

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 Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

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

(Name and address of manufacturer)

2. Manufactured for CHEVRON TEXACO, P.O. BOX 1392, BAKERSFIELD, 93302, USA

(Name and address of purchaser)

3. Location of Installation UNKNOWN

(Name and address)

4. Type Heat Exchanger 103229.1 N/A HDR-1, REV5 72163 2011
(Horizontal or vertical, tank) (Manufacturer's serial number) (CRN) (Drawing number) (National Board number) (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 2010 to N/A

(year)

[Addenda, if applicable (Date)]

N/A

(Code Case numbers)

N/A

(Special Service per UG-120(d))

6. Shell: SA516 70 .75 in 0.125 in N/A N/A
(Material spec. number, grade) (Nominal thickness) (Corr. allow.) (Inner diameter) (Length (overall))7. Seams: Corner Joint N/A C=.20 1150 °F 0.75 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, [R.T. (spot or full)] Eff. (%) No. of Courses8. Heads: (a) Material SA516 70 (b) Material 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"	0.125	N/A	N/A	N/A	N/A	N/A	13" x 154"	N/A
(b)	ENDS	.625"	0.125	N/A	N/A	N/A	N/A	N/A	13" x 7.875"	N/A

If removable, bolts used (describe other fastenings)

N/A

(Material spec. number, grade, size, number)

9. MAWP 150 psi N/A at max. temp. 400 °F N/A
(Internal) (External) (Internal) (External)Min. design metal temp. 0 °F at 150 psi Hydro, pneu., or comb. test pressure HYDRO. at 195 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	
IN/OUT	2	8"	150# RFWN	SA106 GR.B	SA105	SCH-80		Weld	Welded	Welded	Header
AUX	2	6"	150# RFWN	SA106 GR.B	SA105	SCH-80		Weld	Welded	Welded	Header
DRAIN	4	1"	CPLG	SA105		6000#		Weld	Welded	Welded	Nozzle

Additional Nozzles - See Attached U-4...

11. Supports: Skirt NO Lugs N/A Legs N/A Other Structure Attached Bolted
(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: 9.3750" X 0.7500" X 12' 10.0"Straight length of tubes, OR, Distance between the headers: 44' 0.0"(A)TUBES: 270 x 1" OD, Gauge: 16BWG, Material: SA213 316 Rolled Tube Sheet (B)INSP.OPENINGS:540, Type: 1-1/8X12UNF-Threaded, Material: SA105 (C)IMPACT REQUIREMENTS: IMPACT EXEMPT PER:

Additional Remarks - See Attached U-4...

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 No. 4241 expires December 31, 2014Date 01/05/2012

Co. name

Harsco Industrial Air-X-Changers

(Manufacturer)

Signed

Jon R. Messer
(Representative)

CERTIFICATE OF SHOP/FIELD INSPECTION

Vessel constructed by Harsco Industrial Air-X-Changers 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 OKand employed by OneBeacon America Insurance Co., of Lynn, MA have inspected the component described in this Manufacturer's Data Report on December 27, 2011 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 01/05/2012

Signed

[Signature]
(Authorized Inspector)

Commissions

11672A, OK765

(National Board (incl. endorsements), State, Province and number)

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

1. Manufactured and certified by	<u>Harsco Industrial Air-X-Changers, 5215 Arkansas Road, Catoosa, Oklahoma, 74015, USA</u> <small>(Name and address of Manufacturer)</small>		
2. Manufactured for	<u>CHEVRON TEXACO, P.O. BOX 1392, BAKERSFIELD, 93302, USA</u> <small>(Name and address of Purchaser)</small>		
3. Location of installation	<u>UNKNOWN</u> <small>(Name and address)</small>		
4. Type	<u>Heat Exchanger</u> <small>(Horizontal, vertical, or sphere)</small>	<u>N/A</u> <small>(Tank, separator, heat exch., etc.)</small>	<u>103229.1</u> <small>(Manufacturer's serial number)</small>
	<u>N/A</u> <small>(CRN)</small>	<u>HDR-1, REV5</u> <small>(Drawing number)</small>	<u>72163</u> <small>(National Board number)</small>
	<u>2011</u> <small>(Year built)</small>		
Data Report Item Number	Remarks		


Additional Remarks:


UG-20(f). Constructed in conformance with Appendix 28.

Additional 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	
DRAIN	4	0.75"	CPLG	SA105		6000#		Weld	Welded	Welded	Nozzle
DRAIN	2	1"	CPLG	SA105		6000#		Weld	Welded	Welded	Header

Certificate of Authorization: Type "U" No. 4241 Expires December 31, 2014

Date 01/05/2012 Name Harsco Industrial Air-X-Changers Signed 
(Manufacturer) (Representative)

Date 01/05/2012 Signed  Commissions 11672A, OK765
(National Board Authorized Inspector) (National Board Authorized Inspector Commission number)