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 ALFA LAVAL THERMAL INC., 5400 International Trade Dr., Richmond, VA 232[illegible]1
(Name and address of Manufacturer)

2. Manufactured for MILES INCORPORATED, P.O. Box 118088, Charleston, Sc 29423
(Name and address of Purchaser)

3. Location of installation MILES INCORPORATED, 1530 Bushy Park Road, Charleston, Sc 29423 ,
(Name and address)

4. Type: Vert. (Horiz., vert., or sphere) | PLATE HEAT EXCHANGER (Tank, separator, jkt. vessel, heat exh., etc.) | 30102-83927 (Mfg's serial No.)

(CRN) | 88110-031 -F.1 (Drawing No.) | 8866 (Nat'l. Bd. No.) | 1995 (Year built)

5. ASME Code, Section VIII, Div. 1 1992 A93 (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): _____ (b) Overall length (ft & in.): 14 5/8 " X 34 3/8 "

Course(s)			Material	Thickness		Long. Joint (Cat. A)			Circum. Joint (Cat. A, B, & C)			Heat Treatment	
No.	Diameter, in	Length (ft & in.)	Spec./Grade or Type	Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time
			SA-240-316	0.020									

7. Heads: (a) SA-515-70 (Mat'l Spec. No., Grade or Type) H.T. Time & Temp. (b) SA-515-70 (Mat'l Spec. No., Grade or Type) H.T. Time & Temp.

	Location (Top, Bottom, Ends)	Thickness Min.	Thickness Corr.	Radius Crown	Radius Knuckle	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure Convex	Side to Pressure Concave	Category A Type	Category A Full, Spot, None	Category A Eff.
(a)	Fixed	1	3/4	"			40	X 19"	FLAT					
(b)	Movable	1	3/4	"			35	X 19"	FLAT					

If removable, bolts used (describe other fastening) SA-193,B7 1 " DIA. , 6 BOLTS
(Mat'l Spec. No., Grade, size, No.)

8. Type of jacket _____ Jacket closure _____
(Describe as ogee & weld, bar, etc.)

If bar, give dimensions _____ If bolted, describe or sketch.

9. MAWP 150 (internal) _____ (external) psi at max. temp. 266 (internal) _____ (external) °F Min. design metal temp. -5 °F at 150 psi.

10. Impact test NO (Impact Exemption UCS 66(b)(1))
(Indicate *yes* or *no* and the component(s) impact tested)

11. Hydro., pneu., or comb. test press. 225 XXXXXXXXXXXX Proof test _____

Items 12 and 13 to be completed for tube sections.

12. Tubesheet:

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., in.	Corr. Allow., in.	Attachment

13. Tubes:

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) _____ (b) Overall length (ft & in.): _____

Course(s)			Material	Thickness		Long. Joint (Cat. A)			Circum. Joint (Cat. A, B, & C)			Heat Treatment	
No.	Diameter, in	Length (ft & in.)	Spec./Grade or Type	Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time

15. Heads: (a) _____ (Mat'l Spec. No., Grade or Type) H.T. Time & Temp. (b) _____ (Mat'l Spec. No., Grade or Type) H.T. Time & Temp.

	Location (Top, Bottom, Ends)	Thickness Min.	Thickness Corr.	Radius Crown	Radius Knuckle	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure Convex	Side to Pressure Concave	Category A Type	Category A Full, Spot, None	Category A Eff.
(a)														
(b)														

If removable, bolts used (describe other fastening) _____
(Mat'l Spec. No., Grade, size, No.)

FORM U-1 (Back)

16. MAWP _____ (internal) _____ (external) psi at max. temp. _____ (internal) _____ (external) °F. Min. design metal temp. _____ °F at _____ psi.

17. Impact test _____ (Indicate yes or no and the component(s) impact tested)

18. Hydro., pneu., or comb. test press. _____ Proof test _____

19. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Flange Type	Material: Nozzle	Material: Flange	Nozzle Thickness: Nom.	Nozzle Thickness: Corr.	Reinforcement Material	How Attached: Nozzle	How Attached: Flange	Location (Insp. Open.)
Inlet	2	4"	STUDS SA193-B7			3/4	"				
Outlet	2	4"	STUDS SA193-B7			3/4	"				

20. Supports: Skirt _____ (Yes or no) Lugs _____ (No.) Legs _____ (No.) Others Feet (Describe) Attached Bolted (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: _____

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. 25,017 Expires August 9 , 19 96

Date 2/3/95 Name Alfa Laval Thermal Inc. (Manufacturer) Signed _____ (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 VA and employed by Commercial Union Insurance Company of Boston, MA have inspected the pressure vessel described in this Manufacturer's Data Report on 2-3 , 19 95 , 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 2-6-95 Signed _____ (Authorized Inspector) Commissions NB10539-A VA685 (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 _____ , 19 _____

Date _____ Name _____ (Assembler) Signed _____ (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 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) Commissions _____ (Nat'l Board incl. endorsement, State, Province and No.)