

104512

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

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

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

3. Type Horiz. Kind Heat Exch. Vessel No. (2127-5) (Hrs. Serial) (State & State No.) Natl. Bd. No. 617 Yr. Built 1973
(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 SA53GRB T.S. 55000 Nominal Thickness 3/8 Corrosion 1/16 In. Allowance 1 In. Diam. 10 In. Length 20 Ft. 0 In.
(Kind and Spec. No.) (Fig. or P.D. & Spec. Min. T.S.)

5. SEAMS: Long SMLS H.T. No R.T. None Sectioned No Efficiency 85 %
(Welded, Jbl., Single, Lap, Butt) (Yes or No) (Spot or Complete) (Yes or No)

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

If riveted describe seams fully on reverse side of form.

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

(a)

(b)

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

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

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. 50 psi at max. temp. 300 Min. temp. (when Hydrostatic Test Press. 75 psi.
less than -20°) Combination

Items 10 and 11 to be completed for tube sections.

10. TUBE SHEETS: Stationary. Material SA240 T304 Diam. 22 In. Thickness 1 In. Attachment Welded
(Kind & Spec. No.) (Subject to Pressure) (Welded, Bolted)

Floating. Material SA249 Diam. 16 In. Thickness 1 In. Attachment Welded
(Kind & Spec. No.)

11. TUBES: Material T304 O.D. 3/4 In. Thickness 16 In. Gauge Number 300 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 SA240T304 T.S. 75000 Nominal Thickness 3/16 Corrosion 0 In. Allowance 0 In. Diam. 1 Ft. 10 In. Length 1 Ft. 5-7/8 In.
(Kind and Spec. No.) (Fig. or P.D. & Spec. Min. T.S.)

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

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

If riveted describe seams fully on reverse side of form

14. HEADS (a) Material SA285GR T.S. 55000 (b) Material Same T.S. (c) Material Same T.S.

(a) Location Top, bottom, ends Thickness 1-7/16 Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Pressure
(Convex or Concave)

(b) Channel

(c) Floating

If removable, bolts used (a) SA193 B-7 24 3/4" 10UNC (b) SA193 B-7 24 3/4" 10UNC
(Material, Spec. No., T.S., Size, Number)

(c) Other fastening (Describe or Attach Sketch)

15. Constructed for max. allowable working press. 120 psi at max. temp. 250 Min. temp. (when Hydrostatic Test Press. 197 psi.
less than -20°) Combination

Items below to be completed for all vessels when applicable.

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

17. NOZZLES

Purpose (Inlet, Outlet, Drain)	Number	Diam. or Size	Type	Material	Thickness	Reinforcement Material	How Attached
A	1	6"	Pipe	SA312T304	SCH 40	None	Welded
B	1	4"	"	"	"	"	"
C	1	12"	"	SA53GRB	"	"	"
D	1	3"	"	SA106GRB	"	"	"

FORM U-1 (back)

18. INSPECTION Manholes, No. _____ Size _____ Location _____
 OPENINGS: Handholes, No. _____ Size 2-1/2" Location Top
 Threaded, No. 5-4-2 Size 1 3/4" 1/2" Location Stm. Jkt. Exp. Jt. Nozzle C
 19. SUPPORTS: Skirt No Lugs 2 Legs _____ Other _____ Attached Shell Welded
 (Yes or No) (Number) (Where & How)
 20. REMARKS: Vessel is a M/L Preheater constructed to Oat Dwg. 5260-1, 5211-3 and the
1971 ASME Code Section VIII. End covers have steam jackets hydrotested to 248 psig.
Equipment No. E-6504-02

(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 February 26, 1973 Signed Joseph Oat & Sons, Inc. By Joseph Oat
 (Manufacturer)

Certificate of Authorization Expires #184 12/31/73

CERTIFICATE OF SHOP INSPECTION	
VESEL MADE BY	<u>Joseph Oat & Sons, Inc.</u> at <u>Camden, New Jersey</u>
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province <u>N. J.</u> and employed by <u>Royal Indemnity</u> of <u>New York, New York</u> have inspected the pressure vessel described in this manufacturer's data report on <u>1973</u> , 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 <u>3/1</u> 19 <u>73</u>	Inspector's Signature <u>[Signature]</u> Commission <u>6988</u>
Nat'l Board, State, or Province and No. <u>6988</u>	

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 _____ Commission _____
Nat'l Board, State, or Province and No. _____	