

FORM U. MANUFACTURERS' DATA REPORT FOR PRESSURE VESSELS

As required by the Provisions of the ASME Code Rules, Section VIII, Division I

V.P.F.#
43933

1. Manufactured by Joseph Out & Sons, Inc. Camden, New Jersey
(Name and address of Manufacturer)

2. Manufactured for Hercules, Inc. Wilmington, North Carolina 104296
(Name and address of Purchaser)

3. Type Vert. Kind Heat Exch. Vessel No. (2158-1) (Mfrs. Serial) (State & State No.)
(Horiz. or Vert.) (Tank, Jacketed, Heat Exch.)

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 SA285GR T.S. 55000 Nominal Thickness 3/8 In. Corrosion Allowance 1/16 In. Diam. 3 Ft. 1-3/4 In. Length 16 Ft. 0 In.
(Kind and Spec. No.) (Fig. or F.B. & Spec. Min. T.S.)

5. SEAMS: Long DBW H.T. No R.T. Spot Sectioned No Efficiency 85 %
(Welded, Dbl., Single, Lap, Butt) (Yes or No)¹ (Spot or Complete) (Yes or No)

Girth DBW H.T. No R.T. Spot Sectioned No No. of Courses 2

6. HEADS (a) Material SA285GR T.S. 55000 (b) Material SA285GR T.S. 55000
(Top, bottom, ends) Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Pressure (Convex or Concave)

(a) SA285GR Thickness 3/8 Crown Radius 2 Knuckle Radius 2 Elliptical Ratio 1.0 Conical Apex Angle 0 Hemispherical Radius 0 Flat Diameter 0 Side to Pressure 0

(b) SA285GR Thickness 3/8 Crown Radius 2 Knuckle Radius 2 Elliptical Ratio 1.0 Conical Apex Angle 0 Hemispherical Radius 0 Flat Diameter 0 Side to Pressure 0

If removable, bolts used SA285GR Other fastening SA285GR
(Material, Spec. No., T.S., Size, Number) (Describe or Attach Sketch)

7. STAYBOLTS: SA285GR If hollow SA285GR Attachment SA285GR Pitch SA285GR X SA285GR Diam. SA285GR
(Material) (Size of Hole) (Threaded, Welded) (Horiz.) (Vert.) (Nominal)

8. JACKET CLOSURE: SA285GR
(Describe as ogee & weld, bar, etc. If bar, give dimensions, if bolted, describe or sketch)

9. Constructed for max. allowable working press² 75 psi at max. temp. 350 °F. Min. Temp. (when less than -20°) 0 °F. Hydrostatic Test Press 113 psi.

Items 10 and 11 to be completed for tube sections.

10. TUBE SHEETS: Stationary. Material SA240T316L Diam. 37-3/4 In. Thickness 1-1/2 In. Attachment Welded
(Kind & Spec. No.) (Subject to Pressure) (Welded, Bolted)

Floating. Material SA240T316L Diam. 37-3/4 In. Thickness 1-1/2 In. Attachment Welded
(Kind & Spec. No.) (Subject to Pressure) (Welded, Bolted)

11. TUBES: Material SA240T316L O.D. 1 In. Thickness 14 Gauge Number 737 Type Straight
(Kind & Spec. No.) (Straight or U)

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

12. SHELL Material SA240T316L T.S. 75000 Nominal Thickness 1/4 In. Corrosion Allowance 0 In. Diam. 3 Ft. 1-3/4 In. Length 3 Ft. 2 In.
(Kind and Spec. No.) (Fig. or F.B. & Spec. Min. T.S.)

13. SEAMS: Long DBW H.T. No R.T. Spot Sectioned No Efficiency 85 %
(Welded, Dbl., Single, Lap, Butt) (Yes or No)¹ (Spot or Complete) (Yes or No)

Girth Single H.T. No R.T. None Sectioned No No. of courses 2

14. HEADS (a) Material SA240T316L T.S. 75000 (b) Material SA240T316L T.S. 75000 (c) Material SA240T316L T.S. 75000
(Top, bottom, ends) Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Pressure (Convex or Concave)

(a) SA240T316L Thickness 1/4 Crown Radius 2 Knuckle Radius 2 Elliptical Ratio 1.0 Conical Apex Angle 0 Hemispherical Radius 0 Flat Diameter 0 Side to Pressure 0

(b) SA240T316L Thickness 1/4 Crown Radius 2 Knuckle Radius 2 Elliptical Ratio 1.0 Conical Apex Angle 0 Hemispherical Radius 0 Flat Diameter 0 Side to Pressure 0

(c) SA240T316L Thickness 1/4 Crown Radius 2 Knuckle Radius 2 Elliptical Ratio 1.0 Conical Apex Angle 0 Hemispherical Radius 0 Flat Diameter 0 Side to Pressure 0

If removable, bolts used (a) SA240T316L (b) SA240T316L
(Material, Spec. No., T.S., Size, Number) (Describe or Attach Sketch)

(c) SA240T316L Other fastening SA240T316L
(Material, Spec. No., T.S., Size, Number) (Describe or Attach Sketch)

15. Constructed for max. allowable working press² 75 psi at max. temp. 350 °F. Min. temp. (when less than -20°) 0 °F. Hydrostatic Test Press 116 psi.

Items below to be completed for all vessels where applicable.

16. SAFETY VALVE OUTLETS: Number SA240T316L Size SA240T316L Location In Piping

17. NOZZLES

Purpose (Inlet, Outlet, Drain)	Number	Diam. or Size	Type	Material	Thickness	Reinforcement	How Attached
<u>A</u>	<u>1</u>	<u>10"</u>	<u>SCH 40</u>	<u>SA240T316L</u>	<u>1/4</u>	<u>None</u>	<u>Welded</u>
<u>B</u>	<u>1</u>	<u>12" x 18"</u>	<u>Reducer</u>	<u>SA312T316L</u>	<u>SCH 40</u>	<u>None</u>	<u>Welded</u>
<u>C</u>	<u>1</u>	<u>4"</u>	<u>Pipe</u>	<u>SA106GRB</u>	<u>SCH. 40</u>	<u>None</u>	<u>Welded</u>
<u>D</u>	<u>1</u>	<u>4"</u>	<u>Pipe</u>	<u>SA53GRB</u>	<u>SCH 40</u>	<u>None</u>	<u>Welded</u>

¹ If postweld heat-treated.

² List under remarks other internal or external pressures with coincident temperature when applicable.

FORM U-1 (back)

18. INSPECTION Manholes, No. _____ Size _____ Location _____
 OPENINGS: Handholes, No. _____ Size _____ Location _____
 Threaded, No. 2 - 2 Size 3/4" - 1" Location Shell and Cover Sh

19. SUPPORTS: Skirt No (Yes or No) Lugs 4 (Number) Legs _____ (Number) Other _____ (Describe) Attached Vol (Where)

20. REMARKS: Vessel is a Waste Water Still Reboiler constructed to Dat Dwg. 5335
and the 1971 ASME Code Section VIII.

Equipment No. E-6110-2

(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 workman of this vessel conform to the ASME Code for Pressure Vessels, Section VIII, Division 1.

Date 5/21 19 73 Signed Joseph Dat & Sons, Inc. By Joseph Dat & Sons, Inc.
 (Manufacturer)

Certificate of Authorization No. 184 Expires 12/31/73

CERTIFICATE OF SHOP INSPECTION

VESSEL MADE BY Joseph Dat & Sons, Inc. at Camden, New Jersey

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province N. J. and employed by Royal Indemnity Company of New York, New York

_____ have inspected the pressure vessel described in this manufacturer's data report on 1973, 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 5/23 19 73

Inspector's Signature

Commissions N. B. 6900
 Nat'l Board, State, Province 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 or Province _____ and employed by _____

_____ 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, Province and No.