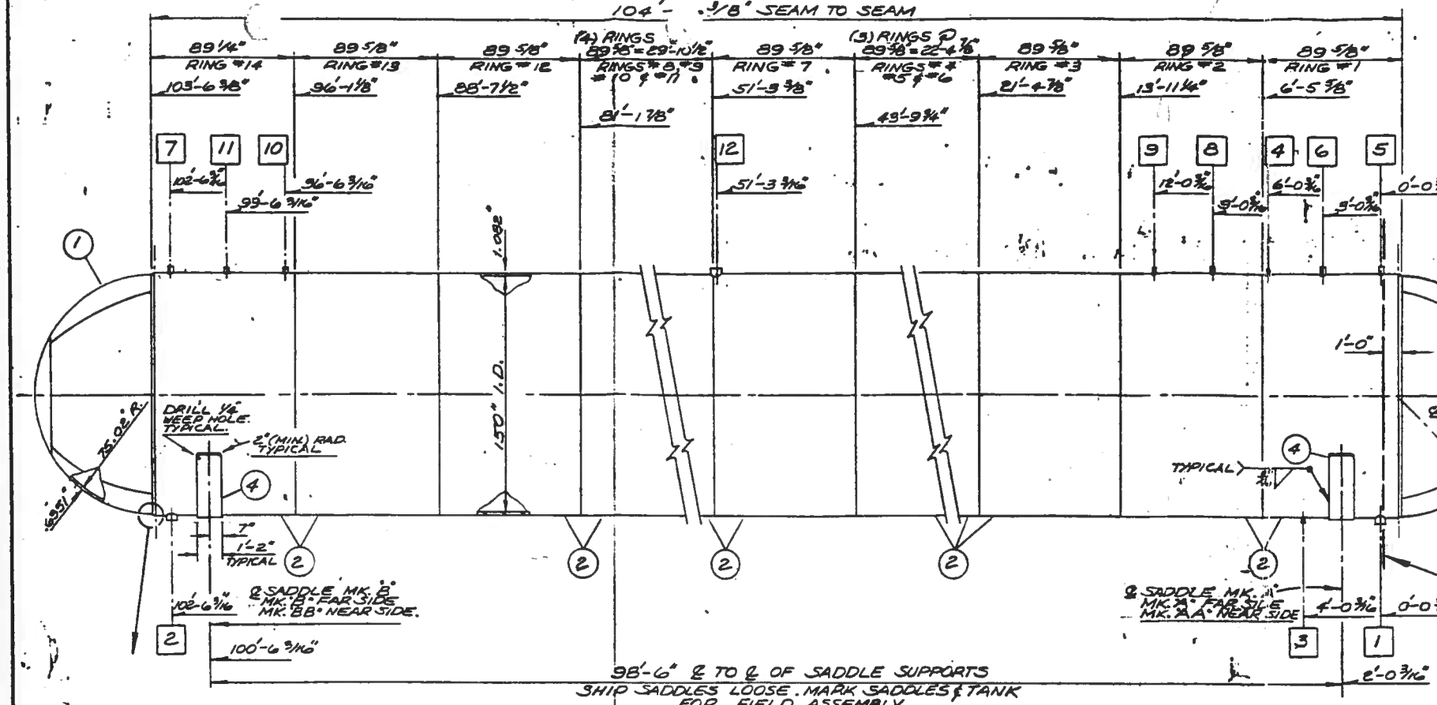
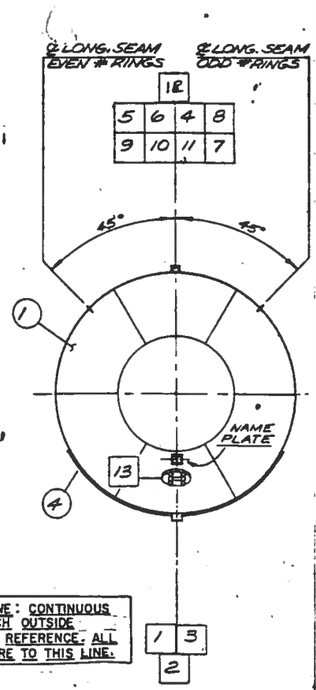
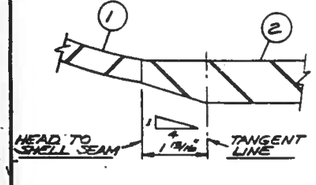
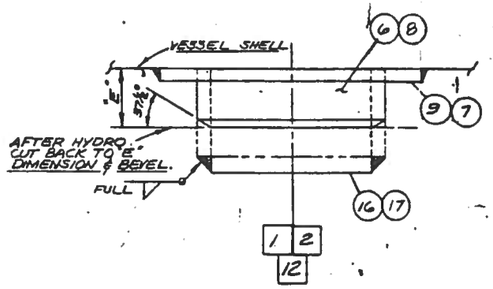


— ELEVATION —

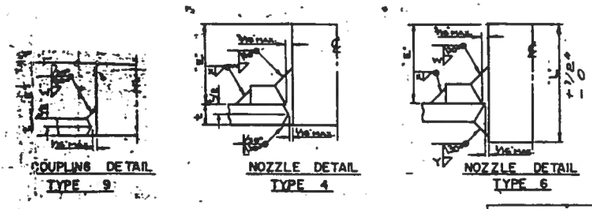


— END VIEW —





STUB NOZZLE BLANK OFF FOR HYDRO TEST.
(SEE SHOP NOTE #11 FOR SHIPPING)



USE ELECTRODE E-7018 FOR ALL NECK TO SHELL WELDS.

BILL OF MATERIAL FOR ONE

ITEM NO.	NO. REQ'D	DESCRIPTION
1	2	HEAD, ELLIPSOIDAL, SA-515-70, .6351" THK. X 150.04" I.D. (PER M.O. # 77294-5-1)
2	14	PL. SA-515-70, 1.082" THK. X 90 5/8" X 475 5/8"
3	1	DOOR, (CO2 TYPE) SELF ENERGIZED (INTERNAL SEALING) 11" X 15" OBROUND W/1" THK. X 6" RING W/O EXTERNAL CLAMP RING HINGE DESIGN PRESS. 250 P.S.I.G. @ -20°F TO +150°F. SA-336-55
4	2	PL., SA-283-C, 3/8" X 14" X 169 3/4"
5	1	PL., SA-515-70, 1.082" X 22" X 26"
6	1	PIPE, SMLS 6"-SCH. 80 X 0'-5" LG. SA-106-B
7	1	PL, SA-515-70, 1.082" X 7" I.D. X 12" O.D.
8	2	PIPE, SML'S, 4"-SCH. 80 X 0'-5" LG. SA-106-B
9	2	PL, SA-515-70, 1.082" X 4 7/8" I.D. X 9 7/8" O.D.
10	5	COUPLING, SCREWED, 2"-3000# SA-105-II
11	3	COUPLING, SCREWED, 3/4"-6000# SA-105-II
12	1	COUPLING, SCREWED, 1"-6000# SA-105-II
13	5	PLUG, STL. HEX. HD., 2"-3000# C.S.
14	3	PLUG, STL. HEX. HD., 3/4"-6000# C.S.
15	1	PLUG, STL. HEX. HD., 1"-6000# C.S.
16	1	PL. A-283-C 7/16" X 5 7/8" O.D.
17	2	PL. A-283-C 5/16" X 3 5/16" O.D.
18	1100	LBS. MACH WELD ROD & FLUX
19	275	LBS. HAND WELD ROD.
20	38	GAL. COOKS RED OXIDE PRIMER W/REQ'D. THINNER

DRAWING SCHEDULE

SHT. NO.	SIZE	DESCRIPTION
1	D	VESSEL # 5 & # 2
2	B	SADDLES
3	A	NAME PLATE
4	B	TOLERANCES
5	B	SHIPPING DIAGRAM

15. MARK SADDLES FOR APPROPRIATE TANK.
14. PAINT ONE SHOP COAT RED OXIDE PRIMER. (SEE ITEM # 20).
13. Repads for 18" and larger nozzles to have (2) 1/4" NPT drilled and tapped weep-holes 180° apart. Repads for smaller sized nozzles to have one-1/4" NPT drilled and tapped weep-hole. Test with air and soapsuds after welding.
12. All manways and nozzles to be plumb and level. Bolt holes to straddle horizontal and vertical center lines of vessel (unless otherwise noted).
11. Before shipment protect all nozzle faces and threaded openings. Coat all machined surfaces and studs with rust preventing grease. Dry and clean inside of vessel thoroughly. PLUG (ITEM # 13, # 14, # 15) COUPLINGS & CLOSE STUD ENDS W/ METAL CAPS SECURELY TAPED IN PLACE.
10. Rate-blast head and shell, in flat, prior to fabrication. CLEAN INTERIOR SURFACES OF HEAD & SHELL TO REMOVE MILL SCALE AND FOREIGN MATTER FROM SURFACES TO BE PAINTED. ALL WELD SPLATTER, DIRT, GREASE & OTHER DEBRIS.
9. Remove mill scale and foreign matter from surfaces to be painted.
8. Use items _____, _____, _____, 13, 14, and 15 for shop test and ship in place.
7. Plug all threaded openings with solid steel plugs before welding. Coat threads before installing plugs with graphite or other suitable compound. Chase threads after welding. Test vessel with solid steel plugs in all openings except the one used for testing. Check opening used for testing with thread gage.
6. Radiographing Required. 100% X-RAY SHELL SEAMS, HEAD TO SHELL SEAMS. PER PARA. UW-11(a). SPOT X-RAY HEAD SEAMS PER PARA. UW-11 (b).
5A. VESSEL TO BE 100% POST WELD HEAT TREATED.
5. Remove or clean thoroughly all tack welds before proceeding with final weld.
4. For tolerances, see Sheet No. 4, unless shown otherwise.
3. For head to shell seam welding details and procedures see _____
2. For head fabrication, see Order No. 176744-04
1. Actual volume in gallons 103,315

WELDING SPECIFICATIONS	
SEAM	WELD PROCEDURE
LONG	ST-110-2
GIRTH	GS-112-2
CLOSING	CS-114-2
HEAD-SHELL	GS-112-2
HEAD	117

SHOP NOTES

SCHEDULE OF OPENINGS

MARK	NO. REQ'D	SIZE	ASA RATING	DESCRIPTION	B/M ITEM NO.	FACING	NOZZLES ℄	E	TYPE	NOZZ. TO SHELL	F.G. TO NECK	REINFORCING B M ITEM NO.	W	X	Y
13	1	11"X15"		DOOR-SELF ENERGIZING	9		6"	2 1/2"	6			5	3/8"	1 3/16"	3/4"
12	1	6"		VAPOR CONDENSING	6,16		3 7/8"	2"	2			7	1	1 3/16"	7/8"
10,11	2	2"	3000#	SAFETY VALVE	10,13	COUPLING	3 3/8"	1 3/8"	10						7/8"
9	1	3/4"	6000#	VAPOR DIP TUBE	11,14			1"	9						
8	1	1"	6000#	VAPOR EQUALIZING AND LIQUID FILL SUCTION	12,15		2 3/8"	1"	10						7/8"
7	1	2"	3000#	VAPOR EQUALIZING	10,13		3 3/8"	1 1/8"	10						7/8"
6	1	2"	3000#	VAPOR EQUALIZING & RETURN	10,13		3 3/8"	1 1/8"	10						7/8"
5	1	2"	3000#	LIQUID FILL	10,13		3 3/8"	1 7/8"	10						7/8"
4	1	3/4"	6000#	VAPOR LEG-LEVEL GAUGE	11,14			1"	9						
3	1	3/4"	6000#	LIQUID LEG-LEVEL GAUGE	11,14	COUPLING		1"	9						
2	1	4"		LIQUID EQUALIZING LINE & FILL NOZZLE	8,17		3 3/4"	2"	4			9			3/4"
1	1	4"		LIQUID RUNS SUCTION & FILL NOZZLE	8,17		3 1/2"	2"	4			9	3/8"		3/4"

NO.	DESCRIPTION	BY	DATE	CK.	APP'D
	REVISIONS				

CUSTOMER JOB NO. _____ ITEM NO. _____
CUSTOMER ORDER NO. 77294 NO. REQ'D. (2)

DESIGN NOTES

Construction: All Welded.
Code: ASME Sec. VIII Edition, SECTION VIII Latest Revision Div 2
To Be Stamped By: AMF BEAIRD, INC
To Be Inspected By: COMMERCIAL UNION ASSURANCE COMPANIES
Joint Eff. Head 85% Shell 100%
Design Stress 17,500 P.S.I. Heads 17,500 P.S.I. Shell
NATIONAL BOARD NO. _____
Postweld Heat Treatment (es) ■ Required (See Note 5A)
Radiographing (is) ■ Required (See Note 6)

Design Pressure 250 P.S.I. Design Temp. # -20°F TO +150°F.
Max. Allow. Working Press. — New Cold 250 P.S.I. Limited By SHELL — New At 150 °F 250 P.S.I. Limited By SHELL — Corroded At _____ °F
Hydrostatic Test Pressure 375 P.S.I (60° MIN. WATER TEMP.)
Corrosion Allowance: Heads NONE Shell NONE

VESSEL WEIGHT: 197,153
SADDLES 1,650
TOTAL WEIGHT: 198,803 LBS (99.4 TONS)

REFERENCE DRAWINGS
CARDOX DWG. # D-49309

VESSEL DIMENSIONS	
WIDTH	12'-8 3/16"
HEIGHT	12'-8 3/16"
O.A.L.	116'-10"

Microfilmed: Rev. — Date 8-15-71

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AMF BEAIRD, INC.
SHREVEPORT, LOUISIANA

CO2 STORAGE TANK
150" I.D. X 104'-6 3/8" SEAM TO SEAM.

FOR: CARDOX CORPORATION

DRAWN	R.A.L.	10/7/70	ORDER NO.	DRAWING NO.
CHECKED	J.H.I.	10-12	176744-06	
APPROVED	[illegible]	10-12	SHEET 1 OF	SHEET OF