

SHE Job #

FORM U-1 MANUFACTURERS' DATA REPORT FOR PRESSURE VESSELS

Item #

90-271

as required by the provisions of the ASME Code rules, Section VIII, Division 1

E-216

1. Manufactured and certified by Southern Heat Exchanger Corp., 6100 Old Montgomery Hwy.
(name and address of manufacturer) Tuscaloosa, AL
2. Manufactured for FLUOR-DANIEL
(name and address of purchaser)
3. Location of installation ATOCHEM CALVERT CITY, KY.
(name and address)
4. Type: Heat Exch. 90-271 None SP-2563-1 G152 1991
(horiz. or vert., tank) (mfr's. serial no.) (CRN) (drawing no.) (Nat'l. Bd. no.) (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 Code, Section VIII, Division 1: 1989
(year)
- A89 — —
(addenda (Date)) (Code Case no.) (special service per UG-120(d))

Items 6-11 inclusive to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

6. Shell: SA-106B .375" .0625" 1'-9.250" 9'-11.875"
(mat'l. (spec. no., grade)) (nom. thickness (in.)) (corr. allow. (in.)) (dia. ID (ft. & in.)) (length (overall) (ft. & in.))
7. Seams: SMLS. — 85% — — — — —
(long. (dbl., singl.)) (RT (spot or full)) (eff. (%)) (HT temp. (°F)) (time) (girth (dbl., singl.)) (RT (spot, partial, or full)) (no. of courses)
8. Heads: (a) — (mat'l. (spec. no., grade)) (b) — (mat'l. (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) | | | | | | | | | | |
| (b) | | | | | | | | | | |

If removable, bolts used (describe other fastenings):

(mat'l., spec. no., gr., size, no.)

9. Type of jacket: None Proof test: —
10. Jacket closure: None If bar, give dimensions: — If bolted, describe or sketch.
(describe as ogee & weld, bar, etc.)
11. MAWP: 150 at max. temp. 250 Min design metal temp.: 32 at 150 Hydro. 225 test pressure 225
(psi) (°F) (°F) (psi) (psi)

Items 12 and 13 to be completed for tube sections.

12. Tubesheets: SA-516-70 27.50" 2" .125" WELDED
(stationary mat'l. (spec. no., gr.)) (dia. (in.) (subject to pressure)) (nom. thickness (in.)) (corr. allow. (in.)) (attachment (welded, bolted))
- — — — —
(floating mat'l. (spec. no., gr.)) (dia. (in.)) (nom. thickness (in.)) (corr. allow. (in.)) (attachment)
13. Tubes: SB-163-6000 .750" 14 412 STRAIGHT
(mat'l. (spec. no., gr.)) (OD (in.)) (nom. thickness (gage)) (no.) (type (straight or U))

Items 14-17 inclusive to be completed for inner chambers of jacketed vessels or channels of heat exchangers.

14. Shell: SA-106B .375" .0625" 1'-9.250" 1'-2.250"
(mat'l. (spec. no., gr.)) (nom. thickness (in.)) (corr. allow. (in.)) (dia. ID (ft. & in.)) (length (overall) (ft. & in.))
15. Seams: SMLS. — 85% 1100°F 1 Hr. Subl. Butt Full 2
(long. (dbl., singl.)) (RT (spot or full)) (eff. (%)) (HT temp. (°F)) (time) (girth (dbl., singl.)) (RT (spot, partial, or full)) (no. of courses)
16. Heads: (a) SA-516-70 (mat'l. (spec. no., grade)) (b) — (mat'l. (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)	<u>TOP/BTM.</u>	<u>.375"</u>	<u>.0625"</u>			<u>2:1</u>				<u>CONCAVE</u>
(b)										

If removable, bolts used (describe other fastenings):

SA-193-B7 (28) SA-3/4"-10.
(mat'l., spec. no., gr., size, no.)

17. MAWP: 300/FI at max. temp. 250 Min design metal temp.: -40 at 0 Hydro. 450 test pressure 450
(psi) (°F) (°F) (psi) (psi)

18. Nozzles, inspection and safety valve openings:

[illegible]

19. Supports: Skirt No Lugs 2 Legs _____ Other _____ Attached Steel, welded
(yes or no) (no) (describe) (where and how)

20. **Remarks:** Manufacturers' Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report: _____

"UG-46(a)" "UCS-66(a)" "UCS-68(c)"

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 Code for Pressure Vessels, Section VIII, Division 1.

"U" Certificate of Authorization no. 7037 expires Feb. 28, 19 94

Date 4-1 -91 Name Southern Heat Exchanger Corporation
(manufacturer)

Signed D. H. Noland
D. H. Noland (representative)

Vessel constructed by Southern Heat Exchanger Corporation at Tuscaloosa, AL

I, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and the state or province of NY and employed by Commercial Union Insurance Company

of Boston, MA have inspected the pressure vessel described in this Manufacturers' Data and state that, to the best of my knowledge and belief, the manufacturer has constructed this

Report on 04-01, 19 91, 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 the Manufacturers' 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 01-01-91 Signed B.M. Brooks (Authorized Inspector) Commissions NB, 5446 NY 2182
(Not' Bd (incl endorsements) state, prov and no.)

We certify that the field assembly construction of all parts of this vessel conforms with the requirements of Section VIII, Division 1 of the ASME BOILER AND PRESSURE VESSEL CODE.

"U" Certificate of Authorization no. _____ expires _____, 19____

Date _____ Name _____ Signed _____
(assembler that certified and constructed field assembly) (representative)

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the state or province of _____ and employed by _____

_____ of _____ have compared the statements in this Manufacturers' Data Report with the described pressure vessel and state that parts referred to as data items _____, not included in the

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 that to the best of my knowledge and belief, the manufacturer has constructed and assembled this pressure vessel in accordance with ASME Code, Section VIII, Division 1. The described vessel was inspected and subjected to a hydrostatic test of _____ psi.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in the Manufacturers' 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) (Natl. Bd. (incl. endorsements) state, prov. and no.)