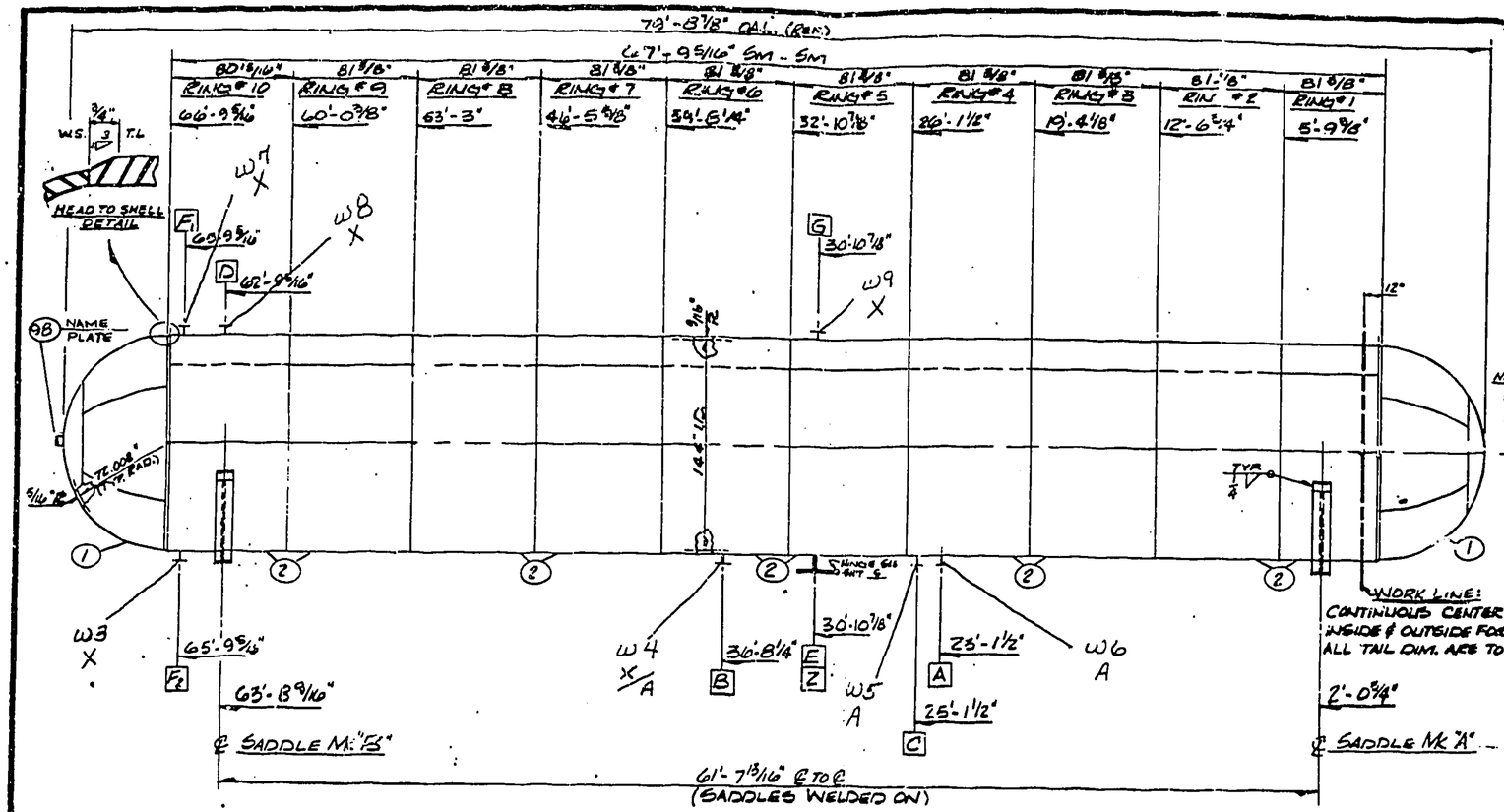

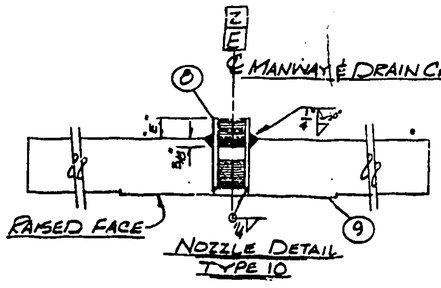

MATERIAL LIST FOR ONE VESSEL (1) REQ'D

MARK NO.	NO. REQ'D	DESCRIPTION
1	2	HEADS HEMI, SA-515-70 5/16" TH'K X 144.004" I.D. PER 140328-02
2	10	PL, SA-515-70, .0625" TH'K X 82 3/8" X 456 5/16"
3	5	FLG. WN. SA-105 2" 150# ANSI 1/16 RF SCH 160 BORE
4	2	FLG. WN. SA-105 3" 150# ANSI 1/16" RF SCH 80 BORE
5	1	FLG. WN. SA-105 4" - 150# ANSI 1/16 RF SCH 80 BORE
6	1	FLG. WN. SA-105, 6" - 150# ANSI 1/16" RF SCH 80 BORE
7	1	FLG. LWN SA-105, 18" - 150# ANSI, 1/16 RF, X 12" LG.
8	1	COUPLING, E-BRE WELD, SA-105 3/4" X 3000#
9	1	SUB ASS'Y, FLG RLD. 18" - 150# ANSI PER DWG. G-3A1B3U
10	110	STUD SA-193-B7, 1 1/8" - 8 X 6" LG. (TFL)
11	32	NUT, HVY. HEX SA-194-2H 1 1/8" - 8
12	1	GASKET, FLG. COMP. ASBESTOS, 1/16" X 18" - 150#
13	2	PIPE SMLS, SA-106-B, 2" - SCH. 160 X 0'-5 1/16" LG.
14	2	PIPE SMLS, SA-106-B, 3" SCH. 80 X 0'-4 13/16" LG.
15	1	PIPE SMLS, SA-106-B, 4" SCH. 80 X 0'-5 7/8" LG.
16	1	PIPE SMLS, SA-106-B, 6" SCH. 80 X 0'-6 1/8" LG.
17		
18		
19		
20	1	PIPE SMLS, SA-106-B, 2" - SCH. 160 X 0'-4 5/16" LG.
21	1	PL, SA-515-70, 5/8" X 4 7/8" I.D. X 9 7/8" O.D.
22	1	PL, SA-515-70, 5/8" X 7" I.D. X 12" O.D.
23	1	PL, SA-515-70, 3/8" X 10 5/8" I.D. X 51 1/4" O.D.
24	1	PL, SA-515-70, 3/8" X 3 7/8" I.D. X 5 7/8" O.D.
25	24	GAL. PAINT COATS 410-R-199, SYNTHETIC PRIMER
26	168	LBS. WIRE WELD, SFA-5.17 EMIZK, L-61, 5/32" DIA.
27	168	LBS. WIRE WELD, SFA-5.17 EMIZK, L-61 3/16" DIA.
28	430	LBS. FLUX WELD, SFA 5.17 LINCOLN #860
29	11	LBS. ELECTRODE, WELD, SFA-5.1, E-7018, 5/32" DIA.
30	11	LBS. ELECTRODE, WELD, SFA-5.1, E-7018 3/16" DIA.
31	84	LBS ELECTRODE, WELD, SFA-5.1, E-7018 7/32" DIA.
32	10	LBS WIRE WELD, SFA-5.20 E-70T1, LINDE FC-70T, 1/16" DIA.

SCHEDULE OF OPENINGS

MARK	NO. REQ'D.	NOZZLES SIZE	ANSI RATING	DESCRIPTION	B/M ITEM NO.	FACING	L	E	TYPE	FLG. TO NECK	REINFORCING B/M ITEM NO.	W	A	Y
Z	1	3/4"	3000#	DRAIN COUPLING	8	—	—	"E"	10	—	—	—	—	—
G	1	2"	150#	VAPOR RETURN	5,15	RF	79 1/16	6"	1	21	—	5/16	—	5/16
H1/2	2	3"	150	LEVEL	4,14	RF	79 1/16	6"	4	21	24	5/16	5/16	5/16
E	1	18"O	150#	MANWAY W/BLD. HINGE	7,8,9,10,11,12	RF	—	8"	6	—	23	5/8	1/4	—
D	1	6"	150#	RELIEF	6,16	RF	96 1/8	8"	5	21	22	5/16	1/8	5/16
C	1	2"	150#	DRAIN	3,20	RF	—	6	1	21	—	5/16	—	—
B	1	4"	150	OUTLET	6,18	RF	—	6	6	21	21	5/16	1/4	—
A	1	2"	150#	INLET	3,18	RF	79 1/16	6	1	21	—	5/16	—	5/16

WELDING SPECIFICATIONS

SEAM	WELD PROCEDURE
LONG	01-21-02-22
GIRTH	01-01-02-22
CLOSING	01-01-02-22
HEAD-SHELL	01-01-02-22
HEAD	01-01-02-21
FLG-NECK	01-21-02-21 OR 01-01-01-18
MISC/F. SHELL	01-21-01-15 OR 01-01-01-15
MISC/F. HEAD & NECK	01-21-01-16 OR 01-01-01-17
MISC/F. SADDLE	01-01-05-01
SADDLE	01-01-05-01

JOINT SCHEDULE

JOINT NO.	A	B	G	H
1	0	23°	3/16"	
2	0	25°	3/16"	
3	0	25	3/16"	
10	0	22°	1/8"	3/16"
1	0			

NO.	DESCRIPTION	BY	DATE	CK.	APPVD
A	REV. PER CUST. MK PRINT REC'D 6-27-77	RST	6-30-77	TS	

REVISIONS

CUSTOMER JOB NO. 1703 ITEM NO. 32-001

CUSTOMER ORDER NO. 1703-30-001 NO. REQ'D. ONE

DESIGN NOTES

Construction: All Welded.

Code: ASME 1974 Edition; Section VIII, Division 1; Latest Revision

To Be Stamped By: RILEY-BEAIRD, INC.

To Be Inspected By: COMMERCIAL UNION INSURANCE COMPANY / ORTLOFF INTERNATIONAL

Design Pressure 100 P.S.I. Design Temp. 150°F.

	P.S.I.	Limited By
Max. Allow. Working Press.		
New, Cold	116	SHELL
New, At 150 °F	115	SHELL
Corroded At 150 °F	102	SHELL

Hydrostatic Test Pressure 175 P.S.I. 100°F MIN. WATER TEMP.

Corrosion Allowance: Heads 1/16" Shell 1/16" Nozzles 1/16"

Joint Efficiency Head 85% Shell 85%

Design Stress 17500 P.S.I. Heads 17500 P.S.I. Shell

NATIONAL BOARD NO. 15 REQ'D

Postweld Heat Treatment (is not) Required

Radiography (is) Required (See Note 5)

TOTAL VOLUME 64000 W.G.

VESSEL WEIGHT: 72,887

TOTAL WEIGHT: 72,887 LBS (36.5 TONS)

REFERENCE DRAWINGS

VESSEL DIMENSIONS		Miscellaneous Rev.	Date
WIDTH	12'-1 1/8"		
HEIGHT	13'-6 3/4"		
O.A.L.	79'-5 1/8"		

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RILEY-BEAIRD, INC.

SHREVEPORT, LOUISIANA

144" I.D. X 67'-0 5/16" SEAM TO SEAM - 64,000 GAL.

- BUTANE PLUS PRODUCT TANK

FOR: ORTLOFF INTERNATIONAL

			ORDER NO.	DRAWING NO.
DRAWN	5-9-77	RST		
CHECKED	6-17-77	TS	140328-01	
APPROVED	6-17-77	L.W.S.	SHEET 1 OF	SHEET OF