

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 Harliss Specialties Corp., Biddle Road, Irwin, Pa. 15642
(Name and address of manufacturer)

2. Manufactured for Nash-Kinema Inc., P.O. Box 176 Elizabeth, Pa. 15037
(Name and address of purchaser)

3. Location of installation Hershey Chocolate Company Hershey, Pennsylvania
(Name and address)

4. Type Vertical 1186 None C-701475 1186 1987
(Horiz. or vert.) (Mfg's serial No.) (CRN) (Drawing) (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 1986
Year

A86 None None
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, or sheets of heat exchangers

6. Shell: SA515 Gr 70 .375" .0625" 3' 1.25" 15' 0"
Matl (Spec No. Grade) Nom Thk (in.) Corr Allow (in.) Diam I.D. (ft & in.) Length (Overall) (ft & in.)

7. Seams: Double welded Spot 85 None
Long (Dbl. Sngl.) R.T. (Spot or Full) Eff. (%) H.T. Temp. (F)

N.A. Double welded. Spot 2
Time Girth (Dbl. Sngl.) R.T. (Spot, Partial, or Full) No. of Courses

8. Heads: (a) Matl. None (b) Matl. None
(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)	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
(b)	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

If removable, bolts used (describe other fastenings) N.A.

(Matl. Spec No. Gr. Size No.)

9. Type of Jacket None Proof Test None

10. Jacket Closure None If bar, give dimensions None If bolted, describe or sketch.

11. MAWP 75 psi at max. temp. 150 °F. Min. temp. (when less than -20°F) N.A. °F.
Hydro., pneu., or comb. test press. Hydro at 120 psi

Items 12 and 13 to be completed for tube sections

12. Tubesheets: SA240 Type 304 41.875" 1.6875" 0 Welded
Stationary Matl (Spec No. Gr.) Diam (in.) (Subject to pressure) Nom Thk (in.) Corr Allow (in.) Attach (Welded Bolted)

None N.A. N.A. N.A. N.A.
Floating Matl (Spec No. Gr.) Diam (in.) Nom Thk (in.) Corr Allow (in.) Attach

13. Tubes: SA249 Type 304 .75" 18 BWG 1.182 Straight
Matl (Spec No. Gr.) O.D. (in.) Nom Thk (in. or Gauge) Number Type (Straight or U)

Items 14-17 incl. to be completed for inner chambers of jacketed vessels or channels of heat exchangers

14. Shell: SA240 Type 304 .25" 0 3' 1.5" End a = 4' 3"
Matl (Spec No. Grade) Nom Thk (in.) Corr Allow (in.) Diam I.D. (ft & in.) Length (Overall) (ft & in.)

15. Seams: Double welded. Spot 85 None
Long (Dbl. Sngl.) R.T. (Spot or Full) Eff. (%) H.T. Temp. (F)

N.A. Double welded. Spot 1 each end.
Time Girth (Dbl. Sngl.) R.T. (Spot, Partial, or Full) No. of Courses

16. Heads: (a) Matl. SA240 Type 304 (b) Matl. SA240 Type 304
(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)	Top	.1724"	0	N.A.	N.A.	2:1	N.A.	N.A.	N.A.	Concave
(b)	Bottom	.1724"	0	N.A.	N.A.	2:1	N.A.	N.A.	N.A.	Concave

If removable, bolts used (describe other fastenings) 40 Studs, 5/8-11 SA193B7

(Matl. Spec No. Gr. Size No.)

17. MAWP FV & 150 psi at max. temp. 350 °F. Min. temp. (when less than -20°F) N.A. °F.
Hydro., pneu., or comb. test press. Hydro at 292 psi.

Form U-1 (Back)

18. Nozzles, Inspection and Safety Valve Openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diam. or Size	Type	Matl.	Nom. Thk.	Reinforcement Matl.	How Attached	Location
Inlet	1	6" Pipe	C1150f1g	SA106B	.280"	Integral Weld	Welded	Shell
Outlet	1	6" pipe	C1150f1g	SA106B	.280"	Integral Weld	Welded	Shell
Vent	1	3/4"	Threaded	SA105	3000#	N.A.	Welded	Shell
Drain	1	3/4"	Threaded	SA105	3000#	N.A.	Welded	Shell
Inlet	1	18" Pipe	C1150f1g	SA312 Type 304	.25"	1" SA240 Type 304	Welded	Shell, Top Bonnet
Inlet	1	3" Pipe	C1150f1g	SA312 Type 304	.216"	Integral weld	Welded	Top Head
Outlet	1	3" Pipe	C1150f1g	SA312 Type 304	.216"	Integral Weld	Welded	Shell, Bottom Bonnet
Drain	1	4" Pipe	C1150f1g	SA312 Type 304	.237"	Integral Weld	Welded	Bottom Head
Vent	1	3/4"	Threaded	SA182 Type 304	3000#	Integral Weld	Welded	Shell, Bottom Bonnet
Sight Glass	2	3"	C1150f1g	SA240 Type 316	1"	N.A.	Welded	Shell, Bottom Bonnet

19. Supports: Skirt No Lugs 4 Legs 0 Other None Attached Welded to shell.
(Yes or no) (No) (No) (Describe) (Where and how)

20. Remarks: Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report None
(Name of part, item number, mfr's name and identifying stamp)

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. 19,280 expires 3/23, 19 90

Date 11/11/87 Co. name Harliss Specialties Corp. Signed [Signature]
(Manufacturer) (Representative)

CERTIFICATE OF SHOP INSPECTION

Vessel constructed by Harliss Specialties Corporation, Biddle Road, Irwin, Pa. 15642

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 Pennsylvania and employed by Lumbermens Mutual Casualty Company

of Long Grove, Illinois have inspected the pressure vessel described in this Manufacturer's Data Report on 11-11, 19 87, 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 the 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 11-11-87 Signed Paul Sasser Commissions NB 4325 Pa 1760
(Authorized Inspector) (Nat'l Board, State, Province and No.)

CERTIFICATE OF FIELD ASSEMBLY COMPLIANCE

We certify that the field assembly construction of all parts of this vessel conforms with the requirements of Section VIII, Division 1 of the ASME Boiler and Pressure Vessel Code.

"U" Certificate of Authorization No. _____ expires _____, 19 _____

Date _____ Co. name _____ Signed _____
(Assembler that certified and constructed field assembly) (By 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 that, 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, Prov. and No.)