(a) TOP .437" 0" 60.0" 3.75" N/A N/A N/A N/A N/A X S N/A (b) BOTTOM .437" 0" 60.0" 3.75" N/A N/A N/A N/A N/A N/A X S N/A If removable, bolts used (describe other fastening) N/A (Material, spec. number, grade, size, number) 8. Type of jacket N/A Jacket closure N/A (Describe as ogee & weld, bar, etc.) If bar, give dimensions N/A If bolted, describe or sket 9. MAWP 100 psi N/A at max. temp. 340 °F: N/A Min. design metal temp20 °F at 100 psi												1	030	5110	
1. Manufactured and certified by Bendel Corporation, 4823 N. Graham St., Charlotte, North Carolina, 28269, USA		1 2		. FOI	RM U-1 MANUF	ACTURER	'S DATA I	REPORT FO	OR PRESSUR	E VES	SELS			740	
Namuractured for Invista, Wilmington Plant, 4600 Highway 421 North, Wilmington, North Carolina, 28401, USA	_			. As Require	d by the Provisions	of the ASM	E Boiler and	d Pressure Ve	ssel Code Rules	s, Section	n VIII,	Division 1			
2. Manufactured for Invista, Wilmington Plant, 4600 Highway 421 North, Wilmington, North Carolina, 28401, USA (Name and address of Manufacture) (Name and address of Purchaser) 3. Location of installation	1. N	lanufactured an	d certified by	Bendel C	orporation, 48	23 N. Grah	nam St., (Charlotte,	North Carolin	na, 282	69, l	JSA			
Note							(1)	Name and ad	dress of Manufac	cturer)					
1	2. N	lanufactured for	invista, v	/ilmington	Plant, 4600 Hi	gnway 42	(Name	and address	of Purchaser)	Jilita, Z	040	1, USA			
	3. L	ocation of instal	lation Invis	ta, Wilmin	gton Plant, 460	00 Highwa	y 421 No	rth, Wilmi	ngton, North	Caroli	na, 2	28401, USA			
	3		v T on		, ve i	21, 121		(Name an	d address)		-			, i	
NA 011349708; Rev. 5 679 2008 (Veral builty) (Corawing number) (National Board number) (Veral builty) (South Section VIII, Div. 1) (Div. 2007) N/A (Code Case number) (National Board number) (National Adended National Addended National Public Publ	4. T	ype		anharal		(Tank conor			atc.)						
CRN CORN C		(Horizon	tai, verticai, or	sprierej		(Talik, Sepai	ator, jkt. ve	ssei, neat exi	., 610.)				101 0 0011	1.0000111.111-0-0-0-0-0-0-1111-0-0-111	
5. ASME Code, Section VIII, Div. 1 Edition and Addenda (date) Code Case number Special Service per UG-120(d)	-				_					(Natio	nal B	oard number)			
Edition and Addenda (date) Code Case number Special Service per UG-120(d)	5	ASME Code Se		v. 1	20		iming namo	0.,	254					and the second	
Course(s) Material Thickness Long. Joint (Cat. A) Circum. Joint (Cat. A, B, & C) Heat Treatment	0.	NOME COUC, CO	5011011 VIII, D				date)					Spec			20(d)
Course(s) Material Thickness Long. Joint (Cat. A) Circum. Joint (Cat. A, B, & C) Heat Treatment		Items 6-11 incl.	to be compl	eted for sind	ale wall vessels.	iackets of i	acketed v	essels, shel	l of heat excha	ingers,	or ch	namber of mu	ltichami	ber vessels	
Course(s) Material Thickness Long. Joint (Cat. A) Circum. Joint (Cat. A, B, & C) Heat Treatment	6 S			-	•										
No. Diameter Length Spec./Grade or Type Nom. Corr. Type Full, Spot, None Eff. Type Full, Spot, None Eff. Temp. Time 1 60.0" OD 2' 9.0" SA516-70 5/8" 0" 1 Spot 85% 1 Spot 85% N/A				-,-			-		Lana Joint (Cat	A) I	Cirou	m Joint (Cat A	D 2 C)	- Unat Tro	atmont
1 60.0" OD 2°9.0" SA516-70 5/8" 0" 1 Spot 85% 1 Spot 85% N/A N/A 1 60.0" OD 8°0.0" SA516-70 5/8" 0" 1 Spot 85% 1 Spot 85% N/A N/A 7 Heads: (a)	No. I		Y	Snoc	_ 07 (IDEA) DO 1/000										
1 60.0" OD 8' 0.0" SA516-70 5/8" 0" 1 Spot 85% 1 Spot 85% N/A N/A 7. Heads: (a) SA516-70; H.T.: None	_									-				CONTROL MAN	50000000
7. Heads: (a) SA516-70; H.T.: None (Material spec. number, grade or type) (H.T Time & Temp.) Location (Top, Bottom, Ends) Min. Corr. Crown Knuckle Ratio Ratio Angle Radius Diameter Convex Concave Type Full, Spot, None			1914 EXP(#0)												
(Material spec. number, grade or type) (H.T Time & Temp.) Location (Top, Bottom, Ends) Min. Corr. Crown Knuckle Ratio Angle Radius Diameter (a) TOP .437" 0" 60.0" 3.75" N/A									E1						
Location (Top, Bottom, Ends) Min. Corr. Crown Knuckle Ratio Ratio Angle Radius Diameter Convex Concave Type Full, Spot, None	7. 1		Material spec	SA516-70); H.T.: None	ime & Temp	1			ial spec	SA	516-70; H.T ber. grade or to	.: None	Time & Te	emp.)
Bottom, Ends Min. Corr. Crown Knuckle Ratio Angle Radius Diameter Convex Concave Type Full, Spot, None				200 - 200 -	1.70% (2002)			Conical Apex							
(b) BOTTOM .437" 0" 60.0" 3.75" N/A N/A N/A N/A N/A X S N/A If removable, bolts used (describe other fastening) N/A (Material, spec. number, grade, size, number) 8. Type of jacket N/A If bar, give dimensions N/A (Describe as ogee & weld, bar, etc.) If bar, give dimensions N/A Min. design metal temp20 °F at 100 psi			22 137 50 1870	DECEMBER 2	Crown	Knuckle				Diamet	er C	onvex Concave	Туре	Full, Spot,	None Eff.
(b) BOTTOM .437" 0" 60.0" 3.75" N/A N/A N/A N/A N/A N/A X S N/A If removable, bolts used (describe other fastening) 8. Type of jacket N/A If bar, give dimensions N/A At max. temp. 340 °F: N/A N/A N/A N/A N/A N/A N/A N/A	(a)	ТОР	.437"	0"	60.0"	3.75"	N/A	N/A	N/A	N/A		Х	S	N/A	N/A
(Material, spec. number, grade, size, number) 8. Type of jacket	_	воттом	.437"	0"	60.0"	3.75"	N/A	N/A	N/A	N/A		X	S	N/A	N/A
Material, spec. number, grade, size, number) 8. Type of jacket N/A	If r	emovable, bolts	used (descri	be other fas	stenina)	ň.			N	1/Δ					
8. Type of jacket N/A Jacket closure N/A (Describe as ogee & weld, bar, etc.) If bar, give dimensions N/A If bolted, describe or sket 9. MAWP 100 psi N/A at max. temp. 340 °F : N/A Min. design metal temp20 °F at 100 psi		**************************************	5 - 5 V					(Mater			, size	, number)			
(Describe as ogee & weld, bar, etc.) If bar, give dimensions N/A If bolted, describe or sket 9. MAWP 100 psi N/A at max. temp. 340 °F: N/A Min. design metal temp20 °F at 100 psi	я т	one of jacket			MA								V.		
9. MAWP 100 psi N/A at max. temp. 340 °F : N/A Min. design metal temp20 °F at 100 psi	0. 1	, be of Jacket			IVA			oacket	0.03010		(Des	cribe as ogee	& weld, b	ar, etc.)	
100 psi 10/A di 1100 psi	lf	bar, give dimen	sions				N/	Ά				-	If bol	ted, describe	or sketch.
100 100	9. M	AWP 100	nei	N/A	at max, temp	. 34	0 °F :	N/A	Min. d	lesign n	netal	temp.	-20 °F	at	100 psi
				(external)		(interr	nal)	(external							
10: Impublication	10. li	mpact test							ind\			at	test tem	perature of	N/A
(Indicate yes or no and the component(s) impact tested) 11. Hydro., pneu., or comb. test press. Hydro. at 150 psi Proof test N/A	14 D	udea naou crea	mh toot proce	Undro			CONTRACTOR DO NOT CONTRACT	(s) impact tes	ted)		N/Δ				

							(Describe as o	gee & weld, ba	r, etc.)	
If bar, give d	imensions			N/A	8		** · · · ·	If bolte	ed, describ	e or sketch.
9. MAWP	100 psi	N/A	at max. temp.	340 °F	N/A	Min. desigr	Min. design metal temp.		at	100 psi
536 FF 11	(internal)	(external)		(internal)	(external)					
10. Impact test	114 (A) consider talent of a sec	3 T A CONTROL OF THE PARTY OF T	No: Exe	mpt per UCS-66 and	I UG-20			at test temperature of		f N/A
ioi iiipaatiaa	-			no and the component(s				550		
11 Hydro nneu	or comb. test press.	Hydro, at	150 psi	Proof test			N/A			
* 1.5°	TE TO		57				6			
items 12 an	d 13 to be complete	ea for tube se	ecuons.							
12. Tubesheet:	35.0	N/A	ecuons.	N/A		N/A	N/A		N/A	
	3.5%			N/A (Diameter, (subject to pr	ess.)) (Nomi	N/A nal thickness)	N/A (Corr. allow.)	Attachi		led or bolted)
	(Stationary (r	N/A material spec.	no.))	(Diameter, (subject to pr N/A		nal thickness) N/A	(Corr. allow.) N/A	Attachi	nent (weld N/A	led or bolted)
	(Stationary (r	N/A material spec.	no.))	(Diameter, (subject to pr		nal thickness)	(Corr. allow.)	Attachi	ment (weld	led or bolted)
	(Stationary (r	N/A material spec.	no.))	(Diameter, (subject to pr N/A		nal thickness) N/A	(Corr. allow.) N/A	Attachr	nent (weld N/A	led or bolted) nent)

14. Shell (a) No. of course(s): (b) Overall length N/A Circum. Joint (Cat. A, B, & C) Thickness Long. Joint (Cat. A) Heat Treatment Course(s) Material Type Full, Spot, None Eff. Type Full, Spot, None Eff. Time Temp. Diameter Spec./Grade or Type Nom. Corr. No. Length N/A N/A

1 1												
	1.8		-									
15. Hea	ads: (a)		N/A			(b)			N/A			
	-	(Material spec. numbe	er, grade or type) (H.T	Time & Temp.)			(Material spec.	number,	grade or t	ype) (H.T	Time & Te	mp.)
					The second secon							

	Location (Top,	Thickness		Radius		Elliptical	Conical Apex			Side to Pressure		Category A		
	Bottom, Ends)	Min.	Corr.	Crown	Knuckle	Ratio	Angle	Radius	Diameter	Convex	Concave	Туре	Full, Spot, None	Eff.
(a)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.4	3.00	N/A	N/A	N/A

If removable, bolts used (describe other fastening)

N/A

			Fally law.	FO	RM U-1 (BACH	()					NB Number 679
16. MAWP N/A	*	N/A	át max. te	emp. N/	A	N/A	Min.	design metal ten	np. N	/A :	at N/A
(intern	nal)	(external)		(inter		external)		acong. motal ton			
17. Impact test			SERVICE THE		N/A				at te	st temperat	ure of N/A
	CATALOG .	H IVOVI KILBĀĻ	(Indicate ye		component(s)	impact te	sted)				
18. Hydro., pneu., o	r comb	. test press.		N/A	Proof	f test	E_X_	1 1 X X	N/A		9.00
19. Nozzles, inspection	on, and	safety valve o	penings:	water in mount							
Purpose (Inlet, Outlet,	Ma	Diam as Cira	Clanga Tyras	Mat	erial	Nozzle T	hickness	Reinforcement	How A	ttached	Location (Insp. Ope
Drain, etc.)	No.	Diam. or Size	riange Typer	Nozzle	 Flange 	Nom.	Corr.	Material	Nozzle	Flange	Location (ilisp. Ope
Steam Inlet	1	30"	App.2 Ring	SA516-70	SA516-70	5/8"	0"	n/a	UW16.1(d)	Fig.2-4(1)	
Water Outlet	1	18"	CL150 LJ	SA53B	SA105	Sch.40	0"	n/a	UW16.1(d)	- 1.7	
Steam Outlet	1	12"	CL150 SO	SA53B	SA105	Sch.40	0"	n/a		Fig.2-4(3)	
Inspection	_1_	8"	CL150 Pad	SA516-70	n/a	2-3/4"	0"	n/a	UW16.1(d)	n/a	Shell
Drain	1	2"	CL150 SO	SA312TP304L	SA182F304L	Sch.80	0"	n/a	UW16.1(d)	- ' '	
Spare/Relief	2	6"	CL150 SO	SA53B	SA105	Sch.40	0"	n/a	UW16.1(d)		
Level	1	3"	CL150 SO	SA53B	SA105	Sch.40	0"	n/a	UW16.1(d)		7
Pressure	1	1"	CL150 SO	SA53B	SA105	Sch.40	0"	n/a	UW16.1(d)	Fig.2-4(3)	L
21. Manufacturer's Partial	(Yes o	eports properly ide	lumber) entified and sign		ned Inspectors hav			2)			ed to shell e and how)
We certify that the state	ements	made in this repo	ort are correct	and that all detail	ATE OF SHOP	rial, constru	iction, and			form to the As	SME BOILER
		DE, Section VIII	i, Division 1. O			28314	<u> </u>	Expires <u>03/18/</u>	2010	nel	
Date01/14/200	09	Nam <u>e</u>			l Corporation facturer)			Signed		kepresenta	otive)
I, the undersigned, hold and employed by HSE January 22, 2009 PRESSURE VESSEL the pressure vessel de property damage or a l	CODE, scribed oss of a	Hartford, CT and state that, to Section VIII, Divi in this Manufacto	the best of my sion 1. By sig urer's Data Re rom or connec	National Board o y knowledge and ning this certificate port. Furthermore	belief, the Manufa e neither the Insp e, neither the Insp ection.	ure Vessel _ have insp cturer has ector nor hi	Inspector pected the constructe is/her emp is/her emp	pressure vessel de ed this pressure ves ployer makes any w	escribed in this ssel in accorda arranty, expre e in any mann	s Manufacture ance with ASM ssed or impli er for any per	ed, concerning sonal injury or
We certify that the state AND PRESSURE VES	ements SEL CC	made in this rep DDE, Section VIII Name	ort are correct	and that the field Certificate of Aut	horization No				ires		in the second
				(Assen	nbler)			-0607	9	Represent	auve)
I, the undersigned, hold and employed by	i de la composición dela composición de la composición de la composición dela composición dela composición dela composición de la composición de la composición de la composición dela composición de la composición dela c		issued by The	National Board o	901	sure Vessel	Inspector	rs and/or the State o			
have compared the standard and a inspected and subject implied, concerning the personal injury or properties.	ssemble ed to a l	, not incl ed this pressure hydrostatic test o ure vessel descri	uded in the ce vessel in acco of ibed in this Ma	rtificate of shop in rdance with the A By sig nufacturer's Data	spection, have be SME BOILER AN ning this certificat Report. Furthern	en inspect D PRESSU e neither th nore, neithe	ed by me JRE VESS ne Inspect	and to the best of n SEL CODE, Section or nor his/her emplo	ny knowledge I VIII, Division oyer makes ar	and belief, th 1. The desci y warranty, e	ibed vessel was expressed or
Date		Signed	I(Au	thorized Inspe	ctor) Co	mmissions	(Natio	onal Board incl. end	lorsements, S	tate, Province	and number)
943983		exe: v4.5.0	γ								111.12