



TRANSTECH ENERGY

60,000-Gallon Storage Vessel


Arlington TX

VESSEL SPECIFICATIONS

Manufacturer	Year	Capacity (Liquid Gallons)	PSI (@ 125 °F max.)	National Board Number / Serial Number
Trinity Industries, Inc.	2004	60,000	250	Available/Yes

Four (4) sister vessels listed is ASME certified and was manufactured by Trinity Industries, Inc. They have a National Board number with a U-1A data sheet. The shell sections and hemispherical heads are constructed of SA-612 steel. The vessel is 10-foot 10.453" in diameter (ID) with welded saddles and 16" manway.



S.N. / NAT'L BD. (NB)		[]		
 CERTIFIED BY TRINITY INDUSTRIES, INC. DALLAS, TEXAS				
W	MAWP	[] PSIG	AT [] °F	YEAR MFG
	MDMT	[] °F	AT [] PSIG	
RT	HEAD: DR	[] THK	MAT'L []	S.F.
	SHELL: OD	[] THK	MAT'L []	
	TANK: WG	[] OAL	OSSA []	
THIS CONTAINER SHALL NOT CONTAIN A PRODUCT HAVING A VAPOR PRESSURE IN EXCESS OF 215 PSIG AT 100°F.				

FORM U-1A MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS

Work Order # _____

(Alternative Form for Single Chamber, Completely Shop or Field Fabricated Vessels Only)

As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

1. Manufactured and certified by Trinity Industries, Inc., 160 N. Rockford Ave., Tulsa, Oklahoma, 74120
(Name and address of manufacturer)

2. Manufactured for Alternate Energy Systems, Inc., 210 Prospect Park, Peachtree, Georgia, 30269
(Name and address of purchaser)

3. Location of installation Alternate Energy Systems Inc. C/O General Motors, 2525 E. Abrams @ Hwy 360, Arlington, Texas, 76010
(Name and address)

4. Type Horizontal S0400001 N/A 822742 rB S0400001 2004
(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 Rules, Section VIII, Division 1 2001 to 2003
(year) (Addenda (Date))
N/A N/A
Code Case Nos. Special Service per UG-120(d)

6. Shell: SA-612 0.711" 0" 10' 10.453" (ID) 57" 7"
Mat'l. (Spec. No., Grade) Nom. Thk. (in.) Corr. Allow. (in.) Diam. I.D. (ft. & in.) Length (overall) (ft. & in.)

7. Seams: TYPE 1 Full 100% NA N/A TYPE 1 Full 9
Long. (Welded, Dbl., Sng., Lap, Butt) R.T. (Spot or Full) ERT (%) H.T. Temp. (°F) Time (hr) Grth. (Welded, Dbl., Sng., Lap, Butt) R.T. (Spot, Partial or Full) No. of Courses

8. Heads: (a) Mat'l. SA612 NORM (See U2A attached) (b) Mat'l. _____
(Spec. No., Grade) (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) ENDS	0.407"	0"	N/A	N/A	N/A	N/A	65.53"	N/A	Concave

If removable, bolts used (describe other fastenings) _____
N/A
(Mat'l., Spec. No., Gr., Size, No.)

9. MAWP 250 psi at max. temp. 125 °F

Min. design metal temp. 12 °F at 250 psi Hydro, pneu., or comb. test pressure Hydro. at 325 psi.

10. Nozzles, inspection and safety valve openings:

Purpose (Inlet, Outlet, Drain)	No.	Diam. or Size	Type	Mat'l.	Nom. Thk.	Reinforcement Mat'l.	How Attached	Location
MANWAY	1	16"	PTFLG	SA105	3.688"	INTEGRAL	(UJW16.1	Head
LEVEL GAUGE	1	2.5"	CPLG	SA105	3000#		(y-2)UJW16.1	N/A
ROTARY GAUGE	1	2"	CPLG	SA105	3000#		(y-2)UJW16.1	N/A
THERMOWELL	1	0.75"	CLPG	SA105	6000#		(y-2)UJW16.1	N/A

Additional Nozzles - See Attached U-4.

11. Supports: Skirt NO Lugs N/A Legs N/A Other SADDLES Attached SHELL, WELDED
(Yes or no) (No.) (No.) (No.) (Describe) (Where and how)

12. Remarks: Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors, have been furnished for the following items of the report:

Heads, 8, Trinity Industries, Inc., T373-30-045 H4, T30-317-0406 H574

(Name of part, item number, Mfr's name and identifying stamp)

TANK, HORIZONTAL STORAGE: 131.875"OD x 60,000WG. 822742 SHT 1 rB, SHT 2 rA. TO BE USED IN A NON-CORROSIVE SERVICE. MDMT 12 DEG. F @ 250 PSI. LINE 9: MDMT/PSI BASED ON UCS-66(a), UCS-66(b) AND UG-20 (F).

CERTIFICATE OF SHOP/FIELD 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. 33352 expires June 12, 2005

Date 10/27/2004 Co. name Trinity Industries, Inc. Signed [Signature]
(Manufacturer) (Representative)

CERTIFICATE OF SHOP/FIELD INSPECTION

Vessel constructed by Trinity Industries, Inc. at 160 N. Rockford Ave., Tulsa, Oklahoma 74120, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province OKLAHOMA and employed by IBM RE, of Dallas, TX have inspected the component described in this Manufacturer's Data Report on October 27, 2004 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 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 11/19/2004 Signed [Signature] Commissions: 9265A OK572
(Authorized Inspector) (Nat'l Board (incl. endorsements), State, Prov. and No.)