

# 104040

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

As required by the Provisions of the ASME Code Rules, Section VIII, Division I E-206-10R

1. Manufactured by Camden Alloy Fabricators Camden, New Jersey  
(Name and address of Manufacturer)

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

3. Type Vert Kind Heat Exch Vessel No. 74-6222 (Mfrs. Serial) (State & State No.) 1032 Yr. Built 1974  
(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 SA 285C C/S T.S. 55000 Nominal Thickness 3/8 Corrosion Allowance 1/16 In. Diam. 29 In. Length 118 1/2 Ft. In.  
(Kind and Spec. No.) (Fig. or F.B. & Spec. Min. T.S.)

5. SEAMS: Long Dbt Butt H.T. No R.T. Spot Sectioned No Efficiency 85 %  
(Welded, Dbt, Single, Lap, Butt) (Yes or No) (Spot or Complete) (Yes or No)  
\* Girth Dbt Butt H.T. No R.T. Spot Sectioned No No. of Courses 5  
(Welded, Dbt, Single, Lap, Butt) (Yes or No) (Spot or Complete) (Yes or No)

6. HEADS (a) Material SA 285C C/S T.S. 55000 (b) Material SA 285C C/S T.S. 55000  
(Top, bottom, ends) Thickness 3/8 Crown Radius 0 Knuckle Radius 0 Elliptical Ratio 0 Conical Apex Angle 0 Hemispherical Radius 0 Flat Diameter 0 Side to Pressure (Convex or Concave)  
(a) 0 (b) 0

If removable, bolts used 0 (Material, Spec. No., T.S., Size, Number) Other fastening 0 (Describe or Attach Sketch)

7. STAYBOLTS: 0 If hollow 0 Attachment 0 Pitch 0 X 0 Diam. 0  
(Material) (Size of Hole) (Threaded, Welded) (Horiz.) (Vert.) (Nominal)

8. JACKET CLOSURE: 0  
(Describe as ogee & weld, bar, etc. If bar, give dimensions, if bolted, describe or sketch)

9. Constructed for max. allowable working press. 150 psi at max. temp. 375 F. Min. Temp. (when less than -20°) 0 F. Hydrostatic 0 Pneumatic 0 Combination 0 Test Press 225 psi.

Items 10 and 11 to be completed for tube sections.

10. TUBE SHEETS: Stationary. Material SA 240 tp 316 Diam. 33 In. Thickness 1 3/4 Attachment Welded  
(Kind & Spec. No.) (Subject to Pressure) (Welded, Bolted)  
Both fixed Floating. Material SA 240 tp 316 Diam. 33 In. Thickness 1 3/4 Attachment Welded  
(Kind & Spec. No.)

11. TUBES: Material SA 240 tp 316 D. 3 1/4 In. Thickness 16 Inches or Gage Number 972 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 SA 240 tp 316 T.S. 75000 Nominal Thickness 5/16 Corrosion Allowance 0 In. Diam. 29 In. Length 2 5/8 Ft. In.  
(Kind and Spec. No.) (Fig. or F.B. & Spec. Min. T.S.)

13. SEAMS: Long Dbt Butt H.T. No R.T. Spot Sectioned No Efficiency 85 %  
(Welded, Dbt, Single, Lap, Butt) (Yes or No) (Spot or Complete) (Yes or No)  
Girth UA 48 (1a) H.T. No R.T. Spot Sectioned No No. of courses 1 ea. end  
(Welded, Dbt, Single, Lap, Butt) (Yes or No) (Spot or Complete) (Yes or No)

14. HEADS (a) Material SA 515 C/S T.S. 70000 (b) Material SA 515 C/S T.S. 70000 (c) Material SA 515 C/S T.S. 70000  
(Top, bottom, ends) Thickness 1 7/8 Crown Radius 0 Knuckle Radius 0 Elliptical Ratio 0 Conical Apex Angle 0 Hemispherical Radius 0 Flat Diameter 37 1/2 Side to Pressure (Convex or Concave)  
(a) 0 (b) 0 (c) 0

If removable, bolts used (a) A1 St. SA 193B7, 125000, 3/4, 80 (b) 0  
(Material, Spec. No., T.S., Size, Number)

(c) 0 Other fastening 0 (Describe or Attach Sketch)

15. Constructed for max. allowable working press. 150 psi at max. temp. 375 F. Min. temp. (when less than -20°) 0 F. Hydrostatic 0 Pneumatic 0 Combination 0 Test Press 225 psi.

Items below to be completed for all vessels where applicable.

16. SAFETY VALVE OUTLETS: Number 0 Size 0 Location Elsewhere in System

17. NOZZLES

Purpose (Inlet, Outlet, Drain)	Number	Diam. or Size	Type	Material	Thickness	Reinforcement Material	How Attached
Inlet	1	18"	L.J.	SA 240 tp 316	3/16"	None	Welded
Outlet	1	10"	L.J.	SA 240 tp 316	3/16"	None	Welded
Drain	1	2"	L.J.	SA 312 tp 316	Sch. 40	None	Welded
Vent	1	1"	S.O.	SA 312 tp 316	Sch. 40	None	Welded
Inlet	1	8"	S.O.	SA 53B C/S	Sch. 40	None	Welded
Outlet	1	4"	S.O.	SA 53B C/S	Sch. 80	None	Welded
Inlet, Vent	2	1"	Coup.	Fg. St.	3000#	None	Welded

<sup>1</sup> If postweld heat-treated.<sup>2</sup> 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. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
 19. SUPPORTS: Skirt \_\_\_\_\_ Lugs \_\_\_\_\_ Legs \_\_\_\_\_ Other \_\_\_\_\_ Attached \_\_\_\_\_  
 (Yes or No) (Number) (Number) (Describe) (Where & How)

20. REMARKS (List applicable special services in accordance with UG-120(d): This vessel is a 1 pass  
2300 sq.ft. reboiler, this vessel is not designed for lethal service  
Overall length 16'1 3/16". Contents Unknown  
 \* 3 Courses of shell are 2 flanged and flued heads, with a 11 1/4"  
long section of shell welded between them. Material SA 285-C C/S  
3/8" tk x 43" O.D.

(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 1.

Date Oct 18 19 74 Signed Camden Alloy Fabricators By Frank E. Hoffman  
 (Manufacturer)

Certificate of Authorization No. 399 Expires 3-30-1978

## CERTIFICATE OF SHOP INSPECTION

VESSEL MADE BY Camden Alloy Fabricators 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 Pa. and employed by Mutual Boiler & Machinery Ins. Co./FM of Waltham, Mass. have inspected the pressure vessel described in this manufacturer's data report on 10-21 19 74, 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 10-21 19 74

Richard A. Ell  
 Inspector's Signature

Commissions NS 6807

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.