					F	ORN	I U-1 MANU	FACTURE	R'S DAT	AR	EPORT	FOR PRESS	URE	VESSE	LS	-				
_				/	As Requi	red b	y the Provision	ns of the ASM	IE Boiler	and F	Pressure \	Vessel Code R	ules, S	Section V	'III, Divi	sion 1			Page ?	l of 3
1. N	lanufacture	d an	d certifie	d by L	ouisvi	le E	xchanger &	& Vessel I	nc., 331	9 Gi	Imore I	ndustrial B	vd., I	_ouisv	ille, K	entuck	y, 40213	, USA		
2. N	lanufacture	d for	Daran	nic, Ll	_C, 343	0 C	line Rd., Co	orydon, In	diana, 4	1711	2, USA	address of Ma		urer)						
3. L	ocation of i	nstal	lation D	aram	ic, LLC	, 34	30 Cline Ro	d., Corydo				ess of Purchas	ser)							
												and address)								
4. T	ype(Ho	rizont	Vertica tal, vertica	l or spl	nere)			(Tank, sepa	Heat E rator, ikt.			(ch., etc.)				(Manufa	20-04: acturer's se		er)	
	(,						.,	,,		40	47	(
-			N/A (CRN)					20-0430 (Drawing nu	Imber)				(Na	tional Bo	17 ard nur	nber)		(2019 Year buil	t)
5.	ASME Cod	e, Se	ection VI	ll, Div.	1		20	019/ N/A					N/A					N/A		
						[E	dition and Add	enda, if appl	icable (da	ate)]		(Code C	ase Ni	umber)		[S	pecial Ser	vice per U	G-120(d)]
	Items 6-11	incl.	to be co	omplete	ed for si	ngle	wall vessels	s, jackets of	^r jackete	d ves	ssels, sh	ell of heat ex	chang	gers, or	chamb	ber of m	ulticham	ber vesse	els.	
6. SI	hell: (a) Nu	Imbe	r of cour	se(s)	1			(b) Ove	rall lengt	h			18	9.5"				_		
	Сс	urse(s	6)			Mate	erial	Thic	kness		Lo	ng. Joint (Cat. A	۹)	Circu	m. Joint	t (Cat. A,	B, & C)	Heat	Treatmer	t
No.	Diamete	r	Leng	gth	Spec.	Spec./Grade or Type		Nom.	Nom. Corr.		Type F	ull, Spot, None	Eff.	Type F	ull, Spo	ot, None	Eff.	Temp.	Tin	ne
1	14.0" OI)	189.	5"	SA-3	12-T	P304LSS	.250	0.0)	1	None	70%	1	No	ne	70%	N/A	N/	A
	-		i					1	Body Flar	nges d	on Shells									
No.	Туре		ID	OD	Flar		Min Hub Thk	Mate	rial		How	Location			В	E Olting	Bolting Washer		Wash	er
				02	Th	k					ttached	Looution	Num & Size		Material		thk)		Material	
N/A	N/A		N/A	N/A	N/A	I	N/A	N/A		N/A	ι	N/A	N/A		N/A		N/A		N/A	
7. H	leads: (a)					N//						(b)				N/A				
	La cation (T					de o	r type) (H.T		-	- 0	'	-					type) (H.T.			
	Location (T Bottom, En		Min.	hicknes	s Corr.	-	Radiu Crown	ls Knuckle	Elliptic Ratio		onical Ape Angle	ex Hemispheric Radius	-	Flat iameter		Pressure Concave		Categor		Eff.
(a)	N/A	,	N/A		N/A	1	N/A	N/A	N/A		N/A	N/A		N/A	001110	00110410	N/A			N/A
(u) (b)	N/A		N/A		N/A		N/A	N/A	N/A		N/A	N/A		N/A			N/A		/A	N/A
()						-			Body Flan	0.200	n Hoada						I			
								Min Hub		yes o	III IIeaus					E	Bolting			
No.	Location		Туре	ID	C	D	Flange Thk	Thk	Mat	terial	H	How Attached Num & Size Bolting Materia			erial Wash ID,	er (OD, thk)	asher M	aterial		
(a)	N/A	N/A		N/A	N/A		N/A	N/A	N/A		N/A				N//	A	N/A	N	/A	
8. Ty	/pe of jacke	et					N/A				Jacke	t closure				N	/A			
														(E	escribe	e as ogee	e & weld, b	ar, etc.)		
lf	bar, give di	mens	sions; if k	polted,	describ	e or	sketch						N//	4						
9. MA	WP	50 I	osi		FV		at max. tem	p. 36	60 °F		360	°F ^{Mir}	n. des	ign met	al tem	p.	-20 °F	at	50 ps	i
		(Inter	mal)		(Externation	al)		(Inte	,		(Extern	,								
10. lr	npact test						No. Ma [Indicate yes of	terial is ex								at	test tem	perature	of <u>N</u>	/A
11. Hy	/dro., pneu.,	or coi	mb. test p	ressure	Hy	dro.	at 65 psi	Proof te		511(0)	impuor te	Joroal		Ν	/ A					
lt	ems 12 and	113	to be cor	npleter				-												
	ubesheet				2-F304L				21.0"			1.12			0.0			Weld	led	
	_		[Statio	nary (m	aterial s	ec. I	no.)]	[Diameter	(subject t	o pre	ss.)]	(Nominal thick	ness)	(0	Corr. all	ow.)	Attach	iment (wel	ded or b	olted)
	_				2-F304L				21.0"			1.12			0.0			Weld		
· •			[Float	ing (ma	iterial sp	ec. n	0.)]	(Diameter)		(Nominal thick	ness)	(0	Corr. all	ow.)		(Attach	ment)	
13. T	ubes _				TP304L		type)		.75 (O. D.)			.049 (Nominal thick	nosc)		136 (Numbe	or)		Strai		1
			(indrefte	a spec.	no., yrad		inhe)		(U. D.)			(INOTITICAL UTICK	11622)		UNUID		[I	he (org	gin of O	1

FORM U1

	facturer's S	erial N	0. 20	-043			CRN	N/A			Nationa	al Boa		17			
	<i>tems 14-18</i> nell: (a) No			,		chambers o		vessels or c verall length	hannels c	f heat excha 5.5"	ngers.						
	Со	urse(s)			Mate	rial	Thi	ckness		ong. Joint (Cat.	A) (Circum	Joint (Cat. A	A B & C)	Hea	t Treatme	nt
o.	Diameter	<u> </u>	Leng	ath	Spec./Grad	-	Nom.	Corr.		Full, Spot, None				,	Temp.		me
1 14.0" OI			5.5"		SA-312-TF		.250	0.0	1	None	70% 1	_	None	70%	N/A		/A
								Body Flange				_					
No.	Туре				How Attached			Size			er (OD, ID,						
	RFSO	1	.14"	21.0"	1.38 2	.25	SA-182-F	04166 14	/elded	Top Channe			Material SA-193-B7		thk)	Mate	erial
		14	.14	21.0	1.30 2	.20	3A-102-F	504L35 V	reided	Top Channe	1 12 • 1		5A-193-B/	N/A		N/A	
5. H	eads: (a)	(Mat	erial sp	pec. numb	SA-403-3 ber, grade or	type) (H.T		np.)		(b)(N	laterial spec	. numt	SA-403-3 ber, grade o	or type) (H)
	Location (To			hickness		Radiu				ex Hemispher		. ⊢	de to Pressu		Catego	-	
	Bottom, End	18)	Min.		orr.	Crown	Knuckle	Ratio	Angle	Radius			onvex Concav	71		Spot, None	_
(a)	ТОР		.0810		D.0	N/A	N/A	2:1	N/A	N/A	N/A		X	7		lone	70%
(b)	BOTTON		.0810		0.0	N/A	N/A	2:1	N/A	N/A	N/A		X	7		lone	70%
								Body Flanges	on Heads								
		т		ID	0.0	Flange Thk	Min Hub	Mataria		A 44 1				Bolting	. (0.5		
				II)	OD	I Flande I nk		Materia	al H	ow Attached	Num &	Sizo		IVVa	sher (OD, ,	Washer N	
NO.	Location	Тур		10		i lango i ilk	Thk					OIZE	Boiting IVIa	aterial I	D, thk)	vasiici ii	lateria
) 6. N	BOTTOM	RFSO 75 ps (Interna	i I)	14.14" F (Exte	21.0" V at	1.38 max. temp.	2.25	SA-182-F3(SA-182-F3() °F rnal)	360 (Extern	2 F Min. al)	12 - 1" design me		SA-193-E	-20 °F	at	N/A 75	
))	BOTTOM	RFSO 75 ps (Interna	i I)	14.14" F (Exte	21.0" 21.0" V at	1.38 max. temp.	2.25 360 (Inte	SA-182-F3(360 ° (Extern:	P F Min. al)	12 - 1"		SA-193-E	-20 °F	A	N/A 75	
a) 16. N 17. Ir	BOTTOM	RFSO 75 ps (Interna	i	14.14" F (Exte	21.0" 21.0" V at ernal)	1.38 max. temp. No. Mar cate yes or	2.25 360 (Interview of the second s	SA-182-F3() °F rnal) cempt per U	360 ° (Extern: HA-51(d) (s) impac	P F Min. al)	design me	tal ter	mp a	-20 °F	at	N/A 75	osi
16. N 17. Ir 18. F	BOTTOM	RFSO 75 ps (Interna	i I) comb	14.14" F (Exte	21.0" V at mal) [Ind essure _	1.38 max. temp. No. Mat cate yes or Hydro	2.25 360 (Interview of the second s	SA-182-F3() °F rnal) cempt per U	360 ° (Extern: HA-51(d) (s) impac	P F Min. al) t tested]	design me	tal ter	mp a	-20 °F	at	N/A 75	osi
a) 16. M 17. Ir 18. F 19. N	BOTTOM MAWP mpact test Hydro., pno lozzles, ins	RFSO 75 ps (Interna eu., or spection	i I) comb	14.14" F (Exte	21.0" 21.0" V at ernal) [Ind essure _ valve openi	1.38 max. temp. No. Mar cate yes or Hydro ngs:	2.25 36((Inte terial is e) no and the b. at 101 p Materi	SA-182-F3() °F rnal) cempt per U e component osi F	360 ° (Extern: HA-51(d) t(s) impac Proof test Nozzle	PFMin. al) t tested]	design me	tal ter	mp a	-20 °F	nperature	N/A 75 of	osi N/A
16. N 17. Ir 18. F 19. N	BOTTOM MAWP mpact test Hydro., pno Nozzles, ins se (inlet, Outlet etc.)	75 ps (Interna eu., or spection , Drain,	i I) comb	14.14" F (Exte). test pr safety v ameter r Size	21.0" 21.0" 21.0" at	1.38 max. temp. No. Ma cate yes or Hydro ngs:	2.25 360 (Inte terial is e) no and the b. at 101 p Materi zzle	SA-182-F3() °F rnal) cempt per U e componen osi F al	360 ° (Extern: HA-51(d) t(s) impac Proof test Nozzle Nom.	PF Min. al) tt tested] Thickness Corr.	design me	tal ter	SA-193-E mp.	-20 °F -20 °F at test ter nt Details Flange	nperature	N/A 75 j of j Location Insp. Open	osi N/A
16. N 17. Ir 18. F 19. N Purpos	BOTTOM MAWP mpact test Hydro., pno Nozzles, ins se (Inlet, Outlet etc.) /apor Inlet N	75 ps (Interna eu., or spection , Drain,	i il) comb n, and No. Di c 1	14.14" F (Exte o. test pr safety v ameter r Size 8" 15	21.0" 21.0" V at ernal) at [Ind essure _ ralve openi Type 0# LAP JOI	No. Mai No. Mai cate yes or Hydro ngs: No. No. No.	2.25 2.25 (Interial is expression of the second s	SA-182-F3(SA-182-F3(Prnal) Component Si F al Flange SA-182-F304L	360 ° (Externation) (Externati	PF Min. al) t tested] Thickness Corr. 0.0	design me	tal ter	SA-193-E mp.	-20 °F -20 °F at test ter int Details Flange Fig. 2-4(6	at nperature	N/A 75 of Location Insp. Open Shell	osi N/A
16. N 17. Ir 18. H 19. N ^D urpos V S	BOTTOM MAWP mpact test Hydro., pno Nozzles, ins se (Inlet, Outlet etc.) Yapor Inlet N Shell Drain N	75 ps (Interna eu., or spection , Drain, 11	i I) n, and No. D C 1 1	14.14" F (Exte 0. test pr safety v ameter r Size 8" 15 4" 15	21.0" 21.0" 21.0" (Ind essure _ raive openi Type 0# LAP JOI 0# LAP JOI	No. Mai No. Mai cate yes or Hydro ngs: No. SA-312-T NT SA-312-T	2.25 360 (Inte terial is e) no and the b. at 101 p Materi zzle P304LSS \$ P304LSS \$	SA-182-F3(SA-182-F3(SA-182-F3(Component SA-182-F304L SA-182-F304L	360 ° (Extern: HA-51(d) t(s) impace Proof test Nozzle Nom. SS .148 SS .120	PF Min. al) tt tested] Thickness Corr. 0.0 0.0	design me	tal ter	SA-193-E mp.	-20 °F -20 °F at test ter Flange Fig. 2-4(6 Fig. 2-4(6	at nperature (ja)	N/A 75 of Location Insp. Open Shell Shell	osi N/A
) 16. M 17. Ir 18. F 19. N Purpos V V S S S	BOTTOM BOTTOM MAWP mpact test Hydro., pno Nozzles, ins se (Inlet, Outlet etc.) /apor Inlet N Shell Drain N Shell Vent N	75 ps (International eu., or spection , Drain, 11 12 3	i I) n, and No. D C 1 1 1	14.14" F (Exte 2. test pr safety v ameter r Size 8" 15 4" 15 2" 15	21.0" 21.0" 21.0" (Ind essure raive openi Type 0# LAP JOI 0# LAP JOI 0# LAP JOI	No. Mai No. Mai cate yes or Hydro ngs: No. SA-312-T NT SA-312-T NT SA-312-T NT SA-312-T	2.25 360 (Interesting is expanded) terial is expanded to an and the expansion of the expans	SA-182-F3(SA-182-F3(SA-182-F3(Component SA-182-F304L SA-182-F304L SA-182-F304L SA-182-F304L	360 ° (Extern: HA-51(d) (s) impace Proof test Nozzle Nom. SS .148 SS .120 SS .154	PF Min. al)	design me	tal ter	Mp	-20 °F -20 °F -20 °F -20 °F 	at nperature ((5a) (5a)	N/A 75 of Location Insp. Oper Shell Shell Shell	osi N/A
) 16. N 17. r 18. F 19. N Purpos V V S S S V V	BOTTOM MAWP mpact test Hydro., pno Nozzles, ins se (Inlet, Outlet etc.) dapor Inlet N Shell Vent N Vater Inlet N	75 ps (Interna eu., or spection , Drain, 11 12 3 14	i l) n, and No. D c c 1 1 1 1	14.14" F (Exte 0. test pr safety v ameter r Size 8" 15 4" 15 2" 15 4" 15	21.0" 21.0" 21.0" (Ind essure raive openi Type 0# LAP JOI 0# LAP JOI 0# LAP JOI 0# LAP JOI 0# LAP JOI	No. Mat No. Mat cate yes or Hydro ngs: NO. SA-312-T NT SA-312-T NT SA-312-T NT SA-312-T NT SA-312-T NT SA-312-T NT SA-312-T	2.25 360 (Inter terial is ex no and the b. at 101 g Materi zzle P304LSS \$ P304LSS \$ P304LSS \$	SA-182-F3(SA-182-F3(SA-182-F3(Component Sa-182-F304L SA-182-F304L SA-182-F304L SA-182-F304L SA-182-F304L	360 ° (Extern: HA-51(d) (s) impace Proof test Nozzle Nom. SS .148 SS .120 SS .120	2F Min. al)	design me	tal ter	SA-193-E mp.	-20 °F -20 °F at test ter Fig. 2-4(6 Fig. 2-4(6 Fig. 2-4(6 Fig. 2-4(6	at nperature ((5a) (5a) (5a) (5a) (5a)	N/A 75 of Location Insp. Open Shell Shell Shell Shell	osi N/A
16. M 17. Ir 18. F 19. N Purpos V S S S V W	BOTTOM MAWP mpact test Hydro., pro Nozzles, ins se (Inlet, Outlet etc.) Yapor Inlet N Shell Drain N Shell Vent N Vater Inlet N fater Outlet	75 ps (International eu., or spection , Drain, I1 I2 3 I4 N5	i n, and No. D c 1 1 1 1 1	14.14" F (Exte 0. test pr safety v ameter r Size 8" 15 4" 15 2" 15 4" 15 4" 15 4" 15	21.0" 21.0" 21.0" 21.0" (Ind essure) (Ind essure) (Ind e	No. Mat nax. temp. No. Mat cate yes or Hydro ngs: No. SA-312-T NT SA-312-T	Thk 2.25 360 (Interial is e) no and the 0. at 101 p Materi zzle P304LSS \$ P304LSS \$ P304LSS \$ P304LSS \$	SA-182-F3(SA-182-F3(SA-182-F3(SA-182-F304L SA-182-F304L SA-182-F304L SA-182-F304L SA-182-F304L SA-182-F304L SA-182-F304L	360 ° (Extern: HA-51(d) t(s) impace Proof test Nozzle Nom. SS .148 SS .120 SS .120 SS .120 SS .120	F Min. al)	design me	tal ter	Mp a M/A Attachme Nozzle W-16.1(c) W-16.1(c) W-16.1(c) W-16.1(c) W-16.1(c) W-16.1(c) W-16.1(c)	-20 °F -20 °F -20 °F -at test ter Fig. 2-4(6 Fig. 2-4(6 Fig. 2-4(6 Fig. 2-4(6 Fig. 2-4(6 Fig. 2-4(6	at mperature ((5a) (5a) (5a) (5a) (5a)	N/A 75 of Location Insp. Oper Shell Shell Shell Shell Shell Shell	osi N/A
16. N 17. Ir 18. F 19. N Purpos S S V W W V	BOTTOM MAWP mpact test Hydro., pno Nozzles, ins se (Inlet, Outlet etc.) /apor Inlet N Shell Vent N Vater Inlet N /ater Outlet /apor Inlet N	RFSO 75 ps (International structure) eu., or spection , Drain, 11 12 3 14 N5 16	i ll) n, and No. D c 1 1 1 1 1 1 1	Id.14" F (External of the second	21.0" 21.0"	No. Mar nax. temp. No. Mar cate yes or Hydro ngs: No. NT SA-312-T	Thk 360 (Interial is e) no and the 0. at 101 g Materi zzle P304LSS \$ P304LSS \$ P304LSS \$ P304LSS \$	SA-182-F3(SA-182-F3(SA-182-F3(Compt per U compt per U component Sa-182-F304L SA-182-F304L SA-182-F304L SA-182-F304L SA-182-F304L SA-182-F304L SA-182-F304L SA-182-F304L	360 ° (Extern: HA-51(d) t(s) impace Proof test Nor. SS .148 SS .120 SS .154 SS .120 SS .120 SS .120	F Min. al)	design me	tal ter	Mp a M/A Attachme Nozzle W-16.1(c) W-16.1(c) W-16.1(c) W-16.1(c) W-16.1(c) W-16.1(c) W-16.1(c) W-16.1(c)	-20 °F -20 °F at test ter Fig. 2-4(6 Fig. 2-4(6 Fig. 2-4(6 Fig. 2-4(6 Fig. 2-4(6 Fig. 2-4(6 Fig. 2-4(6	at mperature (ja) ja) ja) ja) ja) ja)	of	N/A
a) 1 16. N 17. Ir 18. F 19. N Purpos S S V V S S V V T	BOTTOM BOTTOM //AWP mpact test Hydro., pno Nozzles, ins se (Inlet, Outlet etc.) //apor Inlet N Shell Vent N Vater Inlet N //apor Inlet N //apor Inlet N //apor Inlet N //apor Inlet N	RFSO 75 ps (International ending) eu., or spection , Drain, 11 12 3 14 N5 16 7	i ii) comb n, and 1 1 1 1 1 1 1 1	14.14" F (Exte 0. test pr safety v ameter r Size 8" 15 4" 15 2" 15 4" 15 3" 15 3" 15 3" 15 3" 15	21.0" 21.0" 21.0" 21.0" (Ind essure	No. Mai No. Mai cate yes or Hydro ngs: NT SA-312-T SA-312-T SA-312-T SA-312-T	2.25 2.25 2.25 (Inte terial is explored in the point of the second in the point of the second in the second	SA-182-F30 SA-182-F30 SA-182-F30 Component SA-182-F304L SA-182-F304L SA-182-F304L SA-182-F304L SA-182-F304L SA-182-F304L SA-182-F304L SA-182-F304L SA-182-F304L SA-182-F304L	360 ° (Extern: HA-51(d) t(s) impace Proof test Norr. SS .148 SS .120 SS .120 SS .120 SS .120 SS .120 SS .120 SS .120 SS .120	PF Min. al) Min. bt tested] Thickness Corr. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	design me	tal ter	SA-193-E mp.	-20 °F -20 °F -20 °F 	at nperature (ja) ja) ja) ja) ja) ja) ja] ja] ta) To	of	N/A
a) 1 16. N 17. Ir 18. F 19. N Purpos S S W W W V V T T	BOTTOM BOTTOM MAWP mpact test Hydro., pno Jozzles, ins se (Inlet, Outlet etc.) /apor Inlet N Shell Vent N Vater Inlet N fater Outlet /apor Inlet N fube Vent N fube Vran N	75 ps (Interna eu., or spection , Drain, 11 12 3 14 N5 16 7 18	i i) comb n, and No. D c 1 1 1 1 1 1 1 1 1 1 1 1 1	14.14" F (Exte 0. test pr safety v ameter r Size 8" 15 4" 15 2" 15 4" 15 3" 15 3" 15 3" 15 3" 15	21.0" 21.0"	No. Mai No. Mai cate yes or Hydro ngs: NT SA-312-T SA-312-T SA-312-T SA-312-T SA-312-T SA-312-T SA-312-T SA-312-T	Ink 2.25	SA-182-F3(SA-182-F3(SA-182-F3(Compt per U compt per U component Sa-182-F304L SA-182-F304L SA-182-F304L SA-182-F304L SA-182-F304L SA-182-F304L SA-182-F304L SA-182-F304L	360 ° (Extern: HA-51(d) (s) impace Proof test Nozzle Nom. SS .148 SS .120 SS .120 SS .120 SS .120 SS .120 SS .120 SS .120 SS .120	F Min. al)	design me	tal ter tur U U U U U U U U U U U U U U U U U U U	SA-193-E mp.	-20 °F -20 °F -20 °F 	at	N/A 75 of Location Insp. Open Shell Shell Shell Shell Shell Shell Shell op Chant tom Cha	N/A .)
16. N 17. Ir 18. H 19. N Purpos S S S V W W V T T Tub	BOTTOM BOTTOM //AWP mpact test Hydro., pno Nozzles, ins se (Inlet, Outlet etc.) //apor Inlet N Shell Vent N Vater Inlet N //apor Inlet N //apor Inlet N //apor Inlet N //apor Inlet N	RFSO 75 ps (International stress) eu., or spection , Drain, 11 12 3 14 N5 16 7 18 N10	i l) n, and No. D c 1 1 1 1 1 1 1 1 1 1 2	14.14" F (Exte 0. test pr safety v ameter r Size 8" 15 4" 15 2" 15 4" 15 3" 15 3 4" 3 3"	21.0" 21.0" 21.0" 21.0" (Ind essure	No. Mai No. Mai cate yes or Hydro ngs: NT SA-312-T	2.25 2.25 2.25 (Inte terial is explored in the point of the second in the point of the second in the second	SA-182-F30 SA-182-F30 SA-182-F30 Component SA-182-F304L SA-182-F304L SA-182-F304L SA-182-F304L SA-182-F304L SA-182-F304L SA-182-F304L SA-182-F304L SA-182-F304L SA-182-F304L	360 ° (Extern: HA-51(d) t(s) impace Proof test Norr. SS .148 SS .120 SS .120 SS .120 SS .120 SS .120 SS .120 SS .120 SS .120	PF Min. al) Min. al) Min. al) Min. al) Min. St tested] Min. Thickness Corr. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	design me	tal ter tur U U U U U U U U U U U U U U U U U U U	SA-193-E mp.	-20 °F -20 °F -20 °F 	at	of	N/A N/A
16. N 17. Ir 18. F 19. N Purpos V S S S S V W V T T Tut Ube [BOTTOM BOTTOM MAWP mpact test Hydro., pro Nozzles, ins se (Inlet, Outlet etc.) /apor Inlet N Shell Vent N Vater Inlet N Sube Drain N be Vent N9,	75 ps (Interna eu., or spection , Drain, 12 3 14 N5 16 7 18 N10 12,N13 Skirt	i l) n, and No. D c 1 1 1 1 1 1 1 1 1 1 2	14.14" F (External of the second	21.0" 21	No. Mai No. Mai cate yes or Hydro mgs: NT SA-312-T NT SA-312-T NT SA-312-T NT SA-312-T NT SA-312-T SA-312-T	Ink 2.25	SA-182-F30 SA-182-F30 Component Sa-182-F304L SA-182-F3	360 ° (Extern: HA-51(d) (s) impace Proof test Norzele Nom. SS .148 SS .120 SS .120	PF Min. al) Min. al) Min. al) Min. al) Min. St tested] Min. Thickness Corr. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Reinforcemen Material	tal ter tur U U U U U U U U U U U U U U U U U U U	SA-193-E mp.	-20 °F at test ter at test ter Fig. 2-4(6 Fig. 2-4(6) Fig. 2-4(6)	at	N/A 75 j of j Location Insp. Oper Shell	N/A N/A

Length of tubes: 16' 0.0" Pressure relief devices by others.

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				FORM U	1		Page 3 of 3
Manufactu	ired by	Louis	ville Exchanger &	& Vessel Inc., 3319 Gilmore Ind	ustrial Blvd., Louisv	ille, Kentucky, 402	213, USA
Manufactu	ırer's Seria	I No. 2	0-043	CRN N/A		National Board No	o. <u>1017</u>
				CERTIFICATE OF SH re correct and that all details of des CODE, Section VIII, Division 1. U C	sign, material, construct		ip of this vessel conform to the Expires July 2, 2020
Date	04/30/20)20	Name	Louisville Exchanger & V		Signed	Kad Want
				(Manufacturer) CERTIFICATE OF SH			⁽ (Representative)
OneCIS have ins to the b VESSE concerr manner Dat	S Insuran spected the est of my H L CODE, S ining the pro- for any pe e05/(ce Con e pressu knowledg Section N essure v prsonal in 08/2020	npany, of Lynn, N re vessel describe ge and belief, the N /III, Division 1. By essel described in njury or property da 	Anufacturer has constructed this p signing this certificate neither the lit this Manufacturer's Data Report. F amage or a loss of any kind arising (Authorized Inspector) CERTIFICATE OF FIELD Aris CODE, Section VIII, Division 1. U C	rt on <u>May 7, 20</u> ressure vessel in accor nspector nor his/her em furthermore, neither the from or connected with <u>Commissions:</u> (National SSEMBLY COMPLIA esembly construction of	and state dance with ASME B poloyer makes any w Inspector nor his/he this inspection. 15726, IN2018. H Board Authorized I NCE all parts of this vess	that, OILER AND PRESSURE arranty, expressed or implied, er employer shall be liable in any (Y1142, IL02329IC, OH1401 Inspector Commission number)
Date			Name	(Assembler)		Signed	(Representative)
				CERTIFICATE OF FIELD AS	SEMBLY INSPECTION	ON	
I, the un	dersigned	, holdin	g a valid commiss	ion issued by The National Board	d of Boiler and Pressu	re Vessel Inspector	s and employed by
belief, the Section \ Inspector Furtherm	e Manufac /III, Divisio r nor his/he lore, neithe	turer has in 1. The er emplo er the Ins	, not incl s constructed and a e described vessel yer makes any wa	cturer's Data Report with the descri- luded in the certificate of shop inspi- assembled this pressure vessel in a was inspected and subjected to a rranty, expressed or implied, conce employer shall be liable in any man	ection, have been inspe accordance with the AS pressure test of rning the pressure vess	ected by me and to the ME BOILER AND PF By sel described in this I	ne best of my knowledge and RESSURE VESSEL CODE, signing this certificate neither the Manufacturer's Data Report.
Date	e		Signed	(Authorized Inspector)	Commission (Nati	onal Board Authorize	ed Inspector Commission number)
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