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

NB

As required by the Provisions of the ASME Code Rules

1. Manufactured by Ryan Industries, Inc. Cleveland, Ohio
(Name and address of Manufacturer)

2. Manufactured for National Cylinder Gas Co. Chicago, Illinois
(Name and address of Purchaser)

3. Type Vertical (Horiz. or Vert.) Kind of Jacketed (Tank, Jacketed, Heat Exch.) Vessel No. (Mfrs. Serial) 741 (State & State No.) Natl. Bd. No. 741 Yr. Built 1961

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 P.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) S.R. (Yes or No) X.R. (Spot or Complete) Sectioned (Yes or No) Efficiency %

Girth S.R. 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)								

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 (Int.) (Ext.) pressure of psi. Max. Temp. °F. Subzero °F. Hydrostatic Test 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 304 SS SA-240 (Kind and Spec. No.) T.S. 75,000 (Fig. or P.B. & Spec. Min. T.S.) Nominal Thickness .390 In. Corrosion Allowance 4 0 In. Diam. 7 9 Ft. In. Length Ft. In.

13. SEAMS: Long DBL Buttweld (Welded, Dbl., Single, Lap, Butt) S.R. No (Yes or No) X.R. Complete (Spot or Complete) Sectioned No (Yes or No) Efficiency 90 %

Girth DBL Buttweld S.R. No X.R. Complete Sectioned No No. of courses 1

If riveted describe seams fully on reverse side of form

14. HEADS: (a) Material 304 SS SA-240 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) Top, bottom, ends	13/32"		Ellip. 2:1 Ratio					Concave
(b) Channel								
(c) Floating								

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If removable, bolts used (a) (Material, Spec. No., T.S., Size, Number) (b)

(c) Other fastening full ext. vac. (Describe or Attach Sketch)

15. Constructed for (Int.) (Ext.) pressure of 245 w/ psi. Max. Temp. +100 °F. Subzero -320 °F. Hydrostatic Test 395 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
	3	3/4"	SA-240 Rod	Drilled	.385 I.D.		Welded
	3	1-1/2"	SA-240	"	1.135 I.D.		"
	1	1-1/8"	SA-240	"	.885 I.D.		"

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 3 Brace Rods (Describe) Attached Legs welded to shell - brace rods welded to top head (Describe how)

20. REMARKS: 48" I.D. Liquid Oxygen Storage Vessel

(Brief description of purpose of the vessel, as Air Tank, After Cooler, Jacketed Cooler, etc. State contents of each part.) (Over)

We certify that the statements made in this report are correct and that all details of material, construction, and workmanship of this unfired pressure vessel conform to the ASME Code for Unfired Pressure Vessels.

Date APR 19 1961 19 Signed Ryan Industries, Inc. (Manufacturer) By J. Magyar

Certificate of Authorization Expires #956 12-31-61

CERTIFICATE OF SHOP INSPECTION

Inspection Agency's Serial No. HSB-1057

VESSEL MADE BY Ryan Industries, Inc. at Cleveland, Ohio

I, the undersigned, holding a Certificate of Competency as an Inspector of Boilers and Unfired Pressure Vessels in THE STATE OF Natl.Bd. and employed by Hartford Steam Boiler Inspection & Insurance Co. of Hartford Conn.,

inspected internally and externally, the vessel described in this report on _____ 19____, and certify that the statements made in this report are correct corresponding with mill test reports of materials furnished by the builders, and measurements made of the vessel and that this vessel is constructed in accordance with the ASME Code for Unfired Pressure vessels.

Date APR 19 1961 19____

Inspector's Signature

Commissions Ohio #1517
Penna #WC 1033
N.B. #4902
State or Nat'l Bd. & Number

CERTIFICATE OF FIELD ASSEMBLY INSPECTION

I, the undersigned, holding a Certificate of Competency as an Inspector of Boilers and Unfired Pressure Vessels in THE STATE OF _____ and employed by _____ of _____, have compared the statements in this manufacturers' data report with the completed vessel, and certify that parts referred to as data items _____ were completed in the field in accordance with the requirements of the ASME Code for Unfired Pressure Vessels. The completed vessel was inspected and subjected to a hydrostatic test of _____ psi.

Date _____ 19____

Inspector's Signature

Commissions _____
State or Nat'l Bd. & Number

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