

## 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, P.O. BOX 1392, BAKERSFIELD, California, 93302, USA

(Name and address of purchaser)

3. Location of Installation UNKNOWN

(Name and address)

4. Type Heat Exchanger 12326501.2 N/A HDR-2, REV5 80579 2013  
(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 A11

(year)

[Addenda, if applicable (Date)]

N/A

(Code Case numbers)

N/A

(Special Service per UG-120(d))

6. Shell: SA516 70N 1 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 70N (b) Material SA516 70N  
(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	.5"	0.125	N/A	N/A	N/A	N/A	N/A	4" x 58.25"	N/A
(b)	ENDS	.5"	0.125	N/A	N/A	N/A	N/A	N/A	SEE REMARKS	N/A

If removable, bolts used (describe other fastenings)

N/A

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

9. MAWP 200 psi N/A at max. temp. 400 °F N/A  
(Internal) (External) (Internal) (External)Min. design metal temp. 0 °F at 200 psi Hydro, pneu., or comb. test pressure HYDRO. at 260 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	
AUX	2	1"	CPLG		SA105	6000#		Weld	Welded	Welded	Header
IN/OUT	1	4"	150# RFWN	SA106 GR.B	SA105	SCH-160		Weld	Welded	Welded	Header
IN/OUT	1	8"	150# RFWN	SA234 WPB	SA105	SCH-80		Weld	Welded	Welded	Header

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:

(2) Box Headers, SN M-5113.2 FT FB BT BB, Martin Service Company

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

Line 6 - -Tube and Plug Dimensions OR Header Dimensions: 14.375" X 1.0" X 4' 10.2500"Straight length of tubes, OR, Distance between the headers: 42' 0.0"(A)TUBES: 113 x 1" OD, Gauge: 16BWG, Material: SA249 316 Rolled Tube Sheet (B)INSP.OPENINGS:226, 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 12/05/2013

Co. name

Harsco Industrial Air-X-Changers

(Manufacturer)

Signed

Jill Cooper  
(Representative)

## CERTIFICATE OF SHOP/FIELD INSPECTION

Vessel constructed by Harsco Industrial Air-X-Changers at 5215 Arkansas Road, Catoosa, Oklahoma, 74015, USA, 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 OneCIS Insurance Company, of Lynn, MAhave inspected the component described in this Manufacturer's Data Report on November 20, 2013 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 12/05/2013

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

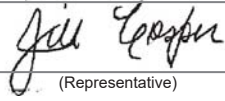

1. Manufactured and certified by	Harsco Industrial Air-X-Changers, 5215 Arkansas Road, Catoosa, Oklahoma, 74015, USA		
	(Name and address of Manufacturer)		
2. Manufactured for	Chevron, P.O. BOX 1392, BAKERSFIELD, California, 93302, USA		
	(Name and address of Purchaser)		
3. Location of installation	UNKNOWN		
	(Name and address)		
4. Type	Heat Exchanger	N/A	12326501.2
	(Horizontal, vertical, or sphere)	(Tank, separator, heat exch., etc.)	(Manufacturer's serial number)
	N/A	HDR-2, REV5	80579
	(CRN)	(Drawing number)	(National Board number)
	2013		
	(Year built)		
Data Report			
Item Number		Remarks	

Additional Remarks:

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

6) Shell Thickness & Diameter: 2@ 1" x 6.0625"/2@1" x 8.3125"/2@1" x 9.1875"/2@1 x 5.1875"

8) Flat Diameter: 2@.5" x 4" x 5.0625"/2@.5" x 4" x 7.3125"/2@5" x 4" x 8.1875"/2@0.5" x 4" x 4.1875"

Certificate of Authorization: Type	"U"	No.	4241	Expires	December 31, 2014
Date	12/05/2013	Name	Harsco Industrial Air-X-Changers	Signed	
			(Manufacturer)		(Representative)
Date	12/05/2013	Signed		Commissions	11672A, OK765
			(Authorized Inspector)		(National Board Authorized Inspector Commission number)

80579

- Date 11-8-13 Signed [Signature] Commissions 268  
(Authorized Inspector) (Nat'l Board (incl. Endorsements) State, Prov. And No.)