1220

N.B.

FORM U-1 MANUFACTURERS' DATA REPORT FOR UNFIRED PRESSURE VESSELS
As required by the Provisions of the ASME Code Rules

1. Manufactured by Process Engineering Inc., Methuen, Mass.
(Name and address of Manufacturer)

2. Manufactured for American Cryogenic Inc. 1819 Peachtree Lane, Atlanta, Ga.
(Name and address of Purchaser)

3. Type Vert. (Horiz. or Vert.) Kind Jkt. Tank (Tank, Jacketed, Heat Exch.) Vessel No. (Mfrs. Serial) P-02566 (State & State No.) Natl. Bd. No. 2010 Yr. Built 1966

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 ____ (Kind and Spec. No.) T.S. ____ (Fig. or F.B. & Spec. Min. T.S.) Nominal Thickness ____ In. Corrosion Allowance ____ In. Diam. ____ Ft. ____ In. Length ____ Ft. ____ In.

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

Girth ____ H.T. ____ X.R. ____ Sectioned ____ No. of Courses ____

If riveted describe seams fully on reverse side of form.

6. HEADS (a) Material ____ T.S. ____ (b) Material ____ T.S. ____

Location (Top, bottom, ends)	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a)								
(b)	NOTE: JACKET NOT CODED							

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

7. STAYBOLTS: ____ (Material) If hollow ____ (Size of Hole) Attachment ____ (Threaded, Welded) Pitch ____ (Horiz.) X ____ (Vert.) Diam. ____ (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[2] ____ psi at max. temp. ____ °F. Min. temp. (when less than −20°) ____ °F. Hydrostatic / Pneumatic or Combination Test Press ____ psi.

Items 10 and 11 to be completed for tube sections.

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

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

11. TUBES: Material ____ (Kind & Spec. No.) O.D. ____ In. Thickness ____ Inches or Gage Number ____ Type ____ (Straight or U)

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

12. SHELL Material S/S SA-240 T-304 (Kind and Spec. No.) T.S. 75,000 (Fig. or F.B. & Spec. Min. T.S.) Nominal Thickness .325 In. Corrosion Allowance 0 In. Diam. 3 Ft. 6 In. Length 7 Ft. 8 In.

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

Girth Buttweld W/BS H.T. No X.R. No Sectioned No No. of courses 1

If riveted describe seams fully on reverse side of form.

14. HEADS (a) Material S/S SA-240 T-304 T.S. 75,000 (b) Material ____ T.S. ____ (c) Material ____ T.S. ____

Location	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a) ~~XXXXXXXX~~ ends	.297			2 to 1				Concave
(b) ~~Channel~~								
(c) Floating								

If removable, bolts used (a) ____ (Material, Spec. No., T.S., Size, Number) (b) ____ (c) ____ Other fastening Welded to Shell (Describe or Attach Sketch)

15. Constructed for max. allowable working press[2] 225 psi at max. temp. +100 °F. +F/Ext. Vac. Min. temp. (when less than −20°) −320 I.T °F. Hydrostatic / ~~XXXXXXXX~~ Test Press 366 psi.

Items below to be completed for all vessels where applicable.

16. SAFETY VALVE OUTLETS: Number Not Specified Size ____ Location ____

17. NOZZLES

	Purpose (Inlet, Outlet, Drain)	Number	Diam. or Size	Type	Material	Thickness	Reinforcement Material	How Attached
Top & Bot.	Fill, Vent	3	1.125 O.D.	Tube	S/S SA-213 T-304	.049	None	Welded
	Dip Tube	1	.875	"	"	"	"	"
	Economizer	1	.625	"	"	"	"	"
	Full Trycock	1	.500	"	"	.065	"	"
	(Items 18 through 20 continued on back)							
Top & Bot.	Gage	2	.375	"	"	"	"	"

[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 OPENINGS: Manholes, No. ______ Size ______ Location ______
Handholes, No. ______ Size ______ Location ______
Threaded, No. ______ Size ______ Location ______

19. SUPPORTS: Skirt ______ (Yes or No) Lugs ______ (Number) Legs 3 (Number) Other ______ (Describe) Attached Welded to Shell (Where & How)

20. REMARKS: 600 Gallon Liquid Oxygen Converter

NOTE: INSPECTION OF PIPING TERMINATES AT FIRST WLEDED JOINT.

(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 Unfired Pressure Vessels.

Date 5/23 19 66 Signed Process Engineering Inc (Manufacturer) By Carl Gigolius

Certificate of Authorization Expires December 31, 1967

CERTIFICATE OF SHOP INSPECTION

VESSEL MADE BY Process Engineering, Inc. at Methuen, Mass.

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of Mass. and employed by Hartford Steam Boiler I. & I. Co of Hartford, Conn. have inspected the pressure vessel described in this manufacturer's data report on 5/24 19 66 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 5/24 19 66

John P. Jones Jr. Commissions NB 3371 OHIO-PA Wc 868
Inspectors Signature Nat'l Board or State 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 of ______ 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 ______

______ Commissions ______
Inspector's Signature Nat'l Board or State and No.