

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

As required by the Provisions of the ASME Code Rules

1. Manufactured by Ryan Industries Inc. 4800 Allmond Ave. Louisville, Ky
(Name and address of Manufacturer)

2. Manufactured for V & G Welding, 805 Highway 1 North, Greenville, Mississippi 38703
(Name and address of Purchaser)

3. Type Vert Kind Jacketed Vessel No. (5448) (Mrs. Serial) (State & State No.)
(Horiz. or Vert.) (Tank, Jacketed, Heat Exch.) Natl. Bd. No. 5448 Yr. Built 1971

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 SB-221 T.S. 40,000 Nominal Thickness 1.156 Corrosion Allowance 0 In. Diam. 6' 10" Length 9' 9 1/2"
(Kind and Spec. No.) (Fig. or F.B. & Spec. Min. T.S.) (In. Allowance)

5. SEAMS: Long Double Butt H.T. no X.R. Complete Sectioned no Efficiency 100 %
(Welded, Dbl., Single, Lap, Butt) (Yes or No) (Spot or Complete) (Yes or No)

Girth Double Butt H.T. no X.R. complete Sectioned no No. of Courses 1

If riveted describe seams fully on reverse side of form.

6. HEADS (a) Material SB-221 T.S. 40,000 (b) Material SB-221 T.S. 40,000

Location	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure
(a) Top	<u>1.144</u>			<u>2:1</u>				<u>concave</u>
(b) Bottom	<u>1.144</u>			<u>2:1</u>				<u>concave</u>

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 press² 50 psi at max. temp. 100 °F. Min. temp. (when less than -20°) -320 °F. Hydrostatic Pneumatic or Test Press 417 psi.
Combination

Items 10 and 11 to be completed for tube sections.

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

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

11. TUBES: Material _____ O.D. _____ In. Thickness _____ Inches or Gage Number _____ Type _____
(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 _____ T.S. _____ Nominal Thickness _____ In. Corrosion Allowance _____ In. Diam. _____ Ft. _____ In. Length _____ Ft. _____ In.
(Kind and Spec. No.) (Fig. or F.B. & Spec. Min. T.S.)

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

Girth _____ H.T. _____ X.R. _____ Sectioned _____ No. of courses _____

If riveted describe seams fully on reverse side of form.

14. HEADS (a) Material _____ T.S. _____ (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
(a) Top, bottom, ends								
(b) Channel								
(c) Floating								

If removable, bolts used (a) _____ (b) _____ (c) _____
(Material, Spec. No., T.S., Size, Number) (Describe or Attach Sketch)

15. Constructed for max. allowable working press² _____ psi at max. temp. _____ °F. Min. temp. (when less than -20°) _____ °F. Hydrostatic Pneumatic or Test Press _____ psi.
Combination

Items below to be completed for all vessels where applicable.

16. SAFETY VALVE OUTLETS: Number one Size 1" Location Vent Line

17. NOZZLES

Purpose (Inlet, Outlet, Drain)	Number	Diam. or Size	Type	Material	Thickness	Reinforcement Material	How Attached
Instrument	<u>3</u>	<u>.750</u>	<u>Bar</u>	<u>SB-221</u>	<u>.180</u>		<u>Welded</u>
Vent	<u>1</u>	<u>1.900</u>	<u>Pipe</u>	<u>SB-241</u>	<u>.145</u>		<u>Welded</u>
Top Fill	<u>1</u>	<u>1.900</u>	<u>Pipe</u>	<u>SB-241</u>	<u>.145</u>		<u>Welded</u>
Bottom Fill	<u>1</u>	<u>1.900</u>	<u>Pipe</u>	<u>SB-241</u>	<u>.145</u>		<u>Welded</u>
Pump Suction	<u>1</u>	<u>1.900</u>	<u>Pipe</u>	<u>SB-241</u>	<u>.145</u>		<u>Welded</u>
Hydro	<u>1</u>	<u>2.375</u>	<u>Pipe</u>	<u>SB-241</u>	<u>.154</u>		<u>Welded</u>
Hydro	<u>1</u>	<u>.750</u>	<u>Bar</u>	<u>SB-221</u>	<u>.105</u>		<u>Welded</u>
Vapor Return	<u>1</u>	<u>1.900</u>	<u>pipe</u>	<u>SB-241</u>	<u>.145</u>		<u>Welded</u>

¹ If postweld heat-treated.

² List under remarks other internal or external pressures with coincident temperature when applicable.

RYAN INDUSTRIES, INC. (back) 4800 ALLMOND AVE. LOUISVILLE, KY

18. INSPECTION Manholes, No. _____ Size _____ Location _____
OPENINGS: Handholes, No. _____ Size _____ Location _____
Threaded, No. _____ Size _____ Location _____

19. SUPPORTS: Skirt _____ Lugs _____ Legs _____ Other Straps 3 Attached pins
(Yes or No) (Number) (Number) (Describe) (Where & How)

20. REMARKS: Date for TD-3400 gal gross vacuum jacketed Cryogenic storage vessel
integrated distributor station @ 250 PSIG aluminum non-corrosive service.
Inner vessel only, outer vessel not code.

Plus full external vacuum & hydro head.

(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 10/1 19 71 Signed Ryan Industries, Inc. By William P. ...
(Manufacturer)

Certificate of Authorization Expires October 13, 1972 Quality Control December 31, 1972

CERTIFICATE OF SHOP INSPECTION

VESSEL MADE BY Ryan Industries, Inc. at 4800 Allmond Ave. Louisville, Ky

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of Kentucky and employed by Employers Comm. Union Ins. Co. of America have inspected the pressure vessel described in this manufacturer's data report on Oct. 1, 1971, 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 Oct. 1, 1971 Ohio 1367
PA. 1676
N.B. 3364
Inspectors Signature _____ Commissions _____
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 _____
Inspectors Signature _____ Commissions _____
Nat'l Board or State and No.