

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

Additional Drawing No.

(Alternative Form for Single Chamber, Completely Shop or Field Fabricated Vessels Only)

Header Volume (cu.ft.)

As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

1. Manufactured and certified by Air-X-Changers, A Harsco Company, 5215 Arkansas Road, Catoosa, Oklahoma, 74015, USA

(Name and address of manufacturer)

2. Manufactured for CDM, 20405 TOMBALL PKWY. SUITE 310, HOUSTON, Texas, 77070, USA

(Name and address of purchaser)

3. Location of Installation NOT KNOWN

(Name and address)

4. Type Exchanger Heat 061990.2 N/A HDR-2, REV0 54839 2006  
 (Horiz. or Vert. tank) (Mfr's serial No.) (CRN) (Drawing No.) (Nat'l. Bd. No.) (Year built)

5. The chemical and physical properties of all parts meet the requirements of material specifications of the ASME BOILER AND PRESSURE VESSEL CODE. The design, construction, and workmanship conform to ASME Rules, Section VIII, Division 1 2004 to A05

N/A  
Code Case Nos.

N/A  
Special Service per UG-120(d)

(year)

Addenda (Date)

6. Shell: SA516 70N 1.25" N/A 0' 7.0" (OD) 3' 11.875"  
 Mat'l. (Spec. No., Grade) Nom. Thk. (in.) Corr. Allow. (in.) Diam. I.D. (ft. & in.) Length (overall) (ft. & in.)

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 (°F) Time (hr) Girth. (Welded, Dbl., Sngl., Lap, Butt) R.T. (Spot or Full) Eff. (%) No. of Courses

8. Heads: (a) Mat'l: SA516 70N (b) Mat'l: SA516 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/BTM.	.75"	N/A	N/A	N/A	N/A	N/A	N/A	4" x 47.875"	N/A
(b)	ENDS	.625"	N/A	N/A	N/A	N/A	N/A	N/A	4" x 5.5"	N/A

If removable, bolts used (describe other fastenings)

N/A

(Mat'l., Spec. No., Gr., Size, No.)

9. MAWP 1440 N/A psi at max. temp. 300 N/A °F  
 (internal) (external) (internal) (external)

Min. design metal temp. -10 °F at 1440 psi Hydro, pneu., or comb. test pressure Hydro. at 1872 psi.

10. Nozzles, inspection and safety valve openings:

Purpose (Inlet, Outlet, Drain)	No.	Diam. or Size	Type	Mat'l.	Nom. Thk.	Reinforcement Mat'l.	How Attached	Location
IN/OUT	1	4"	900#RFWN	SA105/SA106 GR.B	SCH 80	WELD	WELDED	HEADER
IN/OUT	1	4"	900#RFWN	SA105	SCH 80	WELD	WELDED	HEADER

11. Supports: Skirt NO Lugs N/A Legs N/A Other STRUCTURE Attached BOLTED  
 (Yes or no) (No.) (No.) (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, Mfr's name and identifying stamp)

(A) Tubes: 122, .625" OD, Straight: YES, Length: 288", Gauge: 16BWG, Material SA214 Rolled Tube Sheet. (B) Insp. Openings: 244, Type: 3/4" x 16UNF-Threaded, Material SA105 (C) Impact Requirements: Vessel Exempt from Impact Testing Per UG-20(f). Constructed in conformance with Appendix 28.

## 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 Code for Pressure Vessels, Section VIII, Division 1. "U" Certificate of Authorization No. 4241 expires December 31, 2008

Date 12/18/2006

Co. name

Air-X-Changers, A Harsco Company  
(Manufacturer)

Signed

Janine K. Jemel  
(Representative)

## CERTIFICATE OF SHOP/FIELD INSPECTION

Vessel constructed by Air-X-Changers, A Harsco Company at 5215 Arkansas Road, Catoosa, Oklahoma, 74015, USA I, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province OK and employed by OneBeacon America Insurance Co., of Boston, MA have inspected the component described in this Manufacturer's Data Report on December 8, 2006 and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME Code, Section VIII, Division 1. By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his 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 12/19/2006

Signed

[Signature]  
(Authorized Inspector)

Commissions

11672A, OK765

(Nat'l Board (incl. endorsements), State, Prov. and No.)