

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 Ecodyne Corp. MRM Div. of Marmon Group 607 First St. S.W. Massillon, Ohio
(Name and address of manufacturer)

2. Manufactured for Solar Turbines 7600 W. Tidwill Suite 600 Houston, TX 77040-5796 3153-47648-681-
(Name and address of purchaser) 39772

3. Location of installation Solar Turbines Incorporated c/o Gulf Fabricators Inc. Sunray Road Ingleside TX
(Name and address)

4. Type Horiz. 13131A-2 --- C-10764 5076 1984
(HORIZ or vert. tank) (Mfg. 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 1983
Year

to S/83 --- ----
Addenda (Date) Code Case Nos. Special Service per UG 120(d)

* Header XXX SA516Gr70 * 1/8" 8-1/2"H x 4"W x 119-3/4" LG.
Mat'l (Spec No. Grade) Nom Thk (in) Corr Allow (in) Diam I D (ft & in) Length (overall) (ft & in)

7. Seams: DBL Weld Corner Joint -- 1.00 -- -- -- -- -- --
Long (Welded Dbl Sngl Lap Butt) RT (Spot or Full) EM (S) HT Temp (F) Time (hr) Girth (Welded Dbl Sngl Lap Butt) RT (Spot, Partial or Full) No of Courses

8. Heads: (a) Mat'l: SA516Gr70 (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)	End Plates	3/4"	1/8"	-	-	-	-	-	3-5/8" x 3-3/4"	4PS Flat
(b)	-	-	-	-	-	-	-	-	-	-

If removable, bolts used (describe other fastenings) NONE
(Mat'l Spec No. Gr. Size No.)

9. MAWP 1440 350 psi at max. temp. --- °F
 Min. temp. (when less than 20°F) --- °F. Hydro. XXXXXXX test pressure 2160 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
Inlet	1	8"	R.T.J.	SA-105	900#	Inherent	Welded	Front Hdr.
Outlet	1	8"	R.T.J.	SA-105	900#	Inherent	Welded	Front Hdr.
Vent	1	3/4"	N.P.T.	-	-	Tapped	Direct	Rear Hdr.
Drain	1	3/4"	N.P.T.	-	-	Tapped	Direct	Rear Hdr.

11. Supports: Skirt --- Lugs --- Legs --- Other Struct. Channels Attached Bolted to Header
(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: ---
(Name of part, item number, Mfg.'s name and identifying stamp)

Tubes: 1" O.D. x .065 MW Steel SA-179 with 2-1/4" O.D. Aluminum Fins Shoulder Type Tension Wound #194-8-384ST20-4 Area 310 Sq. Ft. Service Gas Cooler Design ASME Sect. VIII Div. 1 Note: API661 Applies & 100% X-Ray per Customer

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. 7152 expires Dec 31, 19 85
 Date 6-22-84 Co. name Ecodyne Corp. MRM Div. of Marmon Group Signed [Signature]
(Manufacturer) (Representative)

CERTIFICATE OF SHOP INSPECTION

Vessel constructed by Ecodyne Corp. MRM Div. of Marmon Group, Massillon, Ohio

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 Ohio and employed by H.S.B.I. & I. Co.
 have inspected the component described in this Manufacturer's Data Report on June 22, 19 84, 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 6-22-84 Signed [Signature] Commissions Noted to 8967
(Authorized Inspector) (National Board Incl. endorsement, State, Prov. and No.)

FORM U-4 MANUFACTURER'S DATA REPORT SUPPLEMENTARY SHEET
As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

2.2

1. Manufactured and certified by Ecodyne Corp. MRM Div. of Marmon Group 607 First St. S.W. Massillon, Ohio
(Name and address of manufacturer)

2. Manufactured for Solar Turbines 7600 W. Tidwell Suite 600 Houston TX 77040-5796 3153-47648-681 39772
(Name and address of purchaser)

3. Location of installation Solar Turbines Inc. c/o Gulf Fabricators Inc. Sunray Rd Ingleside TX
(Name and address)

4. Type Horiz. 13131A-2 -- C-10764 5076 1984
(Horiz., vert., tank, etc.) (Mfg. serial No.) (CRN) (Dwg) (Nat'l Bd. No.) (Year built)

Data Report Item Number	Remarks	
* No. 6	Nom Thk	Corr. Allow.
Header Mat.	1/8"	Plug P/L 9-7/8" x 1-1/8" x 119-3/4" LG.
Front Hdr.		Tube P/L 9-7/8" x 1-1/8" x 119-3/4" LG.
SA516Gr70		Top P/L 4" x 7/8" x 119-3/4" LG.
		Bottom P/L 4" x 7/8" x 119-3/4" LG.
* No. 6		Corr. Allow.
Header Mat.		1/8"
Rear Hdr.		Plug P/L 9-7/8" x 1-1/8" x 119-3/4" LG.
SA516Gr70		Tube P/L 9-7/8" x 1-1/8" x 119-3/4" LG.
		Top P/L 4" x 7/8" x 119-3/4" LG.
		Bottom P/L 4" x 7/8" x 119-3/4" LG.
* No. 10		Corr. Allow.
Header Mat.	1/8"	(2 PS) Flo Nozzle 8" I.P.S. SCH80 .500 Wall
Front Hdr.		
SA-234 GRWPB		

Date 6-22-84 Co. name Ecodyne Corp. MRM Div. of Marmon Group Richard L. Lujan
(Date) (Manufacturer) (Signature) (Representative)

Date June 22, 1984 Signed Januel Enskine Commissions 701124 8967
(Date) (Authorized Inspector) (National Board (incl. endorsements), State, Prov., and No.)