

H-1608

111876

CORRECTED COPY

Corrected Data Report

FORM U-1 MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS
As Required by the Provisions of the ASME Code Rules, Section VIII, Division 11. Manufactured and certified by Praj Industries Limited, SEZ Unit, Plot No. 307 to 314, Sector IV, Kandla Special Economic Zone, Gandhidham, Kutch, Gujarat, 370230, India
(Name and address of Manufacturer)2. Manufactured for Louisiana Green Fuels LLC, La Crosse, Louisiana, U.S.A.
(Name and address of Purchaser)3. Location of installation La Crosse, Louisiana, U.S.A.
(Name and address)4. Type: Horizontal Heat Exchanger 06D068-H1608
(Type, vertical, or sphere) (Tank, separator, etc. Vessel, heat exchanger, etc.) (ASME Code No.)Not Applicable 06D068-2-GAD428 sheet 1 of 1 Rev.3 10 2008
(CRN) (Drawing No.) (Hull No.) (Year b. B.)5. ASME Code, Section VIII, Div. 1 Edition 2004, Addenda 2005 Not Applicable Not Applicable
(Section and Addenda (date)) (Code Case No.) (Special Service per UG-123(d))

Items 6-11 incl. to be completed for single wall vessels, jackets of jacketed vessels, shell of heat exchangers, or chamber of multi-chamber vessels.

6. Shell: (a) No. of course(s) THREE (b) Overall length (ft. & in.) 9 ft. & 3.09 in.

Course(s)			Material	Thickness		Long Joint (Cat. A)			Course Joints (Cat. A, B, & C)			Heat Treatment	
No.	Elements, ft.	Length (ft. & in.)	Spec. Grade or Type	Nom. (in.)	Corr. (in.)	Type	Full Spot, None	ER	Type	Full Spot, None	ER	Y450	Temp
1	31.5in.(ID)	4 ft. & 1.80 in.	SA240 TYPE304L	0.236	0.00	1	SPOT	0.85	--	--	--	--	--
1	31.5 in.(ID)	1 ft. & 1.58 in.	SA240 TYPE304L	0.236	0.00	1	SPOT	0.85	1	SPOT(Cat.B)	0.85	None	None
1	31.5 in.(ID)	2 ft. & 11.71 in.	SA240 TYPE304L	0.236	0.00	1	SPOT	0.85	1	SPOT(Cat.B)	0.85	None	None

7. Heads: (a) Not Applicable (b) Not Applicable
(Mat'l Spec. No., Grade or Type) (P.T. - Time & Temp.) (Mat'l Spec. No., Grade or Type) (P.T. - Time & Temp.)

Location (Top, Bottom, End)	Thickness		Radius		Elliptical Ratio	Conical Angle/Angle	Hemispherical Radius	Flat Extension	Stress to Pressure		Category A	
	Min. (in.)	Corr. (in.)	Conical (in.)	Hemispherical (in.)					Design	Design	Type	Full Spot, None
(a)	---	---	---	---	---	---	---	---	---	---	---	---
(b)	---	---	---	---	---	---	---	---	---	---	---	---

If removable, bolts used (describe other fastening) Not Applicable
(Mat'l Spec. No., Grade, etc. No.)8. Type of jacket Not Applicable Jacket closure Not Applicable
(Describe as open & weld bar, etc.) If bolted, describe or sketch.If bar, give dimensions: Not Applicable
9. MAWP 28 psi at max. temp. 282 °F Min. design metal temp. 32 °F at 28 psi
(conditions) (conditions) (conditions)10. Impact test None, Exempted as per UHA 51(d) & UHA 51(e) (at test temperature of --- °F)
(State yes or no and the corresponding impact testing)11. Hydro., pneum., or comb. test press. 34.136 psi Proof test Not Applicable

Items 12 and 13 to be completed for tube sections.

12. Tubesheet: SA240 TYPE304L 37.007 in. 1.417 in. 0.00 Welded
(Designation (Mat'l Spec. No.)) (Dist. in. (subject to proof)) (Nom. Ht., in.) (Corr. Allow., in.) (Attachment fastened or bolted)Not Applicable --- --- --- ---
(Finishing (Mat'l Spec. No.)) (Dist. in.) (Nom. Ht., in.) (Corr. Allow., in.) (Attachment)13. Tubes: SA240 TP304 1 in. 0.083 in. 400 Straight
(Mat'l Spec. No., Grade or Type) (O.D., in.) (Nom. Ht., in. or gauge) (Thickness) (Type (Straight or U))

Items 14-19 incl. to be completed for inner chamber of jacketed vessels or channels of heat exchangers.

14. Shell: (a) No. of course(s) One on each side (Left & Right) (b) Overall length (ft. & in.) 10.24 in. (for Left) & 2 ft. & 1 in. (for Right)

Course(s)			Material	Thickness		Long Joint (Cat. A)			Course Joints (Cat. A, B, & C)			Heat Treatment	
No.	Designation, in.	Length, ft. & in.	Spec. Grade or Type	Nom. (in.)	Corr. (in.)	Type	Full Spot, None	ER	Type	Full Spot, None	ER	Temp.	Time
1	31.5 in. (ID) (Left)	10.23 in.	SA240 TYPE304L	0.236	0.00	1	SPOT	0.85	1	SPOT (Cat.B)	0.85	None	None
1	31.5 in. (ID) (Right)	2 ft. & 1 in.	SA240 TYPE304L	0.236	0.00	1	SPOT	0.85	1	SPOT (Cat.B)	0.85	None	None

15. Heads: (a) SA240 TYPE304L (b) SA240 TYPE304L
(Mat'l Spec. No., Grade or Type) (P.T. - Time & Temp.) (Mat'l Spec. No., Grade or Type) (P.T. - Time & Temp.)

Location (Top, Bottom, End)	Thickness		Radius		Elliptical Ratio	Conical Angle/Angle	Hemispherical Radius	Flat Extension	Stress to Pressure		Category A	
	Min. (in.)	Corr. (in.)	Conical (in.)	Hemispherical (in.)					Design	Design	Type	Full Spot, None
(a) Left	0.20	0.00	31.5	3.15	---	---	---	---	No	Yes	1	FULL
(b) Right	0.20	0.00	31.5	3.15	---	---	---	---	No	Yes	1	FULL

If removable, bolts used (describe other fastening) SA 193 GR. B7 - 0.75" UNC x 0.289 in. Lg. 24 Hds. (For Each Side) (See Attached U-4 Form)
(Mat'l Spec. No., Grade, etc. No.)

FORM U-1 (Back)

16. MAWP 56 psi at max. temp. 122 °F Min. design metal temp. 32 °F at 68 psi
(actual) (design) (design)

17. Impact test: None, Exempted as per UHA 51(d) & UHA 61(e) (at test temperature of - °F)
(Indicate yes or no and the corresponding report tested)

18. Hydro. press. or proof test press. 73.55 psi Proof test Not Applicable

19. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size (in.)	Flange Type	Material	Flange	Nozzle Thickness	Corr.	Replacement Material	How Attached (FIG.)	Flange (FIG.)	Location (Inlet, Outlet)
COOLING WATER IN	1	NPS 12	CL 150, SOFF	SA 312 TP 304L	SA 105*	0.375	0.00	SA 240 TYPE 304L	UW 15.1 (c)	2-4(10a)	---
COOLING WATER OUT	1	NPS 12	CL 150, SOFF	SA 312 TP 304L	SA 105*	0.375	0.00	SA 240 TYPE 304L	UW 15.1 (c)	2-4(10a)	---
PRODUCT VAPORS IN	1	NPS 8	CL 150, SOFF	SA 312 TP 304L	SA 105*	0.375	0.00	SA 240 TYPE 304L	UW 15.1 (c)	2-4(10a)	---
PRODUCT CONDENSATE OUT	1	NPS 4	CL 150, SOFF	SA 312 TP 304L	SA 182 F304L	0.207	0.00	SA 240 TYPE 304L	UW 15.1 (c)	2-4(10a)	---
TUBE SIDE VENT	1	NPS 1	CL 3000 Coup.	SA 312 TP 304L	SA 182 F304L	0.178	0.00	---	UW 15.1 (c)	---	---
TUBE SIDE DRAIN	1	NPS 1	CL 3000 Coup.	SA 312 TP 304L	SA 182 F304L	0.178	0.00	---	UW 15.1 (c)	---	---
SHELL SIDE VENT	1	NPS 1	CL 3000 Coup.	SA 312 TP 304L	SA 182 F304L	0.178	0.00	---	UW 15.1 (c)	---	---

20. Supports: Skirt No Legs No Lugs No Others 2 Nos. Saddle Supports Attached Welded to Shell
(Yes or No) (No) (No) (Describe) (Where and how)

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

(List the name of part, item number, qty's, name and identifying number) Not Applicable

22. Remarks:
1. See Attached U4 Sheet (1 No.)
 2. Tube Length = 3 ft. 6 in.
 3. Cat. C & Cat. D: Joint Efficiency = 0.85
 4. Inspection openings are exempted for fixed tubesheet heat exchanger as per UG-45(a).
 5. Channel Flanges are designed as per Appendix-2. For details see attached Form U-4.
 6. Gasket Material (NACF AF8154): n = 2; y = 1600 psi.
 7. *All SA105 Flanges are provided with 1/4 in. Thick Overlay of ER308L.
 8. Pressure Relief Valve to be provided by client.

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. 38,848 Expires September 28, 2010

Date 20 June 09 Name Prai Industries Limited, SEZ Unit
(Manufacturer)

Signed Bhagwan Shinde
(Representative)

CERTIFICATE OF SHOP 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 Ohio and employed by L.R. Insurance Inc. of Delaware

have inspected the pressure vessel described in this Manufacturer's Data Report on July 25, 2008 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 the 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 20 JUNE '09 Signed Nagarajan Saetharaman
(Authorized Inspector)

Commission NB13190A - OHIO 716
(National Board, Inspectors, State, Province, and No.)

CERTIFICATE OF FIELD ASSEMBLY COMPLIANCE

We certify that the statements on this report are correct and that the field assembly construction of all parts of this vessel conforms with the requirements of ASME Code, Section VIII, Division 1. U Certificate of Authorization No. _____ Expires _____

Date _____ Name _____
(Assembler)

Signed _____
(Representative)

CERTIFICATE OF FIELD ASSEMBLY INSPECTION

I, the undersigned, holding a valid commission issued by National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of _____ and employed by _____ of _____ have compared the statements in this Manufacturer's Data Report with the described pressure vessel and state that parts referred to as data items, _____ not included in the certificate of shop inspection, have been inspected by me and to the best of my knowledge and belief, the Manufacturer has constructed and assembled this pressure vessel in accordance with ASME Code, Section VIII, Division 1. The described vessel was inspected and subjected to a hydrostatic test of _____ psi. 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 _____ Signed _____
(Authorized Inspector)

Commission _____
(National Board, Inspectors, State, Province, and No.)

CORRECTED COPY

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

1. Manufactured and certified by Praj Industries Limited, SEZ Unit, Plot No.397 to 314, Sector IV, Kandla Special Economic Zone, Gandhidham, Kutch, Gujarat, 370230, India
 (Name and address of Manufacturer)

2. Manufactured for Louisiana Green Fuels LLC, La Cossine, Louisiana, U.S.A.
 (Name and address of Purchaser)

3. Location of installation La Cossine, Louisiana, U.S.A.
 (Name and address)

4. Type Horizontal Heat Exchanger 08D058-H1608
 (Hot, Vent, or Special) (Tank, separator, heat exch., etc.) (Reg. serial No.)

Not Applicable 08D058 - 2 - GAD426 sheet 1 of 1 Rev.3 10 2008
 (CRN) (Drawing No.) (Nat'l. Id. No.) (Year built)

Data Report Item Number: _____ Remarks: _____

Form U-4
 Item No. 16

15. Heads; Channel Flanges

No.	Channel Flanges		Material	Thickness		P.C.D. (in.)	Gasket			Bolt			Heat Treatment	
							O.A. (in.)	Thk. (in.)	Material	Size	Qty	Material		
	ID (in.)	OD (in.)	Spec/Grade or Type	Hot (in.)	Cold (in.)				Spec/Grade or Type			Spec/Grade or Type	Temp. (°F)	Temp. (min.)
1	32.047	37.007	SA298 Gr.2 +SS 308L Overlay (1/8")	2.166	0.00	35.039	ID = 31.535 OD = 33.543	0.196	NACF (AF#164)	0.75" UNC	24	SA193 Gr.B7 / SA194 Gr.2H	None	None
1	32.047	37.007	SA298 Gr.2 +SS 308L Overlay (1/8")	2.166	0.00	35.039	ID = 31.535 OD = 33.543	0.196	NACF (AF#164)	0.75" UNC	24	SA193 Gr.B7 / SA194 Gr.2H	None	None

Form U-4
 Item No. 19

Purpose (Heat, Quench, Drain, etc.)	No.	Diameter of Size (in.)	Flange Type	Material		Nozzle Thickness		Attachment Material	How Attached		Location (Resp. Open)
				Nozzle	Flange	Min. (in.)	Corr. (in.)		Nozzle (F&S)	Flange (F&S)	
PRODUCT VAPORS OUT	1	NPS 2	CL150, SORF	SA 312 TP 304L	SA 162 F304L	0.218	0.00	-	UW 16.1 (c)	2-4(3)	-

Certificate of Authorization Type U No. 36,945 Expires September 28, 2010

Date 20 June 09 Name Praj Industries Limited, SEZ Unit Signed Bhawan Shinde
 (Manufacturer) (Representative)

Date 20 JUNE '09 Name Nagarajan Saetharaman Commission NB13180A - OHIO 715
 (Authorized Inspector) (Not Board rat. endorsement, State, Province and No.)