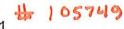


FORM U-1 MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

-													,	-		
1. Ma	nufactured an	d certified by	ENERGY E	CHANGER COM	PANY. 1844 N	ORTH G	ARNETT	ROAD	TULSA, OK 7	4116			1/20			
Ma	nufactured for	D-COK LLC, 36	57 RRIAR	PARK DRIVE HO	USTON TEXA	S 7704	2.5205	.(Nam	e and addres	ss of M	anufac	turer)			27	
mo	naraotaroa ioi	5 001120700	or blint	TAIN DITTE, NO	dordin, texa	0 7704		ne and	d address of l	Purcha	ser)					
3. Loc	cation of instal	lation GIANT II	IDUSTRIES	, GRAFTON, VIR	GINIA		55							137		
	ш	DIZOUTAL							Name and ad	ldress)				1000	W 16	
4. Type: HORIZONTAL HEAT EXCHANGER (Horiz., vert., or sphere) (Tank, separator, ikt, vessel, hea				The organization of the second					X-7264-A1 REV. 2 (Drawing No.)		5272 2007 (Nat'l. Bd. No.) (Year built					
5. ASME Code, Section VIII, Div. 1			(ruin	(Tank, separator, jkt. vessel, heat exh., etc.) 2004 EDITION, 2005 ADDENDA				2519			.3	v) (Diaving ivo.)		ı (i	(Nati. bu. No.) (
			•	Edition	and Addenda	(date)			C	ode Ca			Sp	ecial Se	ervice per UG	·120(d)
Items 6	- 11 incl. to b	e completed for	single wa	ll vessels, jack	ets of jackete						amber	of multi-	chamber vesse	ls.		
6. Shell (a) No. of course(s):			3		(b) O			overall length (ft & in.):			22'-6 1/1					
No. Diameter, in. Length (ft & in.)			Material Spec./Grade or Type		Thickness Nom. Corr.		Long, Joint (Cat. Type Full, Spot, None					cum, Joint (Cat. A. B Full, Spot, None			Treatment	
2				SA-387-11,CL2			18"	1 FULL				1				Temp. Time 1275°F. 1 1/4-HR.
1	59" I.D.	6'-6 1/16"	SA	-387-11,CL2	1 1/4"	1.	18"	1	FULL		1.0	1	FULL		1.0 1275°	F. 1 1/4·HR.
l			01.007.11	010 4 414 110	17 (07505	٠								حل	l	
7. Hea	ids: (a)			,CL2; 1 1/4-HR. Frade or Type)		Temp			(b)		(Mat'l S	Snec No.	., Grade or Typ	TH/a	- Time & Tem	in.
ГТ	Location (Top			Radius		iptical	Conica	л Тн	emispherical				to Pressure	T	Categor	
	Bottom, Ends) Min.	Corr.		(nuckle R	tatio	Apex An		Radius	Diam		Conve	x Concave	Туре	Full, Spot,	None Eff.
(a) (b)	END	1 1/8"	1/8"			2:1		+					X	S	NONE	1.0
	able, bolts us	ed (describe oth	ner fasteni	na)											-	
		121 0		5 7 .8001 11			0	1000	(Mat'l Sp	ec. No	, Grad	e, size, N	lo.)			
8. Тур	e of jacket								Jacket close	ure						
	9 1			9				-				(C	escribe as oge	e & wel	d, bar, etc.)	
If bar	, give dimensi	ons												1	f bolted, desc	ribe or sketch.
MAV	300 T			psi at max. tem	10000	75	3	866	_ °F	Min. d	lesign i	metal ten	np0		°Fat	197 psi.
	(inter		ernal)	±	(inte	mal)	(ext	emal)								
10. Impa	act test YES;	SHELLSIDE DES	IGNED PER		0 05 50 554 1	h = ====							at tes	t temper	ature of	0 °F
11 Hug	tro envere ee	ເປະເທດ. test pres		729 PSIG) impa	act tested)		9					
		60 Ex			<u>-</u>	Proof to			~							
items 12 12. Tub		completed for t SA-182-F11		ons.	62				7 5/8" (x)			n	'Lay -		POLTE	n .
Stationary (Mat'l Sp															Attachment (welded or bolted)	
Fl	oating (Mat'l S	pec. No.)		Dia., in.		7	Nom.	thk., i	n.		Corr	. Allow., i	n.		Attachme	nt
13. Tubes: SA-213-TP321			3/4				0.065 MIN			752			_ U			
		Spec. No., Grad			O.D., in.				Nom. thk., in.	or gau	ge		Number		Type (Straig	ht or U)
		e completed for	inner cha		ted vessels o											
14. Shell		course(s):		1	7	(b) Overa	III leng	ith (ft & in.):				3'-4 3	116"		
Course(s) No. Diameter, in. Length (ft & in.)			Material TI Spec./Grade or Type Nom.			rr 7	Long, Joint (C Type Full, Spot, N					cum. Joint (Cat. A, B			Treatment Time	
1	59" I.D.	3'-4 3/16"		387-11,CL2	1 3/16"(y)	Co O'L		1	FULL	vone	1.0	1	FULL	ne Ef		Time 1-HR.
-			-			<u> </u>										
			1		L	L										
5. Head	s: (a)			1,CL2; 1-HR. AT ade or Type) H		Tame		-	(b)	71	Mari C	nne Ma	Grade or Type	A LI T	Time 0 T	
Ti	ocation (Top,	Thickne		Radius	NOW THE RESERVE		Conical	lu-	minphariasil					;) H.I.•		
В	ottom, Ends)	Min,	Corr.				Conical pex Ang		mispherical Radius	Fla Diame	eter	Convex	O Pressure Concave	Туре	Category . Full, Spot, N	
(a)	END	7 7/16"(x)	O'Lay							60 7/1	16"	-				
(b)			1										لــــال			

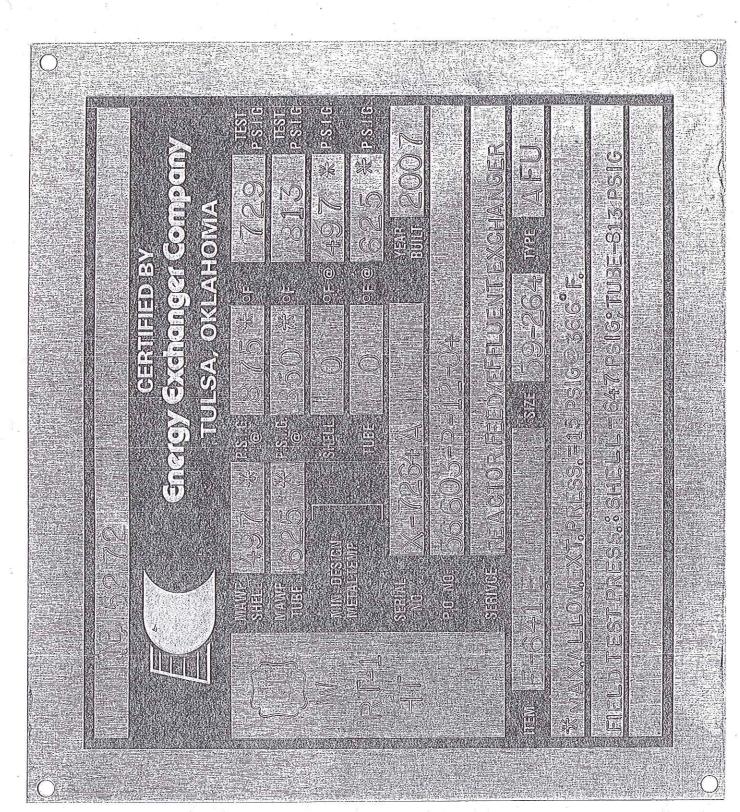
If removable, bolts used (describe other fastening) (a) SA-193-B16, 1 1/2", 64; CHANNEL-TO-SHELL: SA-193-B16, 1 3/4", 52

FORM U-4 MANUFACTURER'S DATA REPORT SUPPLEMENTARY SHEET As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1



Manufactured and certific	ed by <u>energy exchanger</u>	COMPANY, 1844 NORTH GAR								
Manufactured for D-CO	K LLC 3657 BRIAR PARK DRI	VE HOUSTON, TEXAS 770		ress of manufacturer)						
			(name and address of	of purchaser)	31.00.000 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0					
Location of installation	GIANT INDUSTRIES GR	AFTON, VIRGINIA		nd address)		·····				
4. Type:	IORIZONTAL	X-7264	X-7264 A							
11 1/61	, vert., or sphere)		excHANGER ator, heat exh., etc.)		(mfg's serial no.)					
		X-7264-A1	SIN-ASSASSASSA		5272	2007				
(CR	N)	(drawin	g no.)	(Nat'l	. Bd. no.)	(year built)				
Data Report Item Number			Rer	narks		*				
LINES 6-11 INCLUDE:	(1) 70 5/8" O.D. x 59" I.D	. x 9 15/16" THK. SA-182-F1	1, CL.2 RING							
LINES 14-18 INCLUDE	(1) 69 3/8" O.D. x 59" I.D	. (z) x 9 3/4" THK. SA-182-F1			* -					
		. (z) x 9 15/16" THK. SA-182-								
	(x) INCLUDES 3/8" (MIN) 3	AZIOONI MILID OMEDIAV								
	(X) INCLUDES 310 (WIM) 3	4//309L WELD UVERLAT		***************************************						
	(y) INCLUDES 3/16" (MIN)	347/309L WELD OVERLAY								
	(z) INCLUDES 3/16" (MIN) 347/309L WELD OVERLAY ON I.D. AND AT GASKET SURFACE									
	tel morapea alta (mini)	O TO OCC STEED OF ENERT ON	i.o. Allo Al Gaonel of	·						
		·····								
			-							
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		Valida (1900)								
						3				
And the second second second			en e							
	**************************************					*				
Certificate of Authorization:	Type U	No.	12370	Expires	9/27	, 2007				
	Name ENERGY EXCHANGER			Signed	Elsen ODwe	~				
20 1000	(X)	(manufacturer)			(representa	tive)				
ate 5-3-07	Name Eller	24	Comm	N.B.# 11921 B						
	(A	uthorized Inspector)		(Nat'l. Bo	oard incl. endorsement, sta	te, province and no.)				



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