

1. Manufactured and certified by Perry Products Corporation 25 Mt. Laurel Road, Hainesport, NJ 08036
(Name and address of Manufacturer)
2. Manufactured for McNeil Specialty Products Company, Highway 43 & Industrial Highway, McIntosh, AL 36553
(Name and address of Purchaser)
3. Location of installation Same
(Name and address)
4. Type: Horizontal Reboiler / Heat Exchanger B-5803 --- D-98520 Rev. 2 5769 1999
(Horiz., vert., or sphere) (Tank, separator, jkt. vessel, heat exh., etc.) (Mfg's serial No.) (CRN) (Drawing No.) (Nat'l. Bd. No.) (Year built)
5. ASME Code, Section VIII, Div. 1 1995-97A --- ---
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): 4 (b) Overall length (ft & in.): 18'-0"

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
2	36"	8'-0"	SA-240 Tp304L		1/4"	0	1	None	70%	1	None	70%	---	---
1	* See #21	1'-5 5/16"	SA-240 Tp304L		1/4"	0	1	None	70%	1	None	70%	---	---
1	26"	6-11/16"	SA-240 Tp304L		1/4"	0	1	None	70%	1	None	70%	---	---

7. Heads: (a) SA-240 Tp304L (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 | Eff. |
| (a) | L. End | .245" | 0 | 36" | 2-1/4" | --- | --- | --- | --- | --- | Yes | S | None | 85% |
| (b) | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

- If removable, bolts used (describe other fastening) ---
(Mat'l Spec. No., Grade, size, No.)
8. Type of jacket --- Jacket closure ---
(Describe as ogee, flange, bar, etc.)

- If bar, give dimensions --- If bolted, describe or sketch
9. MAWP 100 --- psi at max. temp. 350 --- °F. Min. design metal temp. 20 °F at 100 psi.
(internal) (external) (internal) (external)

10. Impact test No per Code paragraphs UG-20 (f), UCS-66(a) and UHA-51(d)(e).
(Indicate yes or no and the component(s) impact tested)

11. Hydro., pneu., or comb. test press. 167 Proof test ---
- Items 12 and 13 to be completed for tube sections.

12. Tubesheet: SA-240 Tp304L 26" 1-3/4" 0 Bolted
Stationary (Mat'l Spec. No.) Dia., in. (subject to press.) Nom. thk., in. Corr. Allow., in. Attachment (welded or bolted)
- Body Fig. SA-516 Gr70 26-1/8" ID x 30-5/8" OD 1-3/4" 0 Retained by liner
Floating (Mat'l Spec. No.) Dia., in. Nom. thk., in. Corr. Allow., in. Attachment
13. Tubes: SA-249 TP304L 3/4" 18 GA. 222 U
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): 1 (b) Overall length (ft & in.): 2'-3"

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
1	26"	2'-3"	SA-240 Tp304L		3/16"	0	1	None	70%	1	None	70%	---	---

15. Heads: (a) SA-240 Tp304L (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 | Eff. |
| (a) | R. End | .1619" | 0 | 26" | 2-1/4" | --- | --- | --- | --- | --- | --- | S | None | 85% |
| (b) | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

- If removable, bolts used (describe other fastening) SA-193 B7, 3/4" Dia. x 9" Lg., (24)
(Mat'l Spec. No., Grade, Size, No.) RR 1026.10

16. MAWP 100 (internal) (external) psi at max. temp. 350 (internal) (external) °F Min. design metal temp. 20 °F at 100 psi.

17. Impact test No per Code paragraphs UG-20 (f), UCS-66(a) and UHA-51(d)(e).

(Indicate yes or no and the component(s) impact tested)

18. Hydro., pneu., or comb. test press. 167

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 (Insp. Open)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	
Various	2	4"	CL150 LJ	SA-312 TP304L	SA-105	.237"	0	SA-240 Tp304L	q	1a	---
Various	6	2"	CL150 LJ	SA-312 TP304L	SA-105	.154"	0	SA-240 Tp304L	q	1a	---
Various	3	2"	CL150 LJ	SA-312 TP304L	SA-105	.154"	0	---	d	1a	---
Outlet	3	6"	Weld End	SA-312 TP304L	---	.280"	0	SA-240 Tp304L	q	---	---
Inlet	1	10"	CL150 LJ	SA-312 TP304L	SA-105	.365"	0	SA-240 Tp304L	q	1a	---
Manway	1	24"	100# Plate SO	SA-240 304L	SA-516 Gr70	3/8"	0	---	d	3	Shell

20. Supports: Skirt --- Lugs --- Legs --- Others (2) Saddles Attached Welded to main 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, mfg's. name and identifying number)

22. Remarks: * This shell course is an eccentric reducer with 36" major diameter and 26" minor diameter.

Unit not designed for lethal service. UG-46(a). For noncorrosive service.

Unit hydro-tested in horizontal position. Full capacity safety relief valve installed elsewhere in system.

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. 4328 Expires 12/31 2000

Date MAY 12 1999 Name Perry Products Corporation Signed B. Messick
(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 the State or Province of NJ and employed by HSB I&I Co. of Hartford, CT have inspected the pressure vessel described in this Manufacturer's Data Report on MAY 12 1999, 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 MAY 12 1999 Signed [Signature] Commissions NB 7050AB, NJ 476
(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 _____

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 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 _____ Commissions _____
(Authorized Inspector) (Nat'l Board incl. endorsement, State, Province and No.)