

E-2515-2

MANUFACTURERS' DATA REPORT FOR UNFIRED PRESSURE VESSELS

As Required by the Provisions of the A.S.M.E. Code Rules

#104177

1. Manufactured by **Doyle & Roth Mfg. Co. Inc., Walster Corp, Simpson, Pa.**
(Name and address of Manufacturer)
2. Manufactured for **Hercules Incorporated, Wilmington, North Carolina**
(Name and address of Purchaser)
3. Type **Vert.** Kind **Condenser** Vessel No. **M-7305-1B** (Mfrs. Serial) (State & State No.) Nat'l Id. No. **5959** Yr. Built **1967**

Items 4-9 incl. to be completed for single wall vessels (such as air tanks), jackets of jacketed vessels, or shells of heat exchangers.

4. SHELL: Material **SA53B Stl** T.S. **60000** Nominal Thickness **375** in. Allowance **1** in. Diam. **1** ft. **10** in. Length **11** ft. **11** in. **7/8**
(Kind of Spec. No.) (Flg. or F.B. & Spec. Min. T.S.)
5. SEAMS: Long **Seamless** H.T. **No** X.R. **No** Sectioned **No** Efficiency **100** %
(Welded, Dbl., Single, Lap, Butt) (Yes or No) (Spot or Complete) (Yes or No)
Girth **Exp. Joint** H.T. **No** X.R. **No** Sectioned **No** No. of Courses **1**
(Welded, Dbl., Single, Lap, Butt) (Yes or No) (Spot or Complete) (Yes or No)
6. HEADS: (a) Material **SA285C Stl** T.S. **55000** (b) Material **SA285C Stl** T.S. **55000**
Location (Top, bottom, ends) Thickness **3/8" (2)** Crown Radius **30"** Knuckle Radius **OD ASME** Elliptical Ratio **Flanged Only** Conical Apex Angle **Heads Flued** Hemispherical Radius **Concave** Flat Diameter **Concave**
(a) (b)
If removable, bolts used **Other fastening**
7. STAYBOLTS: **Material** If hollow **Attachment** Pitch **(Describe or Attach Sketch)**
(Material) (Size of Hole) (Threaded, Welded) (Horiz.) (Vert.) Diam. (Nominal)
8. JACKET CLOSURE: **(Describe as orifice & weld, bar, etc. If bar give dimensions, if bolted, describe or sketch)**
9. Constructed for max. allowable working press. **75** psi. at max. temp. **300** °F. Min. temp. (when less than -20°) **Hydrostatic Test Press. 115** psi.

Items 10 and 11 to be completed for tube sections.

10. TUBE SHEETS: Stationary. Material **SA240 304SS** Diam. **26-3/8** in. Thickness **1-1/16** in. Attachment **Welded**
(Kind & Spec. No.) (Subject to Pressure) (Welded, Bolted)
Floating. Material **SA249** (Kind & Spec. No.) Diam. **in.** Thickness **in.** Attachment **in.**
11. TUBES: Material **304SS** O.D. **3/4** in. Thickness **18 BWG** inches or gage. Number **421** Type **Straight**
(Kind & Spec. No.) (Straight or C)

Items 12-15 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

12. SHELL: Material **SA240 304SS** T.S. **75000** Nominal Thickness **125** in. Allowance **1** in. Diam. **1** ft. **10** in. Length **1** ft. **5-7/8**
(Kind and Spec. No.) (Flg. or F.B. & Spec. Min. T.S.)
13. SEAMS: Long **DWB** H.T. **No** X.R. **No** Sectioned **No** Efficiency **70** %
(Welded, Dbl., Single, Lap, Butt) (Yes or No) (Spot or Complete) (Yes or No)
Girth **SA240** H.T. **No** X.R. **No** Sectioned **No** No. of Courses **1**
(Welded, Dbl., Single, Lap, Butt) (Yes or No) (Spot or Complete) (Yes or No)
14. HEADS: (a) Material **304SS** T.S. **75000** (b) Material **SA240 304SS** T.S. **75000** (c) Material **SA240 304SS** T.S. **75000**
Location (a) Top, bottom, ends Thickness **3/16" (2)** Crown Radius **22"** Knuckle Radius **OD ASME** Elliptical Ratio **Semi Ellip Heads** Conical Apex Angle **Concave** Hemispherical Radius **Concave** Flat Diameter **Concave**
(a) (b) (c)
(b) Channel **with SA285C Stl Ring Flg 26-3/8" OD x 1-7/16" Tk**
(c) Floating
If removable, bolts used (a) **Alloy SA193 B-7 5/8-20/** (b) **Alloy SA193 B-7 5/8-20**
(Material, Spec. No., T.S., Size, Number) (Material, Spec. No., T.S., Size, Number)
(c) **with SA194 2H Hex Hvy Nuts** Other fastening **(Describe or Attach Sketch)**
15. Constructed for max. allowable working press. **75** psi. at max. temp. **300** °F. Min. temp. (when less than -20°) **Hydrostatic Test Press. 115** psi.

Items below to be completed for all vessels where applicable.

16. SAFETY VALVE OUTLETS: Number **1** Size **1/2** Location **Top**
17. NOZZLES:
Purpose (Inlet, Outlet, Drain) Number **1** Diam. or Size **1/2** Type **STD ASA** Material **SA181 W/SA53B** Reinforcement **Sch 30** How Attached **Welded**
18. INSPECTION OPENINGS: Manholes, No. **1** Size **150#** Location **Top**
Handholes, No. **1** Size **150#** Location **Top**
Threaded, No. **1** Size **150#** Location **Top**
19. SUPPORTS: Skirt **See reverse side of paper** Lugs **1** Legs **1** Other **1** Attached **1**
(Yes or No) (Number) (Number) (Describe) (Where & How)
20. REMARKS: **Shell & Tube Scrubber Condenser**

(Brief description of purpose of the vessel, as Air Tank, After Cooler, Jacketed Cooler, etc. State contents of each part.)

(Over)

SS-vent & drain (2) 3/4" 3000# FS HC SA105 Welded
TS-in & out (1)6" (1)8" 150# STD ASA SO SA181 Flg Faced W/SS & SS Pipe Welded
TS-in & out (1)3" 150# STD ASA LJ SA181 Flg W/304SS Sch 10 Stub End Welded
TS-vent & drain (1)3/4" 3000# SS HC SA182 Welded

We certify that the statements made in this report are correct and that all details of design, material, construction, and workmanship of this unfired pressure vessel conform to the ASME Code for Unfired Pressure Vessels.

Date 7-20-67 19____ Signed Doyle & Roth Mfg. Co. Inc. By E. Zimmer
(Manufacturer)

Certificate of Authorization Expires 12-31-67 Walster Corp, Simpson, Pa.

CERTIFICATE OF SHOP INSPECTION

VESSEL MADE BY Doyle & Roth Mfg. Co. Inc. at Walster Corp, Simpson, Pa.

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of Penna. and employed by MBMIC FM Group of Ins. Co. of Norwood, Mass.

have inspected the pressure vessel described in this manufacturer's data report on 7-20-67 19____, and state that to the best of my knowledge and belief, the manufacturer has constructed this pressure vessel in accordance with the applicable sections of the ASME Boiler and Pressure Vessel Code.

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 7-20-67 B. H. Brunner Commissions NB 3343, Pa. 1800
Inspectors Signature Nat'l Board or State and No.

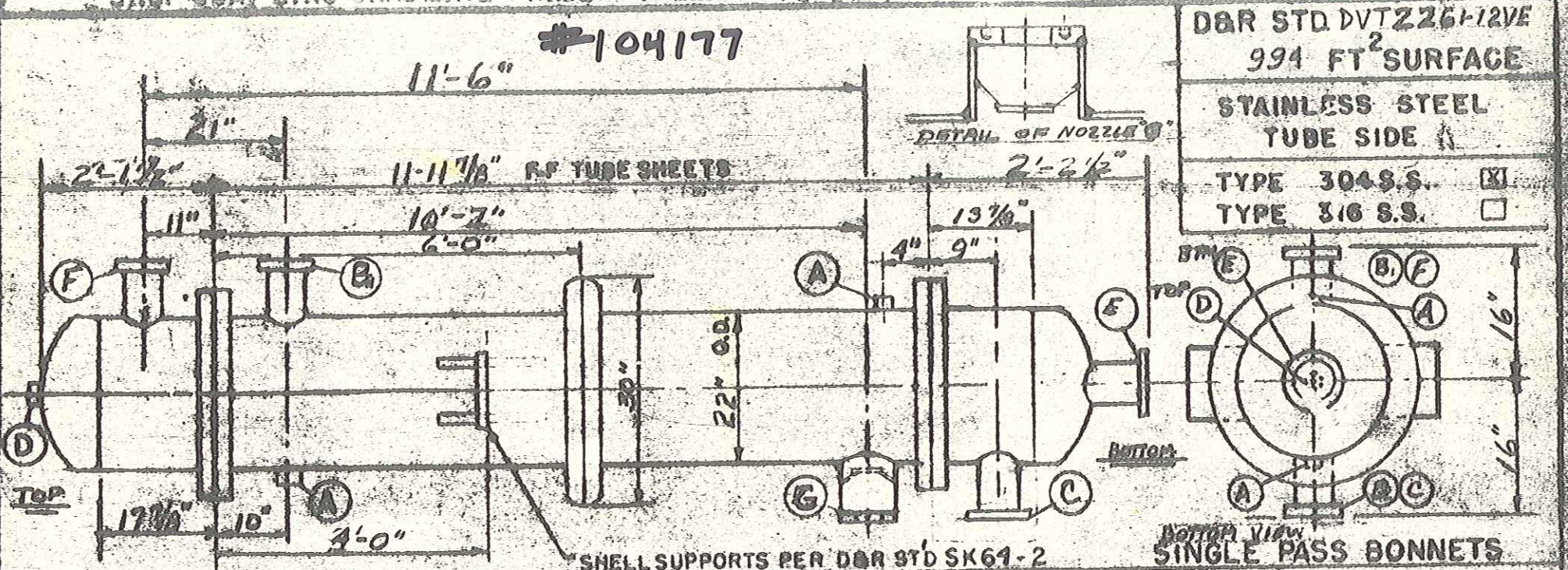
CERTIFICATE OF FIELD ASSEMBLY INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State 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 that to the best of my knowledge and belief the manufacturer has constructed and assembled this pressure vessel in accordance with the applicable sections of the ASME Boiler and Pressure Vessel Code. 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 _____ 19____
Inspectors Signature Commissions Nat'l Board or State and No.



MATERIALS OF CONSTRUCTION		CUSTOMER: HERCULES POWDER CO.	
A	3/4" 3000 F.S. HALF COUPLINGS A-105 PLUGS	P.O. NO. 336-026-012841-000 FCA	
B	8" 150 STD. ASA R.F. 8/0 A-181 FLG. WITH SCH 30 A-53B PIPE	ITEM E-515 2 & 2513-2	
C	6" 150 STD. ASA 50 A-181 FL'G. FACED @ 304 SS 1/8" TK PIPE	PURCA SARBURER COMPANY	
D	3/4" 3000 STAINLESS STEEL HALF COUPLINGS A-182 PLUGS	D&R JOB NO. M-7305-12 & 13	
E	3" 150 STD. ASA L.T. A-181 @ 304 SS SCH 10 STUB END	TWO (2) REQ'D. TWO SETS OF SPARE BASKETS	
F	8" 150 STD. ASA 8/0 A-181 FL'G. FACED @ 304 SS 1/8" TK PIPE	DOYLE & ROTH MANUFACTURING CO	
		136-50 24TH ST. BKLYN. N.Y.	
SHELL	22" O.D. SEAMLESS STEEL PIPE A-53B 0.375 TK	D&R DVT 2261-12VE	
TUBE SHEETS	26" O.D. STAINLESS STEEL A-240 1 1/16 TK	STAINLESS STEEL TUBE SIDE	
TUBES	421" O.D. X 1/8 BWG 304 STAINLESS STEEL A-240	DRAWN BY: J.M.	DATE: 11-22-66
	12'-0" LONG ON 1 5/16" Δ PITCH	CHECKED BY: H.S.	DWG. NO. A-7198-1
BONNETS	22" O.D. STAINLESS CYL. 1/8 TK & SEMI-ELLIP HEAD 8" ST 3/16 TK	APPROVED BY: J.M.	
	A-240 WITH STL A-205C RING FLG 1/16 TK FACED @ TYPE 304 SS	DATE: 2-17-67	
BAFFLES	STEEL SEGMENTAL TYPE 8" NOM. PITCH	DESIGN TEMP	SHELL SIDE / 300° F. TUBE SIDE / 300° F.
BASKETS	COMPRESSED ASBESTOS 1 1/16 TK 23 1/2 O.D. X 22 1/2 D.	DESIGN PRESSURE	175 P.S.I. / 175 P.S.I.
BOLTING	ALLOY A-193 B7 & A-194 20 1/2 DIA. BOLTS ON 2 1/8" C.	TEST PRESSURE	115 P.S.I. / 115 P.S.I.
		CODE - ASME	STAMP ☒ YES ☐ NO