

MANUFACTURERS' DATA REPORT FOR PRESSURE VESSELS
 (Alternate Form for Single Chamber, Completely Shop-Fabricated Vessels Only)
 As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

1. Manufactured by HAPPY DIVISION, THERMA TECHNOLOGY / TULSA, OKLAHOMA

2. Manufactured for Philadelphia Car Works / Philadelphia, Pennsylvania

3. Location of Installation Philadelphia, Pennsylvania

4. Type HORIZONTAL 3980-1-1A --- 3980-1-20 1522 (Year Built) 1982
Horiz or vert. tank (Mfg's Serial No.) (CRN) (Drawing No.) (Nat'l Bldg No.)

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 6-30-81 and Code Case Nos. _____

Special Service per UG-120(d) _____

Manufacturers' Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report:

6. Wrapper: GR-11 CL.1 SA-387- SA-387- GR-11 CL.1 SA-387- GR-11 CL.1
(Spec. No., Grade) (Mfg's Serial No.) (CRN) (Drawing No.) (Nat'l Bldg No.)

7. Seams: Long Welded R.T. No Efficiency --- % H.T. Temp 1150° F Time 1 1/2 Hr
(Welded, Obl, Snpl, Lap, Butt) (Spot or Full) (Spot Partial or Full) (No. of Courses)

8. Heads: (a) Material SA-387-GR11 CL.1 (b) Material SA-387-GR11 CL.1
(Spec. No., Grade) (Spec. No., Grade)

Location (Top, Bottom, Ends)	Min. Thk	Corr. Allow	Flat	Side to Pressure (Convex or Concave)
(a) I & P Sht	1 1/2"	1/8"	Max Span = 9 1/4"	11" X 3'-2 1/2" Flat
(b) End Block	1"	1/8"	Max Span = 6 1/4"	5 3/4" X 0'-8 3/4" Flat

If removable, bolts used (describe other fastenings) _____

9. Constructed for max. allowable working pressure 300 psi at max temp. 975 F. Min. temp. (when less than -20 F) _____ F. Hydrostatic test pressure 755 psi

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

11. Nozzles and Inspection Openings:

Purpose (Inlet, Outlet, Drain)	No.	Diam. or Size	Type	Mat.	Nom. Thk	Reinforcement Mat.	How Attached	Location
Inlet	1	6"	300# RTJWN	SA-182-F11	Sch. 80	Weld	Welded @	Inlet Head
Outlet	1	4"	300# RFWN	SA-182-F11	Sch. 160	Weld	Welded @	Outlet Head
Vent	1	1"	300# RFLWN	SA-182-F11	---	Weld	Welded @	Outlet Head
Drain	1	1"	300# RFLWN	SA-182-F11	---	Weld	Welded @	Inlet Head

12. Supports: Skin --- Lugs 4 Legs --- Other --- Attached Welded to Tube Sht
(Yes or No) (No.) (No.) (Describe) (Where and how)

13. Remarks: Box Header at Tube Ends 4 Row, 1 Pass. Tubes; Mat #1 SA-199-F11
 Qty 58 O.D. 1" X 13 BWC A.W. X 32'-0" Long.

Unit Service: Start Up Cooler Item No. E-220

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 9-21-82 Signed Happy Div. Therma-Tech. by [Signature]
(Manufacturer) (Representative)

"U" Certificate of Authorization No. 10,491 expires May 1 19 83

CERTIFICATE OF SHOP INSPECTION

Vessel made by Happy Div. Therma-Technology at Tulsa, Oklahoma

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of Illinois and employed by Coml. Union Ins. Co. have inspected the pressure vessel described in this Manufacturer's Data Report on Aug. 30 19 82 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 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 loss of any kind arising out of and connected with this inspection.

Signed [Signature] Date 9-21-82 Commissions NB 8293
(Inspector) (Nat'l Board, State, Province and No.)