		-												
	045545-CRN-3-R		F	ORM U-1A N	MANUFACTUR	RER'S DATA RE	EPORT	FOR	PRESS	URE	VESSELS			
Additional Drawing No. .257			(Alternative Form for Single Chamber, Completely Shop or Field Fabricated Vessels Only)											
	Header Volume (cu	1.ft.)	As	Required by	the Provisions	of the ASME C	Code Ru	ıles, S	Section \	VIII, [Division 1	()545	<u>359</u>	
1. Ma	nufactured and co	ertified	_{by} Air-X-C	hangers, A	Harsco Com	pany, 5215 Ar	kansas	Roa	d, Cato	osa	, Oklahoma, 74	4015, USA		
) Ma	(Name and address of manufacturer) 2. Manufactured for ENERFLEX, 4700 - 47TH STREET SE, CALGARY, Alberta, T2B 3R1, CANADA													
Z. IVIA	nulacidied for					(Name and	address	s of p	urchase	r)				
3. Loc	cation of Installation	on UN	IKNOWN											
	HEAT					(N	lame an							
4. Type EXCHANGER (Horiz, or Vert, tank)			0555 (Mfr's ser	80,3 ial No.)	R83 (C	R8395.213 I (CRN)			REV-0 g No.)	WEST AND CONTRACTOR	50748 (Nat'l. Bd. No.)		2005 (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 N/A													
	C	N/. ode Ca	A ise Nos.		Specia	N/A I Service per UC	3-120(d)		***************************************	(year)	Addenda	(Date)	
6. Sh		516 70		1	.25"	.0625"	•		625"ID		1' 9.	25"		
0. 011			o., Grade)	Nom.	Thk. (in.)	Corr. Allow. (in	ı.) D		1.D.(ft. 8			all) (ft. & in.)		
	ams: CORNER			N/A	N/A N/		** **********************	***************************************	N/A	755777 8 567176477577		N/A	N/A	
L	ong. (Welded, Dbl., Sng	I., Lap, Bu	itt) R.T.(5	Spot or Full)	Eff.(%) H.T. Ter	np (°F) Time (hr)	Girth.	(Welded	d, Dbl., Sng	gl., Lap	o, Butt) R.T	(Spot, Eff. (%) or Fu	ill) No. of Courses	
8. He	ads: (a) Mat'l:			SA516 (Spec. No.	5 70(N) (b 5., Grade)			b) Mat'l S. (Spe			SA (Spec	A516 70(N) ec. No., Grade)		
[Location		Minimum	Corrosion	Crown Radius	Knuckle Radius	Elliptical	Ratio		. 1	•	Flat Diameter	Side to Pressure	
	(Top, Bottom, Ends) '	hickness	Allowance					Angle		Radius		(Convex or Concave)	
(a)	TOP,BTM ENDS		1"	.0625"	N/A	N/A	N/A		N/A N/A		N/A	4" X 21.25"	N/A	
(b) ENDS If removable, bolts used (descril		.75"	.0625"	N/A	N/A	N/A	<u> </u>	19/A 19/A		N/A	4" X 5.625"	N/A		
II I EIII	ovable, bolts use	a (aesc	albe other is	asternings)		, yyd (, g pripag (a pri- a)- y-ga 202 a pr- y p 200 a	****		/Mat	N/A	oo No. Cr. Ciro	No.\		
9. MA	WP 1292 (internal)		N/A (external)	_ psi at max		350 ernal) (e	N/A external)		: (IVIGE)	ι., ομ	oec. No., Gr., Size,	110.)		
Min.	design metal ten	np	-20	°F at	1292	psi Hy	ydro, pn	eu., o	r comb.	test	pressure	Hydro. 1	680 psi.	
10. N	ozzles, inspectior	n and sa	afety valve	penings:										
(Inle	Purpose ;, Outlet, Drain)	No.	Diam. or Si	ize Type	•	Maťl.		N Th	om. nk.	Reir	nforcement Mat'l.	How Attached	Location	
1,007		2	3"	600# RFV	N SA105/S	A106GRB		SCH 8	80 W	VELD		WELDED	HEADER	
BYPAS	SS	1	3"	600# RFV	VN SA105/S	A106GRB		SCH 8		VELD		WELDED	HEADER	
DRAIN		1	1.5"	TOL	SA105			6000#	ŧ W	VELD		WELDED	HEADER	
11. S	upports: Skirt	NO es or no)	Lugs	N/A Leg (No.)	s N/A (No.)	Other		r RUCT Descri	to all the first of the department of the same	manager of the first constraints	Attached _		BOLTED ere and how)	
12 Re	marks: Manufacturer	•		• •	, ,	Commissioned Inst			•	hed fo	or the following items	-	no una non	
N//		o i uiuui	Data Neporta	PSV.	5=70	707	p.	ژر څار			SCF	•	594	
(Name of part, item number, Mfgr's name and identifying stamp) (A) TUBES: 26, 1" OD, STRAIGHT: YES, LENGTH: 96", GAUGE: 16BWG, MATERIAL SA214 ROLLED TUBE SHEET.														
***********						THREADED, N						QUIREMENT:		
V	ESSEL EXEMPT													
													·····	
	ertify that the sta orm to the ASME			this report a	ire correct and		of desi	ign, n				vorkmanship expires 1		
	12/06/2005		name			, A Harsco Comp						1. Jana I	LDo /Ilit	

(Representative) (Manufacturer) CERTIFICATE OF SHOP/FIELD INSPECTION at 5215 Arkansas Road, Catoosa, Oklahoma, 74015, USA I, the Vessel constructed by Air-X-Changers, A Harsco Company undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province OK, KS, MO
and employed by OneBeacon America Insurance Co. of Boston, MA
have inspected the component described in this Manufacturer's Data Report on
December 6, 2005
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. G. J. Poire 12/06/2005 7376A, OK652, KS356, MO0132 Date Signed

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

040475-CRN-5-RI Additional Drawing I		_			ER'S DATA RE							
(Alternative Form for Single Chamber, Completely Shop or Field Fabricated Vessels Univ										716		
Header Volume (cu.			· · · · · · · · · · · · · · · · · · ·								<u> </u>	
1. Manufactured and ce	rtified l	by Air-X-Ch	angers, A	Harsco Comp	oany, 5215 Ari	kansas Roa	ad, Cat	oosa	, Oklahoma, 74	4015, USA		
(Name and address of manufacturer) 2. Manufactured for ENERFLEX, 4700 - 47TH STREET SE, CALGARY, Alberta, T2B 3R1, CANADA												
2. Manufactured for	IACL	LEA, 4700 -	4/111316	EET SE, CAL		address of p						
3. Location of Installation	n UN	KNOWN			`							
HEAT		2555		D-7-1	,	lame and add	•		-	0710	0005	
4. Type EXCHANGER (Horiz. or Vert. tank)		05558 (Mfr's seria	u.4 al No.)		96.213 RN)	HDR-4, (Drawii			(Nat'l.	0 749 Bd. No.)	2005 (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 N/A												
	N/A				N/A	***************************************	norman norm		(year) Addenda (Date)			
Co	ode Ca	se Nos.		Special	Service per UC	3-120(d)						
6. Shell: SA	516 70)(N)		75"	.0625"		5.5"ID	0 1	2' 4.3			
7. Seams: CORNER		., Grade)		` '	Corr. Allow. (in	i.) Diam.	I.D.(ft.	∝ III.)	Length (over	, , ,	N1/A	
Long. (Welded, Dbl., Sngl.				N/A N/A Eff.(%) H.T. Terr	A N/A np (°F) Time (hr)	Girth. (Welde	N/A ed, Dbl., Sr	ngl., Lap	, Butt) R.T	N/A (Spot, Eff. (%) or Fu	N/A III) No. of Courses	
8. Heads: (a) Mat'l: SA516 70(N) (b) Mat'l SA516 70 (Spec. No., Grade) (Spec. No., Grade)												
Location	N	Minimum	Corrosion	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical	Apex	Hemispherical	Flat Diameter	Side to Pressure	
(Top, Bottom, Ends)	. Ti	hickness	Allowance				Ang	. ' 1	Radius		(Convex or Concave)	
(a) TOP,BTM		.75"	.0625"	N/A	N/A	N/A	N/A		N/A	4" X 28.375"	N/A	
(b) ENDS		.625"	.0625"	N/A	N/A	N/A	N/A	4]	N/A	4" X 4"	N/A	
If removable, bolts used	•		Ŧ.				78.72	N/A		NI- V	***************************************	
9. MAWP 1292 (internal)		N/A (external)	psi at max	temp3	ernal) (e	N/A °	F (IVIA	и., ър	ec. No., Gr., Size,	NO.)		
Min. design metal tem			°F at			,	or comb	. test	pressure	Hydro. 1	680 psi.	
10. Nozzles, inspection	*************		estate and the second	AND THE RESIDENCE AND THE PROPERTY OF THE PROP	and the second s	, , .			Name of the State	and party and the second secon	p31.	
Purpose (Inlet, Outlet, Drain)	No.	Diam. or Siz	те Туре	}	Mat'l.	I	Nom. hk.	Reir	iforcement Mat'l.	How Attached	Location	
	2	3"	600# RFW	IN SA105/S/	A106GRB	SCH	80 1	WELD		WELDED	HEADER	
	1	3"	600# RFW	IN SA105/SA	A106GRB	SCH	80 \	WELD		WELDED	HEADER	
DRAIN	1	1.5"	TOL	SA105		6000	# \	WELD		WELDED	HEADER	
***************************************	NO s or no) s Partial	(N/A Leg (No.) properly identifi	(No.)	Other Commissioned Insp	STRUCT (Descr pectors, have b	ibe)	shed fo	Attached r	(Whe	BOLTED ere and how)	
N/A PSV SET @ 1392 PSI SCFM 157/ (Name of part, item number, Mfgr's name and identifying stamp)												
(A) TUBES: 53, SHEET. (B) IN: REQUIREMENTS:	SP. O	PENINGS:	RAIGHT: Y	ES, LENGTH E: 3/4" x	: 96", GAUG 16UNF-THREA	GE: 16BWG ADED, MATI	, MATI	ERIA	SA214 ROLI	LED TUBE	(
			CERTIFIC	ATE OF SHO	P/FIELD COM	IPI IANCE						

	atements made in th	CERTIFICATE OF SHOP/FIELD is report are correct and that all Vessels, Section VIII, Division 1	details of design, ma			:I					
Date 12/06/2005	Co. name	Air-X-Changers, A Harso		Signed	Ulbruan le With						
		(Manufacturer)			(Representative)						
CERTIFICATE OF SHOP/FIELD INSPECTION											
Vessel constructed by	Air-X-Ch	angers, A Harsco Company	at 5215 Arkansas	Road, Catoosa, Oklahom	a, 74015, USA	I. the					
undersigned, holding a va	lid commission issued b	y The National Board of Boiler and Pres	ssure Vessel Inspectors a	ind/or the State or Province	OK KS MO						
undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province OK, KS, MO and employed by OneBeacon America Insurance Co. of Boston, MA have inspected the component described in inis Manufacturer's Data Report on											
December 6, 2005		best of my knowledge and belief, the M	lanufacturer has construc	ted this pressure vessel in	accordance with ASME Code, Sec	tion					
VIII. Division 1. By signing		the Inspector nor his employer makes a									
		r the Inspector nor his employer shall be									
arising from or connected			•	,, ,, ,, ,							
Date 12/06/20	005 Signed	6. J. Poure	Commissions	7376A, OK	(652, KS356, MO0132						
					orsements), State, Prov. and No.)						