

112897

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

HX-1027

- 1. Manufactured and certified by ENERGY EXCHANGER COMPANY, 1844 NORTH GARNETT ROAD, TULSA, OK 74116
2. Manufactured for SOUTHERN COMPANY SERVICES, INC. 42 INVERNESS CENTER PARKWAY BIRMINGHAM, AL 35242
3. Location of installation MISSISSIPPI POWER, DEKALB MS.
4. Type: HORIZ. HEAT EXCHANGER X-7930 A
5. ASME Code, Section VIII, Div. 1 2007 EDITION, '09 ADD. N/A N/A

Items 6-11 incl. to be completed for single wall vessels, jackets of jacketed vessels, shell of heat exchangers, or chamber of multichamber vessels.
6. Shell (a) No. of course(s): 1 (b) Overall length (ft & in.): 19'-8 13/16"

Table with columns: Course(s), Material, Thickness, Long. Joint (Cat. A), Circum. Joint (Cat. A, B, & C), Heat Treatment. Row 1: 1, 22" O.D., 19'-8 13/16", SA-106B, 3/8" 1/8", S, NONE, 0.85, 1 (1), SPOT, 0.85, N/A, N/A.

7. Heads: (a) SA-516-70 (b) NA

Table with columns: Location (Top, Bottom, Ends), Thickness, Radius, Elliptical Ratio, Conical Apex Angle, Hemispherical Radius, Flat Diameter, Side to Pressure, Category A. Row (a): END, 5/16" 1/8", 2:1, X, S, NONE, 0.85.

If removable, bolts used (describe other fastening) NA

8. Type of jacket NA Jacket closure NA

9. MAWP 215 15 psi at max. temp. 350 350 °F Min. design metal temp. 10 °F at 215 psi.

10. Impact test NO, EXEMPT PER UG-20(f) at test temperature of NA °F.

11. Hydro., pneu., or comb. Test press. 280 P.S.I.G. Proof test NA

Items 12 and 13 to be completed for tube sections.

12. Tubesheet: SA-266-4N 22" 3" 1/4" Welded
13. Tubes: SA-179 3/4" 0.083" THK (MIN) 133 "U"

Items 14-18 incl. to be completed for inner chambers of jacketed vessels or channels of heat exchangers.

14. Shell (a) No. of course(s): 1 (b) Overall length (ft & in.): 1'-7 7/16"

Table with columns: Course(s), Material, Thickness, Long. Joint (Cat. A), Circum. Joint (Cat. A, B, & C), Heat Treatment. Row 1: 1, 20 1/2" I.D., 1'-7 7/16", SA-516-70N, 3/4" 1/8", 1, SPOT, 0.85, 1 (1), SPOT, 0.85, 1150° F., 1-HR.

15. Heads: (a) SA-266-4N (b) NA

Table with columns: Location (Top, Bottom, Ends), Thickness, Radius, Elliptical Ratio, Conical Apex Angle, Hemispherical Radius, Flat Diameter, Side to Pressure, Category A. Row (a): END, 3 1/4" 3/16", 21 5/16", X, S, NONE, 0.85.

If removable, bolts used (describe other fastening) a) SA-193B7 ; 1 1/8" DIA; 24

FORM U-1 (Back)

16. MAWP 792 NA psi at max. temp. 285 NA °F Min. design metal temp. 10 °F at 792 psi.
(internal) (external) (internal) (external)

17. Impact test NO, EXEMPT PER UG-20(f) at test temperature of NA °F.
(Indicate yes or no and the component(s) impact tested)

18. Hydro., pneu., or comb. Test press. 1030 P.S.I.G. Proof test NA

19. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Flange Type	Material		Nozzle Thickness		Reinforcement Material	How Attached		Location (Insp. Open.)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	
INLET	1	6"-150#	RF-WN	SA-106B	SA-105	0.4320"	1/8"	SA-516-70	WELDED	WELDED	SHELL
OUTLET	1	2"-150#	RF-LWN	SA-105	---	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#	RF-LWN	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 Lugs --- Legs --- Others --- (2) Saddles --- Attached --- WELDED TO SHELL
(Yes or no) (No.) (No.) (Describe)

21. Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report:
 (List the name of part, item number, mfg's. name and identifying number)

22. Remarks: SERVICE: PROCESS CONDENSATE TRIM COOLER; P.O. NO: 17496-0001; ITEM NO.: HX1027
SIZE:20-216, TYPE:NEU, TUBES DESIGNED W/ 0" C.A., SAFETY RELIEF DEVICES BY OTHERS
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 PRESSURE VESSEL CODE, Section VIII, Division 1.

U Certificate Authorization No. 12370 Expires SEPTEMBER 27, 20 13

Date 6-22-12 Name ENERGY EXCHANGER COMPANY Signed Mark Wells
(Manufacturer) (Representative)

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of OKLAHOMA and employed by ONEBEACON AMERICA INSURANCE COMPANY of LYNN, MA have inspected the pressure vessel described in this Manufacturer's Data Report on 6.22.2012, 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 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 6.22.12 Signed [Signature] Commissions N.B.# 12064 A OKLA.# 7
(Authorized Inspector) (Nat'l Board incl. endorsements, State, Province, and No.)

CERTIFICATE OF FIELD ASSEMBLY COMPLIANCE

We certify that the statements on this report are correct and that field assembly construction of all parts of this vessel conforms with the requirements of ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. U Certificate of Authorization No. _____

U Certificate of Authorization No. _____ Expires _____, 20 _____

Date _____ Name _____ Signed _____
(Assembler) (Representative)

CERTIFICATE OF FIELD ASSEMBLY INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of _____ and employed by _____ of _____, have compared the statements in this Manufacturer's Data Report with the described pressure vessel and state that parts referred to as data items _____, not included in the certificate of shop inspection, have been inspected by me and to the best of my knowledge and belief, the Manufacturer has constructed and assembled this pressure vessel in accordance with ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. The described vessel was inspected and _____ 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 _____ Signed _____ Commissions _____
(Authorized Inspector) (Nat'l Board incl. endorsements, State, Province, and No.)