

109230

C3525

NO. 1-10-1960

JOB # 82-102

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

1. Manufactured by SOUTHERN HEAT EXCHANGER CORPORATION; TUSCALOOSA, ALABAMA

2. Manufactured for UNION CARBIDE CORP. So. CHARLESTON, W.VA.

3. Location of installation UNION CARBIDE CORP. INSTITUTE, W. VA.

4. Type VESSEL Vessel No. 82-102 NONE SM-1921 3521 Year Built 1958

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 Rules, Section VIII, Division 1, 1950 and Addenda to 3521-12 and Code Case no. NONE

Special service per UG-120(d) NONE
Manufacturers' Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report: NONE

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

6. Shell: Material NONE Nom. Thickness 1/4 in. Corrosion Allowance 1/16 in. Diam. 5 ft. 0 in. Length 6 ft. 4 1/2 in.

7. Seams: Longitudinal NONE R.T. Efficiency 85% H.T. Temp. 0 F Time 0 Girth NONE R.T. No. of Courses 1

8. Heads: (a) Material NONE (b) Material NONE

Table with 10 columns: 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)

If removable, bolts used (describe other fastenings) NONE (Material, Spec. No., Gr., Size, No.)

9. Type of Jacket NONE Proof Test NONE

10. Jacket Closure NONE If bar, give dimensions NONE If bolted, describe or sketch NONE

11. Constructed for max. allowable working pressure 525 psi at max. temp. 525 F Min. temp. (when less than -20 F) NONE Hydrostatic, pneumatic, or other test pressure 110 psi

Items 12 and 13 to be completed for tube sections

12. Tubesheets: Stationary Material NONE Diam. NONE in. Nominal Thick. NONE in. Corrosion Allow. NONE in. Attachment NONE

Floating Material NONE Diam. NONE in. Nominal Thick. NONE in. Corrosion Allow. NONE in. Attachment NONE

13. Tubes: Material NONE O.D. NONE in. Nominal Thickness NONE in. or gauge Number NONE Type NONE

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

14. Shell: Material NONE Nominal Thickness 1/4 in. Corrosion Allowance 1/16 in. Diam. 5 ft. 0 in. Length 6 ft. 4 1/2 in.

15. Seams: Longitudinal NONE R.T. Efficiency 85% H.T. Temp. 0 F Time 0 Girth NONE R.T. No. of courses 1

16. Heads: (a) Material NONE (b) Material NONE

Table with 10 columns: 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)

If removable, bolts used (describe other fastenings) NONE (Material, Spec. No., Gr., Size, No.)

17. Max. allowable working pressure 525 psi at max temp, 525 F. Min. temp NONE F. Hydro test pressure 110 psi

Items below to be completed for all vessels where applicable
18. Safety Valve Outlets: Number NONE Size NONE Location NONE

19. Number 82-102

Item	Quantity	Material	Size	Location	Remarks
VAPOR INLET	1	2 1/2" L.S.	1.5"	TOP	
WATER INLET	2	2 1/2" L.S.	1.5"	TOP	
DRIP INLET	1	2 1/2" L.S.	1.5"	TOP	
MISC.	5	2 1/2" L.S.	1.5"	TOP	

20. Inspection Opening: 18" Manholes No. 1 Size 24" x 1.5" Location TOP

21. Supports: SHIRT (Yes or No) NO Legs No. NO Other NO

22. Remarks: LINE 21: SUPPORT IS A CYLINDRICAL SHIRT WITH TWO 18" BOLLING HORNINGS.

**CERTIFICATE OF COMPLIANCE**

We certify that the statements made in this report are correct and that all details of design, construction, and workmanship of this vessel conform to the ASME Code for Pressure Vessels, Section VIII, Division 1.

Date 1-19-82 Signed SOUTHERN HEAT EXCHANGER by [Signature]

"U" Certificate of Authorization No. 7037 expires PERMANENT

**CERTIFICATE OF SHOP INSPECTION**

Vessel made by SOUTHERN HEAT EXCHANGER at THELSON, ALA

I, the undersigned, holding a valid commission issued by the National Board and Province of COMMERCIAL UNION INSURANCE and employed by THELSON, MA have inspected the pressure vessel described in the Manufacturer's Data Report on 1-19-82, 19 82, and state that, to the best of my knowledge and belief, the vessel conforms to the provisions of the 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 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 the use of the vessel.

Date 1-19-82 Signed [Signature] (Inspector)

**CERTIFICATE OF COMPLIANCE FOR FIELD ASSEMBLY**

We certify that the statements made in this report are correct and that all details of design, construction, and workmanship of this vessel conform to the ASME Code for Pressure Vessels, Section VIII, Division 1.

Date \_\_\_\_\_ Signed \_\_\_\_\_ by \_\_\_\_\_

"U" Certificate of Authorization No. \_\_\_\_\_ expires \_\_\_\_\_

**CERTIFICATE OF FIELD ASSEMBLY INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board and Province of \_\_\_\_\_ and employed by \_\_\_\_\_ have completed the assembly of the vessel described in the Manufacturer's Data Report with the described pressure vessel and state that parts referred to in data items \_\_\_\_\_ of the certificate of shop inspection, have been inspected by me and that, to the best of my knowledge and belief, the vessel conforms to the provisions of the 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 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 the use of the vessel.

Date \_\_\_\_\_ Signed \_\_\_\_\_ (Authorized Inspector)