

# FORM U-1 MANUFACTURERS' DATA REPORT FOR UNFIRED PRESSURE VESSELS

As required by the Provisions of the ASME Code Rules

# 94591

1. Manufactured by Vulcan Manufacturing Company (Name and address of manufacturer) Cincinnati, Ohio 45246

2. Manufactured for Olin Mathieson Chemical Corp. (Name and address of purchaser) New Haven, Connecticut

3. Type Vert. Kind Tank, Jacketed Vessel No. (9963) (Name, Serial) (State & State No) Natl. Bd. No. 1891 Yr. Built 1965

Items 4-9 incl. to be completed for single wall vessels (such as air tanks), jackets of jacketed vessels, or shells of heat exchangers.

4. SHELL: Material Stl. SA-212-B.T.S. 70000 Nominal 3/8 Corrosion 1/16 In. Allowance 2 Ft. 9 In. Length 3 Ft. 2 In.

5. SEAMS: Long Dbl. Butt H.T. No X.R. Spot Sectioned No Efficiency 85 %  
(Welded, Dbl., Single, Lap, Butt) (Yes or No) (Spot or Complete) (Yes or No)

Girth Dbl. Butt H.T. No X.R. Spot Sectioned No No. of Courses 1

6. HEADS: (a) Material T.S. (b) Material T.S.

Location (Top, bottom, ends)	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a) <u>Bottom</u>	<u>3/8"</u>			<u>2:1</u>				<u>Concave</u>
(b)								

If removable, bolts used \_\_\_\_\_ Other fastening \_\_\_\_\_ (Describe or Attach Sketch)

7. STAYBOLTS: \_\_\_\_\_ If hollow \_\_\_\_\_ Attachment \_\_\_\_\_ Pitch \_\_\_\_\_ X \_\_\_\_\_ Diam. \_\_\_\_\_ (Nominal)

8. JACKET CLOSURE: Bar 1-1/4" X 1" (Describe as ogee & weld, bar, etc. If bar give dimensions, if bolted, describe or sketch)

If riveted describe seams fully on reverse side of form

9. Constructed for max. allowable working press. 250 psi. at max. temp. 500 °F. Min. temp. (when less than -20°) \_\_\_\_\_ °F. Hydrostatic Test Press. 375 psi.

Items 10 and 11 to be completed for tube sections.

10. TUBE SHEETS: Stationary. Material \_\_\_\_\_ Diam. \_\_\_\_\_ In. Thickness \_\_\_\_\_ In. Attachment \_\_\_\_\_ (Welded, Bolted)

Floating. Material \_\_\_\_\_ Diam. \_\_\_\_\_ In. Thickness \_\_\_\_\_ In. Attachment \_\_\_\_\_

11. TUBES: Material \_\_\_\_\_ O.D. \_\_\_\_\_ In. Thickness \_\_\_\_\_ Inches or Gage Number \_\_\_\_\_ Type \_\_\_\_\_ (Straight or U)

Items 12-15 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

\* 12. SHELL: Material Steel SA-212-B T.S. 70000 Nominal 1-1/8 Corrosion \_\_\_\_\_ In. Allowance \_\_\_\_\_ In. Diam. 2 Ft. 4 In. Length 6 Ft. 6 In.

13. SEAMS: Long Dbl. Butt H.T. No X.R. Complete Sectioned No Efficiency 100 %  
(Welded, Dbl., Single, Lap, Butt) (Yes or No) (Spot or Complete) (Yes or No)

Girth Dbl. Butt H.T. No X.R. Complete Sectioned No No. of courses 2

14. HEADS: (a) Material Steel SA-212-B T.S. 70000 (b) Material T.S. (c) Material T.S.

Location	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a) Top, bottom, <del>ends</del>	<u>1-1/8"</u>			<u>2:1</u>				<u>Concave</u>
(b) Channel								
(c) Floating								

If removable, bolts used (a) \_\_\_\_\_ (b) \_\_\_\_\_ (c) \_\_\_\_\_ Other fastening \_\_\_\_\_ (Describe or Attach Sketch)

15. Constructed for max. allowable working press. EV & 1000 psi. at max. temp. 500 °F. Min. temp. (when less than -20°) \_\_\_\_\_ °F. Hydrostatic Test Press. 1500 psi.

If riveted describe seams fully on reverse side of form

Items below to be completed for all vessels where applicable.

16. SAFETY VALVE OUTLETS. Number \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_

17. NOZZLES:

Purpose (inlet, Outlet, Drain)	Number	Diam. or Size	Type	Material	Thickness	Reinforcement Material	How Attached
	<u>1</u>	<u>8"</u>	<u>600# ASA</u>	<u>Steel</u>	<u>2.156"</u>		
	<u>3</u>	<u>4"</u>	<u>600# ASA</u>	<u>Steel</u>	<u>1.618"</u>		
	<u>1</u>	<u>3"</u>	<u>600# ASA</u>	<u>Steel</u>	<u>Sch 80</u>	<u>Steel</u>	<u>Welded</u>
	<u>4</u>	<u>2"</u>	<u>600# ASA</u>	<u>Steel</u>	<u>Sch 160</u>		
	<u>5</u>	<u>1-1/2", 1"</u>	<u>Coupling</u>	<u>Steel</u>	<u>3000#</u>		

18. INSPECTION OPENINGS: Manholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
Handholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_

19. SUPPORTS: Skirt NO Lugs 4 Location \_\_\_\_\_ Attached Weld to Jacket (Where & How)

20. REMARKS This item is a jacketed tank.

18 Sq. Ft. 768 D-25152

(Brief description of purpose of the vessel, as Air Tank, After Cooler, Jacketed Cooker, etc. State contents of each part. (Over)  
Last other internal or external pressures with coincident temperature when applicable.)



\* 1/8" nickel 200 clad on shell and head.

We certify that the statements made in this report are correct and that all details of design, material, construction, and workmanship of this unfired pressure vessel conform to the ASME Code for Unfired Pressure Vessels.

Date 8-18 19 65 Signed Vulcan Manufacturing Company  
(Manufacturer)

By J. C. Haban  
J. C. Haban

Certificate of Authorization Expires 12-31-67

### CERTIFICATE OF SHOP INSPECTION

VESSEL MADE BY Vulcan Manufacturing Company at Cincinnati, Ohio

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of \_\_\_\_\_ and employed by Hartford Steam Boiler Inspection & Insurance Co. of Hartford, Connecticut

have inspected the pressure vessel described in this manufacturer's data report on 8/24 1965, and state that to the best of my knowledge and belief, the manufacturer has constructed this pressure vessel in accordance with the applicable sections of the ASME Boiler and Pressure Vessel Code.

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

19

A. M. H. Lister  
Inspector's Signature

Commissions

NB 5670 Ohio 1602

Nat'l Board or State and No.

### 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 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 that to the best of my knowledge and belief the manufacturer has constructed and assembled this pressure vessel in accordance with the applicable sections of the ASME Boiler and Pressure Vessel Code. 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 this inspection.

Date

19

\_\_\_\_\_  
Inspector's Signature

Commissions

Nat'l Board or State and No.