

FORM U-1A 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 and certified by Evans & Sons Process Tank Co., Inc. 1851 Shop Road, Columbia, Sc 29201
(name and address of manufacturer)

2. Manufactured for Hardwicke Chemical Company, 2114 Larry Jeffers Road, Elgin, SC 29045
(name and address of purchaser)

3. Location of installation Hardwicke Chemical Company, 2114 Larry Jeffers Road, Elgin, SC 29045
(name and address)

4. Type: Vertical C-88-1757 ----- C-88-1757(R5) 360 1989
(horiz. or vert., tank) (mfr's. serial no.) (CRN) (drawing no.) (Nat'l. Bd. no.) (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 Code, Section VIII, Division 1: 1987
1988 2051 None 1987
(addenda (date)) (Code Case no.) (special service per UG-120(d)) (year)

6. Shell: SA-240-316 .25 0 2'-6" OD 48'-3" OAH
(mat'l. (spec. no., grade)) (nom. thickness (in.)) (corr. allow. (in.)) (dia. ID (ft. & in.)) (length (overall) (ft. & in.))

7. Seams: DBL BUTT None .70 --- --- DBL BUTT None
(long. (welded, dbl., singl. lap, butt)) (RT (spot or full)) (eff. (%)) (HT temp. (°F)) (time (hr.)) (girth (welded, dbl., singl. lap, butt)) (RT (spot, partial, or full)) (no. of courses)

8. Heads: (a) SA-240-316 (b) SA-240-316
(mat'l. (spec. no., grade)) (mat'l. (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)	Top	.1875	0	26.8125"	5"	2:1	---	---	---	Concave
(b)	Btm	.1875	0	26.8125"	5"	2:1	---	---	---	Concave

If removable, bolts used (describe other fastenings): None
(mat'l. spec. no., gr., size, no.)

9. MAWP: F.V. + 100 350 Min design metal temp. 0 at 100 Hydro., pneu. or comb. test pressure 155
(psi) (at max. temp. (°F)) (°F) (psi) (psi)

10. Nozzles, inspection and safety valve openings:

Purpose (inlet, outlet, drain, etc.)	No.	Dia. or Size	Type	Mat'l.	Nom. Thickness	Reinforcement Mat'l.	How Attached	Location
Inlet	1	16"	Flg'd	SA312-316	.500	Inherent	UW16.1	Head
Access	1	18"	Flg'd	SA312-316	.375	Inherent	UW16.1	Shell
Outlet	1	18"	Flg'd	SA312-316	.250	Inherent	UW16.1	Head
Blowdown	1	4"	Flg'd	SA312-316	.237	Inherent	UW16.1	Shell

11. Supports: Skirt yes Lugs --- Legs --- Other --- Attached Welded to vs1
(yes or no) (no.) (no.) (describe) (where & how)

12. Remarks: Manufacturers' Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report: None

ITEM 10 CONT'D. (name of part, item number, mfr's name and identifying stamp)

Thermal 1 1" Flg'd SA312-316 .133 Inherent UW16.1 Head

Exempt from impact test per 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. 15-018 expires 3-13, 1991

Date 3-16-89 Name Evans & Sons Process Tank Co., Signed Johnny Singletary
(manufacturer) (representative)

CERTIFICATE OF SHOP INSPECTION

Vessel constructed by Evans & Sons Process Tank Co., INC. at 1851 Shop Road, Columbia, SC 29201

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. Carolina and employed by Lumbermens Mutual Casualty Company of Long Grove, IL have inspected the component described in this Manufacturers' Data Report on 3/16, 1989 and

state that, to the best of my knowledge and belief, the manufacturer has constructed this pressure vessel in accordance with the 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 3/16, 1989 Signed Namus, J. S. Commissions NB-7463; NC-886
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) state, prov. and no.)