EQUIP. CODE NO. YTC-382

NATIONAL BOARD

U

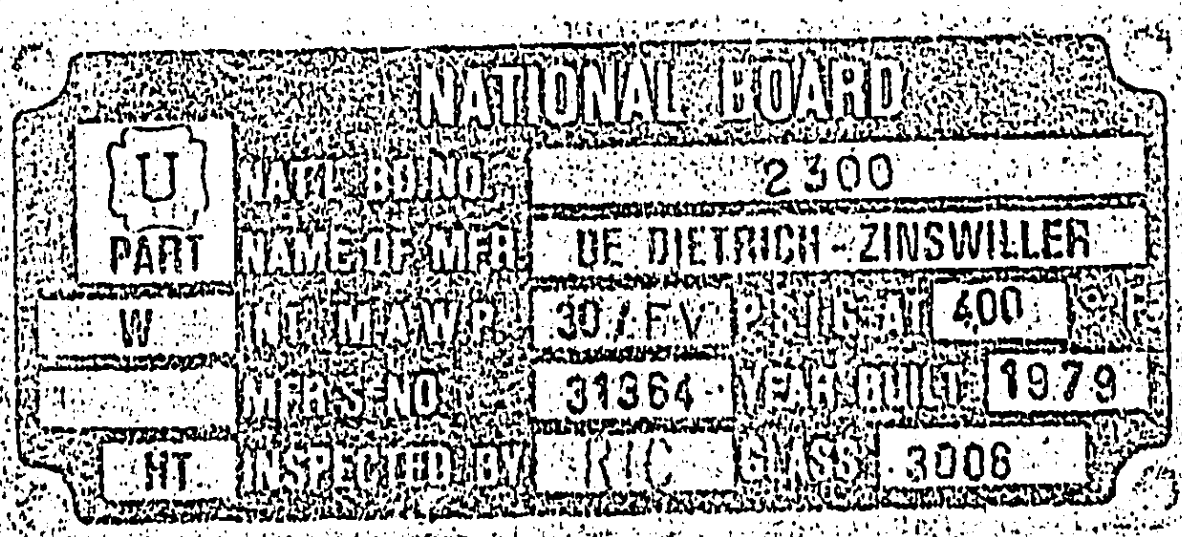
CODE BOND	2299
NAME OF MFR	DE DIETRICH - ZINSWILLER
UNIT M.A.W.P.	30 / F.V.
UNIT DESIGN TEMP.	400 °C
W	
JKT. M.A.W.P.	
JKT. DESIGN TEMP.	°C
RT 3	
JKT. M.A.W.P.	
JKT. TEST PRESS.	
HT	
MFR'S NO.	31363
YEAR BUILT	1979
INSPECTED BY	RIC
GLASS	3008
NOM. CAP.	150 U.S. GALS
ITEM NO.	B8-T-516

TANK SH.THK. $^{15}/_{32}$" TOP HD.THK. BOT.HD.THK. $^{25}/_{64}$" HD RAD. 31 $^{1}/_{2}$"

JKT.SH.THK. JKT.HD.THK. JKT.HD.RAD.

MFG. BY DE DIETRICH & CIE-FRANCE
DIST. BY DE DIETRICH (U.S.A.), INC.
UNION, N.J. U.S.A.

EQUIP. CODE NO. YTC-382



CT 150 Galluna - vessel EQUIP. CODE NO. YTC-382

FORM U-1 MANUFACTURERS' DATA REPORT FOR PRESSURE VESSELS

As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

88-T-516

1. Manufactured by De Dietrich & Cie, 1 rue d'Offwiller, 67110 Zinswiller, France (Name and address of manufacturer)

2. Manufacturer for _____ (Name and address of purchaser)

3. Location of installation Hoffmann La Roche, Inc. Belvidere, New Jersey (Name and address)

4. Type Vertical (Horiz., or vert. tank) Vessel No. 31363 (Mfgr's Serial No.) N/A (CRN) EP-3609 A (Drawing) 2299 (Nat'l Bd No.) Year Built 1979

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 1977 (Year) and Addenda to Winter 77 (Date) and Code Case no. N/A. Special service per UG-120(d) N/A

Manufacturers' Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report: N/A (Name of part, item number, mfgr's name and identifying stamp)

Items 6-11 incl. to be completed for single walled vessels, jackets of jacketed vessels, or shells of heat exchangers

6. Shell: Material SA 285B (Spec. No., Grade) Nominal Thickness 15/32 in. Corrosion Allowance N/A in. Diam. 2 ft 7-1/2 OD in. Length 3 ft 7-29/32 in.

7. Seams: Longitudinal Welded Dbl Butt (Welded, Dbl., Sngl., Lap, Butt) R.T. Spot (Spot or Full) Efficiency 85 % H.T. Temp * F

Time * Girth Welded Dbl Butt (Welded Dbl., Sngl., Lap, Butt) R.T. Partial (Spot, Partial or Full) No. of Courses 1

8. Heads: (a) Material SA 265 B (Spec. No., Grade) (b) Material N/A (Spec. No., Grade)

	Location (Top, Bottom, Ends)	Minimum Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio
(a)	Bottom	25/64"	N/A	31-1/2"	3-5/32"	N/A
(b)						

	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a)	N/A	N/A	N/A	Concave
(b)				

If removable, bolts used (describe other fastenings) 36 clamps, SA 449, Ø 3/4" (Material, Spec. No., Gr., Size, No.) attached to vessel

9. Type of Jacket N/A Proof Test: _____

10. Jacket Closure N/A (Describe as ogee & weld, bar, etc.) If bar, give dimensions _____ If bolted, describe or sketch.

11. Constructed for max. allowable working pressure 30 & F.V psi at max. temp 400° F Min. temp. (when less than −20 F) N/A F.

Hydrostatic, pneumatic, combination test pressure 33 psi

Items 12 and 13 to be completed for tube sections

12. Tubesheets: Stationary—Material N/A (Spec. No. Gr.) Diam. _____ (Subject to pressure) in. Nominal Thickness _____ in. Corrosion Allowance _____ in. Attachment _____ (Welded, Bolted) Floating—Material _____ (Spec. No., Grade) Diam. _____ in. Nominal Thickness _____ in. Corrosion Allowance _____ in. Attachment _____

13. Tubes: Material N/A (Spec. No., Gr.) O.D. _____ in. Nominal Thickness _____ 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: Material N/A (Spec. No. Gr.) Nominal Thickness _____ in. Corrosion Allowance _____ in. Diam. _____ ft _____ in. Length _____ ft _____ in.

15. Seams: Longitudinal N/A (Welded, Dbl., Sngl. Lap. Butt) R.T. _____ (Spot or Full) Efficiency _____ % H.T. Temp _____ F Time _____

Girth _____ (Welded, Dbl., Sngl., Lap, Butt) R.T. _____ (Spot, Partial, or Full) No. of courses _____

16. Heads: (a) Material N/A (Spec. No., Grade) (b) Material _____ (Spec. No., Gr.)

	Location (Top, Bottom, Ends)	Minimum Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio
(a)						
(b)						

	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a)				
(b)				

If removable, bolts used (describe other fastenings) _____ (Material, Spec. No., Gr., Size, No.)

P.O. 2266477B (88T516)

(12/31/77) 421376/2

This form (E00100) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N.Y. 10017

FORM U-1 (BACK) EQUIP. CODE NO. VTC-382

17. Constructed for max. allowable working pressure N/A psi at max temp. ____ F. Min. temp. (when less than -20 F) ____ F.
Hydrostatic, pneumatic, or combination test pressure ____ psi.

Items below to be completed for all vessels where applicable.

18. Safety Valve Outlets: Number ____N/A____ Size ____ Location ____

19. Nozzles:

Purpose (Inlet, Outlet, Drain)	Number	Diam. or Size	Type	Material	Nominal Thickness	Reinforcement Material	How Attached
Inlet	1	6" Dbl	Butt Girth	SA 181-1	35/64"	None	Welded
Outlet	1	2" Dbl	Butt Girth	SA 181-1	11/32"	None	Welded

20. Inspection Openings:
Manholes No. 0 Size ____ Location ____
Handholes No. 0 Size ____ Location ____
Threaded No. 0 Size ____ Location ____

21. Supports: Skirt No (Yes or no) Lugs 2 lifting (No.) Legs 0 (No.) Other 4 side support lugs + 2 insulation rings Attached welded on shell & head (Where and how)

22. Remarks: *Vessel H.T. at high temperature for extended period of time due to glass lining process. Vessel hydrotested with cover N.B. 2300
Glass lined steel vessel for chemical use.

CERTIFICATE OF 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.

Date Nov.20, 1979 Signed De Dietrich & Cie (Manufacturer) by WAGNER R. U.C. MGR. (Representative)

"U" Certificate of Authorization No. 1171B expires April 16, 19 80

CERTIFICATE OF SHOP INSPECTION

Vessel made by De Dietrich & Cie at Zinswiller, France

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 The Royal Indemnity Company of New York, N.Y. have inspected the pressure vessel described in this Manufacturers' Data Report on Nov. 20, 1979, 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 Manufacturers' 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 28 Nov., 1979
Signed (Inspector) B.G. AKERMAN Commissions N.B. 8074 (Nat'l Board, State, Province and No.)

CERTIFICATE OF COMPLIANCE FOR FIELD WORK

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.

Date ____ Signed ____ (Manufacturer) by ____ (Representative)

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

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 Manufacturers' 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 Manufacturers' 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, State, Province and No.)

CT 150 Gallons - cover EQUIP. CODE NO. YTC-382

FORM U-2 MANUFACTURERS' PARTIAL DATA REPORT

A part of a Pressure Vessel Fabricated by One Manufacturer for Another Manufacturer
As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

1(a) Manufactured by De Dietrich & Cie, 1 rue d'Offwiller, 67110 Zinswiller, France
(Name and address of manufacturer of part)

(b) Manufactured for Hoffmann La Roche, Inc. Belvidere, New Jersey
(Name and address of manufacturer of vessel)

2. Manufacturer's Serial No. of Part 31364 CRN N/A Dwg No. EP-3609A Nat'l Bd. No. 2300 Year Built 1979

3. (a) Drawing Prepared by De Dietrich & Cie

(b) Description of Part Inspected Glass lined steel cover

4. The chemical and physical properties of all parts meet the requirements of material specifications of the ASME Boiler and Pressure Vessel Code. The construction, and workmanship conform to ASME Rules, Section VIII, Division 1 1977 (Year)

and Addenda through Winter 77 (Date) and Code Case No. N/A

5. Special Service per UG-120(d) N/A

6. Postweld Heat Treatment: Temperature * F. Time *

Items 7-12 incl. to be completed for single walled vessels, jackets of jacketed vessels, or shells of heat exchangers

7. Shell: Material N/A (Spec. No., Grade) Nominal Thickness ____ in. Corrosion allowance ____ in.

Diam. ____ ft ____ in. Length ____ ft ____ in.

8. Seams: Longitudinal N/A (Welded, Dbl., Sngl., Lap, Butt) R.T. ____ (Spot or Full) Efficiency ____ %

H.T. Temp. ____ F Time ____ Girth ____ (Welded Dbl., Sngl., Lap. Butt)

R.T. ____ (Spot, Partial, or Full) No. of Courses ____

9. Heads (a) Material SA 285 C (Spec. No., Grade) (b) Material N/A

	Location (Top, Bottom, Ends)	Minimum Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio
(a)	Top	35/64"	N/A	31-1/2"	N/A	N/A
(b)						

	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a)	N/A	N/A	N/A	Concave
(b)				

If removable, bolts used (describe other fastenings) 36 clamps, SA 449, Ø 3/4" attached to vessel (Material, Spec. No., Gr., Size, No.)

10. Type of Jacket N/A Proof Test ____

11. Jacket Closure N/A (Describe as ogee & weld, bar, etc.) If bar, give dimensions ____

If bolted, describe or sketch.

12. Constructed for max. allowable working pressure 30 & F.V. psi at max. temp. 400° F Min. temp. (when less than -20 F) N/A F. Hydrostatic, ~~pneumatic~~ test pressure 33 psi.

Items 13 and 14 to be completed for tube sections

13. Tubesheets: Stationary — Material N/A (Spec. No. Gr.) Diam. ____ (Subject to pressure) in.

Nominal Thickness ____ Corrosion Allowance ____ in. Attachment ____ (Welded, Bolted)

Floating — Material ____ (Spec. No., Gr.) Diam. ____ in.

Nominal Thickness ____ in. Corrosion Allowance ____ in.

Attachment ____

14. Tubes: Material N/A (Spec. No., Gr.) O.D. ____ in. Nominal Thickness ____ in. or gauge

Number ____ Type ____ (Straight or "U")

Items 15-16 incl. to be completed for inner chambers of jacketed vessels or channels of heat exchangers

15. Shell: Material N/A (Spec. No., Grade) Nominal Thickness ____ in. Corrosion Allowance ____ in.

Diam. ____ ft. ____ in. Length ____ ft ____ in.

16. Seams: Longitudinal N/A (Welded, Dbl. Sngl. Lap. Butt) R.T. ____ (Spot or Full) Efficiency ____ %

H.T. Temp ____ F Time ____ Girth ____ (Welded, Dbl. Sngl. Lap. Butt) R.T. ____ (Spot, Partial or Full) No. of courses ____

(12/31/77) This form (E00110) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N.Y. 10017

421376/2 P.O. #R-664477-B (88T516)

FORM U-2 (BACK) EQUIP. CODE NO. YTC-382

17. Heads: (a) Material N/A (Spec. No. Grade) (b) Material _____ (Spec. No., Grade)

	Location (Top, Bottom, Ends)	Minimum Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio
(a)						
(b)						

	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a)				
(b)				

If removable, bolts used (describe other fastenings) _____ (Material, Spec. No., Gr., Size, No.)

18. Constructed for max. allowable working pressure N/A psi at max. temp. ____ F. Min. temp. (when less than -20 F) _____ F. Hydrostatic, pneumatic, or combination test pressure _____ psi.

Items below to be completed for all vessels where applicable

19. Safety Valve Outlets: Number N/A Size _____ Location _____

20. Nozzles:

Purpose (Inlet, Outlet, Drain)	Number	Diam. or Size	Type	Material	Nominal Thickness	Reinforcement Material	How Attached
Inlet	1	6" Dbl	Butt Girth	SA 181-1	15/32"	None	Welded
Inlet	2	2" Dbl	Butt Girth	SA 181-1	15/32"	None	Welded

21. Inspection Openings:
Manholes No. 0 Size _____ Location _____
Handholes No. 0 Size _____ Location _____
Threaded No. 0 Size - Location _____

22. Supports: Skirt No (Yes or no) Lugs Lifting (No.) 0 (No.) Other N/A (Describe)
Attached Welded on cover (Where and how)

23. Remarks: *Cover H.T. at high temperature for extended period of time due to glass lining process. Cover hydrotested with vessel N.B. 2299. Glass lined steel cover for chemical use.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that all details of material, construction, and workmanship of this vessel conform to the ASME Code for Pressure Vessels, Section VIII, Division 1.

Date Nov. 20, 79 Signed De Dietrich & Cie (Manufacturer) by WAGNER R. Q.C. MGR. (Representative)

"U" Certificate of Authorization No. 1171B expires April 16, 1980.

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 Royal Indemnity Company of New York, N.Y. have inspected the part of a pressure vessel described in this Manufacturer's Partial Data Report on Nov. 20, 1979, and state that, to the best of my knowledge and belief, the Manufacturer has constructed this part in accordance with the ASME Boiler and Pressure Vessel Code, Section VIII, Division 1.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Manufacturers' Partial 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 28 Nov, 1979

Signed _____ (Authorized Inspector) S.G. AKERMAN Commissions N.B. 8074 (Nat'l Board, State, Province and No.)