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

CONTRACT NO. WU-76253A

1. Manufactured and certified by AMETEK, INC., 2300 W. MARSHALL, GRAND PRAIRIE, TEXAS (Name and address of manufacturer)

2. Manufactured for GLITSCH INC. (Name and address of purchaser)

3. Location of installation UNKNOWN (Name and address)

4. Type HORIZ. (Horiz. or vert., tank) | U76253A (Mfgr's serial No.) | (CRN) | OV676253A (Drawing) | 9832 (Nat'l. Bd. No.) | 1989 (Year built)

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 1986 (Year)

A '87 (Addenda (date)) | (Code Case No.) | (Special service per UG-120(d))

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

6. Shell: SA-106-B (Mat'l. (Spec. No., Grade)) | .280 (Nom. Thk. (in.)) | 1/16 (Corr. Allow. (in.)) | 0' 6 5/8" OD (Diam. I.D. (ft & in.)) | 5' 3 7/8" (Length (Overall) (ft & in.))

7. Seams: SMLS (Long. (Dbl., Sngl.)) | (R.T. (Spot or Full)) | 100% (Eff. (%)) | (R.T. Temp. (°F))

(Type) | (Girth (Dbl., Sngl.)) | (R.T. (Spot, Partial, or Full)) | 1 (No. of Courses)

8. Heads: (a) Matl. (Spec. No., Grade) (b) Matl. (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) (Matl., Spec. No., Gr., Size, No.)

9. Type of Jacket Proof Test

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

11. MAWP 150 psi at max. temp. 225 °F. Min. design metal temp. -20 °F at 150 psi.
Hydro., ~~Pneu. or Comb.~~ test press. 225 psi.

Items 12 and 13 to be completed for tube sections

12. Tubesheets: SA-240-316 (Stationary Matl. (Spec. No., Gr.)) | 7 1/8 (Diam. (in.) (Subject to pressure)) | 1 1/8 (Nom. Thk. (in.)) | 0 (Corr. Allow. (in.)) | WELDED (Attach. (Welded, Bolted))

(Floating Matl. (Spec. No., Gr.)) | (Diam. (in.)) | (Nom. Thk. (in.)) | (Corr. Allow. (in.)) | (Attach.)

13. Tubes: SA-249-316 (Matl. (Spec. No., Gr.)) | 5/8 (O.D. (in.)) | 16 (Nom. Thk. (BWG or Gauge)) | 36 (Number) | STR. IGHT (Type (Straight or "U"))

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

14. Shell: SA-312-316 (Mat'l. (Spec. No., Grade)) | .280 (Nom. Thk. (in.)) | 0 (Corr. Allow. (in.)) | 0' 6 5/8" OD (Diam I.D. (ft & in.)) | 5 7/8" (Length (Overall) (ft & in.))

15. Seams: WLD (Long. (Dbl., Sngl.)) | (R.T. (Spot or Full)) | 85% (Eff. (%)) | (R.T. Temp. (°F))

(Type) | SNGL (Girth (Dbl., Sngl.)) | (R.T. (Spot, Partial, or Full)) | 1 (No. of Courses)

16. Heads: (a) Matl. SA-403-316 (Spec. No., Grade) (b) Matl. SA-403-316 (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)	END	.245	0			2:1				CONCAVE
(b)	END	.245	0			2:1				CONCAVE

If removable, bolts used (describe other fastenings) SA-193-B7 5/8-11 16 (Matl., Spec. No., Gr., Size, No.)

17. MAWP 150 psi at max. temp. 275 °F. Min. design metal temp. -20 °F at 150 psi.
Hydro., ~~Pneu. or Comb.~~ test press. 225 psi.

This Form (E00108) may be obtained from the ASME Order Dept., 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

Form U-1 (Back)

18. Nozzles, Inspection and Safety Valve Openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diam. or Size	Type	Mat.	Size, Thk.	Reinforcement Mat.	How Attached	Location
TUBE I/O	2	1	150#SO	SA-312-316	.133		WELDED	
SHELL I/O	2	2	150#SO	SA-106-B	.218		WELDED	
SHELL V/D	2	3/4	SCCP	SA-105	3000#		WELDED	
TUBE V/D	2	3/4	SCCP	SA-182-316	3000#		WELDED	

19. Supports: Skirt NO (Yes or no) Lugs ____ (No.) Legs ____ (No.) Other CRADLES (Describe) Attached WELDED TO SHELL (Where and how)

20. Remarks: Manufacturer's 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, mfg's. name and identifying stamp)

TYPE: 1-V-4 SIZE: 6-A-66
BODY FLANGES: 10 3/4 x 1 1/8 THK, SA-240-316
UCS-66(a) UHA-51

CERTIFICATE OF SHOP 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.

"U" Certificate of Authorization No. 12,881 expires JULY 2, 19 90

Date 3-27-89 Co. name AMETEK, INC. (Manufacturer) Signed D.P. Archer (Representative)

CERTIFICATE OF SHOP INSPECTION

Vessel constructed by AMETEK, INC. at GRAND PRAIRIE, TEXAS

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 TEXAS and employed by EMPLOYERS CASUALTY COMPANY of DALLAS, TEXAS have inspected the pressure vessel described in this Manufacturer's Data Report on 3/27/, 19 89, 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 a loss of any kind arising from or connected with this inspection.

Date 3/27/89 Signed [signature] (Authorized Inspector) Commissions 7714 TEX 825 (Nat'l Board, State, Province and No.)

CERTIFICATE OF FIELD ASSEMBLY COMPLIANCE

We certify that the field assembly construction of all parts of this vessel conforms with the requirements of Section VIII, Division 1 of the ASME Boiler and Pressure Vessel Code.

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

Date ____ Co. name ____ (Assembler that certified and constructed field assembly) Signed ____ (By Representative)

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 or Province 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 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 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 ____ Signed ____ (Authorized Inspector) Commissions ____ (Nat'l Board (incl. endorsements), State, Prov., and No.)