

AMMOMIA

340. 2100

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

1E-310A

1. Manufactured by The Houston Equipment Co., Inc., Houston, Texas
(Name and address of Manufacturer)2. Manufactured for Robert Corporation, San Francisco, Calif.
(Name and address of Purchaser)3. Type Horizontal Kind Horizontal Vessel No. (1017) (1017) Natl. Bd. No. 39 Yr. Built 1959
(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-213-B T.S. 70000 Nominal Thickness 3/16 In. Corrosion Allowance 0 In. Diam. 36 In. Length 42 Ft. In.
(Kind and Spec. No.) (Fig. or F.B. & Spec. Min. T.S.)5. SEAMS: Long Welded H.T. Yes X.R. Complete Sectioned Yes Efficiency 100 %
(Welded, Dbl., Single, Lap, Butt) (Yes or No) (Spot or Complete) (Yes or No)

If riveted describe seams fully on reverse side of form.

Girth Welded H.T. Yes X.R. Complete Sectioned Yes No. of Courses 5
6. HEADS (a) Material SA-213-B T.S. 70000 (b) Material SA-213-B T.S. 70000
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. 25000 psi at max. temp. 500 °F. Min. temp. (when less than -20°) _____ °F. Hydrostatic Test Press 3000 psi.
Pneumatic or Combination } Test Press

Items 10 and 11 to be completed for tube sections.

10. TUBE SHEETS: Stationary. Material SA-213-B Diam. 3/4 In. Thickness 5/16 In. Attachment Welded
(Kind & Spec. No.) (Subject to Pressure) (Welded, Bolted)Floating. Material _____ Diam. _____ In. Thickness _____ In. Attachment _____
(Kind & Spec. No.)11. TUBES: Material SA-213-B O.D. 5/8 In. Thickness 0.040 In. or Gage, Number 1050 Type Straight
(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 SA-213-B T.S. 70000 Nominal Thickness 3/16 In. Corrosion Allowance 0 In. Diam. 36 In. Length 42 Ft. In.
(Kind and Spec. No.) (Fig. or F.B. & Spec. Min. T.S.)13. SEAMS: Long Welded H.T. Yes X.R. Complete Sectioned Yes Efficiency 100 %
(Welded, Dbl., Single, Lap, Butt) (Yes or No) (Spot or Complete) (Yes or No)

If riveted describe seams fully on reverse side of form.

Girth Welded H.T. Yes X.R. Complete Sectioned Yes No. of courses 2
14. HEADS (a) Material SA-213-B T.S. 70000 (b) Material SA-213-B T.S. 70000 (c) Material SA-213-B T.S. 70000
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 _____

(b) Channel 3/4 In. _____

(c) Floating _____

If removable, bolts used (a) _____ (b) _____
(Material, Spec. No., T.S., Size, Number)(c) _____ Other fastening SA-213-B (Describe or Attach Sketch)15. Constructed for max. allowable working press. 25000 psi at max. temp. 500 °F. Min. temp. (when less than -20°) _____ °F. Hydrostatic Test Press 3000 psi.
Pneumatic or Combination } Test Press

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
Inlet	1	1/2"	Flange	SA-213-B	3/16"		Welded
Outlet	2	1/2"	Flange	SA-213-B	3/16"		Welded
Drain	3	1/2"	Flange	SA-213-B	3/16"		Welded

(Items 18 through 20 continued on back)

E-310A

FORM U-1 (back)

i. INSPECTION Manholes, No. _____ Size _____ Location _____
 OPENINGS: Handholes, No. _____ Size _____ Location _____
 Threaded, No. _____ Size _____ Location _____
 j. SUPPORTS: Skirt No (Yes or No) Lugs None (Number) Legs None (Number) Other C-Section (Describe) Attached None (Where & How) None

k. REMARKS: Service: Converter Feed Preheater (Item: 1E-6107) Type: DSE
Tube Sheets Designed for 500 PSI Differential Pressure
 (Brief description of purpose of the vessel, as Air Tank, After Cooler, Jacketed Cooker, etc. State contents of each part.)

Threaded Ring Closure Sealed with Sections of 4" XX-Hvy (.674") Pipe Sa-108-B.

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 12-3-55 1955 Signed The Houston Equipment Co., Inc. By J. E. Noel
 Certificate of Authorization Expires Dec. 31, 1957 J. E. Noel

CERTIFICATE OF SHOP INSPECTION

VESEL MADE BY The Houston Equipment Co., Inc. Houston, Texas
 I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of Texas and employed by Employers Casualty Company of Dallas, Texas have inspected the pressure vessel described in this manufacturer's data report on 12-3-55 1955, 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 12-3-55 1955
S. H. Kristich Inspectors Signature Commissions None 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.