

**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 Modern Welding Co., Inc., 72 Waldo St. Newark OH 43055  
(name and address of manufacturer)

2. Manufactured for Dow Chemical USA, Michigan Div., PO Box 2560, Midland MI 48641  
(name and address of purchaser)

3. Location of Installation Dow Chemical USA, Michigan Div., Bldg. 1136, Midland MI 48667  
(name and address)

4. Type: Horizontal 11150 n/a 11150 7711 1991  
(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: 1989  
AB9 n/a n/a  
(addenda (date)) (Code Case no.) (special service per UG-120(d)) (year)

6. Shell: SA516-70 1" .0625 10' ID 29'-10" T/T  
(mat'l. (spec. no., grade)) (nom. thickness (in.)) (corr. allow. (in.)) (dia. ID (ft. & in.)) (length (overall) (ft. & in.))

7. Seams: welded dbl. full 100 1150 3 welded dbl. full 3  
(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 516-70 (b) SA 516-70  
(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)	end	.937	.0625	-	-	2:1	-	-	-	concave
(b)	end	.937	.0625	-	-	2:1	-	-	-	concave

If removable, bolts used (describe other fastenings): n/a  
(mat'l., spec. no., gr., size, no.)

9. MAWP: 250 at max. temp. 500. Min design metal temp. -28 at 250. Hydro., pneu. or comb. test pressure 402  
(psi) (°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
*	4	2"	300#RFLWN	SA350-LF2	.65	inherent	welded	
*	1	4"	" "	" "	.84	SA 516-70	"	
*	1	6"	" "	" "	1"	" " "	"	
inspection	1	24"	300#RFLWN	SA516-70	1"	" " "	"	shell

11. Supports: Skirt no Lugs 0 Legs 0 Other (2) saddle Attached welded to shell  
(yes or no) (no.) (no.) (describe) bands (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: n/a  
(name of part, item number, mfr's. name and identifying stamp)

\*User to determine use. User to install safety valve.  
This vessel also operates at 15 psi vacuum at 500°F. Exempt from impact testing per UG 20 (f). SA 516-70 material was normalized. Tank was built for Anhydrous Ammonia.

**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. 10602 expires 8-5, 1991  
Date 3-22-91 Name Modern Welding Co., Inc. Signed [Signature]  
(manufacturer) (representative)

**CERTIFICATE OF SHOP INSPECTION**

Vessel constructed by Modern Welding Co., Inc. at 72 Waldo St., Newark OH 43055  
I, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and the state or province of Ohio and employed by H.S.B.I. & I. Co. of Hartford CT have inspected the component described in this Manufacturers' Data Report on 3-22, 1991 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 3-22, 1991 Signed [Signature] Commissions NB 6639  
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) state, prov. and no.)