National Board Number	165

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

Page	1	of	3	
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Λ ~	Required by the Provisions of	the ASME Roller an	d Praceura Vaccal	Code Rules	Section VIII	Division 1
14	Reduited by the closions of	THE MONE DONE AN	a i i coouic v cooci	Oode Ruica	, Occurry viii	,

				,							Owr	ner equip#		641A.2-C1 /	19-X-863	3
4	N. 4			wified by			Villance	Eabricati	ing Itd 763	Chast	ar Strai	et Sarnia O	ntario Canada	N7S 5N2		
1.									(INam	e ano and	aless of M	anulaciulei)				····
2.	Mar	nufactu	red for .		Braham Corpo	ration, 20	) Floren	ce Ave, I	Batavia, Nev (Na	v York,	USA, 1	.4020 for De Purchaser)	esmet Ballestra	a North Ar	nerica Ir	ic.
3.	Loca	ation of	Installatio	on			De	smet Ba	llestra Nort	h Amer		., Paramour	nt, CA, USA			
4.	Туре	e		Vertical	sphere)	,		Heat	Exchanger					1343		
					sphere)	7004	Tank) 1 ממחת-5	, separator, ⊋ov 5			o.) 165	;	(Manufac	turer's serial r 202		
			N/A (CRN)			(Dra	awing num	ber)		(Nati	onal Boar	d number)		(Year		
5.	ASME Code, Section VIII, Div.1 2019															
11	0 0	dd bool i	ta ha aam	ploted for	elnate wall ve	odenda, ii aļ ceole ilac	plicable (c kots of i	alejj ackatad i	oo aha alaaan	ill of he	at exch	anders or (	chamber of mul			
	ns o-1 Shel				e(s) 2 (CR			Jonotou						3-7/8"		
		Course(s		1	Material		kness	T	Long. Joint			·	ım, Joint (Cat A,B	& C)	Heat Tr	eatment
No.	product pro-	meter	Length	Spec.	/Grade or Type	Nom.	Corr.	Туре	Full, Spo		Eff.		Full, Spot, None		Temp.	Time
1		1/4" ID	35-7/8"		SA-516,70	0.375"	1/16"	1	Nor		0.7	1	None	0.7	_	
1	33-1	1/4" ID	118"	;	SA-516,70	0375"	1/16"	1	Nor	ıe	0.7	1_1_	None	0.7		-
						-					ļ					
	Body Flanges on Shells Bolting															
	1													Washer	1	
Ν	0.	Туре	ID	OD	Flange Thk	Min Hub 7	Thk N	1aterial	How Attache		cation		Bolting Material	(OD,ID,thk)	Washe	r Material
			ļ	-				-	-			-			_	-
										-						
			l						, <u>, , , , , , , , , , , , , , , , , , </u>							
7	Hea	ds: (a)			-				(b)				-			
٠.	7. Heads: (a) (b) (Material spec. number, grade or type) (H.T. – time and temp.) (Material spec. number, grade or type) (H.T. – time and temp.)															
	Loc	ation (To	r,	ickness	Radius	Ellipt		Conical	Hemisph		Fla	`	ide to Pressure		Category /	
	Bot	tom, end		Corr.	Crown Knue	ckle Ra	tio A	pex Angle	Radit	Radius			ovex Concave Type		Full,Spot,None Eff	
<u>(a)</u> (b)			<u> </u>				<del></del>									
(10)								Body Fla	nge on Heads							
			1		T			2047714	ingo on mount				Во	lting		
			<u>.</u>								0 L.J	N 0 01 -	Dallian Matarial	Washer		
		Location	Type	ID I	OD	Flange T	nk iviin	Hub Thk	Material	HOW A	ttached	Num & Size	Bolting Material	(OD,ID,(IIK)	vvasne	r Material
(a) (b)					-								·	***************************************		, , ,
		a of ical		<u></u>					Jacket	closure		L	_			
8.		e of jack		,,					, Jacks	0,000		(d	escribe as ogee and	l weld, bar, et	c.)	
	If ba	r, give o	dimension	s If bolted	l, describe or s	ketch _						-				
9.	MAV	VP	150 psig (Internal)		External)	at max t	emp	212°F (Interna		External		1in. design r	metal temp	0°F	at _ <u>1</u>	50 psig
10.	lmpa	act Test	See	Remarks	Indicate ves of no			mna-l !!	-d\		ä	at test temp	erature of			~~~
11.	Hydi	ro., pne	u., or com	,	essure <u>195</u>		. , ,	•	Proof tes	st			-	· · · · · · · · · · · · · · · · · · ·	***************************************	nama.
Iten	าร 12	and 13	to be com	pleted for	r tube sections	ì.										
12.	Tube	esheet		204,304L		33-1/8"			1-1/8"	,			)"	FAULT	Welded	
			•	(material spe		er (subject to 37-7/8"	press,)]	(N	lominal thicknes 1-1/8"	ss)		(Corr.	allow.) )"	[Attachm	ent (weider Welder	d or bolted)]
				204,304L naterial spec		(Dlameter)		(N	lominal thicknes	is)			allow.)		(Attachme	
13	Tube	<del>3</del> S	SA-249	TP304 (V	<b>V</b> )	3/4"		2	20 BWG A/V	٧		10	52		Straigh	t
	, abt		laterial spec.			(O.D.)			lominal thicknes			(Nun	nber)	[Ту	pe (straight	or U)]
											,	10		4	2022 AU	IG 10
								Λ	/lfg. Repres	entative	* 1 o	your .		Date:	TOTT HE	עו טו

Authorized Inspector

Form No.: QC-074A

Date:

								FOR	RM I	<b>U-</b> 1								Page	2 of	3
Manuf	actured by				Alli	ance Fal	oricatin	g Ltd.,	763	Chester	Street	Sarnia	, Ont	ario Can	ada	N7S 5N2		V# 1/14		*****
Manuf	acturer's S	erial No.		134	}		(	CRN	_		N/A		_ Na	ational Bo	oard	I No168	5			
	s <i>14-18 Incl.</i> Shell: (a) N	•		r Inner chambe		acketed v	essels o	r channe	els oi				th				61"			
	Course(	s)		Material		Thick	ness			Long. Joir				Circ		Joint (Cat A,				
No.	Diameter	Length		Spec./Grade or Ty	ре	Nom.	Corr.	Тур			pot, Non		Eff.	Туре	F	ull, Spot, No	ne	Eff.	Temp.	Time
1	33-1/2" 33-1/2"	18-9/16 42-7/16		SA-240,304L SA-240,304L		1/4" 1/4"	0"	1 1			lone one		0.7	<u>1</u>		None None		0.7		-
	30-112	42-1110		ON ZHOJONE III O I NOMO OM I NOMO																
	Body Flanges on Shells																			
		<u> </u>			Τ		I				<u> </u>					Во	lting			
No.	Туре	ID	OD	Flange Thk	Mir	Hub Thk	Mat	erial	Hov	w Attached	Loc Bottom	ation		um & Size		Bolting Mate	rial	Washer (OD,ID,thk)	Washe	r Material
CFA	Girth	34-1/8"	37-7/8	1-5/8"		_	SA-182	,F304L	١	Welded		RS4)		3/4" 10 L	NC	SA-193,B7	7	-		-
CFB	Girth	34-1/8"	37-7/8				SA-182		Distance (vi)	Welded	Top E	Bonnet RS1)	1	3/4" – 10 L		SA-193,B7		-		-
											<u> </u>									
15.	15. Heads: (a) HD1: SA-240,304L, No PWHT (b) HD2: SA-240,304L, No PWHT  (Material spec. number, grade or type) (H.T. – time and temp.) (Material spec. number, grade or type) (H.T. – time and temp.)																			
—-Т	Location /To		hickness			Elliptí		Conical		Hemispl	nerical	·	Flat			Pressure	T		tegory A	
	Location (To Bottom, end				Knuck			pex Ang		Radi		ı	ameter			Concave		Type Full,		
(a)	Bottom	3/16		0" 33-1/2	2-1/4			-		-			-			X	_		-	
(b)	Тор	3/16	5"   (	0" 33-1/2	2-1/4	<u> </u>		-		<u> </u>		<u> </u>				<u> </u>		-		
	7				Т			Body Fl	ange	on Heads	·		1			Boli	fina	4		
										,								Washer		
	Location	Туре	ID	OD	F	lange Thk		lub Thk	M		How Att	ached	Nun	1 & Size	Bol	ting Material	((	OD,ID,thk)	Washe	r Material
(a) (b)		-	-	-	-			-		-			<u> </u>			-		-	-	
16.	<u> </u>	50.76 ps (Internal)	g _	FV (External)							xternal)					temp				
18.	Hydro nne	eu orcon	nh tes	(Indicate yes o t pressure7				mpact tes	ited)	Proof te	st					-				
	•			fety valve oper			F.115.67_													
	Purpose		Di	ameter			Materi			Nozzl	e Thickn		Re	einforceme	nt	Attachn	nent			cation
	Outlet, Drain,				pe SO	Noz		Flange SA-105N		Nom. 0.365"		Corr. 1/16"		Material		Nozzle UW-16.1(c)	+	Flange UW-21(1)		Open.)
	Water Inlet Test	18 <sup>4</sup>			LG	SA-10		SA-1001	<del>\</del>	- 0.303		1/16"				UW-16.1(z-1		-		hell
	Vater Outlet	182	2 10"	CL 150 RF	SO	SA-10	)6,B	SA-1051	V	0.365"		1/16"		*		UW-16.1(c)		UW-21(1)		hell
	Test Vent	1S2 1S3			LG LG	SA-1 SA-1		-	$\dashv$	-		1/16" 1/16"		-		UW-16.1(z-1 UW-16.1(z-1				hell hell
20.	Supports S	kirt: N	lo or no)	Lugs No			No Number)	_ Oth	ers		ertical S	Suppo	rts		ed .		W	elded to S	Shell	
21.	Manufactur report (list t	er's Parti	al Data	Reports prope em number, Ma	rly id	entified a	and sigi	ned by and ide	Con ntify	nmission ving numb	ed Insp	•	s have	been fu	rnis	hed for the			•	ne
_	<u> </u>	A\ 1	nnat 1	est exempt pe	y 1 1/	2 20/th 0	2   ILIA	54/4)	1 0	100 66/	2) 8 E	ia LIC	2 66	NOTE	(c)	& LIC 04/	'c\/	3)		
22.	Remarks _ 2) See	<u>1) lm</u> Form U-4		est exempt be	:1 00	3-ZU(1) C	х ОПА	-51(u)	αι	100-00(	a) & F	ig UC	<i>1</i> 0-00	NOIE	707	& UG-04(	<u> </u>	<u> </u>		
_	2) 366	1 01111 0-4	, 0-0		·															
													//	10						

Mfg. Representative Date: 2022 AUG 10

Authorized Inspector 15 36 14585 A Date: AUG 1 1 2022

				Nation	ial Board Number _	165
		Page	3 of <u>3</u>			
Manufactured by	Alliance	Fabricating Ltd., 763 Ch	ester Street Sar	nia, Ontario Canada N7S	5N2	
Manufacturer's Serial No.	1343	CRN	N/A	National Board No.	165	
**************************************	(	CERTIFICATE OF SHOP	COMPLIANCE			
We certify that the statements conform to the ASME BOILER U Certificate of Authorization Nu Date 2022 Aug. 10	AND PRESSURE VESS	ct and that all details of EL CODE, Section VIII, 33851  Ilance Fabricating Ltd.  (Manufacturer)	Division 1. Expires	Mar. 28, 2024	(Representative)	vessel
		CERTIFICATE OF SHO	P INSPECTION			
I, the undersigned, holding a	valid commission issue TSSA	d by the National Boar	rd of Boiler and of		ctors and employ Intario	ed by
have inspected the pressure ve state that, to the best of my know PRESSURE VESSEL CODE, Sor implied, concerning the preside liable in any manner for any DateAUG 1 1 2022 - s	nowledge and belief, the section VIII, Division 1. By sure vessel described in personal injury or propert Signed	Manufacturer has consistent signing this certificate n this Manufacturer's Data damage or loss of any	structed this pre either the inspec ta Report. Furtho kind arising from	etor nor his/her employer memore, neither the Inspect on or connected with this ins ons	akes any warranty otor nor his/her em spection.	/, expressed
-		CERTIFICATE OF FIEL				
We certify that the statements in of ASME BOILER AND PRESSI	n this report are correct a URE VESSEL CODE, Sec	nd that the field assembl ction VIII, Division 1. U C	y construction o ertificate of Auth	of all parts of this vessel co norization Number	nforms with the re Expires	quirements
Date N	lame	(Assembler)	Signe	ed(R	epresentative)	
	CERT	FICATE OF FIELD ASS	EMBLY INSPE	CTION		
I, the undersigned, holding a	valid commission issue	d by the National boar	d of Boiler and	Pressure Vessels Inspe	ctors and employ	ed by

Inspected by me and to the best of my knowledge and belief, the Manufacturer has constructed and assembled this pressure vessel in accordance with the ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. The described vessel was inspected and subjected to a pressure test of \_\_\_\_\_\_\_\_. By signing this certificate neither the inspector nor his/her employer makes and warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his/her employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

, have compared the statements in this Manufacturer's Data Report with the described pressure vessel

Commissions

, not included in the certificate of shop inspection, have been

[National Board Authorized Inspector Commission number)

of

and state that parts referred to as data items

Signed \_\_\_\_\_(Authorized Inspector)

## FORM U-5 MANUFACTURER'S DATA REPORT SUPPLEMENTARY SHEET SHELL-AND-TUBE HEAT EXCHANGERS

As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

					<del>- 12</del>			Equip 1	No.: 641A.2-C	I / 19-X-863			
. Manufactured and	l certifie	d by		******	Alliance Fabri	icating Ltd., 763 C	, 763 Chester Street Sarnia, Ontario, Canada N7S 5N2 (Name and address of Manufacturer)						
Manufactured for		Grał	nam Cor	poration,	20 Florence Ave, Batavia, New York, USA, 14020 for Desmet Ballestra North America Inc.								
Location of Install	ation				Desmet	•	and address of Purch. America Inc., Pa	<sup>aser)</sup> aramount, CA, US	A				
						(Nan	ne and address)						
Туре	(Horiz	Verti contal, verti	cal cal, or sphe	ere)		(Manufacturer	343 's serial number)		N/A (CRN)				
	0100 Re			-		165 National Board number	-)		2022 (Year built)				
LDIAM	ing numbe	51)			,		,		, ,				
				EIVED	SMELL VND	TUBE HEAT EX		τΔ	10.04 to 10.04 (1.				
	Desid	gn/Opera	ating Pre			um Design/Opera			Allowable Ax	ial Differentia			
	Ranges				iviaxim	T Design/Opera	aung wetar rem	perature		ansion Range			
Name of Condition		l Side		Side	Shell	Channel	Tubes	Tubesheet		T			
	Min. units:	Max. units:	Min. Units:	Max. units:	units:	units:	units:	units:	Min. units:	Max. Units:			
	PSI	PSI	PSI	PSI	°F	°F	°F	°F	in	ln in			
Design		150		50.76	212	400	400	400	0.03	- 0			
							-						
							,						
Data Report						(-	Remarks						
Item Number	.,,						Kemarks						
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									T				
ertificate of Authoriz	ation:	Type		U	No.	33	3851	Expires	Mar. 28	3, 2024			
ate 2022 Aug.	10 N	lame			Fabricating L	td.	Signed _	Strong					
					anufacturer)			1	(Representative)				
<sub>ate</sub> AUG 1.1 20	1 <i>11.</i> N	ame _	TE	-	rized Inspector)		Commissions _	NB 1458 [National Board Aut]	SA norized Inspector Con				

## FORM U-4 MANUFACTURER'S DATA REPORT SUPPLEMENTARY SHEET As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

1.	Manufactured a	ınd cer	tified by	(Name and address of Manufacturer)										
2.	Manufactured f	or _	Graha	Graham Corporation, 20 Florence Ave, Batavia, New York, USA, 14020 for Desmet Ballestra North America Inc. (Name and address of Purchaser)										
3.	Location of Inst	allatior					tra North A	merica Inc.,	<sup>chaser)</sup> Paramount, CA,					
	_				(Name and address)									
4.	Туре	(1	Vertica Horizontal, vertical,	or sphere)		(Ta	Heat Exc ank, separator,	changer heat exch., etc.)		1343 (Manufacturer's serial number)				
		V/A			′0945-0100 F	Rev.4		165			2022	,		
	(0	CRN)			(Drawing numb	oer)		(National Board	l number)		(Year built)			
, <u>.</u>	Data Report Item Number	<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>					Rer	marks						
	19)										~~~~			
		.,			ter grande en en de de en en de de en de de en de en									
	Purpose	1	Diameter	<u>.</u>		terial		Thickness	Reinforcement	Attachme		Location		
(Inlet,	Outlet, Drain, etc.) Drain	No. 1S4	or size 3/4" CL 3000	Type CPLG	Nozzle SA-105	Flange -	Nom.	Corr. 1/16"	Material -	Nozzle UW-16.1(z-1)	Flange -	(Insp. Open.) Shell		
	Drain	154	3/4 CL 3000	CPLG	SA-103 SA-312,	-	<del>-</del>	1/10	-	1	· · · · · · · · · · · · · · · · · · ·	Sheii		
	Vapour Inlet	1T1	18" CL 150	RFSO	TP304L	SA-182,F304L	1/4"	0"		UW-16.1(c)	UW-21(1)	Channel		
	Test	1T1.1	3/4" CL 3000	CPLG	SA-182,F304L	-		0"	-	UW-16.1(z-1)		Channel		
	Vapor Outlet	1T2	- 4" CL 150	RFSO	SA-312, TP304L	SA-182,F304L	_ 0.337"	0"	#=	UW-16,1(z-1)	UW-21(1)	Channel		
	Test	1T2.1	3/4" CL 3000	CPLG	SA-182,F304L			0"		UW-16.1(z-1)	-	Channel		
Co	ndensate Outlet	1T3	4" CL 150	RFSO	SA-312, TP304L	SA-182,F304L	0.337"	0"	_	UW-16.1(c)	UW-21(1)	Channel		
	Seal Purge	1T4	6"	STUDDED	SA-240,304L	-		0"	-	UW-16.1(z-1)		Channel		
	Vent	1T5	1/2" CL 3000	CPLG	SA-182,F304L	_	-	0"	-	UW-16.1(z-1)	_	Channel		
	Spray Nozzle	TP1	1-1/2" CL 150	RFSO	SA-312, TP304L	SA-182,F304L	1/4"	0"	ž.	UW-16.1(c)	UW-21(1)	Channel		
												- WA - WA		
				·				. 178-702-900-128-9-1						
										***************************************	·			
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			A. A						,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
Cer	tificate of Author	ization	: Туре	U		No.	338	51 .	Expires	,	/lar. 28, 202	24		
Dat	e 2022 Aug,	10 1	Vame	Alliar	nce fabricatin	g Ltd.		Signed	John Sz	zze				
					(Manufacturer)	p	<del></del>	-	1	(Represen	ative)			
Dat	e AUG 1:1 2	BLL I	ســـــــ Vame	16		and the state of the same of t	Cor	mmissions	NO THE	585A				
				(Au	thorized Inspecto	or)			(National Board	Authorized Inspe	ctor Commissic	on number)		