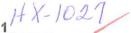


## FORM U-1 MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS AS Required by the Provisions of the ASME Code Rules, Section VIII, Division 1



1. 1	Manufactured and certified by ENERGY EXCHANGER COMPANY, 1844 NORTH GARNETT ROAD, TULSA, OK 74116  (Name and address of Manufacturer)															
2. 1	Manufactured for SOUTHERN COMPANY SERVICES, INC. 42 INVERNESS CENTER PARKWAY BIRMINGHAM, AL 35242  (Name and address of Purchaser)															
3. I	Location of installation MISSISSIPPI POWER, DEKALB MS.															
4.	Type: HORIZ. HEAT EXCHANGER X-7930 A															
	N/A X-7					30-A REV. 4 6044 2012 Drewing No.) (Nat'l Bd. No.) (Year bu								2012		
	17.0											(Year built)				
5. /	ASME Code, Sec	tion VI	II, Div. 1		[Edition and Ad	N, '09 AD	N/A         N           (a (date))         (Code Case No.)         (Special Service)							N/A		
	0 44 !! 4- 6-	1	to d for o													
	6-11 incl. to be													91 VGSS615.		
6. \$	Shell (a) No. o	cours	e(s): _		1			(b) O(	rerall length (f	( & in.): _						
	Course(s)				Material	Thic	kness		Long. Joint (Cat. A)			m. Joint (Cat. A, E	Heat Treatment			
No.	Diameter, in. Length (ft & in.)		Spec./Grade or Type		Nom.	Nom. Corr.		Full, Spot, No	one Eff.	Type Full, Spot, None		Eff.	Temp.	Time		
1	22" O.D.	2" O.D. 19'-8 13/16"		SA-106B		3/8"	3/8" 1/8"		NONE	0.85	1 (1)	SPOT	0.85	N/A	N/A	
-				Ì			Ì									
											4					
		-	-													
7. ł	leads: (a)		Marin Baran	S	A-516-70 e or Type) (H.T.	Time II Yes		********	_ (b)		Inti Conn	NA No., Grade or Type)	79 T - T	mo P Tomo		
			(matt Spec	. No., Grad	e or Type) (H. I.	• 11ma & 1e	np.)			(r			(11.1 11			
	Location (Top.		Thickness		dius	Elliptical	Coni	ical	Hemispherical	Flat	Side	e to Pressure		Category A		
	Bottom, Ends)	Min.	Corr.	Crown	Knuckle	Ratio	Apex A	ingle	Radius	Diameter	Conv	ex Concave	Туре	Full, Spot, None	Eff.	
(a)	END	5/16"	1/8"			2:1					4	X	S	NONE	0.85	
(b)																
		1/4			-l\						٧A					
If ren	novable, bolts us	ed (des	scribe oti	ier taste	ning)				(M	at'l Spec. No.	. Grade, si	ze. No.)				
8 7	Type of jacket				NA				Jacket clos	sure	, , ,	,, N	JA			
0.	ype or Jacket		IVA		Jacket closure NA (Describe as ogee & weld, bar, etc.)											
	If bar, give dimensions NA If bolted, describe or ske															
1													liod il	ed, describe or	sketch.	
9 1	f bar, give dimen	sions	15	n	si at max, ter	mp. 3	50	NA	350 °F N	Ain. desian	metal to					
9. I	MAWP 215	sions	15 (extern	p p	si at max. ter	mp. 3	50 emal)	NA (	350 °F N	Min. design		emp. 10	°F	at215	_ psi.	
9. I 10. I	MAWP 215 (internal impact test	sions	15 (extern	p	si at max. ter	mp. 3	50 emal) R UG-2	NA (0	350 °F N				°F	at215	_ psi.	
				lino	icate yes or no a	and the comp	Mineral(e)	anpact to	stenl			emp. 10	°F	at215	_ psi.	
	MAWP 215 (internal mpact test dydro., pneu., or			lino	icate yes or no a	and the comp	Mineral(e)	anpact to	stenl			emp. 10	°F	at215	_ psi.	
11. ł	łydro., <del>pneu., or</del>	comb.	Test pre	ss	280	and the comp	Mineral(e)	anpact to	stenl			emp. 10	°F	at215	_ psi.	
11. H	Hydro., <del>pneu., or</del> 312 and 13 to be	comb.	Test pre	ss. tube sec	280 tions.	F	P.S.I.G.	anpact to	Proof test		*	emp. 10 at test temperate NA	°F ure of _	at 215 NA	_ psi. °F.	
11. H	łydro., <del>pneu., or</del>	comb.	Test pre	ss. tube sec	280 tions.	F	P.S.I.G.	anpact to	Proof test		*	emp. 10	°F ure of _	at 215 NA	_ psi. °F.	
11. H	Hydro., pneu., or 12 and 13 to be Tubesheet:	comb. compi SA: ationary	Test pre- leted for - -266-4N (Mat'i Spec	tube sec	280 tions.	F 22"	P.S.I.G.	anpace (c	Proof test		(Cc	at test temperate  NA  1/4"  orr. Allow., in.)	°F ure of _	NA Welded	°F.	
11. H	Hydro., pneu., or 12 and 13 to be Tubesheet:	comb. compi SA: ationary	Test pre- leted for - -266-4N (Mat'i Spec	tube sec	280 tions.	F 22"	P.S.I.G.	anpact to	Proof test  3" (Nom. thk., in.)  NA (Nom. thk., in.)		(Cc	at test temperate  NA  1/4"  orr. Allow., in.)	°F ure of _	Welded  tachment (welded or NA  (Altachment)	°F.	
11. Items 12. 7	Hydro., pneu., or 12 and 13 to be Tubesheet:	comb.  Complete SA ationary loating (	Test pre- leted for 1-266-4N (Mat'l Spec NA Mat'l Spec. A-179	ss	280 tions.  [Dia, In (su	F  22"  Object to pres  NA (a., in.)	P.S.I.G.	0.	3" (Nom. thk., in.) NA (Nom. thk., in.) 083" THK (MI	N)	(Cc	nt test temperate  NA  1/4"  IT. Allow., in.)  NA  IT. Allow., in.)  133	°F ure of _	Welded techment (welded or NA (Attachment) "U"	psi.  °F.	
11. Items 12. 7	Hydro., pneu., or: 12 and 13 to be Tubesheet:  [Si [Fi Tubes:  (Mai	comb.  compliance SA ationary loating (	Test pre- leted for -266-4N (Mati Spec NA Mati Spec A-179	No.)]	280 tions.  [Dia., In. (su (0)	F  22"  abject to pres  NA  a., in.)  3/4"  D., in.)	s.))		Proof test  3" (Nom. thk., in.)  NA (Nom. thk., in.)  083" THK (MI om. thk., in. or gau	N)	(Cc	at test temperate  NA  1/4"  orr. Allow., in.)  NA  orr. Allow., in.)	°F ure of _	Welded  tachment (welded or NA  (Altachment)	psi.  °F.	
11. Hitems 12. T	Hydro., pneu., or:  12 and 13 to be  Tubesheet:  [SI  Tubes:  (Mail: 14-18 incl. to be	comb.  compi SA ationary loating ( ST Spec. F	Test pre- leted for 1 -266-4N (MATT Spec. NA MATT Spec. A-179 No., Grade of	No.)]	280 tions.  [Dia., In. (su (0)	F  22"  abject to pres  NA  a., in.)  3/4"  D., in.)	s.))	0.	Proof test  3" (Nom. thk., in.)  NA (Nom. thk., in.)  083" THK (MI) om. thk., in. or gau nels of heat ex	N)	(Cc	nt test temperate  NA  1/4"  IT. Allow., in.)  NA  Orr. Allow., in.)  133 (Number)	°F ure of _	Welded techment (welded or NA (Attachment) "U"	psi.  °F.	
11. Hitems 12. T	Hydro., pneu., or: 12 and 13 to be Tubesheet:  [Si [Fi Tubes:  (Mai	comb.  compi SA ationary loating ( ST Spec. F	Test pre- leted for 1 -266-4N (MATT Spec. NA MATT Spec. A-179 No., Grade of	No.)]	280 tions.  [Dia., In. (su (0)	F  22"  abject to pres  NA  a., in.)  3/4"  D., in.)	s.))	0.	Proof test  3" (Nom. thk., in.)  NA (Nom. thk., in.)  083" THK (MI om. thk., in. or gau	N)	(Cc	nt test temperate  NA  1/4"  IT. Allow., in.)  NA  IT. Allow., in.)  133	°F ure of _	Welded techment (welded or NA (Attachment) "U"	psi.  °F.	
11. Hitems 12. T	Hydro., pneu., or:  12 and 13 to be  Tubesheet:  [SI  Tubes:  (Mail: 14-18 incl. to be	comb.  SA. ationary loating (  STSpec. I	Test pre- leted for 1 -266-4N (MATT Spec. NA MATT Spec. A-179 No., Grade of	No.)]	280 tions.  [Dia., In. (su (0)	F  22"  ibject to pres  NA  is., in.)  3/4"  D., in.)  cketed ve	s.))	0.	Proof test  3" (Nom. thk., in.)  NA (Nom. thk., in.)  083" THK (MI) om. thk., in. or gau nels of heat ex	N) <sub>Spo</sub> ) cchangers. t & in.):	(Cc	nt test temperate  NA  1/4"  IT. Allow., in.)  NA  Orr. Allow., in.)  133 (Number)	°F ure of	Welded techment (welded or NA (Attachment) "U"	psi.  °F.	
11. Hitems 12. T	Hydro., pneu., or at 12 and 13 to be rubesheet:  [Si]  [White is 14-18 incl. to be shell (a) No. of	comp. SA. ationary loating ( STSpec. F	Test pre- leted for 1 -266-4N (MATT Spec. NA MATT Spec. A-179 No., Grade of	tube sec No.)]	tions.  [Dia , In (su  (Dia ambers of jack)	F  22" bjact to pres  NA (a., in.) 3/4" D., in.) cketed ve	s.)]	0.	3" (Nom. thk., in.) NA (Nom. thk., in.) 083" THK (MI) om. thk., in. or gau nels of heat ex	N)  Ige)  schangers. t & in.);	(Cc	at test temperate  NA  1/4"  Int. Allow., in.)  NA  Int. Allow., in.)  133 (Number)  1'-7 7/16"	°F ure of	Welded  Welded  Itachment (welded or  NA  (Altachment)  "U"  [Type (Strait or U	psi.  °F.	
11. Hallems 12. 1 13. 1 Items 14. 5	Hydro., pneu., or: 12 and 13 to be Tubesheet:  [SI  Tubes:  (Mat 3: 14-18 incl. to be Shell (a) No. of	comp. SA ationary loating ( S T Spec. F comp. courses) Length	Test pre leted for -266-4N (Mat' Spec NA Mat' Spec A-179 No., Grade leted for e(s):	tube sec No.)] No.)] or Typo) inner chi	tions.  [Dia, In (su  (Dia, Material	F  22" bjact to pres  NA (a., in.) 3/4" D., in.) cketed ve	s.s.l.G.	O. (No	Proof test  3" (Nom. thk., in.) NA (Nom. thk., in.) 083" THK (MI) om. thk., in. or gau nels of heat ex	N) sge) schangers. t & in.): at. A) one   Eff.	(Cc	at test temperate  NA  1/4"  Int. Allow., in.)  NA  Orr. Allow., in.)  133 (Number)  1'-7 7/16"  Int. Joint (Cat. A, E	°F ure of	Welded  Welded  (attachment (welded or NA  (Attachment)  "U"  [Type (Strait or U)  Heat Treatn  Temp.	psi.  °F.  bolted)]	
11. Hallems 12. Tallems 13. Tallems 14. Salan No.	Hydro., pneu., or 12 and 13 to be Tubesheet:  [Si	comp. SA ationary loating ( S T Spec. F comp. courses) Length	Test pre leted for 1 -266-4N (MART Spec. NA MAPI Spec. A-179 No., Grade of leted for e(s):	tube sec No.)] No.)] or Typo) inner chi	280 tions.  [Dia, In. (su (Dia) (Dia	Page 1 to pres NA (a., in.) 3/4" D., in.) cketed ve	ssels or Corr.	O. (No chann (b) Ov	Proof test  3" (Nom. thk., in.) NA (Nom. thk., in.) 083" THK (MI om. thk., in. or gau nels of heat ex verall length (fi Long. Joint (Ca	N) sge) schangers. t & in.): at. A) one   Eff.	(Co	at test temperate  NA  1/4"  IT. Allow., in.)  NA  Wr. Allow., in.)  133  (Number)  1'-7 7/16"  m. Joint (Cat. A, E)  Full, Spot, None	°F ure of	Welded  Welded  (attachment (welded or NA  (Attachment)  "U"  [Type (Strait or U)  Heat Treatn  Temp.	psi.  °F.  bolted)]	
11. Hallems 12. Tallems 13. Tallems 14. Salan No.	Hydro., pneu., or 12 and 13 to be Tubesheet:  [Si	comp. SA ationary loating ( S T Spec. F comp. courses) Length	Test pre leted for 1 -266-4N (MART Spec. NA MAPI Spec. A-179 No., Grade of leted for e(s):	tube sec No.)] No.)] or Typo) inner chi	280 tions.  [Dia, In. (su (Dia) (Dia	Page 1 to pres NA (a., in.) 3/4" D., in.) cketed ve	ssels or Corr.	O. (No chann (b) Ov	Proof test  3" (Nom. thk., in.) NA (Nom. thk., in.) 083" THK (MI om. thk., in. or gau nels of heat ex verall length (fi Long. Joint (Ca	N) sge) schangers. t & in.): at. A) one   Eff.	(Co	at test temperate  NA  1/4"  IT. Allow., in.)  NA  Wr. Allow., in.)  133  (Number)  1'-7 7/16"  m. Joint (Cat. A, E)  Full, Spot, None	°F ure of	Welded  Welded  (attachment (welded or NA  (Attachment)  "U"  [Type (Strait or U)  Heat Treatn  Temp.	psi.  °F.  bolted)]	
11. Hallems 12. Tallems 13. Tallems 14. Salan No.	Hydro., pneu., or 12 and 13 to be Tubesheet:  [Si	comp. SA ationary loating ( S T Spec. F comp. courses) Length	Test pre leted for 1 -266-4N (MART Spec. NA MAPI Spec. A-179 No., Grade of leted for e(s):	(No.)] No.)] or Type) inner cha	280 tions.  [Dia., In. (su (Dia.)  (Di	Page 1 to pres NA (a., in.) 3/4" D., in.) cketed ve	ssels or Corr.	O. (No chann (b) Ov	Proof test  3" (Nom. thk., in.) NA (Nom. thk., in.) 083" THK (MI) om. thk., in. or gau nels of heat ex rerall length (fi Long. Joint (Ca Full, Spot, No	N) sge) schangers. t & in.): at. A) one   Eff.	(Co	at test temperate  NA  1/4"  IT. Allow., in.)  NA  1/33 (Number)  1'-7 7/16"  IT. Joint (Cat. A, E)  Full, Spot, None  SPOT	°F ure of	Welded  Welded  (attachment (welded or NA  (Attachment)  "U"  [Type (Strait or U)  Heat Treatn  Temp.	psi.  °F.  bolted)]	
11. Items 12. 1 13. 1 Items 14. 5	Hydro., pneu., or 12 and 13 to be Tubesheet:  [Si	comb.  compliants SA. ationary  cloating (in Stranger) compliants compliants course	Test pre leted for -266-4N (Mat' Spec NA Mat' Spec A-179 No. Grade leted for e(s):  1 (ft & in.)	tube sec.  No.)]  Type)  inner chi	tions.  280 tions.  [Dia, In (su  (Dia)  (Di	Page 1 Pa	s.)] ssels or kness Corr. 1/8"	O. (No chann (b) Ov	Proof test  3" (Nom. thk., in.) NA (Nom. thk., in.) 083" THK (MI om. thk., in. or gau nels of heat ex verall length (fi Long. Joint (Ca	N) spe) schangers. t & in.): at. A) one   Eff.	(Co	at test temperate  NA  1/4"  Int. Allow., in.)  NA  Int. Allow., in.)  133  (Number)  1'-7 7/16"  Int. Joint (Cat. A, E)  Full, Spot, None  SPOT	°F ure of	Welded  Welded  Rachment (welded or  NA  (Altachment)  "U"  [Type (Strait or U)  Heat Treatn  Temp.  1150° F. 1	psi.  °F.  bolted)]	
11. Items 12. 1 13. 1 Items 14. 5	Hydro., pneu., or 12 and 13 to be Fubesheet:  [Si	comb.  compliants SA. ationary  cloating (in Stranger) compliants compliants course	Test pre leted for -266-4N (Mat' Spec NA Mat' Spec A-179 No. Grade leted for e(s):  1 (ft & in.)	tube sec.  No.)]  Type)  inner chi	280 tions.  [Dia., In. (su (Dia.)  (Di	Page 1 Pa	s.)] ssels or kness Corr. 1/8"	O. (No chann (b) Ov	Proof test  3" (Nom. thk., in.) NA (Nom. thk., in.) 083" THK (MI) om. thk., in. or gau nels of heat ex rerall length (fi Long. Joint (Ca Full, Spot, No	N) spe) schangers. t & in.): at. A) one   Eff.	(Co	at test temperate  NA  1/4"  orr. Allow., in.)  NA  orr. Allow., in.)  133 (Number)  1'-7 7/16"  m. Joint (Cat. A, E Full, Spot, None SPOT  NA  No., Grade or Type)	°F ure of	Welded tachment (welded or NA (Attachment) "U" [Type (Strait or U	psi.  °F.  bolted)]	
11. Items 12. 1 13. 1 Items 14. 5	Hydro., pneu., or 12 and 13 to be Fubesheet:  [Si	comb.  compliant SA. ationary loating ( STSpec. F. compliant courses) Length	Test pre leted for -266-4N (Mat' Spec NA Mat' Spec A-179 No. Grade leted for e(s):  1 (ft & in.)	No.)] No.)] Spec. S/	tions.  280 tions.  [Dia, In (su  (Dia)  (Di	Page 1 Pa	s.)] ssels or kness Corr. 1/8"	O. (No chann (b) Ov Type	Proof test  3" (Nom. thk., in.) NA (Nom. thk., in.) 083" THK (MI) om. thk., in. or gau nels of heat ex rerall length (fi Long. Joint (Ca Full, Spot, No	N) spe) schangers. t & in.): at. A) one   Eff.	(Co	at test temperate  NA  1/4"  Int. Allow., in.)  NA  Int. Allow., in.)  133  (Number)  1'-7 7/16"  Int. Joint (Cat. A, E)  Full, Spot, None  SPOT	°F ure of	Welded  Welded  Rachment (welded or  NA  (Altachment)  "U"  [Type (Strait or U)  Heat Treatn  Temp.  1150° F. 1	psi.  °F.  bolted)]	
11. Items 12. T 13. T ttems 14. S	Itydro., pneu., or at 12 and 13 to be ubesheet:  [Si	comb.  compliant SA. ationary loating ( STSpec. F. compliant courses) Length	Test pre leted for -266-4N (Matt Spec NA NA Matt Spec Na-179 No, Grade of leted for e(s):	No.)] No.)] Spec. S/	(Dia., In. (surptime)  [Dia., In. (surptime)  (Dia., In. (surptime)  (Dia., In. (surptime)  (O. ambers of jack of the jack of	F  22"  biject to pres  NA  a, in.)  3/4"  D., in.)  cketed ve.  Thic  Nom.  3/4"	ssels or Corr. 1/8"	O. (No chann (b) Ov Type 1	Proof test  3" (Nom. thk., in.) NA (Nom. thk., in.) 083" THK (MI) om. thk., in. or gau nels of heat ex verall length (fi Long. Joint (Ce Full, Spot, No	N) schangers. t & in.): at A) one Eff. 0.85	(Co	at test temperate  NA  1/4"  orr. Allow., in.)  NA  orr. Allow., in.)  133 (Number)  1'-7 7/16"  m. Joint (Cat. A, E  Full, Spot, None  SPOT  NA  No., Grade or Type)  et o Pressure	°F ure of	Welded tachment (welded or NA (Attachment) "U" [Type (Strait or U	psi.  °F.  bolted)]	
11. Items 12. T 13. T ttems 14. S	Itydro., pneu., or at 12 and 13 to be rubesheet:  Tubes:  (Mat 14-18 incl. to be shell (a) No. of Course(shell 20 1/2" I.D.  Iteads: (a)  Location (Top,	comb.  compliance SA ationary loating ( S TSpec. F course Course C) Lengtr 1'-7	Test pre leted for 1-266-4N (Matt Spec NA Matt Spec NA-179 No., Grade 1- leted for 1- (fit & in.) 7/16"  (Matt Spec kness	No.)] No.)] Spec. S/ No. Grad	(Dia., In. (surptime)  [Dia., In. (surptime)	F  22"  bject to pres  NA  a, in.)  3/4"  D, in.)  cketed ve.  Thic  Nom.  3/4"  - Time & Tel  Elliptical	s.sels of Corr. 1/8"	O. (No chann (b) Ov Type 1	Proof test  3" (Nom. thk., in.) NA (Nom. thk., in.) 083" THK (MI) om. thk., in. or gau nels of heat ex verall length (fi Long. Joint (Ce Full, Spot, No SPOT	N) schangers. t & in.): at A) one Eff. 0.85	(Co	at test temperate  NA  1/4"  orr. Allow., in.)  NA  orr. Allow., in.)  133 (Number)  1'-7 7/16"  m. Joint (Cat. A, E  Full, Spot, None  SPOT  NA  No., Grade or Type)  et o Pressure	%Fure of	Welded tachment (welded or NA (Attachment) "U" [Type (Strait or U] Heat Treatn Temp. 1150° F. 1	psi.  °F.  bolted)]	
11. It llems 12. T 13. T llems 14. S No. 1	Ideads: (a) Location (Top, Bottom, Ends)	comb.  compliance SA ationary  loating ( S TSpec. F course Course Course Thick Min.	Test pre leted for -266-4N (Matt Spec NA Matt Spec NA Matt Spec (Matt Spec	No.)] No.)] Spec. S/ No. Grad	(Dia., In. (surptime)  [Dia., In. (surptime)	F  22"  bject to pres  NA  a, in.)  3/4"  D, in.)  cketed ve.  Thic  Nom.  3/4"  - Time & Tel  Elliptical	s.sels of Corr. 1/8"	O. (No chann (b) Ov Type 1	Proof test  3" (Nom. thk., in.) NA (Nom. thk., in.) 083" THK (MI) om. thk., in. or gau nels of heat ex verall length (fi Long. Joint (Ce Full, Spot, No SPOT	N)  Schangers. t & in.):  at A)  Done Eff.  0.85	(Co	at test temperate  NA  1/4"  orr. Allow., in.)  NA  orr. Allow., in.)  133 (Number)  1'-7 7/16"  m. Joint (Cat. A, E  Full, Spot, None  SPOT  NA  No., Grade or Type)  et o Pressure	%Fure of	Welded tachment (welded or NA (Attachment) "U" [Type (Strait or U] Heat Treatn Temp. 1150° F. 1	psi.  °F.  bolted)]	
11. Hems 12. T 13. T 14. S No. T 15. H (a) (b)	Ideads: (a) Location (Top, Bottom, Ends)	comb.  compliant SA. ationary loating ( STSpec. F. compliant courses) Length 1'-7 Thick Min. 3 1/4"	Test pre leted for -266-4N (Matt Spec NA Matt Spec NA Matt Spec (Matt Spec (M	No.)] No.)] Spec. S/ No. Grad Ra Crown	(Dia., In. (surphise of pace)  [Dia., In. (surphise of pace)  [Oi. (Oi. (ambers of pace)  A-516-70N  A-266-4N  a or Type) (H.T. dius  Knuckle	F  22"  bject to pres  NA  a, in.)  3/4"  D, in.)  cketed ve.  Thic  Nom.  3/4"  - Time & Tel  Elliptical	s.sels of Corr. 1/8"	O. (No chann (b) Ov Type 1	Proof test  3" (Nom. thk., in.) NA (Nom. thk., in.) 083" THK (MI) om. thk., in. or gau nels of heat ex verall length (fi Long. Joint (Ce Full, Spot, No SPOT	N)  Schangers. t & in.):  at A)  Done Eff.  0.85	Circu Type 1 (1)  Mari Spec.	at test temperate  NA  1/4" orr. Allow., in.)  NA orr. Allow., in.)  133 (Number)  1'-7 7/16"  m. Joint (Cat. A, E Full, Spot, None SPOT  NA No., Grade or Type) et o Pressure ex Concave	%Fure of	Welded tachment (welded or NA (Attachment) "U" [Type (Strait or U] Heat Treatn Temp. 1150° F. 1	psi.  °F.  bolted)]	

FORM U-1 (Back)											
16. MAWP 792	N	IA psi	at max. ter	np	285 (internal)		NA xternal)	°F Min. design r	metal temp	10 °F at	
17. Impact test									NA °F		
18. Hydro., pneu., or se	mb. Test	press.	1030	no and me co	P.S.I.G.	Pre	oof test		1	NA	
19. Nozzles, inspection,					7.10.11.01		,				
Purpose	1	Diameter	Flange	Mat	erial	Nozzle Ti	nickness	Reinforcement	How At	tached	Location
(Inlet, Outlet, Drain, etc.)	No.	or Size	Type	Nozzle	Flange	Nom.	Corr.	Material	Nozzle	Flange	(Insp. Open.)
INLET	1	6"-150#		SA-106B	-	0.4320"	1/8"	SA-516-70	WELDED	WELDED	SHELL
OUTLET	1	2"-150#	RF-LWN	_		0.5300"	1/8"	WELD	WELDED		SHELL
INLET	1	4"-600#	RF-LWN	SA-105N		1.0000"	1/8"	WELD	WELDED		CHANNEL
OUTLET	1	4"-600#	RF-LWN	SA-105N		1.0000"	1/8"	WELD	WELDED		CHANNEL
VENT	1	2"-600#		SA-105N	_	0.6600"	1/8"	WELD	WELDED		CHANNEL
DRAIN	1	2"-600#	RF-LWN	SA-105N		0.6600"	1/8"	WELD	WELDED		CHANNEL
20. Supports: Skirt	NO Lu	ugs	Legs	(No.)	_Others		(2)Saddle	Attached		WELDED TO S (Where and hor	
21. Manufacturer's Parti											
(List the name of pa							•				
								4			
22. Remarks: SERVICI											
Commence of the last of the la					The second lives and the second	The second second		VICES BY OTHE	RS		
	LINES 14-18 INCLUDES (1) 27 7/8" O.D. X 20 1/2" I.D. X 4 9/16" THK., SA-266-4N RING										
(1) Tubesheet to cylinder circumferential seams are Type 7 joints w/efficiency of 1.0											
CERTIFICATE OF SHOP COMPLIANCE  We certify that the statements in this report are correct and that all details of design, material, construction, and workmanship of this vessel conform to the											
ASME BOILER AND F						or design,	material	, construction, and	Workingham	o di tilla vesaci	comonn to the
						es S	EPTEME	BER 27 ,20 _	13		
Date 6-22-/2	U Certificate Authorization No. 12370 Expires SEPTEMBER 27 ,20 13  Date 6-22-12 Name ENERGY EXCHANGER COMPANY Signed Mash Wells										
				(Manurac	turer)				(Re	opresentative)	
I the understand had	di	lid aansasialas	. Innumed but		FICATE O				ara andles the	Clata as Deard	
I, the undersigned, hol of OKLAHOMA	-							1.50		LYNN, MA	nce
have inspected the pre	ssure ve	ssel describe	d in this M	anufacture	r's Data R	eport on	OOM A	10.27	2.2013	2	, and
state that, to the bes							na vandika 6			Chesta Nesser-Vivine	
PRESSURE VESSEL	CODE, S	Section VIII, D	Division 1.	By signing	this certi	ficate neiti	her the Ir	espector nor his e	mployer make	es any warrant	y, expressed or
implied, concerning the										his employer s	hall 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 6-22-12 Signed Application Commissions N.B.# 12064 A OKLA.# 7  [Natl Board Incl. endorsements, State, Province, and No.]											
4			CEF	TIFICATE	OF FIEL	D ASSEM	BLY CO	WPLIANCE			
We certify that the stat						and the second second second		Barring Barrier and Barrier and Control of the Cont		with the	
requirements of ASME			URE VES	SEL CODE			ion 1. U C	The state of the s	rization No.		
U Certificate of Author	zation No	)			Ex	oires		,20			
Date	Nam	ne						Signed			
			OF	(Assemb		D ADDEL	101 14 1416	PEOTION	(Re	presentative)	
I, the undersigned, hol	dina a va	lid commision			조, 귀여 - 차보구기			PECTION	ore and/or the	State or Provi	nce
	and emp		i issueu by	me manor	iai boaiu (	on boller a	ilu Fiessi	ure vesser mispect	ors anoron the	Glate of Flovi	
of	Jp	, ha	ve compar	ed the stat	ements in	this Manu	facturer's	Data Report with	the described	pressure vess	el
and state that parts ref	erred to a	as data items					,	not included in the	e certificate of	shop inspectio	n, have been
inspected by me and to			-							essel in accord	
with ASME BOILER A									•		psi.
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	Sign						Comm	issions			
Julo		-	(A	uthorized Insp	ector)				Board incl. endors	ements, State, Prov	ince, and No.)