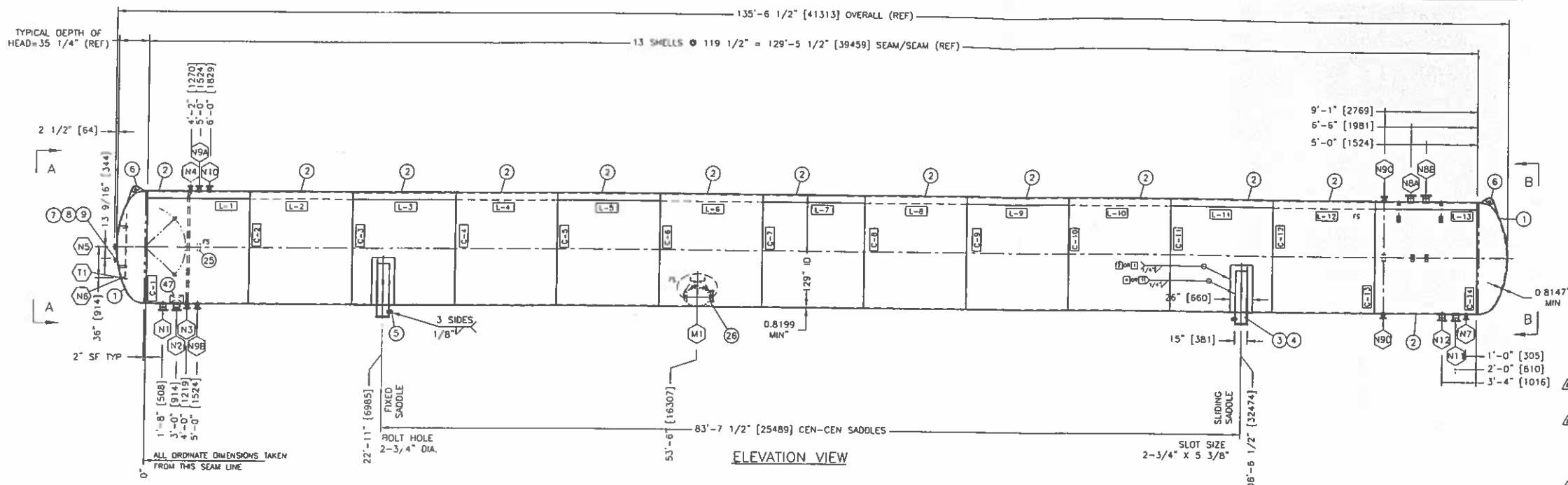
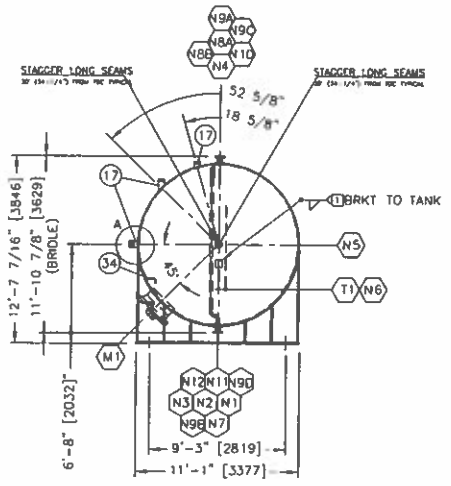


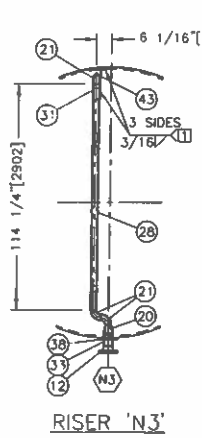
ITEM	LOCATION	PART NO	QTY	UM	DESCRIPTION	
1	HEAD	67502	2	EA	HD 2:1SE 129"ID X .879MN SA516-70	
2	SHELL	69493	13	EA	PL 8159 X 120" X 412" SA516-70	
3	SADDLE	68770	1	PR	SADDLE DETAIL 129" ID	DWG 2004-1134D
4	SADDLE PADS	61289	67.6	F2	PL .500" SA516-70	2 PCS 26" x 15' 7"
5	GROUND STRAP	54136	2	EA	STRAP GROUND FOR PRESSURE VESSEL	DWG B603-01A
6	LIFTING LUG	68807	1	PR	LUG LIFT ON HEAD 129"ID	DWG 2005-0115A
7	DATA PL	58077	1	EA	PL DATA DUAL UNITS METRIC/IMP	DWG 8805-15A
8	DATA PL	55884	1	EA	BRKT DATA PL EXTN	DWG 8507-82A
9	DATA PL	50610	1	EA	RIVET POP 1/8 DIA X 3/8 STL SHANK	
10	N4,N7	53805	2	EA	FLG 2" CL150 RFWN XH BORE SA105N	
11	N3,N9A-D,N10	18650007	6	EA	FLG 3" CL150 RFWN XH BORE SA105N	
12	N1,N2,N11,N12	55404	4	EA	FLG 6" CL150 RFWN XH SA105N	
13	N8A/B	56313	2	EA	FLG 6" CL300 RFWN XH BORE SA105N	
14	M1	59876	1	EA	FLG 24" CL150 RFWN STD BORE SA105N	
15	M1	56009	1	EA	FLG BLIND 24" CL150 RF SA105N	
16	N6	50849	1	EA	CPLG RED 3/4" FNPTX1/4" SW 3000# (MOD)	DWG 8309-8A-1
17	L/P CLIPS	REF	1	SET	LADDER AND PLATFORM CLIPS	DWG MA2002-0802D
18	M1	68205	1	EA	GASKET DURLON 8500 24" RF CL150 1/16	
19	T1	50826	1	EA	THERMOWELL 1/2" FNPT X 9"LG	DWG 722-19A
20	N3	54106	1	EA	REDUCER CONC 3 X 2 STD SA234 WPB	
21	N3	51629	3	EA	ELBOW WELD 90 LR 2 STD SA234 WPB	
22	N5	17255332	1	EA	ADAPT 8 BOLT WELD FLOAT GAUGE SA181	022-00500
23	T1	18630040	1	EA	PLUG HEX HEAD 1/2 NPT SA105	
24	N6	18630050	1	EA	PLUG HEX HEAD 3/4 NPT SA105	
25	P/L/BRD PADS	59206	1.4	F2	PL .375 SA516-70	6 PCS 8" x 4"
26	M3 HING	65925	1	EA	HINGE MANWAY ANGLED 24" 150# 45 DEG	DWG 2000-0722C
27	N6	51524	6.0	FT	PIPE 1/4" XH SMLS SA106B	1 PCS 71-5/8" LG
28	N3	51551	9.6	FT	PIPE 2" STD SMLS SA 106B	1 PCS 114-1/4" LG
29	N4,N7	51552	0.8	FT	PIPE 2" XH SMLS SA106B	2 PCS 4-9/16" LG
30	N9A-D,N10	51560	2.1	FT	PIPE 3" XH SMLS SA 106B	5 PCS 4-13/16" LG
31	N3	51554	0.3	FT	PIPE 2-1/2" STD SMLS SA 106B	1 PCS 4" LG
32	N1,N2,N11,N12	62720	2.1	FT	PIPE 6" XH SMLS SA106B	4 PCS 6 1/8" LG
33	N3	51560	0.5	FT	PIPE 3" XH SMLS SA 106B	1 PCS 5-5/16" LG
34	M1	66820	1	EA	INTERNAL RUNG DETAIL	DWG 2001-0629A
35	N8A/B	62720	1.0	FT	PIPE 6" XH SMLS SA106B	2 PCS 5-11/16" LG
36	M1	59869	7.3	IN	PIPE 24" STD SMLS SA106B	1 PCS 7 3/16" LG
37	N1,N2,N8A/B N11,N12 PADS	64691	6.0	F2	PL .6875" SA-516-70	6 PCS 12" x 12"
39	N3,N9A-D,N10	PADS 64691	2.4	F2	PL .6875" SA-516-70	6 PCS 7 1/2" x 7 1/2"
40	M1 PAD	59225	15.4	F2	PL .875" SA516-70	1 PCS 47" x 47"
41	M1	63957	20	EA	STUD 1-1/4NC X 7-3/4"LG SA193-B7M	
42	M1	60864	40	EA	NUT HEX 1-1/4" SA194-2HM	
43	N3	51411	1.0	FT	BAR FLAT 1/4" X 2" SA 36	1 PCS 12" LG
44	N6	51411	1.5	FT	BAR FLAT 1/4" X 2" SA 36	2 PCS 9" LG
45	L/P PAD	59206	0.6	F2	PL .375 SA516-70	2 PCS 10"X4"
46	BRIDLE CLIPS	51439	1.2	FT	BAR FLAT 3/8" X 6" 44W (SEE DETAIL)	2 PCS 7 3/16
47	N2	64495	0.4	EA	6" VORTEX BREAKER	DWG 9805-20B

SHOP NOTES:

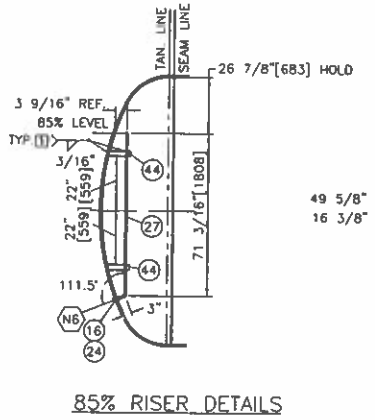
1) BOLT HOLES TO STRADDLE NATURAL CENTRE LINE, EXCEPT AS NOTED.
2) FLANGE GASKET SURFACES TO BE PROTECTED FROM WELD SPATTER.
3) ALL INSIDE CONNECTIONS TO BE ROUNDED TO 1/8" RADIUS MIN.
4) FOR VESSEL PADS, 1/4" DIA. WEEP HOLE REQ'D, 3/4" FROM EDGE AT LOWEST POINT OF PAD
5) SERVICE BOLTS & GASKETS NOT TO BE USED FOR HYDROTESTING.
6) AFTER FINAL HYDROTEST, VESSEL TO BE COMPLETELY DRAINED & DRIED PRIOR TO COVERING AND PROTECTING ALL OPENINGS.
7) VESSEL TO BE SHIPPED WITH SERVICE BLINDS, GASKETS & BOLTING IN PLACE.
8) NO EXPOSED OPENINGS ALLOWED WHILE IN SERVICE OR TRANSIT. ALL FLANGE FACES TO BE PROTECTED. FIT STEEL PLUGS IN THREADED CONNECTIONS AS REQUIRED.
9) ALL INTERNAL NOZZLE PROJECTIONS, SHALL BE MEASURED ALONG SHORTEST SIDE UNLESS OTHERWISE SPECIFIED.
10) CONTOUR PADS TO HAVE 1" RADIUS ON CORNERS.
11) CONTOUR PADS TO BE WELDED TO TANK PRIOR TO WELDING OF SADDLE, (FOR EASE OF MANUFACTURING).
12) TACK WELDING USE PROCEDURE WPS 609.2-S-170.
13) AT ROLLING, MARK REFERENCE LINE ON 2 END CANS 2" FROM EDGE.
14) ACCEPTABLE MATERIAL SUBSTITUTIONS:
SA333 GR6 FOR SA106B
SA350-LF2 FOR SA105
ALL OTHER SUBSTITUTIONS SHALL BE APPROVED BY ENGINEERING.
15) USE OF SPLIT REPADS REQUIRES ENGINEERING APPROVAL AND ABSA



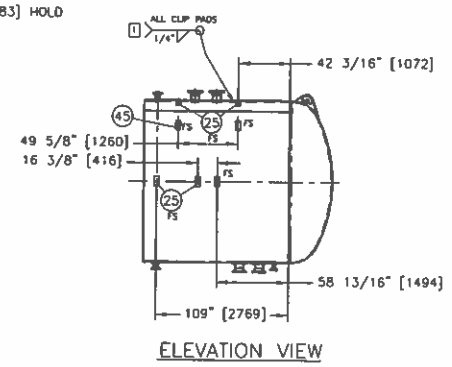
END VIEW A-A



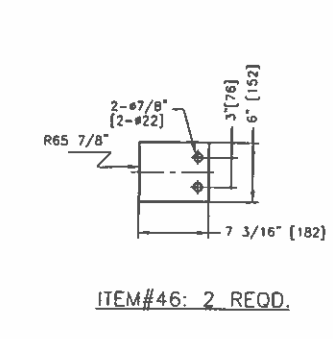
RISER 'N3'



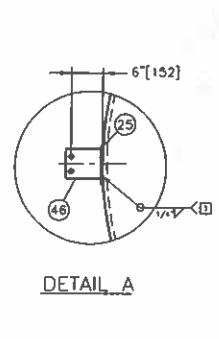
85% RISER DETAILS



ELEVATION VIEW
CLIP PADS POSITION

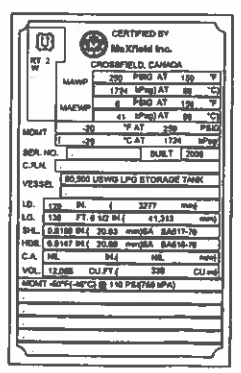


ITEM#46: 2 REQD.



DETAIL A

	SERVICE	No REQ'D	SIZE	RATING	TYPE	BORE	EXTERNAL PROJ.	MINIMUM INTERNAL PROJ. (REF.)	REINFORCING PAD THICKNESS	REINFORCING PAD OD.	WELD DETAILS	WELD SIZES A	B	C	D	E	F	G	REMARKS
N1	LIQUID IN	1	6"	150#	RFWN	XH	8" ⚠	1/2"	0.6875	12"	III, VI	3/8	1/4	FULL	1/2	FULL			ITEMS #12,32,37
N2	LIQUID OUT	1	6"	150#	RFWN	XH	8" ⚠	1/2"	0.6875	12"	III, VI	3/8	1/4	FULL	1/2	FULL			ITEMS #12,32,37
N3	VAPOUR W/RISER	1	3"	150#	RFWN	XH	6"	7/8"	0.6875	7 1/2"	III, VI	3/8	1/4	FULL	1/2	FULL			ITEMS #11,20,21,28,31,33,39,43
N4	PURGE	1	2"	150#	RFWN	XH	6"	0"	-	-	II, VI	1/4		FULL					ITEMS #10,29
N5	FLOAT GAUGE	1	FLOAT GAUGE ADAPTER				2 1/2"	0"	-	-	II, VI	1/4		FULL					ITEMS #22
N6	PRESSURE GAUGE & 85% OUTAGE	1	3/4" x 1/4"	3000#	RED. CPLG		3/4"	7/16"	-	-	II, VI	1/4		FULL					ITEMS #16,24,44
N7	LIQUID	1	2"	150#	RFWN	XH	6"	0"	-	-	II, VI	1/4		FULL					ITEMS #10,29
N8A/B	PSV	2	6"	300#	RFWN	XH	8" ⚠	1/2"	0.6875	12"	III, VI	3/8	1/4	FULL	1/2	FULL			ITEMS #13,35,37
N9A/B MSC/D	BRIDLE	4	3"	150#	RFWN	XH	6"	1/2"	0.6875	7 1/2"	III, VI	3/8	1/4	FULL	1/2	FULL			ITEMS #11,30,39
N10	EQUALIZATION	1	3"	150#	RFWN	XH	6"	1/2"	0.6875	7 1/2"	III, VI	3/8	1/4	FULL	1/2	FULL			ITEMS #11,30,39
N11	LIQUID IN	1	6"	150#	RFWN	XH	8" ⚠	1/2"	0.6875	12"	III, VI	3/8	1/4	FULL	1/2	FULL			ITEMS #12,32,37
N12	LIQUID OUT	1	6"	150#	RFWN	XH	8" ⚠	1/2"	0.6875	12"	III, VI	3/8	1/4	FULL	1/2	FULL			ITEMS #12,32,37
T1	THERMOWELL	1	1/2"	DWG 722-19A			2 1/2"	5 1/4"			II, VI	3/8		FULL					ITEMS #19,23
M1	MANWAY W/BLIND	1	24"	150#	RFWN	STD	10"	1"	0.875	47"	III, VI	3/8	1/4	FULL	5/8	FULL			ITEMS #14,15,18,26,34,36,40,41,42

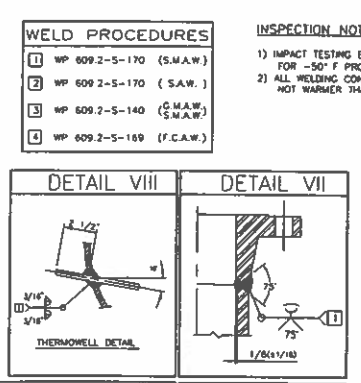


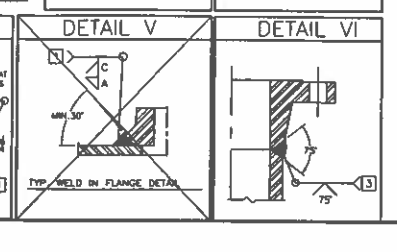
WELD PROCEDURES

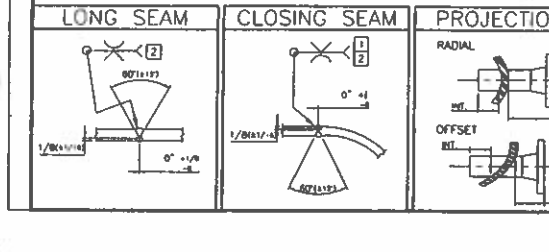
1	WP 609.2-S-170	(S.M.A.W.)
2	WP 609.2-S-170	(S.A.W.)
3	WP 609.2-S-140	(G.M.A.W. S.M.A.W.)
4	WP 609.2-S-169	(F.C.A.W.)

INSPECTION NOTES:

1) IMPACT TESTING EXEMPT AS PER UG20(f) (1) TO (5) -20° F & UCS66(a)&(b) FOR -50° F PRODUCTION IMPACT TEST EXEMPT PER UCS-67(d)(2)
2) ALL WELDING CONSUMABLES MUST BE CLASSIFIED BY IMPACT TEST PER SFA SPEC AT A TEMP. NOT WARMER THAN -50° F







DESIGN DATA – ENGLISH (METRIC) UNITS

ASME SEC. VIII DIV 1, 2004 EDITION, 2005ADDENDA		SYMBOL UW12 (a) & (d)	
DESIGN INT: 250psi(1724kPa) EXT: 6 psi(41 kPa)		DIAMETER	129"(3277mm)
MAWP INT: 250psi(1724kPa) EXT: 6 psi(41 kPa)		LENGTH O/A	135'-6 1/2"(41,313mm)
DESIGN TEMP. – INT & EXT: 150°F(66°C)& 150°F(66°C)		CAPACITY:	12,098ft^3(339m^3)
MDMT: -20/-50°F @ 250/110psi (-29/-46°C@ 1724/758kPa)		SURFACE AREA:	4634ft^2(431m^2)
XRAY SHELL LONG: FULL	CIRC: UW-11(a)(5)(b)	HEAD TYPE: 2:1 SE	
XRAY HEAD LONG: SMLS	CIRC: UW-11(a)(5)(b)	HEAD MATERIAL: SA516-70	
JOINT EFF. SHELL LONG: 1.0	CIRC: 0.7	HEAD THICKNESS: 0.8147"MIN(20.69mm)	
JOINT EFF. HEAD LONG: SML	CIRC: 0.7	HEAD CORROSION ALLOWANCE: NIL"(NILmm)	
STRESS RELIEVED: NO		SHELL MATERIAL: SA516-70	
HYDRO TEST MEW & COLD: 328psi(2262kPa)		SHELL THICKNESS: 0.8199"(20.83mm)	
LIMITED BY: SHELL		SHELL CORROSION ALLOWANCE: NIL"(NILmm)	
EST. SHIPPING WEIGHT: 186,000lb(75,450kg)		STUDS: SA193-B7M	
EST. HYDRO TEST WEIGHT: 921,000lb(417,759kg)		NUTS: SA194-2HM	
SANDBLAST: SSPC-SP6		MW GASKETS: DURLON 8500 1/16" THK	
PRIMER: - PAINT: Cloverdale DTM Polyurethane 835		FLANGES: SA105N PIPE: SA106B	
INSULATION: NONE		SUPPORT MTL: 44W	
CRN PENDING		REINFORCING MTL: SA516-70	
		REC DRAWING 2006-0532D REV D	

REV NO.	DRWN	DATE	CHECKED BY	APPROVED BY	DESCRIPTION
A	JW	06.07.25	KMA		REVISED 6" NOZZLE PROJECTIONS TO 8"&MANWAY STUDS AND NUTS
0	JW	06.07.17	DB	.	SPLITTED FROM 2006-0532D

MaXfield Inc.

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90,500 USWG – 129"ID LPG STORAGE TANK
LOCATION: CATT
PLAINS MARKETING

THIRD ANGLE PROJECTION | SEE DRAWING 2002-0707D FOR APPLICABLE TOLERANCES UNLESS OTHERWISE STATED | SCALE: NTS | P/N: 69694

JOB: 31-1558
DRAWING No. MA2006-0532D SHEET 1 OF 1
REV A