

**FORM U-1A MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS**  
**(Alternative Form for Single Chamber, Completely Shop -Fabricated Vessels Only)**  
**As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1**

1/2

1. Manufactured and certified by SMITHCO Engineering, Inc., 6211 S. 39th W. Ave., Tulsa, OK 74132  
(Name and address of manufacturer)

2. Manufactured for ENRON Engineering Houston, Texas 77210-428  
(Name and address of purchaser)

3. Location of installation ENRON Engineering Sublette, Kansas  
(Name and address)

4. Type Horiz(Non-Cir) 97B-0991-A 97B-0991 7222 1997  
(How or w/rt. 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 1995  
Year

to A95 2157  
Attends (Date) Code Case Nos

6. Shell/Tube & Plug Sheets: SA-516 GR-70 Fr 1.625/Bk 3.000 .0625 Fr 0' 6.4375"/Bk 0' 11.0000" 13' 11.1250"  
Matl. (Spec. No., Grade) Nom. Thk. (in) Cor. Allow. (in) Diam. I.D. (R & in) Length (overall) (ft & in)

7. Seams: Corner Joint 100 1100 105min. --- 1  
Long. (Welded, Dbl. Spot, Lap, Butt) R.T. (Spot or Full) ER% H.T. Temp. (°F) (in) (ft) Girth (Welded, Dbl. Spot, Lap, Butt) R.T. (Spot, Partial or Full) No. of Courses

8. Heads: (a) Matl. (a) Covers: SA-516 GR-70 (b) Matl. (b) Ends: SA-516 GR-70  
(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)	Fr/Bk	1.500/.750	.0625						9.0000/3.1875 x 167.1250	Flat
(b)	Fr/Bk	.750/.750	.0625						9.0000/2.9375 x 10.6250/10.6250	Flat

If removable, bolts used (describe other fastenings): \_\_\_\_\_  
(Matl. Spec. No., Gr., Size, No)

9. MAWP 1050 psi at max. temp. 250 °F  
 Min. design metal temp. -20 °F at 1050 psi. Hydro., pneu., or comb. test pressure 1575 psi

10. Nozzles, inspection and safety valve openings:

Purpose (Inlet, Outlet, Drain)	No.	Diameter or Size	Type	Material	Nominal Thickness	Reinforcement Material	How Attached	Location
Inlet/Outlet	2/2	10"600/XS	RFWN	SA-105/SA-106B	.500	Integral	UW-16.1(a)	Front Head
Vent/Drain	4	1.0/1.0	6000CPLG	SA-105		Integral	UW-16.1(a)	Fr/Bk Head
Temp/Press	8	1.0/.75	6000CPLG	SA-105		Integral	UW-16.1(a)	Front Head

11. Supports: Skirts No Lugs --- Legs 4 Other --- Attached Welded to covers  
(Yes or 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:  
Flanged Nozzle, 972717 - 1, 3, 4, 8, Lewis Industries Corp. "U"  
(Name of part, item number, Mfr's name and identifying stamp)

Impact testing exempt per: UCS-66(a), UCS-66(b), UCS-66.1, UG-20(f) Item: E-2626 Service: GAS AFTERCOOLER

Stay Plate: Front(1)SA-516 GR-70 .5000 x .0625 x 165.4375 x 9.0625

Tie Bar: Front(6)SA-516 GR-70 .5000 x .0625 x 9.0625 x 4.2500

Tubes: SA-249 T304- 323 x 1.25" x .060" x 52.0000'-Straight

Front: Constructed in conformance with appendix 28. Back: Constructed per UW13

**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. 4175 expires February 28th, 20 00  
 Date 09-04-97 Co. name SMITHCO Engineering, Inc. Signed [Signature]  
(Manufacturer) (Representative)

**CERTIFICATE OF SHOP INSPECTION**

Vessel constructed by SMITHCO Engineering, Inc. 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 of Province of Oklahoma and employed by Delta Lloyds Insurance Company - Houston, Texas  
 have inspected the component described in this Manufacturer's Data Report on 9-5 19 97, 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 loss of any kind arising from or connected with this inspection.  
 Date 9-8-97 Signed [Signature] Commissions NB7003.A,OK355  
(Authorized Inspector) (Nat'l Board (incl. endorsements), State, Prov. and No.)

**FORM U-2A MANUFACTURER'S PARTIAL DATA REPORT (ALTERNATIVE FORM)**  
**A Part of a Pressure Vessel Fabricated by One Manufacturer for Another Manufacturer**  
**As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1**

1222 2/2

1. Manufactured and certified by **LEWIS INDUSTRIES CORPORATION, 816 N. 5TH ST., COLLINSVILLE, OK 74021**  
(Name and address of Manufacturer)

2. Manufactured for **SMITHCO ENGINEERING INC., 6312 S. 39TH W. AVE., TULSA, OK 74131**  
(Name and address of Purchaser)

3. Location of installation **UNKNOWN**

4. Type: **FLANGED NOZZLE** (Name and address) **972717 1 THRU 8**  
(Description of vessel part (shell, two piece head, tube bundle)) **N/A** (Mfg. serial No.)  
**97B0991** **SMITHCO ENGINEERING INC.** **1997**  
(Mat'l. Bl. No.) (Drawing No.) (Year built)

5. ASME Code, Section VIII, Div 1 **1995 ED, 1996 ADD.** **N/A** **N/A**  
(Edition and Addenda (date)) (Code Case No.) (Special Service per UG-120(d))

6. Shell (a) No. of course(s) **N/A** (b) Overall length (ft & in) **N/A**

Courses			Material		Thickness		Long. Joint (at A)			Girth Joint (at A, B & C)			Heat Treatment	
No.	Diameter in.	Length, ft & in.	Spec.	Grade or Type	Num.	Cor.	Type	Full Spct. Name	EH	Type	Full Spct. Name	EH	Temp.	Time
	N/A													
	N/A													
	N/A													

7. Heads: (a) **NONE** (b) **NONE**  
(Mat'l Spec. No., Grade or Type) (T & Temp) (Mat'l Spec. No., Grade or Type) (T & Temp)

	Location (Top/Bottom/End)	Thickness		Radius		Elliptical Ratio	Conical Apex Angle	Spheroidal Radius	Flat Diameter	Stitch to Pressure		Category A	
		Max	Cor.	Crown	Knuckle					Concave	Convex	Type	Full Spct. Name
(a)	N/A												
(b)	N/A												

If removable, bolts used (describe other fastening) **NONE**

8. MAWP **N/A** **N/A** psi at max temp **N/A** **N/A** °F Min. design metal temp **N/A** °F at **N/A** psi  
(Internal) (External) (Internal) (External)

9. Impact test **N/A**  
(Indicate yes or no and the component(s) impact tested)

10. Hydro., pneu., or comb. test press. **NONE** Proof test **NONE**

11. Nozzles, inspection, and safety valve openings.

Purpose (Inlet/Outlet/Drain, etc.)	No.	Diameter or Size	Flange Type	Material		Nozzle Thickness		Reinforcement Material	How Attached		Attachment (Insp. Oper.)
				Nozzle	Flange	Num.	Cor.		Nozzle	Flange	
<b>IN OR OUT</b>	<b>8</b>	<b>10"600#</b>	<b>RFWN</b>	<b>SA106B</b>	<b>SA105</b>	<b>.500</b>	<b>0</b>	<b>WELD</b>	<b>WELDED</b>	<b>WELDED</b>	<b>FLANGE</b>
<b>TEMP</b>	<b>8</b>	<b>1"</b>	<b>CPLG</b>		<b>SA105</b>	<b>6000#</b>	<b>0</b>	<b>WELD</b>	<b>WELDED</b>	<b>WELDED</b>	<b>NOZZLE</b>
<b>PRESS</b>	<b>8</b>	<b>3/4"</b>	<b>CPLG</b>		<b>SA105</b>	<b>6000#</b>	<b>0</b>	<b>WELD</b>	<b>WELDED</b>	<b>WELDED</b>	<b>NOZZLE</b>

12. Supports: Skirt **NO** Lugs **0** Legs **0** Others **NONE**  
(Yes or No) (No) (No) (No) (Describe)

13. Remarks: **1) OAL OF FLANGE AND NOZZLE (8)-9 15/16"**  
**2) NO DESIGN FUNCTION PERFORMED BY LEWIS INDUSTRIES CORPORATION**  
**3) CERTIFIED TO MATERIAL AND WORKMANSHIP ONLY**

**CERTIFICATE OF SHOP/FIELD COMPLIANCE**

We certify that the statements made in this report are correct and that all details of material, construction, and workmanship of this pressure vessel part conform to the ASME Code for Pressure Vessels, Section VIII, Division 1

U Certificate of Authorization No. **24,989** Expires **AUGUST 3** 19 **99**

Date **07/29/97** Name **LEWIS INDUSTRIES CORPORATION** Signed **George E. Lewis**  
(Manufacturer) (Representative)

**CERTIFICATE OF SHOP/FIELD 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 **OK** and employed by **OLD REPUBLIC INSURANCE COMPANY** of **DALLAS, TEXAS** have inspected the pressure vessel part described in this Manufacturer's Data Report on **07/29** 19 **97** and state that to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel part 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 part 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 **07/29/97** Signed **Michael R. Pope** Commission **OK572**  
(Authorized Inspector) (Not in good and lawful possession, State, Province and No.)