

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

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

1. Manufactured and certified by Pro-Par Inc., 65 Winder St, Sherbrooke, Quebec, J1M 1Z4, CANADA
(Name and address of Manufacturer)
2. Manufactured for Badger Equipment, 167 VALLEY BROOK CRT. N.W, CALGARY, Alberta, T3B 5S3, CANADA
(Name and address of Purchaser)
3. Location of installation Not Known
(Name and address)
4. Type Horizontal Vessel 1111-16
(Horizontal, vertical, or sphere) (Tank, separator, jkt. vessel, heat exch., etc.) (Manufacturer's serial number)
- Y3640.2134 P1090C007 R0 1118 2017
(CRN) (Drawing number) (National Board number) (Year built)
5. ASME Code, Section VIII, Div. 1 2015/----- N/A N/A
[Edition and Addenda, if applicable (date)] (Code Case Number) [Special Service per UG-120(d)]

Items 6-11 incl. to be completed for single wall vessels, jackets of jacketed vessels, shell of heat exchangers, or chamber of multichamber vessels.

6. Shell: (a) Number of course(s) 6 (b) Overall length 58' 6"
- | No. | Course(s) | | Material
Spec./Grade or Type | Thickness | | Long. Joint (Cat. A) | | | Circum. Joint (Cat. A, B, & C) | | | Heat Treatment | |
|-----|-----------|--------|---------------------------------|-----------|-------|----------------------|------------------|------|--------------------------------|------------------|------|----------------|------|
| | Diameter | Length | | Nom. | Corr. | Type | Full, Spot, None | Eff. | Type | Full, Spot, None | Eff. | Temp. | Time |
| 6 | 109" ID | 9' 9" | SA612 | 0.600" | 0.00" | 1 | FULL | 100% | 1 | SPOT | 85% | N/A | N/A |

Body Flanges on Shells														
No.	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Location	Bolting					
									Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material		
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

7. Heads: (a) SA516-70N, No PWHT (b) SA 516-70N, No PWHT
(Material spec. number, grade or type) (H.T. - time and temp.) (Material spec. number, grade or type) (H.T. - time and temp.)

	Location (Top, Bottom, Ends)	Thickness		Radius		Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure		Category A		
		Min.	Corr.	Crown	Knuckle					Convex	Concave	Type	Full, Spot, None	Eff.
(a)	END	0.688"	0.00"	N/A	N/A	2:1	N/A	N/A	N/A		X	N/A	N/A	N/A
(b)	END	0.688"	0.00"	N/A	N/A	2:1	N/A	N/A	N/A		X	N/A	N/A	N/A

Body Flanges on Heads														
	Location	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Bolting					
									Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material		
(a)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

8. Type of jacket N/A Jacket closure N/A
(Describe as ogee & weld, bar, etc.)

If bar, give dimensions; if bolted, describe or sketch N/A

9. MAWP 250 psi 15 psi at max. temp. 115 °F 115 °F Min. design metal temp. -50 °F at 250/15 PSI
(Internal) (External) (Internal) (External)

10. Impact test Yes for shells at test temperature of -50 °F
[Indicate yes or no and the component(s) impact tested]

11. Hydro., pneu., or comb. test pressure Hydro. at 325 psi Proof test N/A

Items 12 and 13 to be completed for tube sections.

12. Tubesheet N/A N/A N/A N/A N/A
[Stationary (material spec. no.)] [Diameter (subject to press.)] (Nominal thickness) (Corr. allow.) Attachment (welded or bolted)
- N/A N/A N/A N/A N/A
[Floating (material spec. no.)] (Diameter) (Nominal thickness) (Corr. allow.) (Attachment)
13. Tubes N/A N/A N/A N/A N/A
(Material spec. no., grade or type) (O. D.) (Nominal thickness) (Number) [Type (Straight or U)]

Items 14-18 incl. to be completed for inner chambers of jacketed vessels or channels of heat exchangers.

14. Shell: (a) No. of course(s) N/A (b) Overall length N/A

Course(s)			Material		Thickness		Long. Joint (Cat. A)			Circum. Joint (Cat. A, B, & C)			Heat Treatment	
No.	Diameter	Length	Spec./Grade or Type		Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time
	N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Body Flanges on Shells

No.	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Location	Bolting				
									Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

15. Heads: (a) N/A (Material spec. number, grade or type) (H.T. - time and temp.) (b) N/A (Material spec. number, grade or type) (H.T. - time and temp.)

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

Body Flanges on Heads

Location	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Bolting				
								Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

16. MAWP N/A (Internal) N/A (External) at max. temp. N/A (Internal) N/A (External) Min. design metal temp. N/A at N/A

17. Impact test N/A at test temperature of N/A
 [Indicate yes or no and the component(s) impact tested]

18. Hydro., pneu., or comb. test pressure N/A Proof test N/A

19. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Type	Material		Nozzle Thickness		Reinforcement Material	Attachment Details		Location (Insp. Open.)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	
Manway	1	24"	SPOOL	SA516-70N	SA350 LF2	0.375"	0.00"	SA516-70N	UW-16.1(s)	Figure 2-4(6)	HEAD
Roto Gauge	1	2.5"	CPLG	SA105	-----	3000#	0.00"	INTEGRAL	UW-16.1(y2)	-----	Cover
Liquid Level	1	0.75"	CPLG	SA105	-----	0.5"	0.00"	INTEGRAL	UW-16.1(y2)	-----	-----
Inlet/Outlet	1	4"	PIPE	SA-106B	-----	0.674"	0.00"	INTEGRAL	UW-16.1(i)	Figure 2-4(6)	-----
Inlet/Outlet	14	3"	PIPE	SA-106B	-----	0.600	0.00"	INTEGRAL	UW-16.1(i)	Figure 2-4(6)	-----
Float Gauge	1	2.5"	CPLG	SA-105	-----	6000#	0.00"	INTEGRAL	UW-16.1(z-2)	-----	-----
Thermometer	1	0.5"	CPLG	SA-105	-----	0.5"	0.00"	INTEGRAL	UW-16.1(y2)	-----	-----
Inlet/Outlet	4	6"	PIPE	SA-106B	-----	0.864	0.00"	INTEGRAL	UW-16.1(i)	-----	-----

20. Supports: Skirt No (Yes or no) Lugs 0 (Number) Legs 0 (Number) Others 2 saddles (Describe) Attached Welded to shells. (Where and how)

21. Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report (list the name of part, item number, Manufacturer's name, and identifying number):

N/A

22. Remarks

Storage tank AG for non corrosive service. For non lethal use. Capacity: 30000 USWG DIMS: 109" X 773". 24" Manway removable cover made of SA350-LF2 CL1 #150. Fasteners 1-1/4" studs SA193-B7 c/w SA194-2H nuts. Fab DWG: 200402-1-R0. This container shall not contain a product having a vapor pressure in excess of 215 psi @ 100F (see NFPA-59).

CERTIFICATE OF SHOP COMPLIANCE

We certify that the statements in this report are correct and that all details of design, material, construction, and workmanship of this vessel conform to the ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. U Certificate of Authorization Number 33432 Expires July 23, 2017

Date 06/09/2017 Name Pro-Par Inc. Signed James Ke
(Manufacturer) (Representative)

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by

La Regie du Batiment Du Quebec, of Montreal, QC

have inspected the pressure vessel described in this Manufacturer's Data Report on June 9, 2017, and state that,

to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. By signing this certificate neither the Inspector nor his/her employer makes any 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.

Date 06/09/2017 Signed [Signature] Commissions: 14652, Dubc06
(Authorized Inspector) [National Board (incl. endorsements)]

CERTIFICATE OF FIELD ASSEMBLY COMPLIANCE

We certify that the statements made in this report are correct and that the field assembly construction of all parts of this vessel conforms with the requirements of ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. U Certificate of Authorization Number _____ Expires _____

Date _____ Name _____ Signed _____
(Assembler) (Representative)

CERTIFICATE OF FIELD ASSEMBLY INSPECTION

I, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and employed by _____

have compared the statements in this Manufacturer's Data Report with the described pressure vessel and state that parts referred to as data items _____, not included in the certificate of shop inspection, have been 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 hydrostatic test of _____. By signing this certificate neither the Inspector nor his/her employer makes any 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.

Date _____ Signed _____ Commission _____
(Authorized Inspector) [National Board (incl. endorsements)]