

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 **Chart Cooler Service Company, Inc., 3515 Dawson Road, Tulsa, Oklahoma, 74115**
 (Name and address of Manufacturer)

2. Manufactured for **VENTECH ENGINEERS LLC, 1149 ELLSWORTH, P.O. BOX 4261, PASADENA, Texas, 77502**
 (Name and address of Purchaser)

3. Location of Installation **Unknown**
 (Name and address)

4. Type **Air Cooled Heat Exch**
 (Horizontal or vertical, tank) **45514-1** **N/A** **45514-1-2 REV. 1** **18180** **2015**
 (Manufacturer's serial number) (CRN) (Drawing number) (National Board number) (Year built)

5. ASME Code, Section VIII, Division 1 **2013/ N/A** **N/A** **N/A**
 [Edition and Addenda, if applicable (date)] (Code Case numbers) (Special service per UG-120(d))

6. Shell: **SA-240 304L** **.875"** **.125"** **N/A** **N/A**
 (Material spec. number, grade) (Nominal thickness) (Corr. allow.) (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: **Corner Joint** **N/A** **C=.20** **N/A** **N/A** **N/A** **N/A** **N/A** **N/A** **N/A**
 [Long. (welded, dbl., sngl., lap, butt)] [R.T. (spot or full)] [Eff., %] (H.T. temp) (Time, hr) [Girth. (welded, dbl., sngl., lap, butt)] [R.T. (spot or full)] [Eff., %] (No. of courses)

8. Heads: (a) Material **SA-240 304L** (b) Material **SA-240 304L**
 (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	.75" / .5"	.125"	N/A	N/A	N/A	N/A	N/A	11' 7.375" X 7.375"	N/A
(b)	END/END	.625" / .5"	.125"	N/A	N/A	N/A	N/A	N/A	8.4375" X 7.375"	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

9. MAWP **220 psi** **15 psi** at max. temp. **350 °F** **350 °F**
 (Internal) (External) (Internal) (External)

Min. design metal temp. **-20 °F** at **220 psi** Hydro, pneu., or comb. test pressure **HYDRO at 294 psi**

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	Nom.	Corr.		Nozzle	Flange	
Inlet	1	8"-300	RFWN	SA-312 TP304L	SA-182 F304L	SCH 80	.125"	Integral	UW16.1a	UW16.1a	Wrapper
Outlet	1	6"-300	RFWN	SA-312 TP304L	SA-182 F304L	SCH 80	.125"	Integral	UW16.1a	UW16.1a	Wrapper
Vent / Drain	2	1"	FULL CPLG	SA-182 F304L	N/A	6000#	.125"	Integral	UW16.1a	UW16.1a	Wrapper

Additional Nozzles - See Attached U-4...

11. Supports: Skirt **NO** Lugs **8** Legs **NONE** Other **Nameplate Brackets** Attached **Header/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:
N/A
 (Name of part, item number, Manufacturer's name and identifying stamp)

Line 6 -- Tube and Plug Dimensions OR Header Dimensions: **10.25" X 9.375" X 11' 7.375"**
 Straight length of tubes, OR, Distance between the headers: **30'**
 1. Constructed per Appendix 28, 2. No relief device per UG-125, 3. Impact test exempt per UHA-51 (d)
 4. Tube: 1"x.083"MW, SA-249 TP304L, Qty. 238, 5. Service: SYNGAS TRIM COOLER #1 6. RT PER CUSTOMER REQUEST

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 36229 expires November 30, 2015

Date 03/06/2015 Co. name Chart Cooler Service Company, Inc. Signed *James H. Hilton*
(Manufacturer) (Representative)

CERTIFICATE OF SHOP/FIELD INSPECTION

Vessel constructed by Chart Cooler Service Company, Inc. at 3515 Dawson Road, Tulsa, Oklahoma, 74115
I, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and employed by OneCIS Insurance Company, of Lynn, MA

have inspected the component described in this Manufacturer's Data Report on March 6, 2015, 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 03/06/2015 Signed *Richard D. Homes* Commissions 842A
(Authorized Inspector) (National Board (incl. endorsements))

FORM U-4 MANUFACTURER'S DATA REPORT SUPPLEMENTARY SHEET

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

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(Name and address of Manufacturer)

2. Manufactured for VENTECH ENGINEERS LLC, 1149 ELLSWORTH, P.O. BOX 4261, PASADENA, Texas, 77502
(Name and address of Purchaser)

3. Location of installation Unknown
(Name and address)

4. Type Air Cooled Heat Exch N/A 45514-1
(Horizontal, vertical, or sphere) (Tank, separator, heat exch., etc.) (Manufacturer's serial number)

N/A 45514-1-2 REV. 1 18180 2015
(CRN) (Drawing number) (National Board number) (Year built)

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	
Inspection	476	1.125"	SHLD	SA-182 F304L	N/A	N/A	N/A	N/A	N/A	N/A	Plugsheet

Certificate of Authorization: Type "U" No. 36229 Expires November 30, 2015

Date 03/06/2015 Name Chart Cooler Service Company, Inc. Signed *Jamie K. Clifton*
(Manufacturer) (Representative)

Date 03/06/2015 Name *Richard D. Thomas* Commissions: 842A
(Authorized Inspector) (National Board (incl. endorsements))

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CERTIFIED BY
CHART COOLER SERVICE COMPANY, INC.

U	MAWP	220/1-V	PSI	AT	350
W	MDMT	20	°F	AT	220/1-V
RT	SERIAL NO.	45514-T	MODEL	1-H-120-2-50	
TAG NO. AI-301	YEAR BUILT	2015	SERVICE	SYNGAS TRIM COOLER #1	
MAWP: 15 PSI @ 350					