, (CODE CASE 1518-5 APPLIES).
 - PMHT IN ACCORDANCE WITH TEF WELDING PROCEDURES AND ORIGINAL DATA REPORT IS REQUIRED FOR ADDED NOZZLES.



MARK	QTY	SIZE	RATE	TYPE	SCH.	SERVICE	DS PRJ.	IS PRJ.	ATT TYPE	THK. / WIDTH	A - B - C WELD SIZE	FLG	NECK	PAD	COVER	BOLTS	GASKET	OTHER
EX4	1	.375	NPT	CPLG	-	EXISTING SERVICE	-	-	-	-	-	-	-	-	-	-	-	-
EX3	1	2.5	NPT	CPLG	-	EXISTING SERVICE	-	-	-	-	-	-	-	-	-	-	-	-
EX2	1	.75	NPT	PIPE	-	EXISTING SERVICE	-	-	-	-	-	-	-	-	-	-	-	-
EX1	1	2	NPT	CPLG	-	EXISTING SERVICE	-	-	-	-	-	-	-	-	-	-	-	-
M	1	2	150	WN	80	DRAIN	8	-	D	-	.375	-	15	16	-	-	-	-
L	1	2	150	WN	80	VENT	8	-	D	-	.375	-	15	16	-	-	-	-
K2	1	2	150	WN	80	BOOT BRIDLE	8	-	D	-	.375	-	15	16	-	-	-	-
K1	1	2	150	WN	80	BOOT BRIDLE	8	-	D	-	.375	-	15	16	-	-	-	-
J	1	2	150	WN	80	WATER DRAIN	8	-	D	-	.375	-	15	16	-	-	-	-
H	1	4	150	WN	80	HC OUTLET	8	6	G	.750	.375	.625	.375	7	8	9	-	-
G	1	6	150	WN	80	RELIEF VALVE	8	-	E	.750	2.5	.375	.625	-	12	13	14	-
F	1	20	CUSTOM	LWN	TBD	EXISTING MANWAY	TBD	-	-	-	-	-	-	-	-	10	11	-
E2	1	4	150	WN	80	LEVEL BRIDLE	8	-	E	.750	2	.375	.625	-	7	8	9	-
E1	1	4	150	WN	80	LEVEL BRIDLE	8	-	E	.750	2	.375	.625	-	7	8	9	-
D	1	2	600	WN	80	COIL OUTLET	SEE ELEV.	SEE ELEV.	D1	-	-	.375	-	.375	5	6	-	-
C	1	2	600	WN	80	COIL INLET	SEE ELEV.	SEE ELEV.	D1	-	-	.375	-	.375	5	6	-	-
B	1	12	150	WN	80	GAS OUTLET	8	.500	G	.750	5.375	.375	.500	.375	1	2	3	-
A	1	12	150	WN	80	GAS INLET	8	.500	G	.750	5.375	.375	.500	.375	1	2	3	4

MATERIALS OF CONSTRUCTION: (NEW MATERIALS)

SHELLS: -
 HEADS: -
 RE-PADS: SA-516-70
 FLANGES: SA-105
 PIPE NOZZLES: SA-106-B
 WELD FITTINGS: SA-234-WPB
 STUDS: SA-193-B7
 NUTS: SA-194-2H

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REVISIONS	DATE	BY	REFERENCES
A	ISSUED FOR APPROVAL	10/1/10	REM D-010-237 SHT 2
P	ISSUE FOR INFORMATION	9/21/10	REM D-010-237 SHT 2

WELDING PROCEDURES FOR ALTERATIONS:

HEAD / SHELL: -
 SHELL / SHELL: -
 FLANGE TO PIPE: SMAW/FCAW/GMAW S-1-1-HT,M-1-1-HT,TF-1-1-HT
 NOZZLE NECK TO VESSEL: SMAW/FCAW/GMAW S-1-1-HT,M-1-1-HT,TF-1-1-HT
 COUPLINGS: -
 SUPPORTS: -
 MISC: GMAW M-1-1-HT

PROJECT / LOCATION: - JOB NO: TEF-XXX ITEM NO: -
 CUSTOMER: -
 P.O. NO: - DATE: -
 USER: -
 SCALE: NONE
 DRAWN BY: REM CHECKED BY: GAH APPROVED BY: GAH
 DATE: 9/21/10 DATE: - DATE: -
 CERTIFIED BY: REM DATE: -
 DESCRIPTION: BULK STORAGE TANK
 10'-3 9/16" ID X 44'-3 3/4" S/S HORIZ. VESSEL
 ELEVATION & GENERAL ARRANGEMENT
 (2) SLUG CATCHER UNITS AS SHOWN
 DRAWING NO: D-010-237-ASHT. 1 OF 2 REV. A