1180

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

1. Manufactured by LOX EQUIPMENT COMPANY, Livermore, Calif. (Name and address of Manufacturer)

2. Manufactured for INDUSTRIAL AIR PRODUCTS COMPANY, Portland, Oregon (Name and address of Purchaser)

3. Type Vert (Horiz. or Vert.) Kind Jacketed (Tank, Jacketed, Heat Exch.) Vessel No. (6106) (Mfrs. Serial) ( ) (State & State No.) Natl. Bd. No. 224 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 ASME A-7 (Kind and Spec. No.) T.S. 60,000 (Fig. or P.G. & Spec. Min. T.S.) Nominal Thickness 1/4 In. Corrosion Allowance 0 In. Diam. 5 Ft. 6 In. Length 19 Ft. 0 In.

5. SEAMS: Long Butt (Welded, Dbl., Single, Lap, Butt) S.R. No (Yes or No) X.R. No (Spot or Complete) Sectioned No (Yes or No) Efficiency 70% %

Girth Butt S.R. No X.R. No Sectioned No No. of Courses 3

If riveted describe seams fully on reverse side of form

6. HEADS: (a) Material A-285 Grade C T.S. 55,000 (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)	Ends	1/4"	66"						Convex
(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 15 psi. Max. Temp. 300 °F. Subzero -20 °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 A-240 T-304 T.S. 75,000 (Fig. or P.G. & Spec. Min. T.S.) Nominal Thickness 5/16 In. Corrosion Allowance ____ In. Diam. 3 Ft. 6 In. Length 16 Ft. 0 In.

13. SEAMS: Long Dbl Butt (Welded, Dbl., Single, Lap, Butt) S.R. No (Yes or No) X.R. Complete (Spot or Complete) Sectioned No (Yes or No) Efficiency 100 %

Girth Dbl Butt S.R. No X.R. Complete Sectioned No No. of courses 2

If riveted describe seams fully on reverse side of form

14. HEADS: (a) Material A-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)	Top, bottom, ends	5/16"			2:1				Concave
(b)	Channel								
(c)	Floating								

JUN 2 6 1961

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

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

15. Constructed for {Int. / Ext.} pressure of 250 psig / 265 psia Max. Temp. 100 °F. Subzero -320 °F. Hydrostatic Test 397.5 psi net

Items below to be completed for all vessels where applicable.

16. SAFETY VALVE OUTLETS: Number ____ Size ____ Location ____ It performed on weld area only

17. NOZZLES:

Purpose (Inlet, Outlet, Drain)	Number	Diam. or Size	Type	Material	Thickness	Reinforcement Material	How Attached
Inlet	1	1-1/2" IPS	Sch40	A-240 T-304	.145"		Weld to Head
Outlet	1	1-1/2" IPS	Sch40	A-240 T-304	.145"		Weld to Head
Instruments	2	1/2" OD	Tubing	A-240 T-304	.120"		Weld to Head

18. INSPECTION OPENINGS: Manholes, No. ____ Size ____ Location ____

Handholes, No. ____ Size ____ Location ____

Threaded, No. ____ Size ____ Location ____

19. SUPPORTS: Skirt ____ (Yes or No) Lugs ____ (Number) Legs ____ (Number) Other ____ (Describe) Attached ____ (Where & How)

20. REMARKS: Vacuum Jacketed Liquid Oxygen Vessels

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

Note:

Inner vessel manufactured by Lox Equipment Company, Livermore, Calif., Serial No. 6106

Outer vessel manufactured by Independent Iron Works, Oakland, Calif., Serial No. 5001 and 5001A

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 ______________ 19____ Signed **LOX EQUIPMENT COMPANY** (Name of Company) By *R. J. Hampton*

December [illegible], 1961

Certificate of Authorization Expires ______________

CERTIFICATE OF SHOP INSPECTION

Inspection Agency's Serial No. **LOX EQUIPMENT COMPANY** **Livermore, Calif.**

VESSEL MADE BY ______________ at ______________

I, the undersigned, holding a Certificate of Competency as an Inspector of Boilers and Unfired Pressure Vessels in **Calif.** THE STATE OF **Calif.** and employed by ______________ of ______________,

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 *5-23* 19*61*

Sidney H. Smyth Commissions *NB 2745*

Inspector's Signature — 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 **Calif.** [illegible] THE STATE OF ______________ and employed by ______________ of **Calif.**, 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____

______________ Commissions ______________

Inspector's Signature — State or Nat'l Bd. & Number