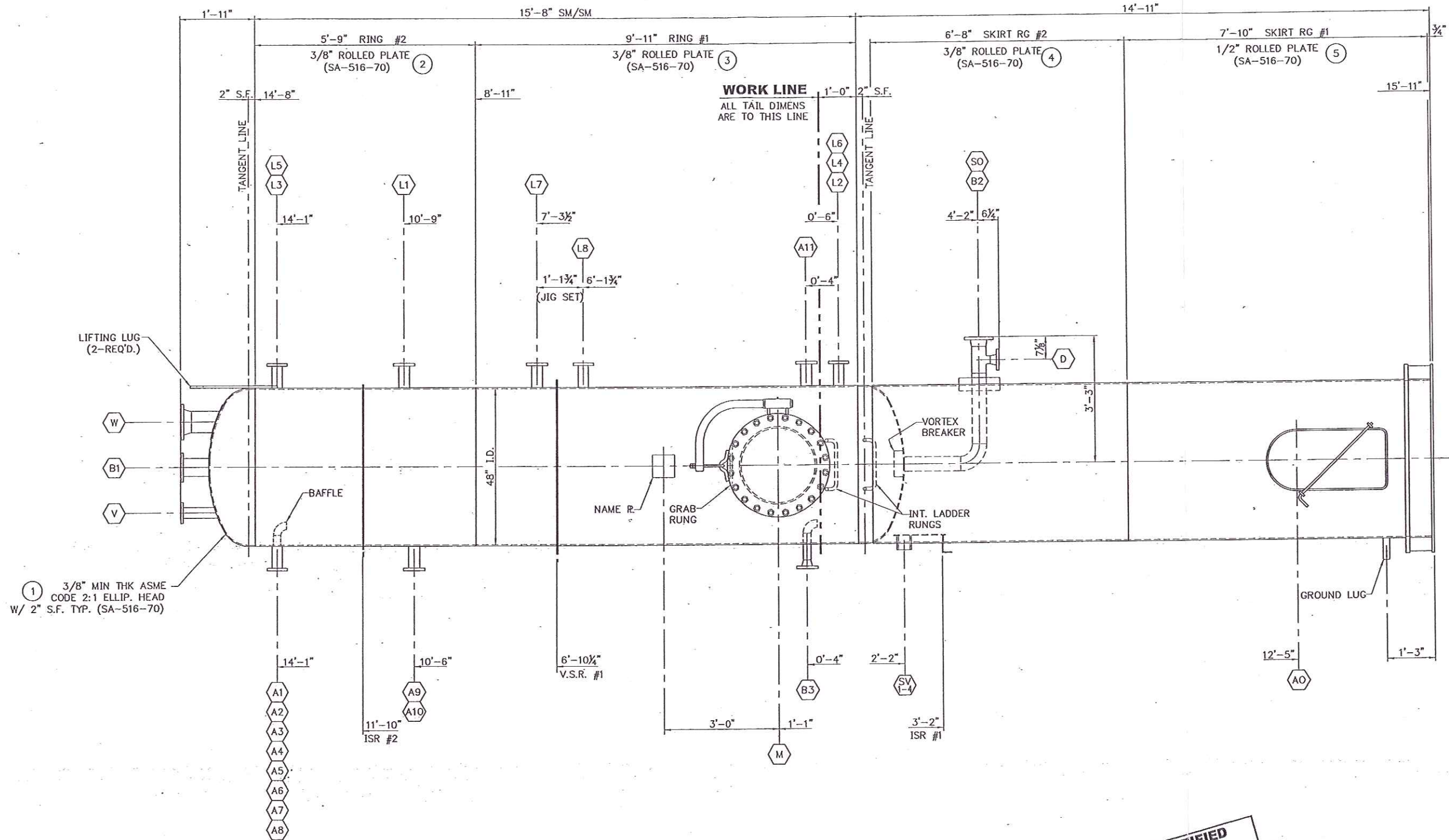


#105739



ELEVATION VIEW
(SEE PLAN VIEW FOR TRUE ORIENTATION)

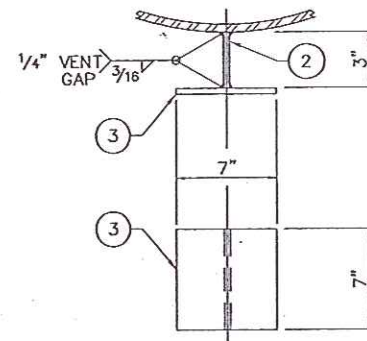
CERTIFIED AS BUILT
BY W.B. SHEEHY
DATE 9 MARCH 2007

Shaw Stone & Webster, Inc.		Project: Giant S Zorb	
SSW: 120553-P-11-22 (M110-02)		Job No: 120553	
EQUIP. No.: D-620		Issue:	
☐ FOR INFORMATION	☐ ACCEPTED FOR CIVIL AND PIPING ETC		
☐ ACCEPTED	☐ ACCEPTED AS CERTIFIED		
☐ ACCEPTED AS NOTED	☐ REVISE & RESUBMIT		
SIGNED: _____			
DATE: _____			
THE ACCEPTANCE OF THIS DATA BY SHAW STONE & WEBSTER DOES NOT RELIEVE THE CONTRACTOR OR SUPPLIER FROM THE OBLIGATIONS IMPOSED BY THE PURCHASE ORDER OR CONTRACT.			

CUSTOMER: D-COK / STONE & WEBSTER	
PURCHASE ORDER NO: 56603-P-11-22	
GULFEX, INC. METAL FABRICATORS PRESSURE VESSELS - CUSTOM FABRICATION P. O. BOX 12720 HOUSTON, TEXAS 77217 (713) 946-6614	
48" I.D. x 14'-8" S/S CONDENSATE DRUM ITEM# D-620	
ELEVATION VIEW	
NO.	REVISION
2	AS BUILT
1	REV INT. RUNGS @ M.W.
0	ISSUED FOR FABRICATION
A	ISSUED FOR APPROVAL
DATE	11/26/06
JOB NO.	2443
SCALE	3/4"=1'-0"
REVISION	2
DRAWN	JSL
APPD.	W.B. SHEEHY
DWG. NO.	2443-3

105739

DESIGN DATA		FABRICATION DATA		TESTING, INSPECTION AND IDENTIFICATION		SHIPPING LIST (ATTACHED TO VESSEL)		BILL OF MATERIALS - SPARES & TESTING	
DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH ASME CODE SECTION VIII DIVISION 1 A05 CODE STAMP IS REQ'D. NATIONAL BOARD REGISTRATION IS REQ'D. DESIGN PRESSURE (INTERNAL): 80 PSIG @ 425 °F DESIGN PRESSURE (EXTERNAL): FULL VACUUM PSIA @ 366 °F MAX. ALLOW. WORKING PRESS: 175 PSIG @ 425 °F MINIMUM DESIGN METAL TEMP.: 0 °F @ 175 PSIG RADIOGRAPHY: LONG SM REQ'D PER SPOT PER UW-11(b) GIRTH SM REQ'D PER SPOT PER UW-11(b) TOP HEAD SM REQ'D PER SEAMLESS BOT HEAD SM REQ'D PER SEAMLESS JOINT EFFICIENCY: TOP HEAD 0.85 BOTTOM HEAD 0.85 SHELL 0.85 CORROSION ALLOWANCE: HEADS 1/8" SHELL 1/8" NOZZLES 1/8" INTERIALS: WELD IN 1/8" BOLT IN 1/8" HYDROSTATIC TEST: 227 PSIG @ 70 °F MIN. TEMP. VESSEL IS CHARTER IMPACT EXEMPT FOR PRODUCTION TEST WELDS. POST WELD HEAT TREATMENT IS NOT REQ'D HEATING RATE: _____ COOLING RATE: _____ WIND CODE: ASCE 7-02, I=1.15 SEISMIC CODE: UBC 1997, ZONE 1, I=1.25 TOLERANCES SHALL BE PER GULFEX STANDARD TOLERANCES, SHT. 1 THRU 3 OR CUSTOMER STANDARD, WHEN APPLICABLE.		1. FLANGE BOLT HOLES TO STRADDLE NORMAL VESSEL CENTERLINES UNLESS NOTED OTHERWISE. 2. WORKLINE TO BE CENTER PUNCHED ON OUTSIDE OF VESSEL AND INSIDE IF REQUIRED. 3. TOLERANCES SHALL BE PER CUSTOMER STANDARD ESH A01 REV 0 4. PERMISSIBLE OUT OF ROUNDNESS OF CYLINDRICAL AND CONICAL SHELLS SHALL NOT BE EXCEED 1% OF THE NOMINAL DIAMETER. THIS TOLERANCE SHALL BE INCREASED TO 2% WHEN THE CROSS-SECTION PASSES THROUGH OR WITHIN ONE I.D. OF A FITTING. 5. MAXIMUM ALLOWABLE MISALIGNMENT OF BUTT JOINTS IS LIMITED TO SECTION THICKNESS JOINT CATEGORY A BCD UP TO 1/2" 1/41 1/41 1/2" TO 3/4" 1/8" 1/41 3/4" TO 1 1/2" 1/8" 3/16" 1 1/2" TO 2" 1/8" 1/81 OVER 2" LESSER OF 1/161 OR 3/8" 1/81 OR 3/4" 6. MAXIMUM ALLOWABLE EDGE OFFSET BETWEEN PLATES/HEADS OF DIFFERING THICKNESSES IS THE LESSER OF 1/8" OR 1/41 (THINNER PART). 7. ALL OFFSETS OF BUTT WELDED JOINTS SHALL BE BLENDED WITH A 3:1 TAPER. 8. CHECK APPLICABLE WELD PROCEDURE FOR PREHEAT REQUIREMENTS. 9. UNWELDED EDGES OF PENETRATIONS INSIDE THE VESSEL SHALL BE ROUNDED OR CHAMFERED. 10. BUTT JOINT EDGES ARE TO BE SMOOTH AND UNIFORM AND BE FREE OF LOOSE SCALE AND SLAG. 11. TACK WELDS ARE TO BE REMOVED OR THEIR ENDS GROUND SMOOTH WHEN INCORPORATED INTO THE FINAL WELD. 12. TO ASSURE WELD GROOVES ARE COMPLETELY FILLED THE FOLLOWING WELD REINFORCEMENT MAY BE USED. MAXIMUM WELD REINFORCEMENT NOMINAL MATERIAL THICKNESS PIPE & TUBE WELDS OTHER WELDS LESS THAN 3/32" 3/32" 1/32" 3/32" TO 3/16" INCL. 1/8" 1/16" OVER 3/16" TO 1/2" 5/32" 3/32" OVER 1/2" TO 1" INCL. 3/16" 3/32" OVER 1" TO 2" INCL. 1/4" 1/8" 13. FLANGE RAISED FACE TO HAVE 125 Ro MIN. - 250 Ro MAX. SURFACE FINISH. 14. INTERNAL AND EXTERNAL WELDED ATTACHMENTS SHALL BE CONTINUOUSLY WELDED TO THE VESSEL WALL. 15. EACH NOZZLE OR MANWAY REINFORCING PAD OR SEGMENT THEREOF SHALL HAVE TWO 1/4" NPT TEST HOLES LOCATED AT LEAST 45° OFF OF VESSEL HORIZONTAL AXIS. FILL TEST HOLES WITH HEAVY GREASE AFTER HYDROTEST. 16. PRESSURE CONTAINING WELDS SHALL BE FULL PENETRATION UNLESS OTHERWISE NOTED. 17. ALL PRESSURE CONTAINING MATERIAL SHALL HAVE HEAT NUMBERS AND MATERIAL GRADES STENCILED OR MARKED FOR TRACEABILITY.		1. THE WELDS OF EACH REINFORCING PAD OR SEGMENT SHALL BE PNEUMATIC TESTED TO 15 PSIG WITH AN AIR AND SOAP SOLUTION. 2. MATERIAL IDENTIFICATION MARKING MUST BE TRANSFERRED TO ALL PRESSURE PARTS. 3. WELDERS STENCILS ARE REQUIRED ON ALL WELDS. 4. MAGNETIC PARTICLE TESTING OR LIQUID PENETRANT EXAMINATION IS REQUIRED FOR THE FOLLOWING: a. TAPERED HEADS b. WELD METAL BUILD-UP WHICH IS APPLIED TO A TRANSITION OR USED TO INCREASE MATERIAL THICKNESS. 5. WHERE WELD METAL BUILD-UP IS USED IN JOINTS REQUIRING RADIOGRAPHY, THE WELD METAL BUILD-UP SHALL BE INCLUDED IN THE RADIOGRAPHIC EXAMINATION. 6. MATERIAL DEFECTS MAY BE REPAIRED AFTER OBTAINING APPROVAL FROM THE AUTHORIZED INSPECTOR. 7. HYDROTEST PRESSURE SHALL BE HELD FOR A MINIMUM OF ONE HOUR USING POTABLE WATER. VESSEL TO BE IMMEDIATELY DRAINED AND DRIED AFTER HYDROTEST. MAXIMUM CHLORIDE CONTENT OF TEST WATER SHALL BE 50 PPM. 8. ONLY LEAD SCREENS AND FINE GRAIN KODAK AA FILM OR EQUAL SHALL BE USED FOR RADIOGRAPHY. 9. ARC STRIKES SHALL BE GROUND SMOOTH. 10. MTR'S. REQUIRED FOR ALL PRESSURE RETAINING PARTS.		(1) - 48" I.D. x 32'-6" APPROX. O.A.L. VESSEL		SHIPPING AND MARKING 1. ALL OPENINGS TO BE PROTECTED WITH ONE PIECE PLYWOOD COVERS 1/2" THK. PLYWOOD COVERS TO BE SECURED WITH 3/8" BOLTS IN EVERY OTHER HOLE. (4) MINIMUM. 2. PROTECT ALL MACHINED SURFACES AND THREADED CONNECTIONS WITH A RUST PREVENTATIVE. 3. AFTER HYDROTESTING IS COMPLETE, VESSEL SHALL BE CLEANED INSIDE AND OUTSIDE, FREE OF DIRT, GREASE, DEBRIS, LOOSE MILL SCALE, WELD SPLATTER, ETC.. VESSEL TO BE DRIED BY BLOWING AIR OR WIPING WITH LINT FREE TOWELS. 4. VESSELS SHALL BE CLEARLY IDENTIFIED BY PAINTING OR DYE STENCILING THE VESSEL TAG NUMBER IN A CONSPICUOUS LOCATION ON SHELL OR SUPPORT. 5. ONE SPARE GASKET, ONE SERVICE GASKET, AND SERVICE BOLTING FOR EACH BLINDED NOZZLE SHALL BE ENCLOSED IN A PLYWOOD CONTAINER AND MARKED WITH THE EQUIPMENT ITEM NUMBER. 6. TEST GASKETS SHALL BE USED FOR SHIPPING ON NOZZLES WITH BLINDS. TAG OR MARK GASKET OR NOZZLE FOR REPLACEMENT IN FIELD.	
MATERIAL SPECIFICATIONS HEADS SA-516-70 SHELL SA-516-70 FLANGES SA-105 NOZZLE NECKS (PIPE) SA-106-B NOZZLE NECKS (FORGED) SA-105 REINFORCING PADS SA-516-70 BOLTING (PRESSURE) SA-193-B7 / SA-194-2H GASKETS (PRESSURE) 1/4" SPIRAL WOUND (1-3/4" WINDINGS, GRAPHITE FILLED, W/ CS CENTER RING) COUPLINGS N/A SKIRT SA-516-70 BASE PLATE SA-516-70 SADDLES N/A WEAR PLATES N/A ALL MATLS SHALL COMPLY WITH GULFEX SUPPLEMENTAL INFORMATION SHEET						SURFACE PREPARATION & PAINTING 1. PROTECT NAMEPLATE AND ALL FLANGE FACES BEFORE BLASTING AND PAINTING. FLANGE BOLT HOLES AND EXTERNAL SURFACES NOT MACHINED FOR GASKET SEALING TO RECEIVE SPECIFIED SURFACE PREPARATION AND PAINT. 2. PAINTING SHALL CONFORM TO ALL MANUFACTURERS RECOMMENDATIONS REGARDING THINNING, MIXING, CURING, STORAGE AND APPLICATION METHOD. 3. INSULATION ☐ NO ☒ YES, THICKNESS = 2" 4. FIREPROOFING ☐ NO ☒ YES, THICKNESS = 2" 5. PAINT: VESSEL (PROTRUSIONS ONLY) (SYSTEM P2) SURFACE PREPARATION: COMMERCIAL BLAST PER SSPC-SP6. PRIME: 3 MILS AMERON D9 INORGANIC ZINC FINISH: 1.5 MIL AMERON PSX 892 MODIFIED SILICONE 6. PAINT: INSIDE & OUTSIDE SKIRT BELOW I.S.R. #1 (SYSTEM P5) SURFACE PREPARATION: COMMERCIAL BLAST PER SSPC-SP6 PRIME: 6 MILS AMERLOCK 400 EPOXY MASTIC			
OPERATING DATA OPERATING PRESSURE: INTERNAL 65 PSIG @ 310 °F EXTERNAL PSIG @ °F						WEIGHTS FABRICATED (NO INTERNALS): 9,423 LBS. TRAYS AND/OR INTERNALS: LBS. TOTAL FABRICATED: 9,423 LBS. INSULATION: 828 LBS. EMPTY: 28,590 LBS. OPERATING: 33,310 LBS. SHOP TEST: 40,266 LBS.			



NAME PLATE BRACKET

NATIONAL BOARD NUMBER: 914	
CERTIFIED BY: GULFEX, INC.	
MAWP: 175 PSIG AT 425 °F	MIN. DESIGN METAL TEMP. 0 °F AT 175 PSIG
YEAR BUILT 2006	MFG. SER. NO. 2443
ITEM NO. D-620	P.O. NO. 56603-P-11-22
CONDENSATE DRUM	

NAME PLATE FACSIMILE

CUSTOMER: D-COK / STONE & WEBSTER
PURCHASE ORDER NO: 56603-P-11-22

GULFEX, INC.
METAL FABRICATORS
PRESSURE VESSELS - CUSTOM FABRICATION
P. O. BOX 12720 HOUSTON, TEXAS 77217
(713) 946-6614

48" I.D. x 14'-8" SM/SM
CONDENSATE DRUM
ITEM# D-620

DESIGN DATA & GENERAL NOTES

DATE 11/26/2006	JOB NO. 2443	SCALE 12"=1'-0"	REVISION 1
DRAWN JSL	APPD. W.B. SHEEHY	DWG. NO.	2443-1

Shaw Stone & Webster, Inc.		Project: Giant S Zorb	
SSW: 120653-P-11-22 (M110-02)		Job No: 120653	
EQUIP. No.: D-620		Issue:	
☐ FOR INFORMATION	☐ ACCEPTED FOR CIVIL AND PIPING ETC.		
☐ ACCEPTED	☐ ACCEPTED AS CERTIFIED		
☐ ACCEPTED AS NOTED	☐ REVISE & RESUBMIT		
SIGNED: _____			
DATE: _____			
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CERTIFIED AS BUILT
BY W.B. SHEEHY
DATE 9 MARCH 2007

1	AS BUILT	RTA	3/9/07
0	ISSUED FOR FABRICATION	RTA	2/6/07
A	ISSUED FOR APPROVAL	JSL	11/30/06
NO.	REVISION	BY	DATE



BILL OF MATERIALS			
ITEM	QTY	DESCRIPTION	MATERIAL SPEC
44	1	ANGLE: 3" x 3" x 1/4" x 20'-0" LONG ROLL LEG IN 48 3/4" I.D.	A-36
45	1	FLAT BAR: 3/8" x 2" x 20'-0" LONG ROLL HARD WAY 48" O.D.	A-36
46	8	FLAT BAR: 1/4" x 1" x 16" LONG	A-36
47	1	ROUND BAR: 3/8" x 20'-0" LONG ROLL HARD WAY 43 1/4" I.D.	A-36
48	1	FLAT BAR: 3/8" x 1" x 20'-0" LONG ROLL HARD WAY 48 3/4" I.D.	A-36
49	1	FLAT BAR: 1/2" x 2" x 20'-0" LONG ROLL HARD WAY 48 3/4" I.D.	A-36

BILL OF MATERIALS			
ITEM	QTY	DESCRIPTION	MATERIAL SPEC
1	2	48" I.D. x 3/8" MIN. THICK ASME CODE 2:1 ELLIPTICAL HD W/ 2" S.F.	SA-516-70
2	1	3/8" THK. x 69" x 152" LG. ROLL TO 48" I.D. x 69" LG.	SA-516-70
3	1	3/8" THK. x 119" x 152" LG. ROLL TO 48" I.D. x 119" LG.	SA-516-70
4	1	3/8" THK. x 70" x 152" LG. ROLL TO 48" I.D. x 70" LG.	SA-516-70
5	1	1/2" THK. x 94" x 152" LG. ROLL TO 48" I.D. x 94" LG.	SA-516-70
6	19	FLANGE: 2" 300# RF LWN x 9" LG.	SA-105
7	1	FLANGE: 4" 150# RF LWN x 9" LG.	SA-105
8	1	FLANGE: 2" 300# RF WN (S/160)	SA-105
9	1	FLANGE: 24" 150# RF WN (STD.)	SA-105
10	1	FLANGE: 24" 150# RF BLIND	SA-105
11	1	PIPE: 24" (STD.) x 9/16" LG.	SA-106B
12	1	PLATE: 3/8" x 24 1/8" I.D. x 39" O.D. ROLL TO 24 3/8" I.S.R.	SA-516-70
13	20	STUDS: 1 1/4" x 7 1/2" LG.	SA-193-B7
14	40	NUTS: 1 1/4" x 7/8" LG.	SA-194-2H
15	2	GASKET: 1/8" SPIRAL WOUND "CGI" FOR 24" 150# RF	T316L SS/GRAPHITE
16	1	FLANGE: 2" 300# RF LWN x 12" LG.	SA-105
17	1	FLANGE: 6" 150# RF WN (S/80)	SA-105
18	1	PIPE: 6" S/80 x 12" LONG	SA-106-B
19	1	PLATE: 1/4" x 11" x 14" (LAYOUT PAD)	SA-516-70
20	16	PLATE: 1/2" x 4 1/4" x 7" LG.	SA-516-70
21	1	PLATE: 3/4" x 45" I.D. x 58" O.D.	SA-516-70
22	1	PLATE: 1 1/4" x 48 3/4" I.D. x 58" O.D.	SA-516-70
23	2	PLATE: 1" x 6" x 23" LG.	SA-516-70
24	2	PLATE: 1/2" x 9" x 27" LG.	SA-516-70
25	2	PLATE: 1/2" x 9" x 29 1/8" LG. ROLL TO 18" I.D.	SA-516-70
26	8	FITTING: 2" S/40 LR 90° WELD ELL	SA-234-WPB
27	8	PIPE: 2" S/40 x 2 7/8" LONG	SA-106-B
28	1	PLATE: 3/8" x 2" x 6" LG.	SA-516-70
29	1	FITTING: 2" 90° LR. ELL., BW (S/160)	SA-234-WPB
30	1	FLANGE: 4" 150# RF WN (S/160)	SA-105
31	1	FITTING: 4" x 2" RED. TEE (S/160)	SA-234-WPB
32	1	FLANGE: 2" 300# RF WN (S/160)	SA-105
33	1	PIPE: 10" (X-HVY) x 4 7/8" LG.	SA-106B
34	1	PIPE: 4" (S/160) x 21 3/4" LG.	SA-106B
35	1	FITTING: 4" 90° LR. ELL., BW (S/160)	SA-234-WPB
36	1	PIPE: 4" (S/160) x 22" LG.	SA-106B
37	1	PLATE: 3/8" x 6" O.D.	SA-516-70
38	1	PLATE: 3/8" x 2" x 5 1/2" LG.	SA-516-70
39	2	PLATE: 3/8" x 2" x 2 9/16" LG.	SA-516-70
40	326	NELSON STUDS: R6P (1" AW)	C.S.
41	4	PIPE: 4" (S/80) x 4 9/16" LG.	SA-106B
42	1	PIPE: 2" (S/160) x 8 7/4" LG.	SA-106B
43	1	FITTING: 4" S/120 x S/160 REDUCING TEE	SA-234-WPB

**CERTIFIED
AS BUILT**
BY W.B. SHEEHY
DATE 9 MARCH 2007

[illegible]

MARK		SERVICE	NO. REQ'D	SIZE	RATING	DESCRIPTION	O.D.	DESCRIPTION	OUTSIDE	INSIDE	DIM. X	TYPE	A	B	C	D	E	THICK	WIDTH	SIZE	RATING	FACING	STUDS	DIA.	LENGTH	NUTS	QTY.	THK.	O.D.	I.D.	B.O.M. ITEMS	REMARKS																																																																																																																																																																																																																			
				FLANGE			NECK		PROJECTIONS		ATTACHMENTS					RE-PAD		BLIND FLANGE		BOLTING			GASKETS																																																																																																																																																																																																																												
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 Shaw Stone & Webster Inc.		Project: Giant S Zurb	
		Job No: 120653	
S.S.W.: 120653-P-11-22 (11/15/07)		Issue:	
EQUIP. No: D-620			
☐ FOR INFORMATION ☐ ACCEPTED ☐ ACCEPTED AS NOTED		☐ ACCEPTED FOR CIVIL AND PAVING IFC ☐ ACCEPTED AS CERTIFIED ☐ REVISE & RESUBMIT	
SIGNATURE: _____			
DATE: _____			
THE ACCEPTANCE OF THIS DATA BY SHAW STONE & WEBSTER DOES NOT RELIEVE THE CONTRACTOR OR SUPPLIER FROM THE OBLIGATIONS IMPOSED BY THE PURCHASE ORDER OR CONTRACT			

CUSTOMER: D-COK / STONE & WEBSTER
PURCHASE ORDER NO: 56603-P-11-22



GULFEX, INC.

METAL FABRICATORS
PRESSURE VESSELS - CUSTOM FABRICATION
P. O. BOX 12720 HOUSTON, TEXAS 77217
(713) 946-6614

48" I.D. x 14'-8" SM/SM
CONDENSATE DRUM
ITEM# D-620

PLAN VIEW

2	AS BUILT	RTA	3/9/07	ITEM # 0 020			
1	BOM # 26427; LIFT LUGS	RTA	2/22/07	PLAN VIEW			
0	ISSUED FOR FABRICATION	RTA	2/6/07	DATE	JOB NO.	SCALE	REVISION
A	ISSUED FOR APPROVAL	JSL	11/30/06	11/26/2006	2443	1/4"=1'-0"	2
NO.	REVISION	BY	DATE	DRAWN	APPD.	DWG. NO.	
		JSL			W.B. SHEEHY		2443-2