

#101031

1. Manufactured by **Artisan Industries Inc., Waltham, Mass.**
(Name and address of Manufacturer)
2. Manufactured for **U.S. Steel Chemicals, Neville Island, Pittsburgh, Penna.**
(Name and address of Purchaser)
3. **Vert.** Kind **Tank** Vessel No. **46417** (Mfrs. Serial) (State & State No.) Natl. Bd. No. **976** Yr. Built **1970**

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 **SA240TP304** T.S. **75,000** Nominal Thickness **1/4** Corrosion Allowance **0** In. Diam. **3** Ft. In. Length **9** Ft. In.

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

6. HEADS (a) Material **SA240TP304** T.S. **75,000** (b) Material **SA240TP304** T.S. **75,000**
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Pressure
(a) Top **1/4"** **40"** **2-5/8"** **20°** **Concave**
(b) Bottom **1/4"**

7. STAYBOLTS: (Material) If hollow (Size of Hole) Attachment (Threaded, Welded) Pitch (Horiz.) X (Vert.) Diam. (Nominal)

8. JACKET CLOSURE: (Describe as gage & weld, bar, etc. If bar, give dimensions, if bolted, describe or sketch)

9. Constructed for max. allowable working pressure **30** psi at max. temp. **450°** F. less than **-20°** F. Hydrostatic Test **58** psi

Items 10 and 11 to be completed for tube sections.

10. TUBE SHEETS: Stationary. Material (Kind & Spec. No.) Diam. (Subject to Pressure) In. Thickness In. Attachment (Welded, Bolted)

Floating. Material (Kind & Spec. No.) Diam. In. Thickness In. Attachment

11. TUBES: Material (Kind & Spec. No.) O.D. In. Thickness In. 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 **SA240TP304** T.S. **75,000** Nominal Thickness **1/4** Corrosion Allowance **0** In. Diam. **2** Ft. In. Length **52** Ft. In.

13. SEAMS: Long **DBL Butt Weld** H.T. **No** R.T. **Spot** Sectioned **No** Efficiency **85** %
(Welded, DBL, Single, Lap, Butt) (Yes or No) (Spot or Complete) (Yes or No)

14. HEADS (a) Material **SA240TP304** T.S. **75,000** (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
(a) Top, bottom, ends **5/16"** **30"** **APPROVED FOR LAYOUT ONLY** **Concave**
(b) Channel **CATALYTIC CONTAINER FOR LAYOUT ONLY**
(c) Floating **CATALYTIC CONTAINER FOR LAYOUT ONLY**

15. Constructed for max. allowable working pressure **30** psi at max. temp. **450°** F. less than **-20°** F. Hydrostatic Test **58** psi

Items below to be completed for all vessels where applicable.

16. SAFETY VALVE OUTLETS: Number **6** Size **6"** Location **Top Head**

17. NOZZLES

Purpose (Inlet, Outlet, Drain)	Number	Diam. or Size	Type	Material	Thickness	Reinforcement Material	How Attached
Vapor Outlet	1	16" IPS	Flg'd	SA240/SA181 150#	SA285	Welded	
Head Inlet	1	6" IPS	Flg'd	SA240/SA181 150#	SA285	Welded	
Outlet	1	4" IPS	Flg'd	SA312/SA181 150#	None	Welded	
Disc	2	2" IPS	N.N. Flg	SA312/SA182 150#	None	Welded	
Disc	8	1-1/2" IPS	N.N. Flg	SA312/SA182 150#	None	Welded	
Disc	4	1" IPS	N.N. Flg	SA312/SA182 150#	None	Welded	
Inlet	1	1" IPS	Coup.	SA276	150#	None	Welded

1" outside heat-treated.

2" outside heat-treated.

FORM U-1 (back)

13. INSPECTION Manholes, No. 1 Size 16" IPS Location Vapor Section
 ENINGS: Handholes, No. _____ Size _____ Location _____
 Threaded, No. _____ Size _____ Location _____ Shell
 19. SUPPORTS: Skirt Yes Lugs _____ Legs _____ Other _____ Attached Welded
 (Yes or No) (Number) (Number) (Describe) (Where & How)

20. REMARKS: Vessel is an evaporator/Stripper with vapor section described
lines 4-9 & Shell Sections welded in line below vapor section described
on lines 12-15

(Brief description of purpose of the vessel, as Air Tank, After Cooler, Jacketed Cooker, etc. State contents of each part.)

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 I.

Date 22 June 19 70 Signed Artisan Industries Inc. By R. Wolah
 (Manufacturer)

Certificate of Authorization Expires 31 December 1970

CERTIFICATE OF SHOP INSPECTION

VESSEL MADE BY Artisan Industries Inc. at Waltham, Mass.

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province Penna. and employed by *Mutual Boiler & Mach'y Insur. Co. of Waltham, Mass. have inspected the pressure vessel described in this manufacturer's data report on 22 June 19 70, 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 22 June 19 70

Richard E. Hardy
 Inspector's Signature

Commissions N.B. 5119 Penna. 1406
 Nat'l Board, State, or Province and No.

*Factory Mutual Group of Insur. Co's.

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 _____ 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, State, or Province and No.