

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

1. Manufactured by De Dietrich & Cie Zinswiller, France  
(Name and address of manufacturer)

2. Manufactured for De Dietrich Inc. Union / New Jersey (U.S.A.)  
(Name and address of purchaser)

3. Location of Installation Stock  
(Name and address)

4. Type Vertical Vessel No. 30970 N/A DIACVI-529-2  
(Horiz. or vert. tank) (Mfg's. Serial No.) (CRN) (Drawing)

1659 Year Built 1978  
(Nat'l. Bld. No.)

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 1974 and Addenda to Subsec. 76  
and Code Case no. N/A Special service per UG-120(d) N/A (Year) (Date)

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, mfg's. name and identifying stamp)

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

6. Shell: Material SA 285 B Nominal Thickness 35/64 in. Corrosion Allowance N/A in.  
(Spec. No., Grade)

Diam. B ft 6-3/8 in. OD Length 7 ft 9-7/8 in.

## 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 Febr. 10, 78 Signed De Dietrich & Cie WAGNER R. Q.C MGR.  
(Manufacturer) (Representative)

"U" Certificate of Authorization No. 11718 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 New York and employed by The Royal Indemnity Company

of New York N.Y. have inspected the pressure vessel described in this Manufacturers' Data Report on February 10 19 78 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 February 10, 1978  
Signed S. G. AKERMAN Commissions N.B. 8074  
(Inspector) (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 \_\_\_\_\_ by \_\_\_\_\_  
(Manufacturer) (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 \_\_\_\_\_ Commissions \_\_\_\_\_  
(Authorized Inspector) (Nat'l. Board, State, Province and No.)

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7. Seams: Longitudinal Welded, Dbl. Butt R.T. Spot Efficiency 85%  
 (Welded, Dbl. Sngl. Lap, Butt) (Spot or Full)  
 H.T. Temp. 1630° F Time 90min Girth Welded, Dbl. Butt R.T. Partial No. of Courses 1  
 (Welded, Dbl. Sngl. Lap, Butt) (Spot, Partial, or Full)  
 8. Heads: (a) Material SA 285 C (Spec. No. Grade) (b) Material SA 285 C  
 Location (Top, Bottom, End) 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 35/64" N/A 102-3/8" 10-15/64" N/A N/A N/A N/A Concave  
 (b) Bottom 35/64" N/A 102-3/8" 10-15/64" N/A N/A N/A N/A Concave  
 If removable, bolts used (describe other fastenings) N/A  
 (Material Spec. No. Gr. Size No.)

9. Type of Jacket N/A Proof Test \_\_\_\_\_  
 10. Jacket Closure NA If bar, give dimensions \_\_\_\_\_  
 If bolted, describe or sketch. (Describe as ogee and weld bar, etc.)  
 11. Constructed for max. allowable working pressure 40 DR F.V. psi at max. temp. 400° F. Min. temp. (when less than -20 F) N/A F. Hydrostatic ~~XXXXXXXXXXXXXXX~~ test pressure 44 psi.

Items 12 and 13 to be completed for tube sections

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

13. Tubes: Material N/A 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 Nominal Thickness \_\_\_\_\_ in. Corrosion Allowance \_\_\_\_\_ in.  
 Diam. \_\_\_\_\_ ft (Spec. No. Gr.) in. Length \_\_\_\_\_ ft in.

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

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

16. Heads: (a) Material N/A (Spec. No. Grade) (b) Material \_\_\_\_\_  
 Location (Top, Bottom, End) Minimum Thickness Corrosion Allowance Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Pressure (Convex or Concave)  
 (a) \_\_\_\_\_  
 (b) \_\_\_\_\_  
 If removable, bolts used (describe other fastenings) N/A  
 (Material Spec. No. Gr. Size No.)

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:

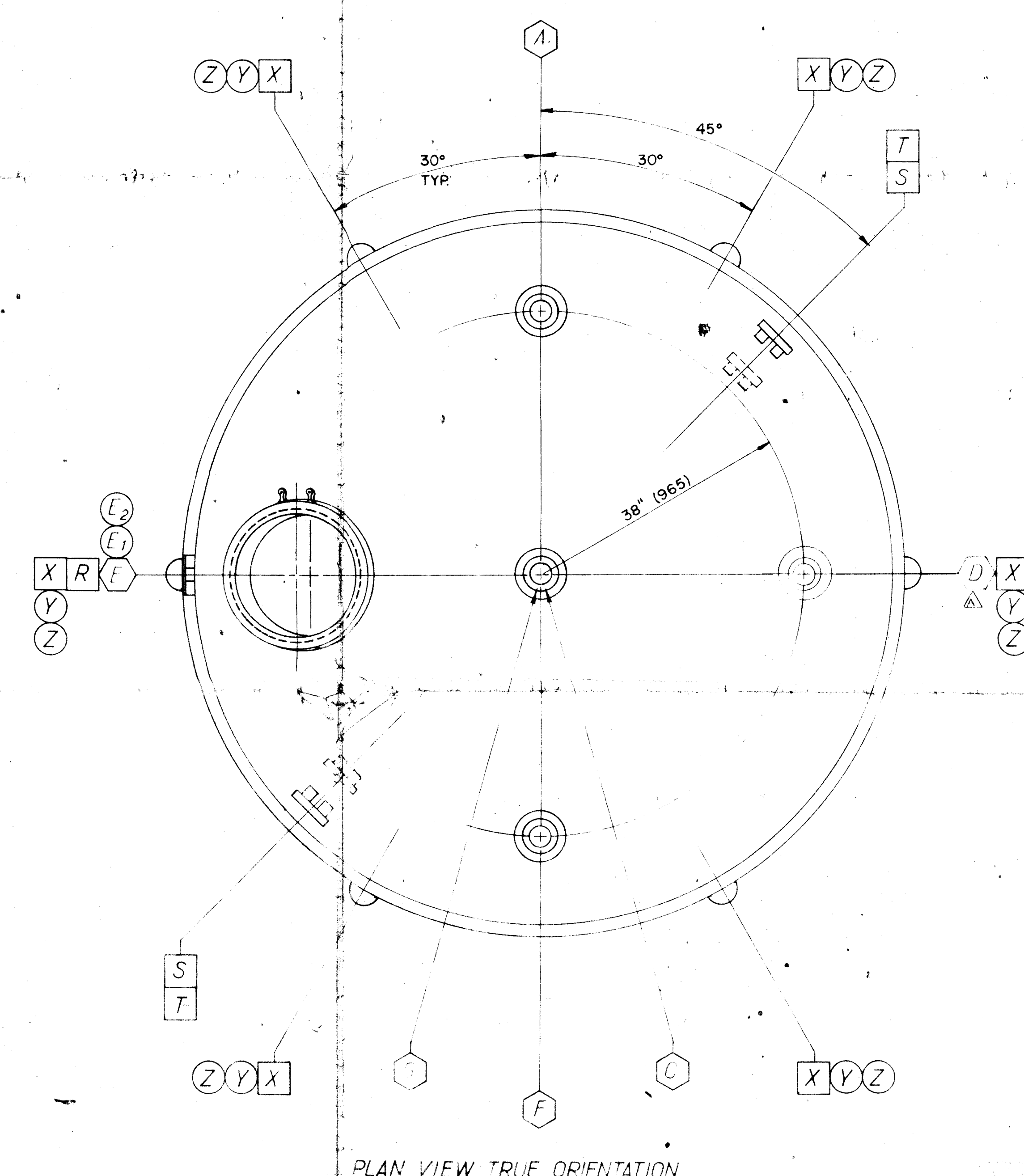
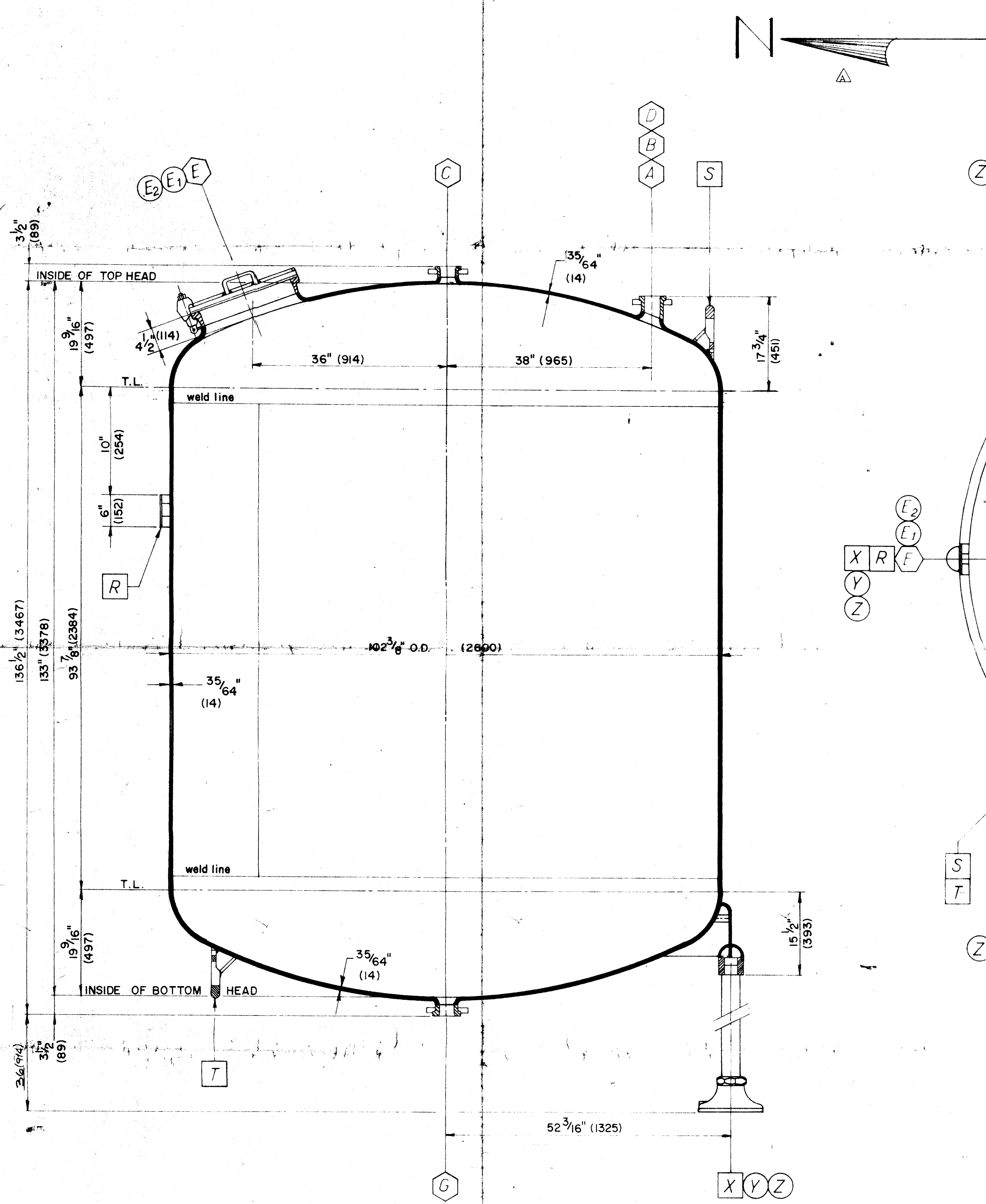
Purpose (Inlet, Outlet, Drain)	Number	Diam. or Size	Type	Material	Nominal Thickness	Reinforcement Material	How Attached
Inlet	4	3"	Lap Joint	SA 181-1	15/32"	None	Welded
Outlet	1	3"	Lap Joint	SA 181-1	15/32"	None	Welded

20. Inspection Openings: 1 Size 17-3/4" dia. Location On top head  
 Manholes No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
 Handholes No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
 Threaded No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
 21. Supports: Skirt Yes Lugs 2 lifting Legs 6-3" pipe Other 2 guiding lugs  
 (Yes or No) (No) (Describe)  
 Attached Welded on heads.  
 (Where and how)

22. Remarks Glass lined steel vessel for chemical use.

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NATIONAL BOARD			
	NAME-BD NO.	1659	
	NAME-DE-MFR	DE DIETRICH - ZINSWILLER	
	INTL M-A-W-P	40 / FV	PSIB A 400
	W	JKT-M-A-W-P	PSIB A
RT 3	JKT-M-A-W-P	PSIB W INT FV	
HT	MFR'S NO.	30970	YEAR BUILT 1978
INSPECTED BY		R I C	
CLASS	3008	NOM GAP	4000
ITEM NO.			
TANK SH. THK. $35/64$ " TOP HD. THK. $35/64$ " BOT. HD. THK. $35/64$ " HD. ICR. $162 5/8$ "			
JKT. SH. THK. JKT. HD. THK. JKT. HD. ICR.			
	MFG. BY DE DIETRICH & CIE-FRANCE DIST. BY DE DIETRICH (U.S.A.), INC. UNION, N.J. U.S.A.		



PLAN VIEW TRUE ORIENTATION

MARK	SIZE	SERVICE	MARK	SIZE	SERVICE
ATTACHMENTS			NOZZLE SCHEDULE		
			E	18"	MANWAY W/PLAIN HINGED COVER
			C	3"	EMERGENCY VENT, CONSV. VENT, A.V.C.B.
			D	3"	LI
			F	3"	INLET
R	-	NAMEPLATE SUPPORT BRACKET	H	3"	N2 INLET
S	-	(2) LIFTING LUGS TOP HEAD	A.G	3"	BOTTOM OUTLET
T	-	(2) GUIDING LUGS BOTTOM HEAD			
X	3"	(6) LEG CPLG.			
ACCESSORIES					
E1	18"	PLAIN ROUND HINGED COVER			
E2	7/8"	(18) M. CLAMPS W/RETAINING RING			
Y	3"	(6) PIPE LEGS (SCH. 40)			
Z	3"	(6) ADJUSTABLE FEET PER DWG. P-390B & P-391A			

- GENERAL NOTES**
- 1- BOLT CIRCLE & O.D. OF ALL SPLIT LOOSE FLANGES IN ACCORDANCE WITH ANSI B16.5 SERIES 150 LBS. EXCEPT AS NOTED.
  - 2- ALL DIMENSIONS ARE STEEL TO STEEL, AND ARE NOMINAL DUE TO HIGH TEMP. FIRING.
  - 3- DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH ASME CODE, SEC VIII, DIV. I, LATEST ADDENDA.
  - 4- ELECTROSTATIC TESTS 15,000 VOLTS AT FACTORY, 6000 VOLTS IN FIELD.
  - 5- ALL NOZZLES SUPPLIED WITH SPLIT LOOSE FLANGE, EXCEPT WHERE NOTED.

**MATERIALS OF CONSTRUCTION**

VESSEL- SHELL & HEADS	SA 285 B
MANHOLE COVER	SA 285B
NOZZLES	SA 181-1
FLANGES	SA 181-1 OR SA 515-60
BACK UP FLANGES	SA 105
CLAMPS	SA 449
GASKETS	TFE ENVELOPE W/ASBESTOS/ CORRUGATED METAL INSERTS.
GLASS	NO. 3008, BLUE, ACID/ALKALI/ THERMAL SHOCK RESISTANT.
PLUGS	(IF REQUIRED) TANTALUM/ TFE / FURAN RESIN.
PAINT	PRIMER: ZINC-RICH EPOXY BOUND. FINISH: WHITE, EPOXY ENAMEL.
LIFTING LUGS	SA 285 B
BOLTS (when req'd.)	SA 193-B
NUTS	SA 325 OR SA 194-2H

**SPECIFICATIONS**

DESIGN PRESSURE	40 psig or 2.75 bars
TEST PRESSURE	44 psig 3.03 bars
DESIGN TEMPERATURE	400° F 204° C
CORROSION ALLOW.	NONE
RADIOGRAPH (longitudinal/circumferential)	SPOT & PARTIAL
HEAT TREATMENT	YES
ASME STAMP & N.B. REG.	YES
VOL- EACH HEAD	
VOL- PER INCH ST. SIDE	
VOL- TOTAL	4,52 gal 15,716 L
WEIGHT- EMPTY	8,700 # 3,947 kg
WEIGHT- FLOODED W/H2O	43,430 # 19,703 kg
WEIGHT- SHIPPING	

**RELEASED FOR CONSTRUCTION**

**De Dietrich (USA), Inc.**  
U.S. ROUTE 22 • UNION, NEW JERSEY **93686**

**VT-4000 GALLON GLASTOR® STORAGE TANK**

CUSTOMER: **FMC CORP.**  
P.O. # **0-454-4201** BALTIMORE MD.

ENGINEERS: **SINGMASTER, BEYER** NY, NY

CUST. REF. DWG. / SPEC. NO. **248 9003 FMC 2 0224** QUANTITY **(1) ONE**

DWG. BY	INT.	DATE	DDZ SO#	TAG NO(S)
	L2	8-8-79		T-205
APPROVED			DDU PO#	
RELEASED			SCALE	

DWG. NO. **D-3531A**  
**93686**

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REV	DESCRIPTION	ENGR.	DATE	BY
A	REV PER CUST MARK UP DWG 8-13-79	WKC	9-10-79	9