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

93699

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

2. Manufacturer for Singmaster & Breyer, Inc. New York, New York
(Name and address of purchaser)

3. Location of installation FMC Corp. Baltimore, Maryland
(Name and address)

4. Type Vertical (Horiz., or vert. tank) Vessel No. 31756 (Mfgr's Serial No.) N/A VT 2600-027A (CRN) (Drawing) 2367 (Nat'l Brd No.) Year Built 1980

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 Summer 78 (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 SA285B (Spec. No., Grade) Nominal Thickness 35/64 in. Corrosion Allowance N/A in. Diam. 8 ft 6-3/8 in. Length 7 ft 4-11/32 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., Dngl., Lap, Butt) R.T. Partial (Spot, Partial or Full) No. of Courses 1

8. Heads: (a) Material SA 285 B (Spec. No., Grade) (b) Material SA 285 B (Spec. No., Grade)

	Location (Top, Bottom, Ends)	Minimum Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio
(a)	Top	35/64"	102-3/8"	10-15/64"	N/A	N/A
(b)	Bottom	35/64"	102-3/8"	10-15/64"	N/A	N/A

	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a)	N/A	N/A	N/A	Concave
(b)	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 N/A (Describe as ogee & weld, bar, etc.) If bar, give dimensions If bolted, describe or sketch.

11. Constructed for max. allowable working pressure 40 & F.V. psi at max. temp. 400° F Min. temp. (when less than −20 F) N/A F.
Hydrostatic, pneumatic, or combination test pressure 44 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.)

FORM U-1 (BACK)

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.

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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	15/32"	None	Welded
Inlet	5	3" Dbl	Butt Girth	SA 181-1	15/32"	None	Welded
Outlet	1	4" Dbl	Butt Girth	SA 181-1	15/32"	None	Welded

20. Inspection Openings:
Manholes No. 1 Size 17-3/4"dia. Location on top head
Handholes No. 0 Size _____ Location _____
Threaded No. 0 Size _____ Location _____

21. Supports: Skirt Yes (Yes or no) Lugs _____ (No.) Legs _____ (No.) Other 2 guiding lugs (Describe) Attached Welded on heads (Where and how)
2 lifting 6-3"pipe 2 insulation rings+

22. Remarks: *Vessel H.T. at high temperature for extended period of time due to glass lining process. 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 Feb.14,80 Signed De Dietrich &Cie (Manufacturer) by WAGNER R. Q.C. MGR. (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 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 Feb.11 1980, 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 25 Feb, 1980

Signed _____ (Inspector) S.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

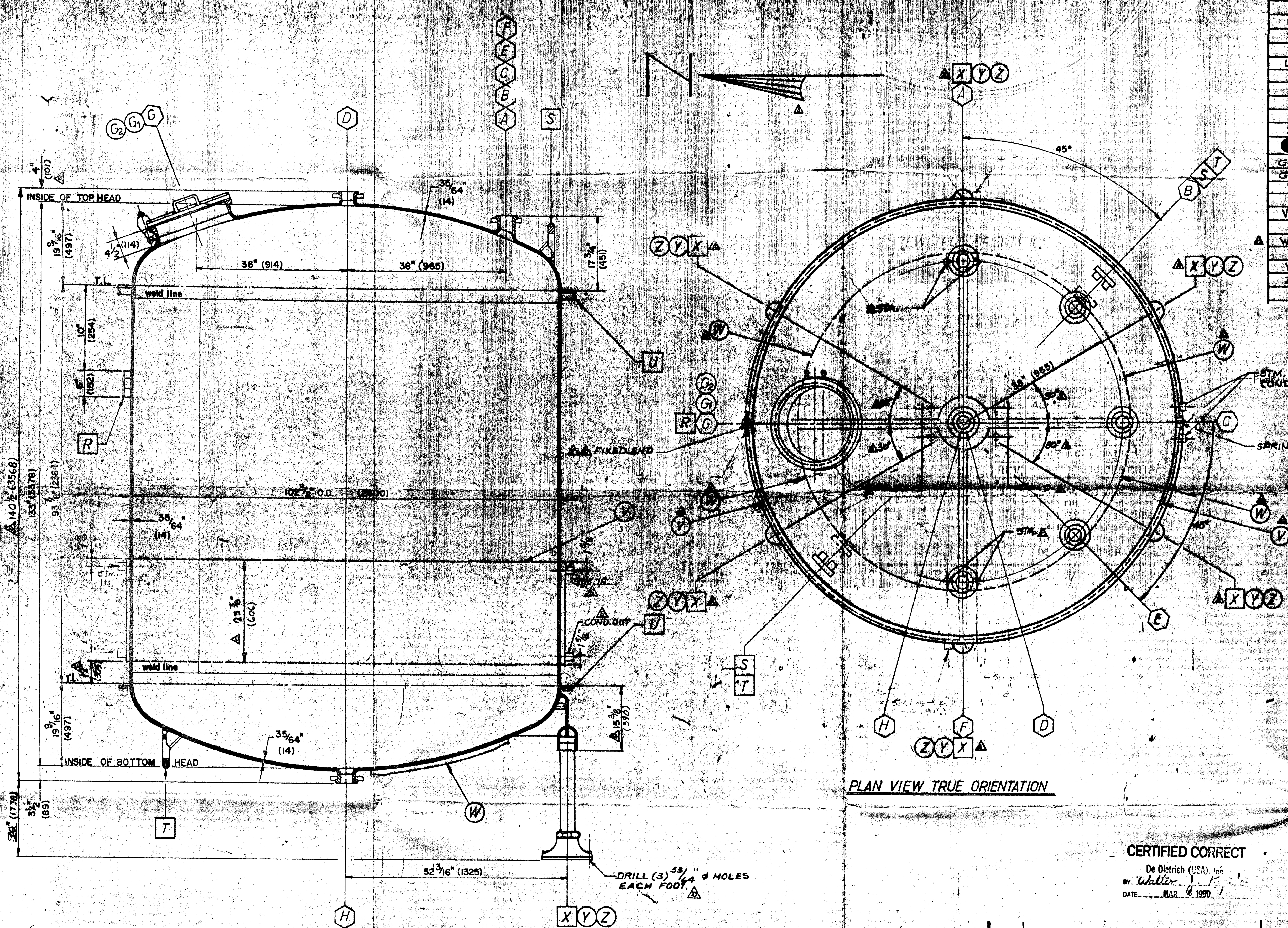
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of _____ and employed by _____ of _____ have compared the statements in this Manufacturers' Data Report with the described pressure vessel and state that parts 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) Commisisons _____ (Nat'l Board, State, Province and No.)



ATTACHMENTS		
R	-	NAMEPLATE SUPPORT BRACKET
S	-	(2) LIFTING LUGS TOP HEAD
T	-	(2) GUIDING LUGS BOTTOM HEAD
U	-	Insulation Rings Top & Bottom Per Dwg. A-38854
X	3"	(6) LEG CPLG.

NOZZLE SCHEDULE		
G	18"	MANWAY W/PLAIN HINGED COVER
B	3"	TEMP CONTROLLER TIC-3540
C	3"	[illegible]
D	6"	[illegible] VENT/CONS. VENT/[illegible]
E	3"	[illegible]
F	3"	LEVEL TRANSMITTER LT-3540
[illegible]	3"	[illegible]
H	4"	Bottom Outlet

ACCESSORIES		
G1	18"	PLAIN ROUND HINGED COVER
G2	7/8"	(18) M CLAMPS W/RETAINING RING
V	-	(2) [illegible] Lg. Panel Coils (Shell)
W	-	(4) Panel Coil (Bottom Head)
Y	3"	(6) PIPE LEGS
Z	3"	(6) ADJUSTABLE FEET PER. DWG. PI-390B & PI-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. 3006, 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 — SA [illegible]
NUTS — SA 325 OR SA [illegible]

SPECIFICATIONS		
DESIGN PRESSURE	40 psig. or F.V.	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	4152 gal	15,716 L.
WEIGHT-EMPTY	8,700#	3,947 kg.
WEIGHT-FLOODED W/ H_2O	43,430#	19,703 kg.
WEIGHT-SHIPPING		

CERTIFIED CORRECT
De Dietrich (USA), Inc.
BY Walter J. [illegible]
DATE MAR 6 1980

V.P.-P.O.-C454 4001 1D

REV	DESCRIPTION	ENGR.	DATE	BY
E	REV. PANEL COILS	WK	3-6-80	OF
D	AS BUILT	WK	2-12-80	CN
C	Rev. Panel Coils.	WK	12-3-79	LO
B	REV. PER CUST. MARKED UP DWG. 9-25-79	WK	10-23-79	CN
A	Rev. Per Cust. Marked up Dwg. 8-13-79	WK	9-12-79	LO

De Dietrich (USA), Inc. #93699
U.S. ROUTE 22 • UNION, NEW JERSEY

VT-4000 GALLON GLASTOR® STORAGE TANK

CUSTOMER: FMC CORP
P.O.# 0454-4001 BALTIMORE, MD.
ENGINEERS: SINGMASTER & BREYER, INC. NY, NY.
CUST. REF. DWG. / SPEC. NO.
QUANTITY (1) One
TAG NO.(S) T-354

	INT.	DATE		
DWG. BY	LO	8-7-79	D.D.Z. SO#	421-722
APPROVED	WK	9-21-79	D.D.U.S.A.#	5209-SF
RELEASED	WK	9-24-79	D.D.Z. DWG.	VT2500-027
			SCALE	None

DWG. NO. D-3529