

FORM U-1 MANUFACTURERS' DATA REPORT FOR PRESSURE VESSELS
As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

210959

Job 14730

1. Manufactured by MANHUNG & LEWIS ENG. CO. UNION, N.J. 07083
(Name and address of manufacturer)
2. Manufactured for ABBOTT CHEMICALS INC. BARCELONETA, PUERTO RICO 00617
(Name and address of purchaser)
3. Location of installation ABBOTT CHEMICALS INC. BARCELONETA, PUERTO RICO
(Name and address)
4. Type HORIZ. H.E. Vessel No. 10940 (Mfr's Serial No.) (CRN) C-1739B (Drawing) 5604 (Nat'l. Std. No.) Year Built 1982

5. The chemical and physical properties of all parts meet the requirements of material specifications of the ASME BOILER AND PRESSURE VESSEL CODE. The design, construction, and workmanship conform to ASME Rules, Section VIII, Division 1 1980 and Addenda to 1/30/81 (Date) and Code Case no. _____ (Year)

Special service per UG-120(d) N.E.

Manufacturers' Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report: _____
(Name of part, item number, mfr's name and identifying stamp)

Items 6-11 incl. to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers

6. Shell: Material SA-263-B Nom. Thickness .275 in. Corrosion Allowance 1/16 in. Diam. 1 ft. 10 in. Length 13 ft. 9 7/8 in. (Spec. No., Grade) (Overall)
7. Seams: Longitudinal SMES R.T. NONE Efficiency 100% H.T. Temp. _____ F Time _____ Girth GROOVE R.T. NONE No. of Courses 1
(Dbl., Sngl.) (Spot or Full) (Dbl., Sngl.) (Spot, Partial, or Full)

8. Heads: (a) Material _____ (Spec. No., Grade) (b) Material _____ (Spec. No., Grade)

	Location (Top, Bottom, Ends)	Minimum Thickness	Corrosion Allowance	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 (describe other fastenings) _____
(Material, Spec. No., Gr., Size, No.)

9. Type of Jacket _____ Proof Test _____

10. Jacket Closure _____ If bar, give dimensions _____ If bolted, describe or sketch.
(Describe as ogee & weld, bar, etc.)

11. Constructed for max. allowable working pressure 150 psi at max. temp. 350 F Min. temp. (when less than -20 F) _____ F. Hydrostatic; pneumatic, or combination test pressure 225 psi.

Items 12 and 13 to be completed for tube sections

12. Tubesheets: Stationary Material SA-240-304 Diam. 23.06 in. Nominal Thick. 1/4 in. Corrosion Allow. 0 in. Attachment Welded
(Spec. No., Gr.) (Subject to pressure) (Welded, Bolted)
Floating Material _____ Diam. _____ in. Nominal Thick. _____ in. Corrosion Allow. _____ in. Attachment _____
(Spec. No., Gr.)

13. Tubes: Material SA-240-304-FIC O.D. 3/4 in. Nominal Thickness 1/16 gauge Number 402 Type STRAIGHT
(Spec. No., Gr.) (Straight or "U")

Items 14-17 incl. to be completed for inner chambers of jacketed vessels or channels of heat exchangers

14. Shell: Material SA-240-304 Nominal Thickness .1875 in. Corrosion Allowance 0 in. Diam. 1 ft. 10 in. Length _____ ft. 10 7/8 in. (Spec. No., Gr.)

15. Seams: Longitudinal DA-BUT R.T. NONE Efficiency 70% H.T. Temp. _____ F Time _____ Girth GROOVE R.T. NONE No. of courses 1
(Dbl., Sngl.) (Spot or Full) (Dbl., Sngl.) (Spot, Partial or Full)

16. Heads: (a) Material SA-285-C (Spec. No., Grade) (b) Material _____ (Spec. No., Grade)

	Location (Top, Bottom, Ends)	Minimum Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a)	<u>END</u>	<u>1 5/8</u>	<u>0</u>						<u>23.06</u>	<u>FLAT</u>
(b)										

If removable, bolts used (describe other fastenings) SA-M3-B7: 5/16"-11: (24)
(Material, Spec. No., Gr., Size, No.)

17. Max. allowable working pressure 150 psi at max temp. 350 F Min. temp. (when less than -20F) _____ F. Hydro. pneu. or comb. test pressure 250 psi.

Items below to be completed for all vessels where applicable

18. Safety Valve Outlets: Number _____ Size _____ Location _____

[Faint, illegible text at the bottom of the page]

Purpose (Inlet, Outlet, Drain)	Number	Diem. or Size	Type	Material	Nominal Thickness	Reinforcement Material	How Attached
INLET/OUTLET	2	4" 150'	FLG	SA-53-B	5/16		Welded
VENT/DRAIN	2	3/4" NPT	20B	SA-105	3000'		Welded
INLET/OUTLET	2	1 1/2" 150'	FLG	SA-53-B (BLACK)	5/16		Welded
VENT/DRAIN	2	3/4" NPT	SA	SA-105	3000'		Welded

20. Inspection Openings:

[illegible]

Handholes No. _____ Size _____ Location _____

Threaded No. _____ Size _____ Location _____

21. Supports: Skirt N/A Lugs 2 Other Attached N/A NO To SWELL
(Yes or no) (No) (No) (Describe) (Where and how)

22. Remarks: 22-16B SOYBEAN OIL COOLER WITH CIRCUITS WATER IN THE SHEET AND SOYBEAN
OIL IN THE TUBS.

DESIGN FACTOR FOR SMLS SECTIONS PER UW 11412 - 0

CERTIFICATE OF COMPLIANCE

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 Pressure Vessels, Section VIII, Division 1.

Date AUG. 17 1982 Signed MANNING & LOUIS E.H. Co by [Signature]
(Manufacturer)

"U" Certificate of Authorization No. 1574 expires 17 APR 1948

CERTIFICATE OF SHOP INSPECTION

Vessel made by Manning & Lewis Eng. Co at Union N.J

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of N.J. and employed by LUMBERMEN'S MUTUAL CASUALTY

I, James G. Goss, Inc., have inspected the pressure vessel described in this Manufacturer's Data Report on AUG. 17 1982, 19 , and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME Code, Section VIII, Division 1.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in the Manufacturers' 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 NOV. 17 1982 NB 7050,NJ 478
Signed [Signature] Commissions _____
(Inspector) (Nat'l Board, State, Provincial and No.)

NB 7050,NJ 476

CERTIFICATE OF COMPLIANCE FOR FIELD WORK

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 Pressure Vessels, Section VIII, Division 1.

Date _____ Signed _____ by _____
(Manufacturer) (Representative)

"U" Certificate of Authorization No. _____ expires _____ 19____

CERTIFICATE OF FIELD ASSEMBLY INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of _____ Province of _____ and employed by _____

_____ of _____ have compared the statements in this Manufacturers' Data Report with the described pressure vessel and state that parts referred to as c' 'a 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 ASME Code, Section VIII, Division 1.

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 Manufacturers' 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 _____
Signed _____
(Authorized Inspector)

Commissioner _____
(Not to be signed by the Commissioner)