781479 Shop Order Number

FORM U-1A MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS

Corrected

(Alternative Form for Single Chamber, Completely Shop-Fabricated Vessels Only)

As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

Сору

			/1011	cquirea	by the r revision	13 OF THE / TOTAL	Odde Male	3, 000110	11 V 111	, DIVISION I			
1. Ma	anufactured and ce	ertified	by Trinity Inc	lustries	, Inc Plant (a, 2780)1, USA	
2. Ma	anufactured for 上	lamilto	n Mechanica	al Servi	ce, Inc., P.O. I	Box 148, Choo		Alabam	a, 36	,			
	ocation of Installation	Uа	milton C/O E	mon, H	niversity Inc	,	d address o		,	aia 20206 I	16.4		
3. Lo	cation of Installation	on IIa	illilloii C/O E	illory o	iliversity, ilic.		Name and			gia, 30300, t	USA		
	rpe Horizontal (Horiz, or Vert, tank)	_	R001370 (Mfr's serial			N/A CRN)		ST-9 r Drawing I				0013703 I. Bd. No.)	
5. T	he chemical and poods. The design		properties of	all parts	meet the requir	rements of mate	erial specific	cations o	f the /			PRESSURE	, ,
_	3	N/	•	Orkinans		N/A	,	DIVISION	·	(year)		Addenda (D	ate)
6. Sh		ode Ca SA-612		(Special Service per UG-120(d) 0.589" 0" 9' 0.168" (ID) 31' 10.0"								
J. J.			., Grade)		n. Thk. (in.)	Corr. Allow. (i		m. I.D.(fi				(ft. & in.)	
	eams: TYPI Long. (Welded, Dbl., Sngl		tt) Fu		100% N Eff.(%) H.T. Te	emp (°F) N/A	Girth. (W	TYPE elded, Dbl.,		ap, Butt)	R.T.(Sp	Spot oot, Partial or Full)	No. of Courses
8. He	eads: (a) Mat'l: _				M NORMALIZ	ED	(b) N	/lat'l		//		N/A No., Grade)	
П	Location (Top, Bottom	I Mi		orrosion	Crown Radius	Knuckle Radius	Fllintical Rat	io Conical	Anex		Flat		essure (Convex or
	Ends)	Thi	ckness All	owance				Ang	jle	Radius	Diamete	er (Concave)
(a)	Ends N/A		338" N/A	0" N/A	0.0"	N/A N/A	N/A N/A	N/.		54.335" 0.0"	N/A N/A	C	oncave N/A
(b)	novable, bolts use				0.0	IN/A	N/A	IN/			N/A		N/A
	novable, bolts aso	a (acco	TIDO OUTOT TOOK	omigo)			(Mat'l Sp	N/. ec. No	A ., Gr., Size, No.)		
9. M	AWP	250		nsi at ma	ax. temp.	125	°F	, -		.,,,	,		
				p = 1 = 1									
	. design metal tem			°F at	250	psi	Hydro, pne	ı., or cor	nb. te	st pressure _		Hydro, at 3	325 psi.
10.1	Nozzles, inspectior	n and s	afety valve ope	enings:									
Purpose (Inlet, Outlet, Drain)		No.	Diam. or Size	Ту	ре	Mat'l.		Nom. F		leinforcement Mat'l.		How Attached	Location
MANWAY		1	15"	PTFLG	SA516-	70N	2.	5"	INTE	EGRAL		(i)	Head
LEVEL GAUGE		1	2.5"	CPLG	SA105			000#			_	(y-2)	N/A
	RY GAUGE	1	2"	CPLG	SA105			000#			_	(y-2)	N/A
	MOWELL	1	0.75"	CLPG	SA105		60	000#				(y - 2)	N/A
	<i>onal Nozzles - See A</i> Supports: Skirt		<i>∪-4</i> Lugs N /	Δ .	egs N/A	Other		N/A		Attac	had		N/A
11. 0		es or no)			(No.)	Other		escribe)			ileu		and how)
12. R	emarks: Manufacturer	's Partial	Data Reports pro	perly iden	tified and signed b	y Commissioned Ir	nspectors, hav	e been fur	nished	for the following	items o	f the report:	
Т	rinity Head #1: T	373-24	19-H5 Trinity										
				`	' '	number, Mfgr's		,	U	1 /			
	ANK, HORIZONT E USED IN A N					WG. ST-9 S DEG. F @ 1		, SHT LINE		TO			
M	DMT/PSI BASED	ON U	CS-66(a),	UCS-6						•			
We	certify that the sta	atemen				OP COMPLIA Ind that all detai		n. mater	ial. co	onstruction, a	and wo	rkmanship of	this vessel
conf	form to the ASME	Code	for Pressure	Vessels	, Section VIII,	Division 1. "U"	Certificate	of Auth	orizat	ion No. 1082	29		July 7, 2003
Date	e 11/03/2000	Co.	name		Trinity Indu	stries, Inc Plan	t 04			Signed -	1	(Representa	<i>たここ</i>
					(Manı	ufacturer)					7	(Representa	tive)
					CERTIFIC	ATE OF SHO	P INSPEC	TION					
unde	el constructed by rsigned, holding a va		nission issued by	/ The Nati	s, Inc Plant 04 ional Board of Bo	iler and Pressure	Vessel Inspe	ctors and	or the		се тх		I, the
	employed by <u>IB&M F</u> November 3, 2000	RE, INC.,	of Arlington, TX	hest of m	v knowledge and	belief, the Manufa	have inspecturer has co	ected the	compo	nent described	in this N	Manufacturer's D	ata Report on
VIII, I Manu	Division 1. By signing ufacturer's Data Repo	g this ce ort. Furth	rtificate neither t nermore, neither	he Inspec	tor nor his employ	yer makes any wa	rranty, expre	ssed or in	nplied,	concerning the	pressur	re vessel describ	ed in this
	ng from or connected		·	(J., A.	٥Δ							
	Date01/04/20	001	Signed	<u>ب</u> (Aı	س <u>ار سرای و محلی</u> uthorized Inspe	<u>uk∌</u> r ector)	Commissions		(Nat'l	Board (incl. en	680 A, dorseme	TX1117 ents), State, Pro	v. and No.)
	26464	940	v6 4 46	•	·					•			rm and version: IIIA-:

FORM U-4 MANUFACTURER'S DATA REPORT SUPPLEMENTARY SHEET

As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1 $\,$

1. Manufactured an	d certified	by <u>Trinity I</u>	ndustries, Ir	nc Plant 04, 1549 Vance S (Name and a	treet, Rocky	<mark>Mt., North Carolina, 2</mark> Ifacturer)	7801, USA						
				Inc., P.O. Box 148, Choccol (Name and addres	occo, Alabam	na, 36254, USA							
3. Location of Insta	llation _	Ha	milton C/O l	Emory University, Inc., 1456		,	30306, USA						
				ina addiess)									
4. Type	Horizo Ioriz, vert., o	ontal or sphere)		N/A (Tank, separator, heat exh., etc.)		R0013 Mfg's ser	3 703 rial No						
,		л эрпеге)		,		-							
	/ A RN)		ST (draw	-9 r- ing no.)	R (Na	0013703 t'l Bd. No.)	(Yea	000 ar built)					
Additional nozzles, in Purpose (Inlet, Outlet, Drai	No	and safety valv	Type	Mat'l.	Nom. Thk.	Reinforcement Mat'l.	How Attached	Location					
LL-PG	1	0.75"	CPLG	SA105	6000#		(y-2)	N/A					
VAPOR	1	2"	CPLG	SA105	3000#		(z-1)	N/A					
LIQUID OUT	1	3"	CPLG	SA105	6000#		(z-1)	N/A					
FILL	1	2"	CPLG	SA105	3000#		(z-1)	N/A					
VAPOR	1	2"	CPLG	SA105	3000#		(y-1)	N/A					
RELIEF	2	2"	CPLG	SA105	3000#		(z-1)	N/A					
Date 11/03/200	0	Type <u>"U"</u> Name Name		No. 10829 rinity Industries, Inc Plant 04 (Manufacturer)	Commission	Expires July 7, Signed 9680	2003 CH-J (Representative A, TX1117						
Date <u>01/04/200</u>	<u> </u>	1401116	(Autho		Commission	(Nat'l Board (incl. endorse	ments), State, Prov	vince and No.)					

FORM U-2A MANUFACTURER'S PARTIAL DATA REPORT (ALTERNATIVE FORM)

A Part of a Pressure Vessel Fabricated by One Manufacturer for Another Manufacturer

As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

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.19

1. Manufact	ured and certified	by	TRINITY	Y INDU	STRIES	INC. A		I MADERO			STRIAI	FRONT	ERA CO	AH. M	IEX.			
2. Manufact	ured for	TRIN	ITY IND	USTRIE	ES, INC.	P.O. B	OX. 568	87,DALLAS,	TX. 75		387							
3. Location	of installation	_		NOT K	NOWN			(Name and address)										
4. Type	HEMISP									T373-2					N.A.			
[Description of vessel part (shell, two-piece head, tube bundle)] N.A.								TRINITY							2000 (Year built)	.		
	id. No.) ode, Section VIII, 1	Div. 1				A 00		v		N.A.	υ γ,		vi ie		N.A.	Treatment Time y A one Eff		
4 Chall		(a) No.	of course(s):		Edition and /	N.A.				de Case No. rall lengt	h (ft & in.)	 :		Special:	Service per UG-120 (d)			
6. Shell (a) No. of course									(0) 0.10									
	Course (s)		Mate			kness	Tune	Long. Joint (Cat		Eff.		rcum. Joint (C	at. A, B, & C) ot, None	Eff.	Heat Treats Temp.			
No. Diamet	ter, in Length, ft	& in.	Spec./Grade	or Type	Nom	Соп.	Type	Full, Spot, No	жіс	EII.	Туре	Full,Sp	ot, ivone	Eli.	remp.			
			L <u>. </u>									<u> </u>		L	<u> </u>			
7. Heads:(a)				SA-612	No., Grade or 1	ype) H.T Ti	me & Temp.		. (b)	<u></u>	(Mat	N.A. I Spec. No., Grad	le or Type) H.T.	- Time & T	emp	-		
					T .		E115-41-4	Control 1			El-a	Sidana	Dunasura	ī	Category A			
	Location (Top, Bottom, Ends)		Thick Min.	Corr.	Crown	Knuckle	Elliptical Ratio	Conical Apex. Angle	ı	pherical dius	Flat Diameter	Convex	Pressure Concave	Туре	Full,Spot, None	Eff		
	Bottom, Emery		0.360	0				, , , , , , , , , , , , , , , , , , ,		673"			Х	1 SPOT		85%		
									<u> </u>				<u> </u>			<u> </u>		
If removable, bolts used (describe other fastening) (Mat'l Spec. No., Grade, Size, No.)																		
8. MAWP	N.A.			N.A.		psi at ma	x. temp.	N.A.	N./	À	°F.	Min. design	metal temp.	N.A.	•F. a N.A	. psi		
9. Impact test	(internal)			(external)		NO		(internal)	(ext	emal)								
				(Indicate yes	or no and the	component(s)	impact tested}	D C A A					N.A.					
10. Hydro pr	neu., or comb, test pr	ess.	-		N.A.			Proof test					*******					
	spection, and safety	valve oper			1								UW-16.					
Purpose (Inlet, Outlet, Drain, etc.) No		No.	Diam or 5	neter Size	Flange	Ma Nozzle	terial Flange	Nozzle 1 Nom.	hickness	OIT.		orcement Material	Nozzle	Attache				
ROTO		1	2	-	CPLG.	SA105		3000#					Y-2					
		-												-				
					-									\vdash				
12. Supports:	Skirt	NO	·	Lugs	N.A.	Legs	N.A.	Others	N.A.			Attached		N.A.				
		(Yes or no		HEAD.	(No.)	A PTINE	(No.)	FORMED A	(Describe)		OI ED			(Where	and how)			
13. Remarks:	JOB. NO			HEAD	SECIVII	MISA	KE HOI	TORNIED P	א שווג	ik co	OLLD							
					C	ERTIFIC	CATE OF	SHOP/FIELD	COMP	LIANCE	3							
1	We certify that the s			•	correct an							ssure vessel	part conform	to	. /	/		
	the ASME Code for U Certificate of Autl			ion VIII, D		578		Expires		9	JUL / 18	/ 2003			M.J			
,	O Certificate of Aud	ioi izatioti	140.		25	370		Expires			7047 10	7 2005		-				
I	Date 10/3	5/0	0	Name		TRIN	VITY IN	DUSTRIES II (Manufacturer)	VC.			Signed	FIDEN	(Represe		DILLO		
					(CERTIFI	CATE OF	SHOP/FIELD	INSPE	CTION								
	I, the undersigned,	holding	a valid com	niccion ico	mad by the	National	Board of B	oiler and Dressure	Versel I	Incheston	e and/or the	e State or Pro	wince of	TE)	KAS .			
	and employed by			B&M	RE, IN	IC.		11	of _	ARLI	NGTON	ITX.	ha	ve insp	ected the			
1	pressure vessel par Manufacturer has o					•	ith ASME	(02/2000) Code, Section VI				best of my l						
	employer makes	any war	ranty, expre	ssed or i	mplied, co	ncerning	the pressu	re vessel part des	cribed in	this Mai	nufacturer'	s Data Rep	ort. Further	more, n	either the			
	inspector nor his er	mployer	shall be liab	ie is ahy n	nanner for	niy persor	ial injury o	r property damage	or a los	s of any l	cind arising	10		this ins	spection.			
	Date / 0/09/20	200	Signed _	_'il-	~ C	l'america)	0	Co	mmissio	ns		TX-987						
					(Authorized	inspector)					(Nat'l Bos	rd incl. endorsem	ent , State. Prov	rince and N	lo.)			

FORM U-2A MANUFACTURER'S PARTIAL DATA REPORT (ALTERNATIVE FORM)
A Part of a Pressure Vessel Fabricated by One Manufacturer for Another Manufacturer

As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

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3	nd?	<u> </u>	
Χ			
	N.A.		
	2000		
.A.	'car built)		
nce per	UG-120 (d)		
	Heat Treatm	ent	
T	emp	Time	
		<u> </u>	
р.			
C	ategory A		
ull,Sp	ot, None	Eff	
S	РОТ	85%	
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MAC	AD CEI	DILLO	
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. Manufactured a	and certified b	у	TRINITY	INDU	STRIES	INC. A		I MADERO			STRIAL	FRONT	ERA CO	AH. M	IEX.					
2. Manufactured f	for	TRINI	TY INDI	JSTRIE	ES, INC.	P.O. B	OX. 568	87,DALLAS,	TX. 75		887									
3. Location of inst	tallation			NOT K	NOWN			(Name and address)		<u></u>		, <u>,</u>								
4. Туре	HEMISPH	ERIC	AL HEA	D				T373-249-H10 N.A.												
N.A.	(Descrip	tion of vess	el pari (shell, tv	vo-piece head 171301	i. tube bundle)) 0006-01	REV.0		TRINITY		STRIE					20	00				
(Nat I. Bd. No.)	antion VIII D	iv 1	_			ng No.) A 00				ng prepared N.A.	byl				N.A.	built)	Eff 85%			
5. ASME Code, Se	IV. 1				ddenda(date)		<u> </u>	Coc	de Case No.				Special S	Service per UG-1	20 (d)					
6. Shell	(a) No. c	of course(s):			N.A.			(b) Ove	rall lengt	h (ft & in.)	:		N.A.							
Course (s)			Mate	rial	Thic	kness		Long. Joint (Cat	. A)	A) Circum. Joint (Cat. A, 1			at. A, B, & C)				nt			
No. Diameter, in.	Length, ft &	k in.	Spec/Grade	ог Туре	Nom	Corr.	Туре	Full, Spot, No	ne Eff.		Туре	Full.Sp	ot, None	Eff.	Temp	-	Time			
N.A.														-						
		-																		
7. Heads:(a)				SA-612	2N				(b)			N.A.								
/. neaus.(a)	-				No., Grade or T	ype) H.T Ti	те & Тепір				(Mat	Spec. No., Grad	e or Type) H.T.	Time & T	emp.					
Lo	ocation (Top,	Ī	Thick	ness	Rae	dius	Elliptical	Conical	Hemis	pherical	Flat	Side to	Pressure		Catego	ory A				
В	ottom, Ends)		Min.	Corr.	Crown	Knuckle	Ratio	Apex. Afigle		dius .	Diameter	Convex	Concave	Type	Full,Spot, N					
			0.365	0					34.0	673"					510	•	0370			
					<u>, </u>	I		<u> </u>	L		N.A.		<u> </u>							
(Mai 1 Spec. No., Grade, Size, No.)																				
8. MAWP	N.A.			N.A.		psi at ma:	x. temp.	N.A.	N.A	crual)	°F.	Min. design i	netal temp.	N.A.	°F. a	N.A.	psi psi			
9. Impact test						NO														
10. Hydro., pneu., or	r comb, test pres	ıs.		[Indicate yes	or no and the o	oniponeni(s)	inipact testeoj	Proof test					N.A.							
		•			•								UW-16.	1						
11. Nozzies, inspection, and safety valve op Purpose (Inlet,			ings: Diam	eter	Flange	Ма	terial	Nozzle 1	Thickness		Rein	orcement		Attache	d	Location (Insp Open.)				
Outlet, Drain		No.		Size	Туре	Nozzle	Flange	Nom.		orr.		Material	Nozzle	Fl	ange	(Insp (Open.)			
MANWA		1	15"		FLG.	0.105	SA105	250#					Y-2	-	1					
FLOAT GA		1	2.50 0.75		CPLG	SA105 SA105		3000# 6000#					Y-2	 						
PG. LL.		1	0.75		CPLG	SA105		6000#					Y-2							
12. Supports: Skirt		NO		Lugs	N.A.	Legs	N.A.	Others	N.A.			Attached		N.A.						
13. Remarks:	DOLLAR	Yes or no)	ES AND	HEAD	(No.) SEGMI	ENTS A	(No.) RE HOT	FORMED A	(Describe)		OLED			(Where	and how)					
15. Itemaras.	JOB. NO.																			
													· · · · · · · · · · · · · · · · · · ·							
						ERTIFIC	CATE OF	SHOP/FIELD	COMPI	LIANCI										
					correct an			terial, construction				ssure vessel	part conform	to	٠,	/1				
	ME Code for P tificate of Author			ion VIII, D		678		Expires			JUL / 18	/ 2003			LA.					
O Cell	incate of Audio	nization	110.		20	370	to-Nomeroo	: Expires			JOD / 10	7 2005		-	dist	7				
Date	10/	5/0	00	Name	,	TRIN	ITY INE	OUSTRIES IN	IC.			Signed	FIDEN	CIO T		CED	ILLO			
 					(CERTIFI	CATE OF	SHOP/FIELD	INSPE	CTION										
												. Charles T		ΤE>	/AC					
	undersigned, h mployed by	olding a	valid comr	nission is:	B&M	RE, INC	Board of Bo	oiler and Pressure	Vessell		s and/or th				ected the					
	ure vessel part							102/2000				best of my l								
								Code, Section VI re vessel part des												
								r property damage												
Date	10/09/2	000	Signed	(4	2t	the	#5	, ˈ Co	mmissib	ns		TX-98	7							
					(Authorized	i inspector)					(Nat'l Boa	rd incl. endorsem	ent , State. Prov	ince and N	ło.)					