

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 MISSOURI BOILER AND TANK COMPANY (DIV. OF NOOTER CORP.) ST. LOUIS, MISSOURI
(Name and address of Manufacturer)

2. Manufactured for HERCULES INCORPORATED WILMINGTON, NORTH CAROLINA
(Name and address of Purchaser)

3. Type VERT. Kind HT. EXCH. Vessel No. (P-5045) (Natl. Bd. No. 4192 Yr. Built 1977)
(Horiz. or Vert.) (Tank, Jacketed, Heat Exch.) (Mfrs. Serial) (State & State No.)

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-285-C T.S. 55,000 Nominal Thickness 7/16 Corrosion Allowance 1/16 Diam. 3 Ft. 116 21 Length 15 1 1/2 Ft. 7 1/2
(Kind and Spec. No.) (Fig. or F.B. & Spec. Min. T.S.)

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

Girth DBL. BUTT H.T. NO R.T. SPOT Sectioned NO No. of Courses 3

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

(a) _____
(b) _____

If removable, bolts used _____ Other fastening _____
(Material, Spec. No., T.S., Size, Number) (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. 75 psi at max. temp. 350 °F. Min. temp. (when less than -20°) _____
Hydrostatic Test Press 113 psi

Items 10 and 11 to be completed for tube sections.

10. TUBE SHEETS: Stationary. Material C-276 Diam. 1 1/2 In. Thickness 1 5/16 Attachment WELDED
(Kind & Spec. No.) (Subject to Pressure) (Welded, Bolted)

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

11. TUBES: Material SA-268-XM27 O.D. 1 In. Thickness 44 B.W.G. Inches or Gage Number 917 Type STR.
(Kind & Spec. No.) (Straight & U)

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

12. SHELL Material SA-240-316L T.S. 70,000 Nominal Thickness 3/8 Corrosion Allowance 1/4 In. Diam. 3 Ft. 5 5/8 Length 3 Ft. 11 In.
(Kind and Spec. No.) (Fig. or F.B. & Spec. Min. T.S.)

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

Girth SMISS. H.T. - R.T. - Sectioned - No. of courses 2

14. HEADS (a) Material T.S. (b) Material T.S. 70,000 (c) Material T.S.
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Pressure
(Top, bottom, ends) (Convex or Concave)

(a) Top, bottom, ends 1.625" - - - - - 48 1/2" FLAT

(b) Channel 1.625" - - - - - 48 1/2" FLAT

(c) Floating _____

If removable, bolts used (a) _____ (b) SA-193-B7 75,000 7/8", 36
(Material, Spec. No., T.S., Size, Number)

*SA-515-70W/316L (c) _____ Other fastening _____
(Describe or Attach Sketch)

15. Constructed for max. allowable working press. 75 psi at max. temp. 350 °F. Min. temp. (when less than -20°) _____
Hydrostatic Test Press 113 psi

Items below to be completed for all vessels where applicable.

16. SAFETY VALVE OUTLETS: Number _____ Size _____ Location _____

17. NOZZLES

Purpose (Inlet, Outlet, Drain)	Number	Diam. or Size	Type	Material	Thickness	Reinforcement Material	How Attached
IN AND OUT	1	28"	L.J.	SA-240-316L	3/8"	SA-240-316L	WELDED
do	1	4 1/2"	L.J.	do	3/8"	do	do
do	1	3"	L.J.	SA-312-316L	SCH. 160S	-	do
do	1	14"	S.O.	SA-106-B	STD. WT.	-	do
do	1	3"	S.O.	do	do	-	do
do	1	3/4"	CPIC	316L	.625"	-	do
do	1	3/4"	do	F.S.	3,000#	-	do
do	1	1"	do	F.S.	do	-	do

* If postweld heat-treated

* 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 NO _____ Lugs 4 _____ Legs 2 _____ Other _____ Attached WELDED TO _____
 (Yes or No) (Number) (Number) (Describe) (Where & How)

20. REMARKS: THERMAL OXIDIZER VAPORIZER
P.O.# 336-026 113001
ITEM# E-6920-10

(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 8-16 19 27 Signed MISSOURI BOILER AND TANK COMPANY
(Manufacturer)

Certificate of Authorization Expires ~~2-28-80~~ 2-28-80

CERTIFICATE OF SHOP INSPECTION

VESSEL MADE BY MISSOURI BOILER AND TANK CO. at ST. LOUIS, MISSOURI

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.B. and employed by COMMERCIAL UNION INSURANCE COMPANY of ST. LOUIS, MISSOURI have inspected the pressure vessel described in this manufacturer's data report on 8-16- 1927, 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 8-16- 19 77

SA Russo
Inspector's Signature

Commissions NB-3259
Nat'l Board, State, or 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.

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Age Group	Percentage
18-29	85
30-49	80
50-69	75
70+	70

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