

#104380

FORM U-1 MANUFACTURERS' DATA REPORT FOR PRESSURE VESSELS

As required by the Provisions of the ASME Code Rules, Section VIII, Division 1

10-2-79

1. Manufactured by Atlas Industrial Manufacturing Company, 81 Somerset Pl., Clifton, N. J.
(Name and address of Manufacturer)

2. Manufactured for Hercules, Inc., Wilmington, Delaware 19899
(Name and address of Purchaser)

3. Type Vert. Kind Ht. Exch. Vessel No. 2441 (Mfrs. Serial) (State & State No.)
(Horiz. or Vert.) (Tank, Jacketed, Heat Exch.)
Natl. Bd. No. 1827 Yr. Built 1973

Items 4-9 incl. to be completed for single wall vessels (except air tanks) and for shells of heat exchangers.

4. SHELL: Material CS-SA285C T.S. 55,000 Nonflange Corrosion Thickness 5/16 In. Allowance 1/16 In. Diam. 2 Ft. 4 In. Length 1 Ft. 11 In.
(Kind and Spec. No.) (Fig. or F.B. & Spec. Min. T.S.)

5. SEAMS: Long Dbl. Butt H.T. No R.T. No Sectioned No Efficiency 70 %
(Welded, Dbl., Single, Lap, Butt) (Yes or No) (Spot or Complete) (Yes or No)

If riveted describe seams fully on reverse side of form.

Girth Dbl. Butt H.T. No R.T. No Sectioned No No. of Courses 4
(Welded, Dbl., Single, Lap, Butt) (Yes or No) (Spot or Complete) (Yes or No)

6. HEADS (a) Material CS-SA285C T.S. 55,000 (b) Material CS-SA285C T.S. 55,000
(Top, bottom, ends) Thickness 5/16 In. Crown Radius Flanged & Flued Head Conical Apex Angle None Hemispherical Radius None Flat Diameter None Side to Pressure (Convex or Concave) Concave

Exp. Jt. (a) Center

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

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

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

9. Constructed for max. allowable working press. 100 psi at max. temp. 250 °F. Min. Temp. (when less than -20°) None °F. Test Press 150 psi.
(Hydrostatic, Pneumatic, or Combination)

Items 10 and 11 to be completed for tube sections.

10. TUBE SHEETS: Stationary, Material T304-SA240 Diam. 27 3/8 In. Thickness 1 1/8 In. Attachment Welded
(Kind & Spec. No.) (Subject to Pressure) (Welded, Bolted)

Floating, Material T304-SA240 Diam. 27 3/8 In. Thickness 1 1/8 In. Attachment Welded
(Kind & Spec. No.) (Subject to Pressure) (Welded, Bolted)

11. TUBES: Material T304-SA240 Diam. 3/4 In. Thickness 18 Gauge Number 595 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 T304-SA240 T.S. 75,000 Nonflange Corrosion Thickness 3/16 In. Allowance 0 In. Diam. 2 Ft. 4 In. Length 1 Ft. 7 In.
(Kind and Spec. No.) (Fig. or F.B. & Spec. Min. T.S.)

13. SEAMS: Long Dbl. Butt H.T. No R.T. No Sectioned No Efficiency 70 %
(Welded, Dbl., Single, Lap, Butt) (Yes or No) (Spot or Complete) (Yes or No)

If riveted describe seams fully on reverse side of form.

Girth Single Groove H.T. No R.T. No Sectioned No No. of courses 1
(Welded, Dbl., Single, Lap, Butt) (Yes or No) (Spot or Complete) (Yes or No)

14. HEADS (a) Material CS-SA285C T.S. 55,000 (b) Material CS-SA285C T.S. 55,000 (c) Material CS-SA285C T.S. 55,000
(Top, bottom, ends) Thickness 5/16 In. Crown Radius Flanged & Flued Head Conical Apex Angle None Hemispherical Radius None Flat Diameter None Side to Pressure (Convex or Concave) Concave

(a) Top, bottom, ends 1 5/8 (with 1/8" thick SS-304 Facing) 33"

(b) Channel 1 5/8 (with 1/8" thick SS-304 Facing) 33"

(c) Floating 1 5/8 (with 1/8" thick SS-304 Facing) 33"

If removable, bolts used (a) AS, SA-193-B7, 175,000, 3/4", 28

(c) AS, SA-193-B7, 175,000, 3/4", 28 Other fastening (Describe or Attach Sketch)

15. Constructed for max. allowable working press. 75 psi at max. temp. 250 °F. Min. temp. (when less than -20°) None °F. Test Press 113 psi.
(Hydrostatic, Pneumatic, or Combination)

Items below to be completed for all vessels where applicable.

16. SAFETY VALVE OUTLETS: Number 1 Size 1/2 Location Top

17. NOZZLES

Purpose (Inlet, Outlet, Drain)	Number	Diam. or Size	Type	Material	Thickness	Reinforcement Material	How Attached
Inlet	1	8"	150# L.J.	SA-312	1/4"		Welded
Outlet	1	6"	150# L.J.	SA-312	1/4"		Welded
Drain	1	3"	150# L.J.	SA-312	1/4"		Welded
Vent	1	3/4"	H ₂ C	SA-182	3000#		Welded
Inlet & Outlet	2	4"	150# RFSO	SA-53B	237"		Welded
Vent	1	3/4"	H ₂ C	SA-181-1	3000#		Welded
Drain	1	1"	H ₂ C	SA-181-1	3000#		Welded

¹ If postweld heat-treated.

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

(Over)

FORM U-1 (back)

18. INSPECTION Manholes, No. _____ Size _____ Location _____
 OPENINGS: Handholes, No. _____ Size _____ Location _____
 Threaded, No. _____ Size _____ Location _____
 19. SUPPORTS: Skirt No Lugs 2 Legs _____ Other _____ Attached Shell, Welded
 (Yes or No) (Number) (Number) (Describe) (Where & How)
 20. REMARKS: 28-144 DMT Scrubber Vent Condenser with 1400 square feet surface TEMA
Type CEN, for installation in the State of North Carolina,
Hercules, Inc., PO No. 026-57018 Item No. E-6515-2
Atlas Job No. 2479

(Brief description of purpose of the vessel, as Air Tank, After Cooler, Jacketed Cooler, 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 1.

Date Jan. 23 1973 Signed Atlas Industrial Mfg. Co. By Frank H. Krueger
 (Manufacturer)

Certificate of Authorization No. 5027 Expires 12-31-74

CERTIFICATE OF SHOP INSPECTION

VESEL MADE BY Atlas Industrial Mfg. Co. at 81 Somerset Pl., Clifton, N. J.

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. Y. and employed by Employers Comm. Union Ins. Co. of Boston, Mass. have inspected the pressure vessel described in this manufacturer's data report on Jan. 23 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 Jan. 23 1973

Robert Miller
 Inspector's Signature

Commissions NB#5970
 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 _____ 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, Province and No.