

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

1. Manufactured and certified by Air-X-Changers, A Harco Company, 5215 Arkansas Road, Port of Catoosa, OK 74015
(Name and address of manufacturer)

2. Manufactured for VASTAR P.O. BOX 628, VENICE, LA 70091
(Name and address of purchaser)

3. Location of installation VASTAR OFFSHORE LA
(Name and address)

4. Type Heat Exchanger 960597 1A ---- HDR-1 REV 1 29162 1996
(Horiz. or vert. tank) (Mfr's. serial No.) (CRN) (Drawing No.) (Natl 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 1995
Year

to A 1995 2157 None
Accidents (Date) Code Case Nos. Special Service per UG-120 (d)

6. Shell: SA516 70N 75" 0" 6.25" 115.375"
Matl., (Spec. No., Grade) Norm. Thk. (in.) Corr. Allow. (in.) Diam. I. D. (ft. & in.) Length (overall) (ft. & in.)

7. Seams: Corner Joint ---- C=20 ---- ---- ---- ----
Long (Welded, Dbl. Sngl. Lap Butt) RT (Spot or Full) Eff. (%) H.T. Temp (F) Time (H) Girth (Welded, Dbl. Sngl. Lap Butt) RT (Spot Partial or Full) No. of Courses

8. Heads: (a) Matl. SA516 71 (b) Matl. 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	.375"	0"	---	---	---	---	---	3.9375"	X 115.375"
(b)	Ends	.375"	0"	---	---	---	---	---	3.9375"	X 5.4375"

If removable, bolts used (describe other fastenings) ----
(Matl., Spec. No., Gr., Size, No.)

Header Volume ----- cu ft

9. MAWP 200 psi at max temp 300 ° F
 Min. design metal temp. 50 ° F at 200 psi. Hydro, pneu., or comb. test pressure 300 psi.

10. Nozzles, inspection and safety valve openings

Purpose (Inlet, Outlet, Drain)	No.	Diam. Or Size	Type	Matl.	Nom Thk.	Reinforcement Matl.	How Attached	Location
IN, OUT	2	4" ANSI	150#RF	SA106 B/SA105	SCH40	PIPE & WELD	Welded	Header
VENT DRAIN	12	.75"	CPLG	SA105	6000#	CPLG & WELD		

11. Supports: Skirt --- Lugs --- Legs --- Other Structure Attached Boiled
(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.

(Name of part, item number, Mfr's Name and identifying stamp)

Tubes 302 625" (D) STRAIGHT 120" Length 20AW Gauge SA249 304 ROLLED TUBE SHEET
Insp 604 75" UNF THD'D SA105 PLUG SHEET
IMPACT EXEMPT PER UG 20 (f) (Constructed in conformance with Appendix 2B.)

CERTIFICATE OF SHOP 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 12-31 19 96

Date 12/31/96 Co. Name Air-X-Changers Signed [Signature]
(Manufacturer) (Representative)

CERTIFICATE OF SHOP INSPECTION

Vessel constructed by Air-X-Changers at Tulsa, Oklahoma

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of Oklahoma and employed by Commercial Union Insurance Company

have inspected the component described in this Manufacturer's Data Report on 12/17 19 96, 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 11/3/97 Signed [Signature] CU Natl Board #11672A / OK #765
(Authorized Inspector) (Natl Board (incl Endorsements), State, Prov And No.)