Technical Standards and Safety Authority 345 Carlingview Drive Toronto, Ontario M9W 6N9 www.tssa.org

Manufacturer's Data Report for Pressure Vessels

Technical Standards and Safety Act

Boilers and Pressure Vessels Regulation

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	Manut	factured	l For:			Name ar	nd Street	Addres	SS:													
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Company Rep. Initial & Date: _____ A.I. Initial & Date: ____



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Boilers and Pressure Vessels Regulation

	Nozzles and Openings:													
		Dia./			Mat	erial	Nozzle Thickness Reinforcement					Attachme	Location	
No.	Purpose	size	Туре	Nozzle		Flange	Nom.		Corr.		Material	Nozzle	Flange	(Insp. open)
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		psi 🗌 k	Pa	☐ psi ☐ kPa		ernal)			□°F□	٥С	Item(s):			
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							CERTIFICATE OF SHOP INSPECTION							
						ct and that the said stered design below	I, the ur	dersi	gned, a dul	y aut	norized Boiler	and Pressure	e Vessel Inspe	ctor employed by
			he CSA B51 Sta		iai iegi	stered design below						of		
Certi	icate of Aut	horizatio	n Number	E	znirv									ledge and belief,
						(mm/dd/yyyy)								h the Provincial
Provincial Registered Design CRN and the requirements of the contract of								ients of the CS	A B51 Standard.					
Manu	Manufacturer Authorized Inspector Signature													
Signa	ature			[Date _		Date				Num	ber		
		(Manufact	urer's Representat	ive)		(mm/dd/yyyy)			(mm/dd/yyy					
	C	ERTIFI	CATE OF CO	MPLIANCE FIEI	LD W	ORK			CE	RTII	ICATE OF	FIELD INSF	PECTION	_
We	certify that	the field	inspection of	all parts of the	vessel	conforms with the								
			l regulations.	1 5					• .				•	
							have inspected the items not covered by the Shop Inspection Certificate and the							
Corti	icate of A	horizotio	n Number	-	vnin.		installat	on o	f the items	and	state that to	the best of	my knowledge	e and belief, the
Certi	icate of Aut	nonzatio	II INUITIDET	E	хыгу _	(mm/dd/yyyy)	constru	tion	and asseml	oly o	the items are	in accordance	e with Provinc	cial regulations.
Insta	ler Name _						Authoria	ed Ir	spector Sig	natu	re			
Signa	ature			[Date _		Date				Nur	mber		
_	ture Date Date Number Number													



Manufacturer's Data Report for Pressure Vessels
Appendix A – Additional Line Information
Technical Standards and Safety Act

Boilers and Pressure Vessels Regulation

Manufactured and Certified by: Name and Street Address:																					
	Manufa	cture	ed For		Nam	ne ai	nd Street /	Addre	ss:												
Ultimate Owner: Name and Street Address:																					
L	ocation o	of Ins	stallatio	on:	Nam	ne a	nd Street /	Addre	SS:												
									Pres	sure Ve	essel Type:										
	(Horizon	ıtal, ve	ertical, e	etc.)	_	(T	ank, jkt. ves	ssel, h	eat exch., et	c.)	(Manufa	acture	r's Se	rial Number)		(Canad	dian	Registratio	n Numb	er)
	(Drav	wing N	Number)				(National	Board	d Number)			(Ye	ear Bui	lt)				(O ₁	verall Leng	th)	
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No.	Purpose	siz	e	Type			Nozzle		Flan	ge	Nom. Thk	. C	orr.	Materi	al		Nozzle	F	Flange	(Insp. open)	
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Company Rep. Initial & Date: ______ A.I. Initial & Date: _

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Boilers and Pressure Vessels Regulation

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T S S A 345 Carlingview Dri Toronto, Ontario M		ct			
www.tssa.org	d the original form with shipment to site 1				
NOTE: Upon shipment of a pressur	wessel, this form fully and correctly filled in must be submitted to the office of the Chief Inspector in the province of installation chnical Standards and Safety Act, Boilers and Pressure Vessels Regulation governing the construction and installation of]			
Manufactured and Certified by:	Name and Street Address:	j			
Manufactured For:	Name and Street Address:				
Ultimate Owner:	Name and Street Address: Anname and Street Address:				
Location of Installation:	(5)				
(c)	Pressure Vessel Type: (7) (8) (9)				
(Horizontal_vertical, etc.)	(Tank, jkt. vessel, heat exch., etc.) (Manufacturer's Serial Number) (Canadian Registration Number)				
(10) (Drawing Number)	(11) (12) (13) (13) (National Biolife Number) (Veill Built) (Overlat Length)				
The design, construction, and workmanship of the vessel conforms to CSA B51 and:	D ASME Section 14 Dw 15 Edition 16 Code Case No(s) (17)				
Courses	Shell(s): Material Thickness Longitudinal Joints Circumferential Joints	-			
No. Diameter Length 1-8 (1-9) (2-0)	Spec_/Grade or Type Non. Corr. Type Full, Spot, None Eff. Type Type Full, Spot, None Eff. Type Type	7			
	es es es es es es es es	<u>7</u>			
	30 ☐ Appendix A attached (for extra line Body Flanges on Shells:	s)			
	Flange Min. Hub Bolting Washer	7			
31 32 3334	Thic	s)			
Location Material	Head(s): Thickness Radius Conical Category A				
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	Body Flanges on Heads:				
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		Maximum / (99)	llowable Working Press	ure (Tube Side):	103 Minim
		Numba 108	Dimension 109	Valve Outlets:	(110)
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					Manufacture
		Item Numbe	nufacturer's partial data repor r	ts properly identified and signature. Name of Part	gned by Authorize
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Manufacturer's Data Report for Pressure Vessels Guideline

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Guideline for completing the Manufacturer's Data Report for Pressure Vessels Item Description Example # Check if the pressure vessel will be completed in the field. 1 Provide the name and address of the manufacturer who is certifying the 2 pressure vessel as listed on the Certificate of Authorization. Provide the name and address of the company that the pressure vessel has been manufactured for (if known). If unknown, state "Unknown", 3 "Built for stock", etc. Provide the name and address of the ultimate owner of the pressure 4 vessel (if known). If unknown, state "Unknown", "Built for stock", etc. Provide the address of installation of the pressure vessel (if known). If 5 unknown, state "Unknown", "Built for stock", etc. Type of installation intended (orientation of the pressure vessel). 6 Horizontal, vertical, etc. 7 Description or application of pressure vessel. Heat Exchanger, tank, etc. Manufacturer's serial number as shown on the nameplate of the pressure vessel. Canadian Registration Number of the pressure vessel. 9 12345.5 Indicate the drawing number of the pressure vessel, including revision 10 The National Board Number (if applicable). 11 12 The year the pressure vessel was manufactured. 2021 The overall length of the pressure vessel. 13 36" The ASME Code Section the pressure vessel was designed and 14 VIII constructed to. The Division of the ASME Code Section the pressure vessel was 15 1, 2 designed and constructed to. The Edition year of the ASME Code the pressure vessel was designed 16 2021 and constructed to. All Code Case Number(s) and revisions used for construction must be 17 2055 listed. If more room is required, state in the "Remarks" section 125. The shell course number. 18 The diameter of the shell course (specify ID or OD). 24" OD 19 20 The length of the shell course. 36" State the complete ASME material specification number and grade of 21 SA516-70 the shell course. 0.25" Nominal thickness of the shell course. Corrosion allowance of the shell course. 0.065" Type of shell course longitudinal joint (for ASME Section VIII Division 1, 24 Type 1 per Table UW-12). Identify the degree of radiography or ultrasonic examination required for 25 the shell course longitudinal joint (for ASME Section VIII Division 1, per Spot, None, etc. State the efficiency of the shell course longitudinal joint (for ASME 26 0.85, 0.70, etc. Section VIII Division 1, per Table UW-12). Type of shell course circumferential joint (for ASME Section VIII Division 27 Type 1 1, per Table UW-12). Identify the degree of radiography or ultrasonic examination required for the shell course circumferential joint (for ASME Section VIII Division 1, 28 Spot, None, etc. per Table UW-12). State the efficiency of the shell course circumferential joint (for ASME 29 0.85, 0.70, etc. Section VIII Division 1, per Table UW-12). Select box if Appendix A is attached for extra lines. 30

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The shell body flange number.

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20	Tune of body flower on the shall	DECO etc
32	Type of body flange on the shell.	RFSO, etc.
33	The internal diameter of the body flange on the shell.	23.5"
34	The outside diameter of the body flange on the shell.	24"
35	The flange thickness of the body flange on the shell.	1-1/2"
36	The minimum hub thickness of the body flange on the shell.	1/2"
37	State the complete ASME material specification number and grade of	SA-105N
	the body flange on the shell.	
38	State how the body flange on the shell is attached.	Welded, etc.
39	The location of the body flange on the shell.	Shell course 1
40	State the number and size of bolts used to secure the removable part of	20/1"
	the pressure vessel.	
41	State the complete ASME material specification number and grade of	A193-B7
	the bolts used to secure the removeable part of the pressure vessel.	
42	State the complete ASME material specification number and grade of	F436
	the washers used to secure the removable part of the pressure vessel.	
43	The head number.	1
44	Location of the head.	Top, Bottom, etc.
45	State the complete ASME material specification number and grade of	SA516-70
	the head.	
46	Nominal thickness of the head.	0.25"
47	Corrosion allowance of the head.	0.065"
48	Indicate the crown radius (inside or outside) for torispherical heads.	24" ID, N/A, etc.
49	Indicate the knuckle radius (inside or outside) for torispherical or	2.4", N/A, etc.
40	toriconical heads.	· ·
50	Indicate the elliptical ratio of the head.	2:1, N/A, etc.
51	Indicate the conical apex angle of the head.	30°, N/A, etc.
52	Indicate the hemispherical radius of the head.	23.5", N/A, etc.
53	Indicate the flat diameter of the head.	24", N/A, etc.
54	Side to pressure of the head.	Convex, Concave, etc.
55	Type of head circumferential joint (for ASME Section VIII Division 1, per Table UW-12).	Type 1
56	Identify the degree of radiography or ultrasonic examination required for the head circumferential joint (for ASME Section VIII Division 1, per Table UW-12).	Full, Spot, None, etc.
57	State the efficiency of the head circumferential joint (for ASME Section VIII Division 1, per Table UW-12).	0.85, 0.70, etc.
58	The head body flange number.	1
59	Type of body flange on the head.	RFSO, etc.
60	The internal diameter of the body flange on the head.	23.5"
61	The outside diameter of the body flange on the head.	24"
62	The flange thickness of the body flange on the head.	1-1/2"
63	The minimum hub thickness of the body flange on the head.	1/2"
		+
	State the complete ASME material specification number and drade of	04.405N
64	State the complete ASME material specification number and grade of the body flange on the head.	SA-105N
	the body flange on the head.	
65	the body flange on the head. State how the body flange on the head is attached.	Welded, etc.
65 66	the body flange on the head.	Welded, etc. Top head, etc.
65	the body flange on the head. State how the body flange on the head is attached. The location of the body flange on the head. State the number and size of bolts used to secure removable head or	Welded, etc.
65 66	the body flange on the head. State how the body flange on the head is attached. The location of the body flange on the head. State the number and size of bolts used to secure removable head or heads of the pressure vessel. State the complete ASME material specification number and grade of the bolts used to secure removeable head or heads of the pressure vessel.	Welded, etc. Top head, etc.
65 66 67	the body flange on the head. State how the body flange on the head is attached. The location of the body flange on the head. State the number and size of bolts used to secure removable head or heads of the pressure vessel. State the complete ASME material specification number and grade of the bolts used to secure removeable head or heads of the pressure	Welded, etc. Top head, etc. 20/1
65 66 67 68 69	the body flange on the head. State how the body flange on the head is attached. The location of the body flange on the head. State the number and size of bolts used to secure removable head or heads of the pressure vessel. State the complete ASME material specification number and grade of the bolts used to secure removeable head or heads of the pressure vessel. State the complete ASME material specification number and grade of the washers used to secure removable head or heads of the pressure vessel. State the complete ASME material specification number and grade of the tubesheet.	Welded, etc. Top head, etc. 20/1 A193-B7 F436 SA240-316/L
65 66 67 68 69	the body flange on the head. State how the body flange on the head is attached. The location of the body flange on the head. State the number and size of bolts used to secure removable head or heads of the pressure vessel. State the complete ASME material specification number and grade of the bolts used to secure removeable head or heads of the pressure vessel. State the complete ASME material specification number and grade of the washers used to secure removable head or heads of the pressure vessel. State the complete ASME material specification number and grade of the washers used to secure removable head or heads of the pressure vessel.	Welded, etc. Top head, etc. 20/1 A193-B7 F436

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72	Nominal thickness of the tubesheet.	1-1/2"
73	Corrosion allowance of the tubesheet.	0.065"
74	State how the tubesheet is attached.	Welded, etc.
75	State the complete ASME material specification number and grade of the tubes.	SA312-316/L
76	Diameter of the tubes (specify inside ID or outside OD).	1" OD
77	Nominal thickness of the tubes.	0.065"
78	Total number of tubes.	100
79	Indicate the type of tubes.	Straight, U, etc.
80	Note the type of jacket (for ASME Section VIII Division 1, per Figure 9-2).	Type 1
81	Indicate the type of jacket closure (for ASME Section VIII Division 1, per Figure 9-5).	Figure 9-5(a)
82	State any proof testing that was performed on the jacket design. Indicate the fitting registration number associated with the design (if applicable).	CRN 54321.5
83	To be initialed and dated by the company representative.	
84	To be initialed and dated by the Authorized Inspector.	
85	The nozzle identification number.	N1, 1, etc.
86	Nozzles, inspection, and safety valve openings; list all openings, regardless of size and use.	Inlet, outlet, etc.
87	Indicate nozzle by size (NPS) and inspection openings by inside dimensions.	2", 1-1/2"ID, etc.
88	Indicate the type of nozzle.	Cl. 150 flg., etc.
89	State the complete ASME material specification number and grade of the nozzle.	SA106 Grade B
90	State the complete ASME material specification number and grade of the flange.	SA105N
91	Nominal thickness of the nozzle.	0.25", Sch 40, etc.
92	Corrosion allowance of the nozzle.	0.065", none, etc.
93	State the complete ASME material specification number and grade of the reinforcement material (pad).	SA516-70
94	Describe how the nozzle is attached with description acceptable to the Authorized Inspector (for ASME Section VIII Division 1, per Figure UW-16.1).	Welded, UW-16.1(a), etc.
95	Describe how the flange is attached to the nozzle with description acceptable to the Authorized Inspector (for ASME Section VIII Division 1, per Figure UW-21).	Welded, UW-21(1), etc.
96	Location of the nozzle.	Top head, shell, etc.
97	Indicate the maximum allowable internal working pressure of the pressure vessel (or shell side of the heat exchanger). Select if units are in psi or kPa.	100 psi, etc.
98	Indicate the maximum allowable external working pressure of the pressure vessel (or shell side of the heat exchanger). Select if units are in psi or kPa.	25 psi, etc.
99	Indicate the maximum allowable internal working pressure of the tube side of the heat exchanger. Select if units are in psi or kPa.	100 psi, N/A, etc.
100	Indicate the maximum allowable external working pressure of the tube side of the heat exchanger. Select if units are in psi or kPa.	50 psi, etc.
101	Indicate the maximum internal temperature of the pressure vessel. Select if units are in °F or °C.	100ºF, etc.
102	Indicate the maximum external temperature of the pressure vessel. Select if units are in °F or °C.	100ºF, etc.
103	Indicate the minimum design metal temperature of the pressure vessel. Select if units are in °F or °C.	100ºF, etc.
104	Indicate the Maximum Allowable Working Pressure at the Minimum Design Metal Temperature stated in 103. Select if units are in psi or kPa.	50 psi, etc.



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105	List the item(s) to be post weld heat treated.	Vessel, nozzles, all, etc.
106	State the length of time the item(s) were post weld heat treated.	2 hours, etc.
107	State the temperature the item(s) were post weld heat treated.	1200°F, etc.
108	List the number of safety valve outlets. If safety valves are provided by	1
400	others, state in the Remarks section 125.	2/4"
109	Dimension of the safety valve outlet(s).	3/4", etc.
110	Location of the safety valve outlet(s).	Shell, head, etc.
111	Indicate the type of pressure test performed on the pressure vessel.	Hydrostatic, pneumatic, etc.
112	Indicate the test pressure of the pressure vessel.	130 psi, etc.
113	If proof testing is required by the Code, indicate the proof test pressure performed on the pressure vessel. Subsequent Data Reports shall be indicated in the Remarks section 125 and shall include the test date, type, and acceptance date by the Authorized Inspector.	200 psi, N/A, etc.
114	Indicate any component(s) impact tested on the pressure vessel.	Shell
115	Indicate the temperature of the impact testing. Select if units are in °F or °C.	
116	Select if the pressure vessel includes a skirt support.	
117	State the number of lugs attached to the pressure vessel.	4, N/A, etc.
118	State the number of legs attached to the pressure vessel.	4, N/A, etc.
119	Describe any other supports attached to the pressure vessel.	
120	Describe how supports listed in 116, 117, 118 or 119 are attached.	Welded
121	Indicate the item number of the part fabricated with the Manufacturer's Partial Data Report.	Item 1
122	Describe the name of the part fabricated with the Manufacturer's Partial Data Report.	Head
123	Provide the name of the manufacturer that fabricated the part with the Manufacturer's Partial Data Report.	
124	Provide the identifying stamp of the part fabricated with the Manufacturer's Partial Data Report.	
125	Space for additional comments, including any Code restrictions on the pressure vessel, or any other unusual requirements that have been met.	
126	State the Certificate of Authorization number of the manufacturer/installer of the pressure vessel.	
127	State the expiry date of the Certificate of Authorization.	
128	State the name of the manufacturer of the pressure vessel.	
129	To be certified by the manufacturer's representative.	
130	Include the date the report was signed.	
131	State the employer of the Authorized Inspector.	
132	State the jurisdiction of the Authorized Inspector.	
133	To be signed by the Authorized Inspector.	
134	The Authorized Inspector shall state their Commission Number or Certificate of Competency Number (as applicable).	
135	State the company name of the field installer of the pressure vessel.	
136	To be certified by the installer's representative.	
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