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FORM U-1 MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS
As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

1. Manufactured and certified by MELTER, S.A. DE C.V., CALLE SPECTRUM No.233 FINSA MONTERREY INDUSTRIAL PARK, APODACA, NUEVO LEON, C.P. 66600, MEXICO
(Name and Address of Manufacturer)
2. Manufactured for LUCITE INTERNATIONAL, INC./ MELTER USA
(Name and Address of Purchaser)
3. Location of installation UNKNOWN.
(Name and Address)
4. Type: VERTICAL HEAT EXCHANGER. MDI-763-7
(Horiz., vert., or sphere) (Tank, separator, jkt. vessel, heat exch., etc.) (Mfg's Serial No.)
- MDI- 763-7-1 REV. 1 401 2012
(CRN) (Drawing No.) (Nat'l. Bd. No.) (Year built)
5. ASME Code, Section VIII, Div. 1 EDITION 2010 & ADD. 11a 2714 --
Edition and Addenda (date) Code Case No. Special Service per UG-120 (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): 1 (b) Overall length: 7'- 09.250"

Course (s)			Material		Thickness		Long. Joint (Cat. A)			Circum. Joint (Cat. A, B, & C)			Heat Treatment	
No.	Diameter	Length	Spec./Grade or Type		Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time
1	28.00"	ID 07'-09.250"	SA-516-70		0.375"	0.125"	1	SPOT	85	1	SPOT	85	----	----
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7. Heads: (a) ---- (b) ----
(Mat'l Spec. No., Grade or Type) H.T. - Time & Temp. (Mat'l Spec. No., Grade or Type) H.T. - Time & Temp.
- | | Location (Top, Bottom, Ends) | Thickness | | Radius | | Elliptical Ratio | Conical Apex Angle | Hemispherical Radius | Flat Diameter | Side to Pressure | | Category A | |
|-----|------------------------------|-----------|-------|--------|---------|------------------|--------------------|----------------------|---------------|------------------|---------|------------|------------------|
| | | Min. | Corr. | Crown | Knuckle | | | | | Convex | Concave | Type | Full, Spot, None |
| (a) | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| (b) | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |

If removable, bolts used (describe other fastening) (a) -----

8. Type of jacket ----- Jacket closure -----
(Mat'l. Spec. No., Grade, Size, No.) (Describe as ogee & weld, bar, etc.)

If bar, give dimensions -----

If bolted, describe or sketch.

9. MAWP 150 PSI ---- at max. temp. 302 °F ---- Min. design metal temp. -20 °F at 150 PSI
(internal) (external) (internal) (external)

10. Impact test NO at test temperature of ----
(Indicate yes or no and the component (s) impact tested)

11. Hydro. test press. 195 PSI Proof test ----

Items 12 and 13 to be completed for tube sections.

12. Tubesheet: SA-240-316L 28.000 " 1.375" 0.0" BOLTED
Stationary (Mat'l. Spec. No.) Dia., in. (subject to press.) Nom. thk., in. Corr. Allow., in. Attachment (welded or bolted)
- ----- ----- ----- -----
Floating (Mat'l. Spec.No.) Dia., in. Nom. Thk., Corr. Allow., Attachment

13. Tubes: SA-249- 316L 3/4" B.W.G. 16 731 STRAIGHT
Mat'l. Spec.No., Grade or Type O.D., in. Nom. thk., in. or gauge Number Type (Straight or U)

Items 14-18 incl. to be completed for inner chambers of jacketed vessels or channels of heat exchangers.

14. Shell (a) No. of course (s): 2 (b) Overall length 07'-06.000"

Course (s)			Material		Thickness		Long. Joint (Cat. A)			Circum. Joint (Cat. A, B, & C)			Heat Treatment	
No.	Diameter	Length	Spec./Grade or Type		Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time
1	28.000 "	ID 5'-00.500"	SA-240-316L		0.187"	0.0"	1	FULL	100	1	FULL	100	NA	NA
1	28.000 "	ID 2'-05.500"	SA-240-316L		0.187"	0.0"	1	FULL	100	1	FULL	100	NA	NA

15. Heads: (a) SA-240-316L (b) SA-240-316L
(Mat'l. Spec. No., Grade or Type) H.T. - Time & Temp. (Mat'l. Spec. No., Grade or Type) H.T. - Time & Temp.

	Location (Top, Bottom, Ends)	Thickness		Radius		Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure		Category A	
		Min.	Corr.	Crown	Knuckle					Convex	Concave	Type	Full, Spot, None
(a)	TOP	1.687"	0.00"	----	----	----	----	----	28.00"	----	----	----	----
(b)	BOTTOM	0.1875"	0.00"	----	----	2:1	----	----	----	----	X	----	----

If removable, bolts used (describe other fastening) (a) -----

- (b) SA-193- B8M, 36 PCS. 3/4"Ø X 7. 000" LENGTH / NUTS SA-194- 8M
SA-193- B8M, 36 PCS. 3/4"Ø X 7. 625" LENGTH / NUTS SA-194- 8M
(Mat'l. Spec. No., Grade, Size, No.)

FORM U-1 (Back)

16. MAWP 116 PSI 14.7 PSI at max. temp. 302 °F 302 °F Min. Design metal temp. -20 °F at 116 PSI/F.V.
(internal) (external) (internal) (external)

17. Impact test NO at test temperature of ---
(Indicate yes or no and the component (s) impact tested)

18. Hydro. test press. 151 PSI Proof test -----

19. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Flange Type	Material		Nozzle Thickness		Reinforcement Material	How Attached		Location
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	(Insp. Open.)
INLET	1	10" NPS	LAP JOINT CL 150	SA-312-316L	SA-105	SCH 10s	0.000"	SA-240-316L	UW 16.1(q)	----	CHANNEL
INLET / OUTLET / LEVEL	4	2" NPS	WNRF CL 150	SA-312-316L	SA-182 F316L	SCH 80s	0.000"	---	UW 16.1(c)	----	CHANNEL
OUTLET	1	4 "NPS	LAP JOINT CL 150	SA-312-316L	SA-105	SCH 40s	0.125"	SA-240-316L	UW 16.1(q)	-----	CHANNEL
INLET/OUTLET	2	3" NPS	WNRF CL 150	SA-106-B	SA-105	SCH 80	0.125"	---	UW 16.1(c)	FIG.2.4(6)	SHELL
TEMPERATURE/ PUMP	2	1 1/2" NPS	WNRF CL 150	SA-312-316L	SA-182 F316L	SCH 80s	0.000"	---	UW 16.1(c)	FIG.2.4(6)	CHANNEL
			SEE FORM U4								

20. Supports: Skirt NO Lugs --- Legs --- Others SUPPORTS Attached SHELL / WELDED
(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, mfg's. name and identifying number)

22. Remarks : NO IMPACT TEST PER UG-20(f) & UHA-51, HYDROSTATIC TEST IN HORIZONTAL POSITION,
PRESSURE RELIEF DEVICE PER UG-125 BY OTHERS,
MAEWP= 150 PSI AT 302 °F ONLY FOR TUBES. UG-46(a). ITEM: 5117-7415-15 SEE FORM U4

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. 30908 Expires JANUARY 28 2014
Date NOV.-20-2012 Name MELTER S.A DE C.V. Signed PEDRO MARTINEZ
(Manufacturer) (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 of Province of OHIO and employed by HSB - CT. of HARTFORD, CT have inspected the pressure vessel described in this Manufacturer's Data Report on 01/15 20 13 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 01/15/13 Signed [Signature] Commissions NB141384, OH1098
(Authorized Inspector) (Nat'l. Board incl. endorsement, 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 -- 20 --
Date -- Name -- Signed --
(Assembler) (Representative)

CERTIFICATE OF FIELD ASSEMBLY INSPECTION

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 -- 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 -- Commissions --
(Authorized Inspector) (Nat'l. Board incl. endorsement, State, Province 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

1. Manufactured and certified by	MELTER, S.A. DE C.V., CALLE SPECTRUM No. 233, FINSA MONTERREY INDUSTRIAL PARK, APODACA, NUEVO LEON, CP66600, MEXICO		
	(Name and address of Manufacturer)		
2. Manufactured for	LUCITE INTERNATIONAL, INC./MELTER USA.		
	(Name and address of Purchaser)		
3. Location of installation	UNKNOWN.		
	(Name and address)		
4. Type:	VERTICAL	HEAT EXCHANGER	MDI-763-7
	(Horiz., vert., or sphere)	(Tank, separator, heat exh., etc.)	(Mfg's. Serial No.)
---	MDI-763-7-1 REV 1	401	2012
(CRN)	(Drawing No.)	(Nat'l. Bd. No.)	(Year built)

[illegible]

Certificate of Authorization: Type U No. 30,908 Expires JANUARY 28 20 14

Date NOV-20-2012 Name MELTER S.A. DE C.V. Signed 
(Manufacturer) (Representative)

Date 01/15/13 Name  Commission NB14138(A), OH1098
(Authorized Inspector) (Nat'l Board incl. endorsement, State, Province and No.)