

FORM U-1 MANUFACTURERS' DATA REPORT FOR PRESSURE VESSELS

SHEET JOB NO.
87-460

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

ITEM NO.
ET1004

- Manufactured and certified by SOUTHERN HEAT EXCHANGER CORPORATION, 400 65TH ST. E. TUSCALOOSA, ALABAMA
(name and address of manufacturer)
 - Manufactured for GREAT LAKES CHEMICAL CORP. ELDORADO, ARKANSAS
(name and address of purchaser)
 - Location of installation GREAT LAKES CHEMICAL CORP. TGS PLANT NEWPORT, TN.
(name and address)
 - Type: HORIZ. HT. EXCH. B7-460 NONE SP-1706 5070 1988
(horiz. or vert., tank) (mfr's. serial no.) (CRN) (drawing no.) (Nat'l. Bd. no.) (year built)
 - 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: 1986
(year)
- A86 — —
(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.

- Shell: SA-106 B .322 .0625" 7.981" 9'-11.750"
(mat'l. (spec. no., grade)) (nom. thickness (in.)) (corr. allow. (in.)) (dia. ID (ft. & in.)) (length (overall) (ft. & in.))
- 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)
- Heads: (a) SA-234 GR WPB (4 1/2" O.D.) (b) —
(mat'l. (spec. no., grade)) (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>IMP. DOME</u>	<u>.337"</u>	<u>.0625"</u>			<u>2:1</u>				<u>CONCAVE</u>
(b)										

If removable, bolts used (describe other fastenings): WELDED TO SHELL.
(mat'l., spec. no., gr., size, no.)

- Type of jacket: NONE Proof test: —
- Jacket closure: NONE If bar, give dimensions: — If bolted, describe or sketch.
(describe as ogee & weld, bar, etc.)
- MAWP 200 at max. temp. 400 Min. temp.: — Hydro., pressure test press.: 300
(psi) (°F) (°F (when less than -20°F)) (psi)

Items 12 and 13 to be completed for tube sections.

- Tubesheets: SA-240-316 L 12.750" 1.3125" 0 WELDED
(stationary mat'l. (spec. no., gr.)) (dia. (in.) (subject to pressure)) (nom. thickness (in.)) (corr. allow. (in.)) (attachment (welded, bolted))
- Tubes: SA-249-316 L .750" 18 44 STRAIGHT
(mat'l. (spec. no., gr.)) (OD (in.)) (nom. thickness (in.)) (no.) (type (straight or U))

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

- Shell: SA-312-316 L .148 0 0'-8.329" 0'-11"
(mat'l. (spec. no., gr.)) (nom. thickness (in.)) (corr. allow. (in.)) (dia. ID (ft. & in.)) (length (overall) (ft. & in.))
- Seams: NO FILLER — 85% — — — — 2
(long. (dbl., singl.)) (RT (spot or full)) (eff. (%)) (HT temp. (°F)) (time) (girth (dbl., singl.)) (RT (spot, partial, or full)) (no. of courses)
- Heads: (a) SA-240-316 L (b) —
(mat'l. (spec. no., grade)) (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>ENDS</u>	<u>1.750"</u>	<u>0</u>						<u>8.750"</u>	<u>FLAT</u>
(b)										

If removable, bolts used (describe other fastenings): SA-193-B7 (16) EA. 5/8"-11.
(mat'l., spec. no., gr., size, no.)

- MAWP 100 at max. temp. 400 Min. temp.: — Hydro., pressure test press.: 150
(psi) (°F) (°F (when less than -20°F)) (psi)

Items on reverse side to be completed for all vessels where applicable.

Note: Each additional sheet shall be signed and dated by the certificate holder and the AI.

This form may be obtained from The National Board of Boiler and Pressure Vessel Inspectors, 1055 Crupper Ave., Columbus, OH 43229. NB-26 Rev. 8

18. Nozzles, inspection and safety valve openings:

19. Supports: Skirt NO Lugs Legs 2 Other Attached SEW, WELDED.
(ves or no) (no.) (no.) (describe) (where and how)

(name of part, item number, mfr's. name and identifying stamp)

"UG-46 (a)"

Signed James H. N.
(representative)

Date 4-30-88 Signed *D M Brooke* Commissions ND 5446 NY 2182
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) state, prov. and no.)

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

Date _____ Signed _____ Commissions _____
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) state, prov. and no.)