

230463

FORM U-1A MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS
 (Alternative Form for Single Chamber, Completely Shop or Field Fabricated Vessels Only)
 As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

1. Manufactured and certified by Alfa Laval, Inc., 1201 South 9th, Broken Arrow, Oklahoma 74012
(Name and address of Manufacturer)
2. Manufactured for TENAWA, 333 Clay Street, STE 4080, Houston, TX 77002
(Name and address of Purchaser)
3. Location of installation Kansas, USA
(Name and address)
4. Type Horizontal 1402301-1 Not Req'd 14023-H1 12183 2014
(Horizontal or vertical, tank) (Manufacturer's serial number) (CRN) (Drawing number) (National Board number) (Year built)
5. ASME Code, Section VIII, Division 1 2013 None None
(Edition and Addenda, if applicable (date)) (Code Case numbers) (Special service per UG-120(d))
6. Shell SA-516-70 0.75 0.061999999 8.25 151.25
(Material spec. number, grade) (Nominal thickness) (Corrosion allowance) (Inner diameter) (Length (overall))

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

7. Seams Single Bevel N/A N/A N/A N/A N/A N/A N/A N/A
[Long. (weld, cbl, angl., lap, butt)] [R.T. (spot or full)] [EL. %] [H.T. temp] [Time, hr] [Grth (weld, cbl, angl., lap, butt)] [R.T. (spot or full)] [EL. %] (No. of courses)
8. Heads: (a) Material SA-516-70 (b) Material SA-516-70
(Spec. no., grade) (Spec. no., grade)

	Location (Top, Bottom, Ends)	Minimum Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a)	Top/Bottom	0.375	0.062	N/A	N/A	N/A	N/A	N/A	4	N/A
(b)	Ends	0.375	0.062	N/A	N/A	N/A	N/A	N/A	4	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
(b)												

9. MAWP 125 psig N/A at max. temp. 650 deg F N/A
(Internal) (External) (Internal) (External)
- Min. design metal temp. -10 deg F at 125 psig Hydro., pneu., or comb. Test pressure 163 psig
- Proof test N/A

10. 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	Num.	Corr.		Nozzle	Flange	
Inlet/Outlet Nozzle	2	4 in.	Pipe	SA-106-GR B	N/A	0.337	0.062	Matl&Weld	UW16.1(a)	N/A	N/A
Inlet/Outlet Flange	2	4 in.	RFWN	N/A	SA-106	300RF	N/A	Matl&Weld	N/A	Welded	N/A
Auxiliary	2	.75 in.	Gping	SA-106	N/A	6000#	0.062	Matl&Weld	UW16.1(a)	N/A	N/A

11. Supports: Skirt No Lugs 0 Legs 4 Other N/A Attached Tubesheet/Welded
(Yes or no) (Number) (Number) (Describe) (Where and how)
12. Remarks: Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report: See Next Line
(Name of part, item number, Manufacturer's name and identifying stamp)
- Constructed in conformance with Appendix 2B. IMPACT EXEMPT PER UG-20(f). Section Volume = 42.9 cubic feet.
13. Tubes: (266) SA214(WLD) x 1 in. OD x 0.083 in. MW x 36 ft. Long, Straight Type
14. Plugs: (532) STEEL Shoulder Plugs
15. NDE: N/A

FORM U-1A (Back)

CERTIFICATE OF SHOP/FIELD COMPLIANCE

We certify that the statements made 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 7816 expires 4/30/2017

Date 7-9-14 Co. name Alfa Laval, Inc. Signed Jesse Black
(Manufacturer) (Representative)

CERTIFICATE OF SHOP/FIELD INSPECTION

Vessel constructed by Alfa Laval, Inc. at 1201 S. 9th St. Broken Arrow, OK 74012
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by OneCIS Insurance Co., Lynn, Mass.

have inspected the component described in this Manufacturer's Data Report on 7-9-14, 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 a 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 7-9-14 Signed M. G. Zort Commissions 1B-8432-Flak-266
(Authorized Inspector) (National Board (incl. endorsements))

(07/12)