

De Dietrich



102222

DE DIETRICH (USA), INC., 3920 FM 3386, P.O. BOX 10069, CORPUS CHRISTI, TX. 78410/78460 • 512-265-9900 • FAX 512-265-9625

July 16, 1998

CUSTOMER:

RHONE POULENC
Highway 25
Institute, WV 25112
Attn: Tandy Asbury

JOB No.
RACE 30053

P. O. # : IN013081
S. O. # : 57802A
SERIAL # : 1327
NATL. BOARD # : 302
VESSEL TYPE : SA-1000
ITEM # : N/A

RP PROP. No.
6482-26021
(ORIGINAL #3 Hydrolysis Rx)

Package includes the following:

1. R-1 (copy)
2. U-1, U-4 (history copies)
3. Nameplates U Stamp
R Stamp
Customer Identification Plates
4. Glass Thickness Readings
5. Material Test Reports
6. Plug Summary
7. Certificate of Hydrostatic Test

Please sign the enclosed copy of this cover page signifying receipt of three Data Booklets and return to the attention of:

Barbara Genualdi
De Dietrich (USA), Inc.
P. O. Box 10069
Corpus Christi, Texas 78460

or

Fax the signed copy to (512) 265-9005 - ATTN: Barbara

DATE: _____

CUSTOMER REPRESENTATIVE IN RECEIPT

#102222

FORM R-1 REPORT OF WELDED REPAIR
in accordance with provisions of the National Board Inspection Code

SA-1000
SO: 57802A
PO: IN013081

1. Work performed by DE DIETRICH (USA), INC. "R" NUMBER: 95
(name of repair organization) (Form R No.)
HWAY 44 & MCKINZIE ROAD, CORPUS CHRISTI, TEXAS 78410
(address)
2. Owner RHONE POULENC, AG COMPANY
(name)
P.O. BOX 13985, DURHAM, NC 27709
(address)
3. Location of installation RHONE POULENC, AG COMPANY
(name)
HIGHWAY 25, INSTITUTE, WV, 25112
(address)
4. Unit identification PRESSURE VESSEL Name of original manufacturer DE DIETRICH (USA), INC.
(boiler, pressure vessel)
5. Identifying nos.: 1327 302 N/A N/A 1992
(mfg serial no.) (National Board No.) (jurisdiction no.) (other) (year built)
6. NBIC Edition/Addenda: 1995 EDITION, 96 ADDENDA Original Construction Code: ASME SECTION VIII, DIV. 1
(if known) 1989 EDITION, 91 ADDENDA
(incl. edition and addenda)
7. Description of work: REMOVED JACKET FROM INTERNAL CHAMBER AND PERFORMED THE FOLLOWING REPAIRS:
(use supplemental sheet, Form R-4, if necessary)
- 1) REPLACED JACKET EXPANSION JOINT.
- 2) WELD REPAIRED 8" NOZZLE ON TOP HEAD.
- 3) REGLASSED INTERNAL CHAMBER AND REINSTALLED JACKET.

WELDERS: 35, 57, 61

Pressure Test, if applied JKT: 90 psi

8. Replacement Parts. Attached are Manufacturer's Partial Data Reports or Form R-3's properly completed for the following items of this report:
- A
- (name of part, item number, data report type, mfr's. name and identifying stamp)

9. Remarks: PARTS USED IN REPAIR:

- 1) 12" EXPANSION DIAPHRAGM, PN: 7612661, SA-285 GR.B, DN: 3598
12" EXPANSION COLLAR, PN: 7612679, SA-106 GR.B
3/4" HALF COUPLING, PN: 7649654, SA-105

CERTIFICATE OF COMPLIANCE

I, Alejandro Carrizales, certify that to the best of my knowledge and belief the statements in this report are correct and that all material, construction, and workmanship on this Repair conforms to the National Board Inspection Code.

National Board "R" Certificate of Authorization No. 2176 expires on MAY 28, 19 99
Date 7-9, 19 98 DE DIETRICH (USA), INC. Signed [Signature]
(name of repair organization) (authorized representative)

CERTIFICATE OF INSPECTION

I, JOE BLUEMEL, holding a valid Commission issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the jurisdiction of TEXAS and employed by C.U.I.C. of BOSTON, MA have

inspected the work described in this report on July 2 & 9, 19 98 and state that to the best of my knowledge and

belief this work complies with the applicable requirements of the National Board Inspection Code.

By signing this certificate, neither the undersigned nor my employer makes any warranty, expressed or implied, concerning the work described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage or loss of any kind arising from or connected with this inspection.

Date July 9, 19 98 Signed [Signature] Commissions NB9009B TX1021
(inspector) (National Board (incl. endorsements), and jurisdiction, and no.)

102222

SA-1000

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

Tag#R3210

1. Manufactured and certified by DeDietrich (USA), Inc., Hwy. 44 & McKinzie Rd., P.O. Box 10069, Corpus Christi, TX 78460
(Name and address of Manufacturer)
2. Manufactured for Rhone Poulenc, PO Box 2831, Charleston, WV 25330 Attn: PO#8549-49001
(Name and address of Purchaser)
3. Location of Installation Rhone Poulenc, Route 25 Rec. Gate, Institute, WV 25112-0400
(Name and address)
4. Type: Vertical Jkt. Vessel 1327 NA FD-8459 302 1992
(Horiz., vert., or sphere) (Tank, separator, jkt. vessel, heat exh., etc.) (Mfg's serial No.) (CRN) (Drawing No.) (Natl. Bd. No.) (Year built)
5. ASME Code, Section VIII, Div. 1 1989 '91 Addenda 1970-1 --- --- ---
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 (ft & in.): 74' 3/4"

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	65' 15/16"	74' 3/4"	SA516-70		1/2"	.0625	Butt	Spot	85%	Butt	Spot	85%	NA	NA

7. Heads: (a) <u>SA516-70</u> (b) <u>SA516-70</u>													
(Mtrl Spec. No., Grade or Type) H.T. - Time & Temp							(Mtrl 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) Bottom	1/2"	.0625	6 15/16"	11/16"	--	--	--	--	x	x	--	--	--
(b)													

If removable, bolts used (describe other fastening) NA

8. Type of jacket Type II, per Fig. 9.2 (Mtrl Spec. No., Grade, size, No.) Fig. 9.5(b-2) & Fig. 9.6(e-1)
Jacket closure (Describe as ogee & weld, bar, etc.)
- If bar, give dimensions 90 FV psi at max. temp. 500 500 °F Min. design metal temp. -20 °F at 90 psi
(internal) (external) (internal) (external)
9. MAWP 90 FV psi at max. temp. 500 500 °F Min. design metal temp. -20 °F at 90 psi
(internal) (external) (internal) (external)
10. Impact test exempted per UG20(f)

11. Hydro., pneu., or comb. test press. 135 (Indicate yes or no and the component(s) impact tested)
Proof test

Items 12 and 13 to be completed for tube sections.

12. Tubesheet: NA
Stationary (Mtrl Spec. No.) --- Dia., in. (subject to press.) --- Nom. thk., in. --- Corr. Allow., in. --- Attachment (welded or bolted) ---
- Floating (Mtrl Spec. No.) --- Dia., in. --- Nom. thk., in. --- Corr. Allow., in. --- Attachment ---
13. Tubes: NA Mtrl 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.): 70' 3/4"

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	61' 1/2"	70' 3/4"	SA516-70		3/4"	--	Butt	Spot	85%	Butt	Spot	85%	*	*

15. Heads: (a) <u>SA516-60</u> (b) <u>SA516-60</u>													
(Mtrl Spec. No., Grade or Type) H.T. - Time & Temp							(Mtrl 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) Top	25/32	--	50 3/8"	9 5/8"	--	--	--	--	x	x	--	--	--
(b) Bottom	3/4	--	50 3/8"	9 5/8"	--	--	--	--	x	x	--	--	--

If removable, bolts used (describe other fastening) NA

SO# 41157B

(Mtrl Spec. No., Grade, Size, No.) PO#8549-49001

This form may be obtained from The National Board of Boiler and Pressure Vessel Inspectors, 1055 Crupper Ave., Columbus, OH 43229

NB-26
Rev. 10

16. MAWP 90 FV psi ix. temp. 500 500 °F Min. des. metal temp. -20 °F at 100 psi.
(Internal) (external) (Internal) (external)

17. Impact test exempted per UG20(f)

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

18. Hydro., pneu., or comb. test press. 150 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	
Inlet/Outlet	2	3"	L/J	SA181-60	SA181-60	5/8	--	None	Welded	Forged	Top Head
Inlet/Outlet	3	4"	L/J	SA181-60	SA181-60	1/2	--	None	Welded	Forged	Top Head
Outlet	1	3"	L/J	SA181-60	SA181-60	1/2	--	None	Welded	Forged	Btm. Head
Baffle	1	8"	L/J	SA181-60	SA181-60	1/2	--	None	Welded	Forged	Top Head
Spare	1	8"	L/J	SA181-60	SA181-60	1/2	--	None	Welded	Forged	Top Head

20. Supports: Skirt --- Lugs 4 Legs --- Others --- Attached --- 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)

Top head, DeDietrich (France), SN35312, NB#5942

Vessel, SA-1000 fabricated by Berry Contracting & Berry Fabricators, U-stamped, SN72892

22. Remarks:

Glass lined vessel for chemical service

*Heat treated @ high temperature for extended periods of time due to glass lining process

Safety relief valve supplied by customer

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. 24,787 Expires May 3, 19 93

Date 11-12-92 Name DeDietrich (USA), Inc. Signed J. Szeplaki (Representative)
(Manufacturer)

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 TX and employed by C.U.I.C. of Boston, Mass. have inspected the pressure vessel described in this Manufacturer's Data Report on 10-15, 19 92, 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 Nov 15, 1992 Signed J. Blumel Commissions NB#9009A-TX#1021
(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 ---, 19 ---

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.)

(name and address of manufacturer)

(name and address of purchaser)

(name and address)

1992
(year built)

Jkt. I/O	3
Cleanout Port	2
Vent	1
Diaphragm Vent	1

NB-67
Rev. 4

102222



NAT'L BD NO
CERTIFIED BY
INT. M.A.W.P.
INT. M.D.M.T.
JKT. M.A.W.P.
JKT. M.A.W.P.
JKT. M.D.M.T.
MFR'S. NO
INSPECTED BY

302
DE DIETRICH (USA), INC TX
100/FV PSIG AT 500 °F
-20 °F AT 100/FV PSIG
90 PSIG AT 500 °F
90 PSIG W/INT. FV
-20 °F AT 90 PSIG
1327 YEAR BUILT 1992
CUL

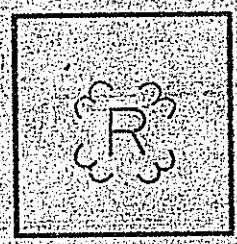
GLASS 3009	NOM. CAP. 1000	U.S. GAL.
ITEM NO. R-3230	JKT SH. THK. 50	
TANK SH. THK. 75	TOP HD. THK. 75	JKT HD THK 50
TANK HD. I.C.R. 50.3	BOT HD. THK. 75	JKT HD. I.C.R. 66.93

De Dietrich



MANUFACTURED BY
DE DIETRICH (USA), INC.
CORPUS CHRISTI, TEXAS

REPAIRED BY



NO. 2176

DE DIETRICH (USA), INC.



INT MAWP	100/FV	PSIG AT	500	°F
INT MDMT	-20	°F AT	100/FV	PSIG
JKT MAWP	90	PSIG AT	500	°F
JKT MAWP	90	PSIG W/INT FV		
JKT MDMT	-20	°F AT	90	PSIG
DATE	7-1998	SO	57802A	

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Trans

#102222

