C-7/3/ 1/442 FORM U-1 MANUFACTURERS' DATA REPORT FOR PRESSURE VESSELS (1) 12"-162 Sq. F= as required by the provisions of the ASME Code rules, Section VIII, Division 1

		nd certified								nesport, NJ 0	
2. Man	ufactured fo	or Sofix	Corporat:	ion, 10	1 Nort	hgate Co	mmercial	Center, Cl	nattanoo	ga, TN 37415	
3. Loca	ation of insta	allation So	fix Corpo	pration	, 2800	Riverpor	t Road,	Chattanoog	ga, TN	37406	
4. Type: Horizontal (horiz or vert., tank)		ntal	B-4618			(CRN)		e and address) D-91132-1 42		1991	
The	nh				•- •		(drawing no.)		1. 8d. no.)	(year built)	
VES	SEL CODE. T	the design, o	construction	all parts me and workm	et the requantition	uirements of nform to ASM	material spe ME Code, Sec	cifications of the	ne ASME BO	ILER AND PRESSUR	
1989		1989	(Code Case no.)				4.5			(year)	
								special service per l			
ms 6-1	1 inclusive	to be compl	leted for s arg	ie vai /veo	Sefs, jacke	r o of juaker	र्ज १एउउटा छ, न्य	shells of hear	t exchangers	en Magagleff L	
			3	156"		15. Tackers of fackered resides of shells of heat exchangers.					
(mat'l. (spec. no grade)) . Seams: Welded		ied	(nom. (thickness (in.)) 85		(corr. allow, (ir	1.))	(dia. ID (ft. & in.))) (le	(length (overall) (ft. & in.))	
	(long. (dbl	sngi.))	(AT (spot or full	(eff. (%	(HT (em)	o. (°F)) (time)	(girth (dt	il., sngl.)) (RT(sp	ot, partial, or ful	I)) (no. of courses)	
Head	s: (a)	and the second second				(b			The state of the s		
_	· · · · · · · · · · · · · · · · · · ·		(mat'l. (spec.	no., grade))		(0	7	(mat'l. (s	spec. no., grade))))	
	ocation (top, ottom, ends)	Minimum Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (convex or concave)	
(a)											
(b)						,::4					
	of jacket: t closure:	***		Proof i	test: ar, give din	nensions:		spec. no., gr., size,	·	l describo os akatak	
Jacke	t closure:	(describe as og	lee & weld, bar, e	if b	ar, give din				If bolted		
Jacke MAW!	t closure:	(describe as ogo at max. temp	p. 300 (*F)	If b	ar, give din				If bolted	t, describe or sketch.	
Jacke MAWI Is 12 a	85 (psi)	describe as ogo at max. temp	p. 300 (°F) for tube sect	Min design	ear, give din	p.: 20	at 85 (psi)		If bolted		
Jacke MAW! is 12 a	t closure:	describe as ogical max. temper completed at 240-T304	p. 300 (*F)	Min design	ear, give din n metal tem -3/4 ¹¹ 0 . I	p.: 20 (*F)	at 85 (psi)	. Hydro., p rec.: "O"	If boited	pressure145 (psi) Welded	
Jacke MAWI is 12 a	t closure:	at max. temper completed in the completed in the complete completed in the complete	for tube sect	Min design tions.	-3/4 ¹¹ 0.I	p.: 20 (*F) 3/4 ¹ (nom. thick) 15!	at 85 (psi) Thk. ness (in.)) ## Std.	. Hydro., p rec. ¹¹ 0 ¹¹ (corr. allow. (If boited or some in.)) (att	t pressure 145 (psi) Welded	
Jacke MAWF as 12 a Tubesi	t closure:	at max. temper completed in the completed in the complete distribution of	for tube sect	Min designations. 12- (in) (subject to 12- (dia. (in.)	-3/4 ¹¹ 0.I	20 (°F) 0. 3/4 (nom. thick) (nom. thick)	at 85 (psi) Thk. ness (in.)) 7# Std. ness (in.))	(corr. allow. (If boited	Tivelded achment (welded, boited)) etained by Lit (attachment)	
Jacke MAWF as 12 a Tubesi	t closure: 85 (psi) and 13 to be theets: SA: (station (floatin SA249—T3	at max. temper completed in the completed in the complete distribution of	for tube sect	Min design tions.	oar, give din n metal tem -3/4 ¹¹ 0 . I o pressure) -3/4 ¹¹ I . I	20 (*F) 0. 3/4 (nom. thick) (nom. thick) 18 Ga.	at 85 (psi) Thk. ness (in.)) ## Std.	(corr. allow. (incorr. allow.	If boited	Welded achment (welded, boited)) etained by Ling (attachment) straight	
Jacke MAWF s 12 a Tubes iy F] Tubes:	t closure: 5. 85 (psi) 10d 13 to be heets: SA. (station Langes: (floatin SA249-T2 (mat'l. (sp	completed at max. temper completed at max. temper completed at 240-T304 may mat 1. (spec. SA105 mg mat 1. (spec. sand at	for tube sect	Min design tions. 12- (in) (subject to 12- (dia. (in.)) 5/8**	-3/4 ¹¹ 0.I	20 (°F) 0. 3/4 (nom. thick) 15((nom. thick) 18 Ga.	at 85 (psi) Thk. ness (in.)) ness (in.)) r gauge)	(corr. allow. (inc.)	in.)) (att	Tivelded achment (welded, boited)) etained by Lit (attachment)	
Jacke MAWF IS 12 a Tubesi Tubes: Tubes:	t closure: 85	completed at max. temper completed at max. temper completed at max mat 1. (spec. SAI 0.5) and mat 1. (spec. said at max max mat 1. (spec. said at max	for tube sect	Min design tions. 12- (in) (subject to 12- (dia. (in.)) 5/8**	-3/4 ¹¹ 0.I	20 (*F)). 3/41 (nom. thick) (nom. thick) 18 Ga. thickness (in. o	at 85 (psi) Thk. ness (in.)) Off Std. ness (in.)) r gauge))	(corr. allow. (inc.) (corr. allow. (inc.) (corr. allow. (inc.)	If boited in.)) (att	Welded achment (welded, boited)) etained by Lit (attachment) straight (type (straight or U))	
Jacke MAWF IS 12 a Tubesi Tubes: Tubes:	t closure: 85	completed at max. temper completed at max. temper completed at max mat 1. (spec. SAI 0.5) and mat 1. (spec. said at max max mat 1. (spec. said at max	for tube sections. gr.)) (diano gr.)) (diano gr.))	Min design tions. 12- (in) (subject to 12- (dia. (in.) 5/8**	-3/4 ¹¹ 0.I	p.: 20 (*F) 0. 3/4 ¹ (nom. thick) 15((nom. thick) 18 Ga. thickness (in. o	at 85 (psi) Thk. ness (in.)) # Std. ness (in.)) r gauge)) channels of	(corr. allow. (inc.) (corr. al	If boited in.)) (att	Welded achment (welded, bolted)) etained by Literated (attachment) straight type (straight or U))	
Jacke MAWF IS 12 a Tubes: Tubes: Tubes: Shell:	t closure: 5: 85 (psi) 10 13 to be heets: SA: (station Langes: S (floatin SA249-T3 (mat'l. (spi SA312-T3 (mat'l. (spec	completed (240-T304) pary mat'l (spec. 304) pec. no gr.)) o be completed (240-T304) c. no gr.)) ed	for tube sections. gr.)) (diano gr.)) (diano gr.))	Min designations. 12- (in) (subject to 12- (dia. (in.)) 5/8**	-3/4 ¹¹ 0.I	20 (*F)). 3/41 (nom. thick) (nom. thick) 18 Ga. thickness (in. o	at 85 (psi) Thk. ness (in.)) r gauge) channels of	(corr. allow. (inc.) (corr. allow. (inc.) (corr. allow. (inc.) (corr. allow. (inc.) (dia. ID (ft. & in.))	in.)) (att	Welded achment (welded, boilted)) etained by Lin (attachment) straight (type (straight or U)) 1 @ 411 Lg. 1 @ 811 Lg. gth (overall) (ft. & in.))	
MAWF as 12 a Tubesi Tubes: \$ 14-12 Shell: _ Geams:	t closure: 85 85 (psi) 13 to be (station Langes: (station Langes: (floatir SA249-T2 (mat'l. (spec Welde (long (db))	completed at max. temper completed c	for tube sect inc. gr.)) (F) for tube sect inc. gr.)) (dia. (AT (spot or full)	Min designations. 12- (in) (subject to 12- (dia. (in.)) 5/8** OO (in.))	-3/4 ¹¹ 0.I	20 (*F) 3/4 (nom. thick) 15((nom. thick) 18 Ga. thickness (in. o	at 85 (psi) Thk. ness (in.)) r gauge) channels of	(corr. allow. (inc.)) (corr. allow. (inc.)) (corr. allow. (inc.)) (corr. allow. (inc.)) (dia. ID (ft. & in.))	in.)) (att	Welded achment (welded, boilted)) etained by Lin (attachment) straight (type (straight or U)) 1 @ 411 Lg. 1 @ 811 Lg. ight (overall) (ft. a in.))	
MAWF as 12 a Tubesi Tubes: \$ 14-12 Shell: _ Geams:	t closure: 85 85 (psi) and 13 to be theets: SA (station Langes: S (floatin SA249-T3 (mat'l. (spector) Welde (long (db))	completed (240-T304) pary mat'l (spec. 304) pec. no gr.)) o be completed (240-T304) c. no gr.)) ed	for tube sect inc., gr.)) (AT (spot or full) (F) (F) (F) (GT (spot or full)	Min design tions. 12- (in) (subject to 12- (dia. (in.)) 5/8** OD (in.)) 1ckness (in.)) 85 (eff (%	-3/4 ¹¹ 0.I	20 (*F) 3/4 (nom. thick) 15((nom. thick) 18 Ga. thickness (in. o	at 85 (psi) Thk. ness (in.)) r gauge)) channels of 1 -1 DBV	(corr. allow. (inc.)) (corr. allow. (inc.)) (dia. ID (ft. & in.)) (RT (spo	in.)) (att	Welded achment (welded, boilted)) etained by Lin (attachment) straight (type (straight or U)) 1 @ 411 Lg. 1 @ 811 Lg. ight (overall) (ft. a in.))	
Jacke MAWF IS 12 a Tubes: Tubes: Shell: Geams: Heads:	t closure: 5. 85 (psi) 10d 13 to be Theets: SA. (station (station) (mat'l. (spi) (mat'l. (spi) (mat'l. (spi) (mat'l. (spi) (long (dbi) (a) SA. SA.	completed at max. temper completed c	for tube sect inc. gr.)) (F) for tube sect inc. gr.)) (dia. (AT (spot or full)	Min design tions. 12- (in) (subject to 12- (dia. (in.)) 5/8** OD (in.)) 1ckness (in.)) 85 (eff (%	-3/4 ¹¹ 0.I	p.: 20 (*F) (at 85 (psi) Thk. ness (in.)) r gauge)) channels of 1 -1 DBV (girth (db).	(corr. allow. (inc.) (corr. allow. (inc.) (corr. allow. (inc.) (corr. allow. (inc.) (doi. ID (ft. & in.)) (doi. ID (ft. & in.)) (mat'l. (spe	in.)) (att R in.)) (att R in.)) ers. (len t. partial, or full)) ec. no., grade))	Welded achment (welded, boilted)) etained by Lin (attachment) straight (type (straight or U)) 1 @ 411 Lg. 1 @ 811 Lg. igth (overall) (ft. & in.)) 1 (no. of courses)	
Jacke MAWF IS 12 a Tubes: Iy F] Tubes: Shell: Geams: Heads:	t closure: 85	completed in a complete in	for tube sect i. no gr.)) (AT (spot or full S (mat'l. (spec. no Allowance 110))	If b Min design tions. 12- (in) (subject to 12- (dia. (in.)) 5/8** OD (in.)) ICKNESS (in.)) 85 (eff (%)	-3/4 ¹¹ 0.I opressure) -3/4 ¹¹ I.I (nom.	p.: 20 (*F) (nom. thick 1	at 85 (psi) Thk. ness (in.)) r gauge) channels of 1-1 DBV (girth (db).	(corr. allow. (inc.) (no.)	in.)) (att in.)) (att in.)) (att in.)) ers. (ten	Welded achment (welded, boilted)) etained by Lin (attachment) straight (type (straight or U)) 1 @ 411 Lg. 1 @ 811 Lg. (ight (overall) (ft. & in.)) 1 (no. of courses)	
Jacke MAWF 15 12 a Tubes: Tubes: \$ 14-17 Shell: _ Seams: Heads: Loc bott R. D) L.	t closure: 5. 85 (psi) 10d 13 to be theets: SA. (station Langes: SI (mat'l. (spector) (mat'l. (spector) (long (db) (a) SI ation (top. om. ends) End End	describe as ogiat max. temper completed in 240–T304 hary mat'l. (spec. SA105 ng mat'l (spec. so. gr.)) o be completed in sngl.)) o be completed in sngl.)) o be completed in sngl.)) of the completed in sngl.))	for tube section (F) for tube section (F)	If b Min design tions. 12- (in) (subject to 12- (dia. (in.)) 5/8** OD (in.)) ICKNESS (in.)) 85 (eff (%) Crown Radius	-3/4 ¹¹ O.I o pressure) -3/4 ¹¹ I.I)) (nom.	p.: 20 (*F) (at 85 (psi) Thk. ness (in.)) f Std. r gauge)) c channels of 1 -1 DBV (girth (db). Conical Apex Angle	Hydro., prec. (corr. allow. (1101) (corr. allow. (165 (no.) (heat exchange 2-3/41 O.D (dia. ID (ft. & in.)) (mat'l. (spe	in.)) (att R in.)) (att R in.)) ers. (len t. partial, or full)) Flat Diameter 10-3/4 ¹¹	Welded achment (welded, bolted)) etained by Lin (attachment) straight (type (straight or U)) 1 @ 41 Lg. 1 @ 81 Lg. (gth (overall) (ft. & in.)) 1 (no. of courses) Side to Pressure (convex or concave) Flat	

18. Nozzles, inspection and safety valve openings:

Purpose (inlet, outlet, drain, etc.)	Number	Dia. or Size	Туре	Mat'l.	Nom. Thickness	Reinforcement Material	How Attached	Location
Inlet	1	6''	CL-150	SA312	Sch #10	Inherent	Welded	Bonne
				T304	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		1702404	Domie
Outlet	1	311	07 150	0.010	0 1 //10			
Vaciet	<u> </u>	 	1 (17-12)	SA312	Sch #10	Inherent	Welded	Bonne
				1 23074			-	
Inlet and	2	2"	CL-150	SA312	Sch #19	Inherent	Welded	Shell
Outlet				T304L				
		<u> </u>						
		<u> </u>						
19. Supports: Skirt	s' Partial Data	Reports prope	rly identifie	ed and sign	ed by Commiss	sioned Inspectors	have been fur	nished for
hydro-tested in	n horizont	al positi	on. Ex	empt fro	m impact	testing per	Code para	graphs
UG-20 (b), UCS	<u>-66 and UF</u>	A-51. Sa	fetv va.	lve conr	ection lo	cated elsewh	nere in sv	stem.
One bonnet con	sisting of	12"x6" S	ch #10 o	concentr	ic reduce	r T-304, SA4	403.	
essel conform to the ASMI U" Certificate of Authoriza ate 9 - 20 - 91 Na essel constructed by Per the undersigned, holding a ce of New Jersey	ry Produc valid commiss	CERTII ts Corpora ion issued by Lumbern	FICATE OF ation The Nation mens Mut	SHOP INS al Board of tual Cas	PECTION Boiler and Presualty Co.	at Hassure Vessel Insperor Cor. Long Gro	cinesport, ectors and the ve, IL	NJ state or pr
eport on SEP 2 0 199 essure vessel in accordant r signing this certificate ne	1. 19 ce with ASME	of and state tha Code, Section	t. to the be VIII. Divisi	ve inspecte st of my kr ion 1.	d the pressure lowledge and t	vessel described relief, the manufa	in this Manufa cturer has con	cturers' D structed t
escribed in the Manufacture anal injury or property dam ate <u>SEP 2 0 199</u> Signed	age wa loss	rt. Furthermore any kind ari	sing from c	ne inspecto or connecte C	r nor his emplo d with this ins ommissions	yer shall be liable	NJ 476	r for any p
		′ 	· · · · · · · · · · · · · · · · · · ·	ASSEMBLY	COMPLIANC			and no.)
e certify that the field asse ME BOILER AND PRESSL "Certificate of Authorizat	embly constructions of the VESSEL Color inc	tion of all par ODE.	ts of this ve	essei confo	rms with the re	equirements of Se	ection VIII, Divi	sion 1 of
iteName						Signed		
		ssembler that cert				_	(representativ	/ ()
he undersigned, holding a	valid commissi	on issued by t	the Nationa	Board of 8		sure Vessel Inspe		
port with the described pre tificate of shop inspection ucted and assembled this I subjected to a hydrostat signing this certificate nei	ssure vessel ar n, have been in pressure vesse ic test of	of state that properties of the properties of th	arts referred ne and that se with ASN	d to as data to the bes ME Code, S	have compared items it of my knowl ection VIII, Div	t the statements in the statements in the statements in the statement in t	, not inc the manufactu ribed vessel wa	cluded in the rer has consider the constant of
scribed in the Manufacture hal injury or property dama	rs Data Report	i. Furthermore	, neither th	e inspector	nor his emplo	ver shall he lishle	erning the pre- in any manner	ssure ves for any p

Commissions

(Nat'l. 8d. (incl endorsements) state, prov and no.)

sonal injury or property damage or a loss of any kind arising from or connected with this inspection.

(Authorized Inspector)

______ Signed_