	PO	#		FOR	M U-1 MANU	FACTUREF	R'S DAT	A REPOR	T FOR PF	RESSI	URE \	/ESSE	LS	_			
	Tag and/o	r Project	A	As Required	by the Provision	ns of the ASM	/IE Boiler a	ind Pressur	e Vessel C	ode Rı	ules, S	ection V	'III, Divis	sion 1			
1. N	lanufactured	and certifie	d by T	aylor Fo	rge Engineer	ed System	ns, Inc.,	6333 N. I	rie Ave.	, Tuls	sa, Ok	lahon	na, 741	117, US	SA		
2. N	lanufactured	for KP E	NGINE	ERING,	5555 OLD JA	CKSONVI		Y, TYLEI		7570)3, US						
3. L	ocation of ins	tallation L	JNKNC	OWN			(N	ame and a	laress of Pl	urcnas	er)						
									ne and add	lress)							
4. T	ype (Horiz	HORIZON contal, vertica	IAL al, or spł	nere)		(Tank, sepa		CHANGEF essel, heat)				(Manufa	1203-0 icturer's se	1B erial numbe	er)
		N/A				1203-01B-A1	REV 6			-		30	37				2016
-		(CRN)				(Drawing nu			(Natio			3037 ational Board number)			(Year built)		
5.	ASME Code,	Section VI	II, Div.			015/ N/A			(0)		N/A					N/A vice per UG	100(1)]
					Edition and Add			/-			ase Nu ,						
0.0				ed for sing	le wall vessels				shell of he	eat exc	chang	ers, or	chamb	er of m	ulticham	ber vesse	ls.
6. S	hell: (a) Num		se(s)	2		()	rall length	۱ 			13' 2.	8125"				_	
	Cours				aterial		kness		Long. Joint	<u>`</u>	/			(Cat. A,	. ,		reatment
No.	Diameter 31.0" ID	Len	, ,		ade or Type	Nom. .4375"	Corr 0.12	21	Full, Spot, SPO		Eff.	Type F	ull, Spot	,	Eff. .85	Temp.	Time N/A
1	31.0 ID	5' 2.8			516-70	.4375"	0.12		SPO		.85	1	SPO		.85	N/A	N/A
	••	• =						ges on She									
			1	Flange			BOUY FIAII	How						В	olting		
No.	Туре	ID	OD	Thk	Min Hub Thk	Mate	erial	Attached	Locat	ion	Num	& Size		olting aterial	Washer th	(OD, ID, k)	Washer Material
1	RFWN	31.0"	37.062	25" 3-5/16'	' 7/16"	SA105		WELDED	END		32 - 1	-1/8"	SA19		N/A	,	I/A
7. ł	leads: (a)	-	-	SA5	16-70				(b)					N/A			
		/Matanial a	nec nur		or type) (H.T	time and tem) (ai			(Ma	terial s	pec. nu	mber, gr	rade or t	vpe) (H.T.	- time and	temp.)
	· · ·	(Iviaterial s	500. mui	ibei, giade	or ()po) () = - / (· · · · ·		17
	Location (Top	, 1	hicknes	S	Radiu	IS	Elliptica		pex Hemis	•				Pressure		Category	A
	Bottom, Ends) Min.		s Corr.	Radiu Crown	is Knuckle	Elliptica Ratio	Angle	R	adius	Dia	ameter	Side to F Convex	Concave	Туре	Full, Spo	A ot, None Eff.
(a)		, 1		S	Radiu	is Knuckle N/A	Elliptica Ratio	Angle N/A	R	•	Dia						A ot, None Eff.
(a)	Bottom, Ends) Min.		s Corr.	Radiu Crown	is Knuckle N/A E	Elliptica Ratio	Angle	R	adius	Dia	ameter		Concave X	Type 1	Full, Spo	A ot, None Eff.
(a)	Bottom, Ends) Min.		s Corr.	Radiu Crown	is Knuckle N/A	Elliptica Ratio	Angle N/A les on Head	R	adius N/A	Dia	ameter N/A	Convex	Concave X	Type 1 Bolting	Full, Spo	A it, None Eff. ot .85
No.	Bottom, Ends	, Min. 309 Type	ID	s Corr. .125 OD	Radiu Crown N/A Flange Thk	IS Knuckle N/A E Min Hub Thk	Elliptica Ratio 2:1 Body Flanc Mate	Angle N/A Jes on Head Prial	Ri Ri Is How Attac	adius N/A	Dia	ameter	Convex e Bolt	Concave X E	Type 1 Bolting Perial Wash	Full, Spo Sp er (OD, thk) Wa	A t, None Eff. ot .85 asher Material
No. (a)	Bottom, Ends END Location N/A N) Min. .309	Thicknes:	s Corr. .125	Radiu Crown N/A Flange Thk N/A	IS Knuckle N/A E Min Hub	Elliptica Ratio 2:1 Body Flance	Angle N/A Pres on Hear Prial	Ri Ri Is How Attac	adius N/A hed	Dia	ameter N/A	Convex	Concave X E	Type 1 Bolting	Full, Spo	A t, None Eff. ot .85 asher Material
No. (a)	Bottom, Ends	, Min. 309 Type	ID	s Corr. .125 OD	Radiu Crown N/A Flange Thk	IS Knuckle N/A E Min Hub Thk	Elliptica Ratio 2:1 Body Flanc Mate	Angle N/A Pres on Hear Prial	Ri Ri Is How Attac	adius N/A hed	Dia	ameter N/A n & Size	e Bolt	Concave X E ing Mate	Type 1 Bolting Wash ID, N/A	er (OD, Wathk)	A t, None Eff. ot .85 asher Material
No. (a) 8. Ty	Bottom, Ends END Location N/A N	Type	Thickness	s Corr. .125 OD N/A	Radiu Crown N/A Flange Thk N/A N/A	IS Knuckle N/A E Min Hub Thk	Elliptica Ratio 2:1 Body Flanc Mate	Angle N/A Pres on Hear Prial	Ri Ri Is How Attac	adius N/A hed	Nur	ameter N/A n & Size	e Bolt	Concave X E ing Mate	Type 1 Bolting erial Wash ID, N/A	er (OD, Wathk)	A t, None Eff. ot .85 asher Material
No. (a) 8. Ty If	Bottom, Ènds END Location N/A N ype of jacket bar, give dime	Min. Min. .309 Type I/A	Thickness	s Corr. .125 OD N/A	Radiu Crown N/A Flange Thk N/A N/A or sketch	IS Knuckle N/A Min Hub Thk N/A	Elliptica Ratio 2:1 Body Flanc Mate	Angle N/A erial N Jac	Ries Ries Ries Ries Ries Ries Ries Ries	hed	Nur	ameter N/A n & Size (E	e Bolt N/A	Concave X ing Mate N as ogee	Type 1 Bolting Prial Wash ID, N/A N/A	Full, Spo Full, Spo er (OD, thk) Wa N/J par, etc.)	A Eff. ot .85
No. (a) 8. Ty If	Bottom, Ends END Location N/A N vpe of jacket bar, give dime	Min. Min. .309 Type I/A ensions; if I 48 psi	Thickness	s Corr. .125 OD N/A describe of -15 psi	Radiu Crown N/A Flange Thk N/A N/A	IS Knuckle N/A E Min Hub Thk N/A P. 20	Elliptica Ratio 2:1 Body Flanc Mate	Angle N/A es on Head rial NJac	Ri Is How Attac /A ket closur 00 °F	hed	Nur	ameter N/A n & Size (E	e Bolt	Concave X ing Mate N as ogee	Type 1 Bolting Wash ID, N/A	er (OD, Wathk)	A t, None Eff. ot .85 asher Material
No. (a) 8. Ty If 9. MA	Bottom, Ends END Location N/A N vpe of jacket bar, give dime	Min. Min. .309 Type I/A	Thickness	s Corr. .125 OD N/A	Radiu Crown N/A Flange Thk N/A N/A or sketch at max. tem	IS Knuckle N/A Min Hub Thk N/A P. <u>20</u> (Inter	Elliptica Ratio 2:1 30dy Flang Mate N/A	Angle N/A es on Head erial NJacJac	Radio Sector Radio	hed	Nur	ameter N/A n & Size (E	e Bolt N/A	Concave X E ing Mate A as ogee D.	Type 1 Bolting Prial Wash ID, N/A N/A A & weld, b -20 °F	Full, Spo Full, Spo er (OD, thk) Wa N/J par, etc.)	A t, None Eff. ot .85 asher Material A 248 psi
No. (a) 8. Ty If 9. M/ 10. Ir	Bottom, Ènds END Location N/A N Vpe of jacket bar, give dimu AWP (Ir npact test	Min. Min. .309 Type I/A ensions; if I 48 psi nternal)	ID ID ID	s Corr. .125 OD N/A describe o .15 psi (External)	Radiu Crown N/A Flange Thk N/A N/A N/A or sketch at max. tem [Indicate yes of the second seco	IS Knuckle N/A Min Hub Thk N/A p. <u>20</u> (Inter	Elliptica Ratio 2:1 Body Flang Mate N/A	Angle N/A es on Head erial NJacJac	Radio Sector Radio	hed	Nur	n & Size (E gn met	e Bolt N/A Describe	Concave X E ing Mate A as ogee D.	Type 1 Bolting Prial Wash ID, N/A N/A A & weld, b -20 °F	Full, Spo Full, Spo er (OD, thk) Wa N/A par, etc.) at	A t, None Eff. ot .85 asher Material A 248 psi
No. (a) 8. Ty If 9. MA 10. Ir 11. Hy	Bottom, Ènds END Location N/A N vpe of jacket bar, give dime AWP 2 (Ir npact test 4 vdro., pneu., or	, , , Min. , ,309 Type , //A , ensions; if l , 48 psi , nternal) , comb. test p	Thickness ID ID N/A coolted, ressure	s Corr. .125 OD N/A describe o -15 psi (External) HYRD	Radiu Crown N/A Flange Thk N/A N/A N/A or sketch at max. tem [Indicate yes 0 at 323 psi	IS Knuckle N/A Min Hub Thk N/A P. <u>20</u> (Inter	Elliptica Ratio 2:1 Body Flang Mate N/A	Angle N/A es on Head erial NJacJac	Radio Sector Radio	hed	Nur	n & Size (E gn met	e Bolt N/A	Concave X E ing Mate A as ogee D.	Type 1 Bolting Prial Wash ID, N/A N/A A & weld, b -20 °F	Full, Spo Full, Spo er (OD, thk) Wa N/A par, etc.) at	A t, None Eff. ot .85 asher Material A 248 psi
No. (a) 8. Ty If 9. MA 10. Ir 11. Hy <i>It</i>	Bottom, Ènds END Location N/A N vpe of jacket bar, give dime AWP 2 (Ir npact test (vdro., pneu., or ems 12 and to	, , , Min. , ,309 Type , //A , ensions; if l , 48 psi , nternal) , comb. test p	Thickness ID ID N/A Doolted, ressure mpleted	s Corr. .125 OD N/A describe o .15 psi (External) HYRD d for tube	Radiu Crown N/A Flange Thk N/A N/A N/A or sketch at max. tem [Indicate yes 0 at 323 psi	IS Knuckle N/A Min Hub Thk N/A P. 20 (Inter Dr no and the Proof te	Elliptica Ratio 2:1 Body Flang Mate N/A	Angle N/A es on Head erial NJacJac	How Attac /A ket closur 00 °F rnal) tested]	hed hed Min	Nur	n & Size (E gn met	e Bolt N/A	Concave X E ing Mate A as ogee D.	Type 1 Bolting Prial Wash ID, N/A N/A A & weld, b -20 °F	Full, Spo Full, Spo er (OD, Wa thk) N/A par, etc.) at perature c	A Eff. ot .85 asher Material A 248 psi of N/A
No. (a) 8. Ty If 9. MA 10. Ir 11. Hy <i>It</i>	Bottom, Ènds END Location N/A N vpe of jacket bar, give dime AWP 2 (Ir npact test 4 vdro., pneu., or	Min. Min. .309 Type //A	ID N/A polted, ressure mpleted (1) SA2	s Corr. .125 OD N/A describe o -15 psi (External) HYRD	Radiu Crown N/A Flange Thk N/A N/A or sketch at max. tem [Indicate yes of O at 323 psi sections.	IS Knuckle N/A Min Hub Thk N/A P. 20 (Inter Dr no and the Proof te	Elliptica Ratio 2:1 3ody Flanc Mate N/A N/A 0 °F rmal) NO e compone est 33.000"	Angle N/A es on Hear erial JacJacJac	How Attac /A ket closur 00 °F rnal) tested]	hed	Nur Nur	n & Size (E gn met	e Bolt N/A Describe	Concave X E ing Mate as ogee b. at	Type 1 Bolting prial Wash ID, N/A N/A -20 °F test tem	Full, Spo Full, Spo er (OD, thk) Wa bar, etc.) at perature c	A Eff. ot .85 asher Material A 248 psi of N/A
No. (a) 8. Ty If 9. MA 10. Ir 11. Hy <i>It</i>	Bottom, Ènds END Location N/A N vpe of jacket bar, give dime AWP 2 (Ir npact test (vdro., pneu., or ems 12 and to	Min. Min. .309 Type //A	Thickness ID ID N/A poolted, ressure mpleted (1) SA2 nary (m	s Corr. .125 OD N/A describe of .15 psi (External) HYRD d for tube 240-S3180 aterial spece	Radiu Crown N/A Flange Thk N/A N/A or sketch at max. tem [Indicate yes of O at 323 psi sections.	P. 20 (Inter p. 20 (Inter Proof te	Elliptica Ratio 2:1 3ody Flanc Mate N/A N/A	Angle N/A es on Hear erial JacJacJac	Radia	hed	Nur Nur	n & Size (E gn met	Bolt Bolt N/A Describe al temp //A .250 Corr. allo	Concave X E ing Mate as ogee b. at	Type 1 Bolting prial Wash ID, N/A N/A -20 °F test tem	Full, Spo Full, Spo er (OD, thk) Wa bar, etc.) at perature co BOLTI	A t, None Eff. ot .85 asher Material A 248 psi of Df/A ED led or bolted)
No. (a) 8. Ty If 9. MA 10. Ir 11. Hy <i>It</i>	Bottom, Ènds END Location N/A N vpe of jacket bar, give dime AWP 2 (Ir npact test (vdro., pneu., or ems 12 and to	Image: Min. Min. Min. .309 Type I/A Image: Min. Image: Min. </td <td>Thickness ID ID N/A poolted, ressure mpleted inary (m</td> <td>s Corr. .125 OD N/A describe of .15 psi (External) HYRD d for tube 240-S3180</td> <td>Radiu Crown N/A Flange Thk N/A N/A or sketch at max. tem [Indicate yes of 0 at 323 psi sections. c. no.)]</td> <td>IS Knuckle N/A Min Hub Thk N/A p. 20 (Inter pr no and the Proof te</td> <td>Elliptica Ratio 2:1 3ody Flanc Mate N/A N/A 0 °F rmal) NO e compone est 33.000"</td> <td>Angle N/A es on Hear erial JacJacJac</td> <td>Radia Radia Radia</td> <td>Adius N/A hed</td> <td>Nur Nur N/A</td> <td>n & Size (E gn met (C (C) (C) (C) (C) (C) (C) (C) (C) (C)</td> <td>Bolt N/A Describe</td> <td>Concave X E ing Mate A A A A A A A A A A A A A A A A A A A</td> <td>Type 1 Bolting prial Wash ID, N/A N/A -20 °F test tem</td> <td>Full, Spo Full, Spo er (OD, thk) Wa bar, etc.) at perature c</td> <td>A t, None Eff. ot .85 asher Material A 248 psi of Df/A ED led or bolted)</td>	Thickness ID ID N/A poolted, ressure mpleted inary (m	s Corr. .125 OD N/A describe of .15 psi (External) HYRD d for tube 240-S3180	Radiu Crown N/A Flange Thk N/A N/A or sketch at max. tem [Indicate yes of 0 at 323 psi sections. c. no.)]	IS Knuckle N/A Min Hub Thk N/A p. 20 (Inter pr no and the Proof te	Elliptica Ratio 2:1 3ody Flanc Mate N/A N/A 0 °F rmal) NO e compone est 33.000"	Angle N/A es on Hear erial JacJacJac	Radia	Adius N/A hed	Nur Nur N/A	n & Size (E gn met (C (C) (C) (C) (C) (C) (C) (C) (C) (C)	Bolt N/A Describe	Concave X E ing Mate A A A A A A A A A A A A A A A A A A A	Type 1 Bolting prial Wash ID, N/A N/A -20 °F test tem	Full, Spo Full, Spo er (OD, thk) Wa bar, etc.) at perature c	A t, None Eff. ot .85 asher Material A 248 psi of Df/A ED led or bolted)
No. (a) 8. Ty If 9. MA 10. Ir 11. Hy <i>It</i>	Bottom, Ènds END Location N/A N /pe of jacket bar, give dime AWP 2 (Ir npact test (dro., pneu., or ems 12 and 2 ubesheet	, ,	Thickness ID ID N/A coolted, ressure mpleted (1) SA2 mary (m Iting (ma SA789	s Corr125 OD N/A describe .15 psi (External) HYRD d for tube 240-S3180 aterial spec N/A	Radiu Crown N/A Flange Thk N/A N/A N/A or sketch at max. tem [Indicate yes o O at 323 psi sections. c. no.)] no.)]	IS Knuckle N/A Min Hub Thk N/A p. 20 (Inter pr no and the Proof te	Elliptica Ratio 2:1 30dy Flang Mate N/A NO compone est 33.000" (subject to N/A	Angle N/A es on Hear erial JacJacJac	How Attac How Attac A ket closur 00 °F rnal) tested] 2.: (Nomina (Nomina	Adius N/A hed Min 3/16" I thickr N/A 083"	Nur Nur N/A . desi	ameter N/A n & Size (C gn met (C (C	Bolt Bolt N/A Describe al temp //A Corr. allo N/A	Concave X E ing Mate A as ogee O. at bw.)	Type 1 Bolting prial Wash ID, N/A ∧A Attach	Full, Spo Full, Spo er (OD, Wa thk) N// bar, etc.) at perature co BOLTI ment (welco N/A	A Eff. ot .85 asher Material A 248 psi of N/A ED led or bolted)

FORM U1-(Cont'd)

NB Number 3037

	Cou	irse(s)			Med	harial	Thio	kness		ong. Joint (Ca	+ Λ)		Circum	. Joint (Cat. A		Hoo	t Treatmer	ht.
lo.	Diameter	<u> </u>	Lengt	th .		terial	Nom.	Corr.		Full, Spot, No		-ff T		II, Spot, None		Temp		
1	31.0" ID		0' 12.		-	de or Type 16-70	.4375"	0.125		SPOT			1	SPOT	.85	1150°		
1	31.0 ID		0 12.3	5	5A)	10-70	.4375	0.125		3PU1		00	1	3PU1	.05	1150		JUK
							1	Body Flang	ges on Shells	6								
No.	Туре		ID	OD	Flange	Min Hub Thk	k Material How Location				Bolting	Bolting	r (OD, ID,	Was	hor			
NO.	Туре			OD	Thk		Wate	, iai	Attached	Location	N	Num 8	& Size	Material		(OD, ID, hk)	Mate	
	RFWN	3	31.0"	37.0625"	3-5/16"	7/16"	SA105		WELDED	END	32	2 - 1-1	/18"	SA193-B7	N/A		N/A	
	RFWN	3	31.0"	37.0625"	3-3/16"	7/16"	SA105		WELDED	END	32	2 - 1-1	/18"	SA193-B7	N/A		N/A	
5. ⊦	leads: (a)			FI A1		SA516-70N				(b)				N/A				
	· · _	(Ma	aterial sp	ec. numbe	er, grade o	or type) (H.T	time and terr	ıp.)		· · · · · · · · · · · · · · · · · · ·	(Mater	rial sp	ec. num	iber, grade o	r type) (H.T	time a	nd temp.)	
	Location (To		Tł	nickness		Radiu	IS	Elliptical	I Conical Ap	ex Hemisph	erical	cal Flat		ide to Pressu		Catego	Category A	
	Bottom, End	ls)	Min.	Co	orr.	Crown	Knuckle	Ratio	Angle	Radiu	JS	Dian	neter (Convex Concav	e Type	Full, S	Spot, None	Eff
(a)	END		1.8576"	0.1	25"	N/A	N/A	N/A	N/A	N/A		37-1	1/16"		N/A		N/A	N/A
									es on Heads									
)					Bolting			
No.	Location	n Type		ID	OD	Flange Thk	Min Hub Thk	Mate	erial H	low Attached	4 –	Num	& Size	Bolting Ma	aterial Wasl	ner (OD,	Washer M	lateria
6. N	1AWP(N/A 217 p		N/A 5 p (Extern	N/A	N/A			N/# 150 ° (Externa		I	/ A sign m	netal te		-20 °F	at		
6. N 7. lı	IAWP(mpact test	217 p	osi al)	-15 p (Extern	p si aal) a	t max. temp. dicate yes or	150 (Interr no and the	°F nal) NO compone	150 ° (Externa	F Mir al) ct tested]	n. des	sign n		empa	-20 °F	at	217 p	osi /A
6. N 7. lı 8. H	IAWP(npact test lydro., pne	217 p	al)	-15 p (Extern	p <mark>si </mark> a nal) [In ssure	t max. temp. dicate yes or Hydro	150 (Interr no and the	°F nal) NO compone	150 ° (Externa	F Mir al)	n. des	sign n		emp	-20 °F	at	217 p	
6. N 7. lı 8. H 9. N	IAWP(npact test lydro., pne lozzles, insp	217 p International u., or pectio	psi al) comb.	-15 p (Extern test pres	p <mark>si </mark> a nal) [In ssure	t max. temp. dicate yes or Hydro	150 (Intern I no and the . at 283 ps	°F nal) NO compone	150 ° (Externa ent(s) impac Proof test	F Mir al) 	n. des	sign n		empa a 	-20 °F	at	217 p	
6. N 7. lı 8. H 9. N	IAWP(npact test lydro., pne	217 p International u., or pectio	psi al) comb.	-15 p (Extern	p <mark>si </mark> a nal) [In ssure	dicate yes or Hydro	150 (Intern I no and the . at 283 ps Material	°F nal) NO compone si	150 ° (Externa ent(s) impac Proof test Nozzle	F Mir al) 	n. des	sign n	ient	empa a a Attachme	-20 °F	at	217 p	/A
6. N 7. lı 8. H 9. N	IAWP(npact test lydro., pne lozzles, insp e (Inlet, Outlet, I etc.)	217 p International u., or pectio	r comb.	-15 p (Extern test pres safety va Diameter	inal) and	dicate yes or Hydro hings:	(Interr (Interr no and the at 283 ps Material zle	°F nal) NO compone si Flange	150 ° (Externa ent(s) impac Proof test <u>Nozzle</u> Nom.	F Mir al) 	n. des Reini	sign m	ient _	empa N/A Attachme Nozzle	-20 °F	at	217 p	/A
6. N 7. li 8. l 9. N urpos	IAWP(npact test lydro., pne lozzles, insp e (inlet, Outlet, I	217 p International u., or pectio	psi	-15 p (Extern test pres safety va Diameter or Size	nal) and	t max. temp. dicate yes or Hydro hings: e Noz	I (Interr no and the . at 283 ps Material zle	°F nal) NO compone si	150 ° (Externa ent(s) impao Proof test Nozzle	F Mir al) ct tested] Thickness Corr.	n. des Rein M	sign m	ient _	empa a a Attachme	-20 °F	at	217 p	/A
6. N 7. li 8. ł 9. N urpos	IAWP(mpact test Hydro., pne lozzles, insp e (Inlet, Outlet, I etc.) SH INLET	217 p International u., or pectio	psi al) comb. on, and s No.	-15 p (Extern test pres safety va Diameter or Size 6"	inal) and	dicate yes or Hydro hings: e Noz VN SA10 VN SA10		°F hal) NO compone si Flange SA105	150 ° (Externa Proof test Nozzle Nom. 0.432"	F Mir II) Ct tested] Thickness Corr. 0.125"	Rein M INT	sign m nforcem Material	ient AL AL	emp a N/A Attachme Nozzle UW16.1C	-20 °F test temp nt Details Flange WELDED	at	217 p	/A
6. N 7. II 8. F 9. N urpos	IAWP(mpact test lydro., pne lozzles, insp e (Inlet, Outlet, I etc.) SH INLET SH OUTLET	217 p International u., or pectio	si . al) . comb. . on, and s . No. . 1 . 1 .	-15 p (Extern test pre: safety va Diameter or Size 6" 6"	inal) [In ssure lve open Typ RFW RFW	dicate yes or Hydro ings: e Noz VN SA10 VN SA10 VN SA10		°F hal) compone si Flange SA105 SA105	150 ° (Externa Proof test Nozzle Nom. 0.432" 0.432"	F Mir al) t tested] Thickness Corr. 0.125" 0.125"	Reint M INT INT	sign m nforcem Material FEGR	AL	empa N/A Attachme Nozzle UW16.1C UW16.1C	-20 °F test temp nt Details Flange WELDED WELDED	at	217 p	/A
16. N 17. II 18. F 19. N	IAWP	U., or	r comb. n, and s No. 1 1	-15 p (Extern test pres safety va Diameter or Size 6" 6" 6"	Inal) [In ssure ve open Typ RFW RFW RFW	dicate yes or Hydro ings: e Noz VN SA10 VN SA10 VN SA10 VN SA10	150 (Intern no and the . at 283 ps Material zle 06B 06B 06B	°F hal) compone si Flange SA105 SA105 SA105	150 ° (Externa Proof test Nozzle Nom. 0.432" 0.432"	F Mir al) t tested] Thickness Corr. 0.125" 0.125" 0.125"	Rein M INT INT INT	nforcem Material TEGRA	AL AL AL AL	empa N/A Attachme Nozzle UW16.1C UW16.1C UW16.1C	-20 °F test temp nt Details Flange WELDED WELDED WELDED	at	217 p	/A
6. N 7. II 8. F 9. N urpos	IAWP	217 p International U., or Dectio	isi all) comb. on, and s No. 1 1 1 1 1 1	-15 p (Extern test pres safety va Diameter or Size 6" 6" 6" 6"	Ive open RFW RFW RFW RFW	t max. temp. dicate yes or Hydro ings: e Noz VN SA10 VN SA10 VN SA10 VN SA10 VN SA10 VN SA10	150 (Intern no and the . at 283 ps . at 286 ps . at 28	°F hal) compone si Flange SA105 SA105 SA105 SA105 SA105	150 ° (Externa Proof test Nozzle Nom. 0.432" 0.432" 0.432" 0.432" 0.432" 0.432"	F Mir al) t tested] Thickness Corr. 0.125" 0.125" 0.125" 0.125"	Rein M INT INT INT INT	nforcem Material EGRA EGRA	AL AL AL AL AL AL	empa N/A Attachme Nozzle UW16.1C UW16.1C UW16.1C UW16.1C UW16.1C	-20 °F test temp nt Details Flange WELDED WELDED WELDED WELDED WELDED	at	217 p	/A
6. N 7. II 8. H 9. N urpos	IAWP	217 p International U., or Dectio Drain,	vsi al) comb. on, and s No. 1 1 1 1 1 1 1 1 1 1 1 1	-15 p (Extern test pres safety va Diameter or Size 6" 6" 6" 6" 6" 1"	Inal) Inal) Ive open Typ RFW RFW RFW RFW RFW RFW RFW RFW	ti max. temp. dicate yes or Hydro hings: e Noz VN SA10 VN SA10 VN SA10 VN SA10 VN SA10 VN SA10 VN SA10 VN SA10 VN SA10 VN SA10	150 (Intern no and the . at 283 ps Material zle 06B 06B 06B 06B 06B	°F hal) compone si Flange SA105 SA105 SA105 SA105 SA105 SA105	150 ° (Externa Proof test Nozzle Nom. 0.432" 0.432" 0.432" 0.432" 0.432" 0.432"	F Mir al) t tested] Thickness Corr. 0.125" 0.125" 0.125" 0.125" 0.125"	Reinin M INT INT INT INT INT	nforcem Material TEGRA TEGRA TEGRA	AL AL AL AL AL AL AL	empa N/A Attachme Nozzle UW16.1C UW16.1C UW16.1C UW16.1C UW16.1C UW16.1C	-20 °F test temp nt Details Flange WELDED WELDED WELDED WELDED WELDED	at	217 p	/A
6. N 7. II 8. F 9. N urpos	IAWP (mpact test Hydro., pne lozzles, insp e (inlet, Outlet, I etc.) SH INLET SH OUTLET CH OUTLET H AUXILIAR) H AUXILIAR)	217 p Intern u., or poectio Drain, r	osi al) comb. on, and s No. 1 1 1 1 1 1 1 1 1 1 1	-15 p (Extern test pres safety va Diameter or Size 6" 6" 6" 6" 6" 1"	Ive open Typ RFW RFW RFW RFW RFW RFW RFW RFW	t max. temp. dicate yes or Hydro hings: e Noz VN SA10 VN SA10	I (Interr Ino and the . at 283 ps 06B 06B 06B 06B 06B 06B 06B	°F nal) compone si Flange SA105 SA105 SA105 SA105 SA105 SA105 SA105	150 ° (Externa Proof test Nozzle Nom. 0.432" 0.432" 0.432" 0.432" 0.218"	F Mir al) Ct tested] Corr. 0.125" 0.125" 0.125" 0.125" 0.125" 0.125" 0.125"	Reinin M INT INT INT INT INT INT INT	forcem Material TEGRA TEGRA TEGRA TEGRA	AL AL AL AL AL AL AL AL	mpa N/A Attachme Nozzle UW16.1C UW16.1C UW16.1C UW16.1C UW16.1C UW16.1C UW16.1C	-20 °F test temp totalls Flange WELDED WELDED WELDED WELDED WELDED WELDED	at	217 p	/A
6. N 7. II 8. F 9. N urpos	IAWP(mpact test lydro., pne lozzles, insp e (Inlet, Outlet, I etc.) SH INLET SH OUTLET CH INLET CH OUTLET H AUXILIAR) H AUXILIAR)	217 p International U., or Deectio Drain, (((((((((si al) comb. on, and s No. 1 1 1 1 1 1 1 1 1 1 1 1	-15 p (Extern test pres safety va Diameter or Size 6" 6" 6" 6" 6" 1" 1" 1" 1" 1"	Ive open Typ RFW RFW RFW RFW RFW RFW RFW RFW RFW RFW	t max. temp. dicate yes or Hydro ings: e Noz VN SA10 VN SA10	I (Interr Ino and the . at 283 ps 06B 06B 06B 06B 06B 06B 06B	°F nal) Compone si Flange SA105 SA105 SA105 SA105 SA105 SA105 SA105 SA105 SA105 SA105 SA105 SA105	150 ° (Externa Proof test Nozzle Nom. 0.432" 0.432" 0.432" 0.432" 0.218" 0.218"	F Mir al) t tested] Thickness Corr. 0.125" 0.125" 0.125" 0.125" 0.125" 0.125" 0.125" 0.125" 0.125"	Reini M INT INT INT INT INT INT INT	aforcem Material EGRA EGRA EGRA EGRA EGRA	AL AL AL AL AL AL AL AL	Attachme Nozzle UW16.1C UW16.1C UW16.1C UW16.1C UW16.1C UW16.1C UW16.1C UW16.1C	-20 °F test temp rt Details Flange WELDED WELDED WELDED WELDED WELDED WELDED WELDED WELDED	at	217 p of N Location Insp. Open.	/A

Length of tubes: 13' 0" <u>IMPACTS EXEMPT PER UG-20 (f) AND UCS-66</u> <u>over pressure protection per UG-125 (a) (2)</u>

NB Number 3037

FORM U1-	(Cont'd)
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			CERTIFICATE OF SHO			
We cer ASME	BOILER AND PRE	ents in this report ar	e correct and that all details of desig ODE, Section VIII, Division 1. U Cer	n, material, construction ificate of Authorization I	n, and workmanshi Number 47294	Expires March 12, 2017
Date	07/07/2016	Name	Taylor Forge Engineered Syst	ems, Inc.	Signed	All
			(Manufacturer)			(Representative)
			CERTIFICATE OF SHO	P INSPECTION		
l, the u	indersigned, hold	ing a valid commiss	ion issued by the National Board	of Boiler and Pressure	Vessel Inspector	s and employed by
			d Insurance Company of Conne			
have in	spected the press	ure vessel described	in this Manufacturer's Data Report	on June 2, 2016	, and state	that,
VESSE concer	EL CODE, Section ning the pressure v	VIII, Division 1. By s vessel described in t	anufacturer has constructed this pre signing this certificate neither the Ins nis Manufacturer's Data Report. Fur mage or a loss of any kind arising fro	pector nor his/her emplo thermore, neither the In	oyer makes any wa spector nor his/he	arranty, expressed or implied,
Da	te 07/07/2016	Signed	(Authorized Inspector)	Commissions:	114	48AB, OK713
		<u></u>	(Authorized Inspector)			d (incl. endorsements)]
of ASME	E BOILER AND PH	Name	CODE, Section VIII, Division 1. U Ce	rtificate of Authorization		Expires
			(Assembler)		5	(Representative)
			CERTIFICATE OF FIELD ASS			
I, the ur	ndersigned, holdir	ng a valid commissi	on issued by The National Board o	of Boiler and Pressure	Vessel Inspectors	s and employed by
belief, th Section the Insp Furthern	e Manufacturer ha VIII, Division 1. Th ector nor his/her ei	, not inclustion , not inclustion , not inclustion , not inclusted and an ne described vessel of mployer makes any spector nor his/her of	turer's Data Report with the describe ided in the certificate of shop inspec ssembled this pressure vessel in acc was inspected and subjected to a hy warranty, expressed or implied, conc employer shall be liable in any mann	tion, have been inspecte cordance with the ASME drostatic test of cerning the pressure ves	ed by me and to th BOILER AND PR By Sel described in th	e best of my knowledge and RESSURE VESSEL CODE, y signing this certificate neither nis Manufacturer's Data Report.
Da	te	Signed	(Authorized Inspector)	Commission	[National Board	d (incl. endorsements)]

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exe: v6.4.28

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