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

| The state of the s |  |  |  |  |  | tanian pirian in majar agama di angan mengan menganan mengan pangan pangan pangan pangan pangan pangan pangan  |  |
|--|--|--|--|--|--|--|--|
| I. Manufactured by   | The  | Pfaudl   | er Company,  | Rochester, No address of manufacture   | lew York,  | U.S.A.   |  |
| 2. Manufacturer for  | Ame  | rican I  | Hoechst Corp   |  | RI   |  |  |
| 3. Location of installation  | Ame  | rican I  | Hoechst Corp   | Coventry,  | RI   | administrativa (alicentral delegación y society alego secon selección de la delegación delegación delegación delegación de la delegación del |  |
| Type Vertical  |  |  |  | (Name and address)<br>R180-0235  | 40374  | Year Built   |  |
| (Horiz., or vert. tank) The chemical and physi   | •  | Mfgr's Serial N  |  | (Drawing)  | (Nat'l Brd No.   | )<br>//E_BOILER AND PRESSURE   |  |
| VESSEL CODE. The desi  |  |  |  |  |  | 1980 and Addenda to  |  |
| *  |  | no Case  |  | rice per UG-120(d)   | NA *   | (Year)   |  |
| (Date)   |  |  | •  | •  |  |  |  |
| Manufacturers' Partial L<br>items of the report:   | oata Heports<br><b>N</b> A   |  | dentified and signed b   | y Commissioned Insp  | ectors have been   | furnished for the following  |  |
| ttorra or the report.  | N <i>A</i>   | Δ  | (Name of part, item nu   | umber, mfgr's name and i   | dentifying stamp)  | ν  |  |
| tems 6-11 incl to be comp  |  |  | sels jackets of jackete  | d vessels or shells of a   | heat exchangers  |  |  |
| 5. Shell: Material   | Non  | ninal Thickne  | ess3/8 in. Corrosion   | Allowance O in.  | 5 ft 6   | in. Length 6 ft 4 in.  |  |
| (Spec. No. 7. Seams: Longitudinal ${f T}$  | vne #1   | ,Table   | UW-12 8  | T NO   | Efficiency 70  | % H.T. Temp NO   |  |
| Time NA Girth T  | wne #1   | ied, Dbl., Sngl., Table  | Lap Butt)  | (Spot or Full)   | No   | 70 (1.1. (G)(II)   |  |
| Time NA Girth 1  | _  | (Welded C  | Obi, Ungi, Lap, Butti)   | R.T.   | (Spot. Partial or Full)  | No. of Courses 1   |  |
| 8. Heads: (a) Material   | ž  | SA 515 (Spec. No.,   |  | (b) Material   | N<br>Nosecê)   | A<br>No., Grade)   |  |
| Location   | Mir  | nimum  | Corrosion  | Crown  | Knuckle  | Elliptical   |  |
| - (Top, Bottom, Ends   | ł  | ckness   | Allowance  | Radius   | Radius   | Ratio  |  |
| (a) Bottom   | •  | 7/16"  | None   | 66"  | 4"   | None   |  |
| (b) NA   |  | NA   | NA   | NA   | NA   | NA   |  |
| Conical  |  | Hemispherical<br>Radius  |  | Flat<br>Diameter   |  | Side to Pressure<br>(Convex or Concave)  |  |
| Apex Angle   |  | Radius   |  | Diameter   | 1  |  |  |
|  | y<br>Mariantanak managanakan labar managan   |  | 27.5   | 37.4   |  | 0  |  |
| (a) NA   | Section of the sectio | y ,  | NA<br>NA   | NA<br>NA   |  | Concave  |  |
| (a) NA<br>(b) NA   |  | · · · · · · · · · · · · · · · · · · ·  | NA NA  | NA<br>NA   |  | Concave<br>NA  |  |
| (a) NA NA  (b) NA  If removable, bolts use   | d (describe  |  | NA NA  | NA NA  | ec. No., Gr., Size, No   | NA   |  |
| (a) NA (b) NA  If removable, bolts use  9. Type of Jacket UA   | d (describe  | ype 5  | NA<br>ings) NA   | (Material, Spo   | NA   | NA   |  |
| (a) NA (b) NA  If removable, bolts use  9. Type of Jacket UA UA  | ed (describe<br>-101 Ty  | ype 5  | NA ings) NA If bar, give dimens  | (Material, Spi<br>Proof Test<br>sions N  | NA<br>A  | NA  If bolted, describe or sketch  |  |
| (a) NA (b) NA  If removable, bolts use  9. Type of Jacket UA (Description of the content of the  | d (describe -101 T; -104 (1) be as ogee &  | ype 5<br>5-2)<br>weld, bar, etc<br>orking pressu   | NA NA NA If bar, give dimens O 90 W FV Dire Disi at ma   | (Material, Spi<br>Proof Test<br>sions N  | NA   | NA  If bolted, describe or sketch  |  |
| (a) NA  (b) NA  If removable, bolts use  9. Type of Jacket 10. Jacket Closure 11. Constructed for max. a Hydrostatic, pneumatic  | ed (describe -101 Ty -104 (1) the as ogee &  | ype 5<br>b-2)<br>weld, bar, etc<br>prking pressu   | NA  If bar, give dimens  90/90 W/FV  psi at maressure 135 psi  | (Material, Spiner Proof Test Sions No. 1450 F. 1450 F. 1450  | NA<br>A<br>Min temp. (when   | NA  If bolted, describe or sketch  |  |
| (a) NA  If removable, bolts use  9. Type of Jacket UA (Description of the constructed for max. a Hydrostatic, pneumaticitiems 12 and 13 to be communicated)  | ed (describe -101 Ty -104 () ibe as ogee &   | ype 5<br>b-2)<br>I weld, bar, etc<br>orking pressu<br>metion test pr<br>ube sections   | NA  If bar, give dimens  90/90 W/FV  psi at maressure 135 psi  Items 12 ar   | NA  (Material, Springer)  Proof Test sions No. (A)  NA  (Material, Springer)  NA  (Material, Springer)  NA  (Material, Springer)  NA  (Material, Springer)  NA  (A)  (A)  (A)  (A)  (A)  (A)  (A)  | NA<br>A<br>Min temp. (when   | NA  If bolted, describe or sketch less than -20 F)  NA   |  |
| (a) NA (b) NA  If removable, bolts use  9. Type of Jacket 10. Jacket Closure 11. Constructed for max. a Hydrostatic, predmetitems 12 and 13 to be com 12. Tubesheets: Stationary   | ed (describe  101 Ty 104 (1) the as ogee & illowable wo  | ype 5<br>b-2)<br>weld, bar, etcorking pressu<br>matien test pr<br>ube sections<br>(Spec  | NA ings)  If bar, give dimens 30,90 w/FV psi at ma ressure 135 psi Items 12 ar No. Gr.)  | (Material, Spiner Proof Test Sions No. 1450 Find 13 not application (Subject to pressure)  | NA A Min temp (when plicable.  | NA  If bolted, describe or sketch less than -20 F)  NA  ess in Corrosio  |  |
| (a) NA  (b) NA  If removable, bolts use  9. Type of Jacket UA  10. Jacket Closure UA (Descr  11. Constructed for max. a Hydrostatic, pneumatic Items 12 and 13 to be com  12. Tubesheets: Stationary  Allowance  | ed (describe  101 Ty  104 (1) be as ogee & illowable wo  pleted for to  Material  Attachm  | ype 5<br>b-2)<br>I weld, bar, etc<br>orking pressu<br>water test pr<br>ube sections<br>(Spec-<br>ent (Welder   | NA If bar, give dimens 100/90 W/FV Die bis at ma ressure 135 psi Items 12 at No. Gr.)  Hoating—No. Bolted)   | Material, Sportsions  Proof Test Sions  No. 150  At 13 not app  (Subject to pressure)  Material  (Sportsions)  | NA A Min temp (when plicable.  | NA  If bolted, describe or sketch less than -20 F)  NA   |  |
| (a) NA  (b) NA  If removable, bolts use  9. Type of Jacket 10. Jacket Closure 11. Constructed for max. a Hydrostatic, pneumations Items 12 and 13 to be com  12. Tubesheets: Stationary Allowance in   | ed (describe  101 Ty  104 (1) be as ogee & illowable wo  pleted for to  Material  Attachm  | ype 5<br>b-2)<br>I weld, bar, etc<br>orking pressu<br>weten test pr<br>ube sections<br>(Spec-<br>ent (Welder<br>Corrosion A  | If bar, give dimens  90/90 W/FV psi at ma ressure 135 psi Items 12 ar Diam. No. Gr.)  Hoating—M  | MA  (Material, Spinor Spinor No. 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,  | NA A Min temp. (when plicable. Nominal Thickn ec. No., Grade)  | NA  If bolted, describe or sketch less than -20 F)  NA less in Corrosio Diam.  |  |
| (a) NA  (b) NA  If removable, bolts use  9. Type of Jacket 10. Jacket Closure 11. Constructed for max. a Hydrostatic, pneumation 12. Tubesheets: Stationary Allowance in Nominal Thickness 13. Tubes: Material   | d (describe 101 T; 104 (1) the as ogee & illowable wo pleted for to material h. Attachm in.  | ype 5 b-2) I weld, bar, etc orking pressultation test problems (Specient (Welder Corrosion Al  | If bar, give dimens  O 90 w/FV psi at maressure 135 psi Items 12 at No. Gr.)  House of the control of the contr | (Material, Sponsor Proof Test Sions No. 12 N | NA A Min temp. (when plicable. Nominal Thickn ec. No., Grade)  | NA  If bolted, describe or sketch less than -20 F)  NA less in Corrosio Diam.  |  |
| (a) NA  (b) NA  If removable, bolts use  9. Type of Jacket 10. Jacket Closure 11. Constructed for max. a Hydrostatic, pneumation 12. Tubesheets: Stationary Allowance in Nominal Thickness 13. Tubes: Material  Items 14-17 incl. to be soon   | ed (describe 101 Ty 104 (1) the as ogee & Illowable wo pleted for to Material n. Attachm in. spec. No., Gr.)   | ype 5 b-2) i weld, bar, etc prking pressultation test pr ube sections (Specient (Welder Corrosion Al O.D.  | If bar, give dimens  O 90 W FV psi at ma ressure 135 psi Items 12 at  No. Gr.)  d, Bolted)  Howance in. Nominal Thic   | (Material, Spinor Proof Test Sions No. 1450 For Material (Spinor Attachment Sheet extension or gate or channels of heat extension or gate or | NA A Min temp. (when plicable. Nominal Thickn ec. No., Grade) uge Number   | NA  If bolted, describe or sketch less than -20 F)  NA  less in Corrosio  Diam. in  Type (Straight or "U)  |  |
| (a) NA  (b) NA  If removable, bolts use  9. Type of Jacket UA (Description of the community | d (describe  101 Ty  104 (1) be as ogee & illowable wo pleted for to make the completed for the completed for the completed for the completed for the complete for th | ype 5 b-2)  weld, bar, etc prking pressultation test pr ube sections  (Specient (Welder Corrosion Ai O.D.)  inner chamber inal Thicknes  | If bar, give dimens  O 90 W/FV  D | (Material, Spin Proof Test Material, Spin No. 1450 Find 13 not application (Subject to pressure)  Material (Spin Attachment in or gauge or channels of heat examples of heat exa | NA A Min temp. (when plicable. Nominal Thickner. No., Grade) uge Number xchangers. Diam. 5 ft 0  | NA  If bolted, describe or sketch less than -20 F)  NA  ess in Corrosio  Diam. in  Type  (Straight or "U)  in Length 5 ft 8 in   |  |
| (a) NA  (b) NA  If removable, bolts use  9. Type of Jacket UA  10. Jacket Closure UA (Description of the community of the com | d (describe  101 Ty  104 (1) be as ogee & illowable wo  pleted for to  —Material  n. Attachm  in. in. in. in. in. in. in. in. in. in   | ype 5 b-2)  I weld, bar, etc orking pressuration test pr ube sections  (Spectant (Welder Corrosion Ai O.D.)  inner chambel inal Thicknes L Table   | If bar, give dimens  O 90 W/FV Die psi at maressure 135 psi Items 12 at Diam. No. Gr.)  Floating—Mares in. Nominal Thickers of jacketed vessels in the corrosion UW-12 No utt)  NA  If bar, give dimens Property dimens No FIV  Items 12 at Diam.  Corrosion  No Gr.)  No Gr.)  O Gr.)  O Gr.)  O Gr.)  O Gr.)  O Gr.)  O Gr.)   | (Material, Spin Proof Test sions Not sions Not spin Material (Spin | NA A Min temp. (when plicable. Nominal Thickner. No., Grade) uge Number xchangers. Diam. 5 ft 0 % H.T. Temp  | NA  If bolted, describe or sketch less than -20 F)  NA  less in Corrosio  Diam. in  Type (Straight or "U)  |  |
| (a) NA  (b) NA  If removable, bolts use  9. Type of Jacket UA  10. Jacket Closure UA (Description of the community of the com | d (describe  101 Ty  104 (1) be as ogee & illowable wo  pleted for to  —Material  n. Attachm  in. in. in. in. in. in. in. in. in. in   | ype 5 b-2)  I weld, bar, etc orking pressuration test pr ube sections  (Spectant (Welder Corrosion Ai O.D.)  inner chambel inal Thicknes L Table   | If bar, give dimens  O 90 W/FV Die psi at maressure 135 psi Items 12 at Diam. No. Gr.)  Floating—Mares in. Nominal Thickers of jacketed vessels in the corrosion UW-12 No utt)  NA  If bar, give dimens Property dimens No FIV  Items 12 at Diam.  Corrosion  No Gr.)  No Gr.)  O Gr.)  O Gr.)  O Gr.)  O Gr.)  O Gr.)  O Gr.)   | (Material, Spin Proof Test Sions Notes)  and 13 not apply (Subject to pressure)  Material (Spin Attachment Sin or gate or channels of heat expenditure)  Efficiency 70   | NA A Min temp. (when plicable. Nominal Thickner. No., Grade) uge Number exchangers. Diam. 5 ft 0 % H.T. Temp   | NA  If bolted, describe or sketch less than -20 F)  NA  If bolted, describe or sketch less than -20 F)  If bolted, describe or |  |
| (a) NA  (b) NA  If removable, bolts use  9. Type of Jacket UA  10. Jacket Closure UA (Description of the community of the com | d (describe  101 Ty  104 (1) be as ogee & illowable wo pleted for to  —Material  n. Attachm  in. in. in. in. in. in. in. in. in. in  | ype 5 b-2) I weld, bar, etc orking pressultation test proble sections  (Specient (Welded Corrosion Al O.D.) inner chambe inal Thicknes L, Table Sign But JL, Lap, But JL, Lap, Butt A 285 G  | If bar, give dimens O 90 W FV D psi at maressure 135 psi Items 12 ar Diam. No. Gr.) Hoating—Mares of lacketed vessels In Corrosion UW-12 No utt) (Spot or F  | (Material, Spin Proof Test sions No  | NA A Min temp. (when plicable. Nominal Thickn ec. No., Grade) uge Number xchangers. Diam. 5 ft 0 % H.T. Temp   | NA  If bolted, describe or sketch less than -20 F)  NA  ess in. Corrosio  Diam. in  Type (Straight or "U)  in. Length 5 ft 8 in  NO F Time NA  No. of courses 1  |  |
| (a) NA  If removable, bolts use  9. Type of Jacket 10. Jacket Closure 11. Constructed for max. a Hydrostatic, pneumation 12. Tubesheets: Stationary Allowance in Nominal Thickness 13. Tubes: Material (spec. 14. Shell: Material Girth Type (Welc.)   | d (describe  101 Ty  104 (1) be as ogee & illowable wo pleted for to  Material  Attachm  in.  Spec. No., Gr.) Nomi  Type #1 (weided, Dist  #1, Tak  ded, Ubil., Sng  | ype 5 b-2) i weld, bar, etc prking pressultation test pr ube sections (Special (Welder Corrosion Al O.D. inner chamble inal Thicknes 1, Table Single UW 1, Lap, Butt) A 285 G (Spec. No  | If bar, give dimens  90/90 W/FV psi at ma ressure 135 psi Items 12 ar No. Gr.) d, Bolted) flowance in. in. Nominal Thic ers of packeted vessels is 1 in. Corrosion UW-12 No utt) (Spot or F 12 R.T.  UR. Co., Grade)   | (Material, Spin Proof Test Sions Not   | NA  Min temp. (when plicable.  Plicable.  Nominal Thicknet.  | NA  If bolted, describe or sketch less than -20 F)  NA  Pess in Corrosio  Diam.  Type  (Straight or "U)  in Length 5 ft 8  NO F Time  No of courses 1  CR. C   |  |
| (a) NA  If removable, bolts use  9. Type of Jacket UA  10. Jacket Closure UA (Description of the community o | d (describe  101 Ty  104 (1) be as ogee & illowable wo pleted for to  Material  Attachm  in.  Spec. No., Gr.) Nomi  hologed for  (Weided, Dh.,  Type #1  (Weided, Dh.,  Spec. No., Gr.)  Mi  | ype 5 b-2) I weld, bar, etc orking pressultation test proble sections  (Specient (Welded Corrosion Al O.D.) inner chambe inal Thicknes L, Table Sign But JL, Lap, But JL, Lap, Butt A 285 G  | If bar, give dimens O 90 W FV D psi at maressure 135 psi Items 12 ar Diam. No. Gr.) Hoating—Mares of lacketed vessels In Corrosion UW-12 No utt) (Spot or F  | (Material, Spin Proof Test sions Not sions Not sions Not spin Not  | NA A Min temp. (when plicable. Nominal Thickn ec. No., Grade) uge Number xchangers. Diam. 5 ft 0 % H.T. Temp   | NA  If bolted, describe or sketch less than -20 F)  NA  ess in. Corrosio  Diam. in  Type (Straight or "U)  in. Length 5 ft 8 in  NO F Time NA  No. of courses 1  |  |
| (a) NA  (b) NA  If removable, bolts use  9. Type of Jacket 10. Jacket Closure 11. Constructed for max. a Hydrostatic, pneumation 12. Tubesheets: Stationan Allowance in Nominal Thickness 13. Tubes: Material (spec. 14. Shell: Material Girth Type (Welc 16. Heads: (a) Material (a) Top  | d (describe  101 Ty  104 (1) be as ogee & illowable wo pleted for to  Material  Attachm  in.  Spec. No., Gr.)  Type #1 (weided, Dist  #1, Tak ded, Ubil., Sng  Sign  Mi  Th  | ype 5 b-2) i weld, bar, etc prking pressultation test pr ube sections  (Special (Welder Corrosion Al O.D. inner chamble inal Thicknes 1, Table (Special Lap, Butt) A 285 G (Special Corrosion Al O.D. inner chamble inal Thicknes 1, Table initial Corrosion (Special Corrosion Al O.D. inner chamble inal Thicknes Corrosion Al O.D. inner chamble inal Thicknes Corrosion Al O.D. inner chamble inal Thicknes Corrosion Al O.D. initial Corrosion Co | If bar, give dimens  90,90 W/FV Die Dis at maressure 135 psi Items 12 at Diam. No. Gr.)  d, Bolted)  Howance in. Nominal Thicers of packeted vessels In Corrosion  UW-12 No utt) (Spot or F  | (Material, Spin Proof Test sions No  | NA A Min temp (when plicable. Nominal Thickner. No., Grade)  uge Number xchangers. Diam. 5 ft 0 % H.T. Temp or Full) SA 285 (Spe Knuckle Radius  | NA  If bolted, describe or sketch less than -20 F)  NA  If bolted, describe or sketch less than -20 F)  In Corrosio  Diam.  Type  (Straight or "U)  in Length 5 ft 8 in NO F Time  No. of courses 1  CR. C  C. No. Gr.)  Elliptical Ratio  2:1   |  |
| (a) NA  If removable, bolts use  9. Type of Jacket 10. Jacket Closure 11. Constructed for max. a Hydrostatic, pneumation Items 12 and 13 to be com 12. Tubesheets: Stationan Allowance in Nominal Thickness 13. Tubes: Material Items 14-17 inct to be seen 14. Shell: Material Spec. 15. Seams: Longitudinal Girth Type (Welc 16. Heads: (a) Material Location (Top, Bottom, Ende   | d (describe  101 Ty  104 (1) be as ogee & illowable wo pleted for to  Material  Attachm  in.  Spec. No., Gr.) Type #1 (weided, Dhi #1, Tak ded, Ubil., Sng  Sign Sign Sign Sign Sign Sign Sign   | ype 5 b-2) i weld, bar, etc prking pressultation test pr ube sections  (Special (Welder Corrosion Al O.D. inner chamble inal Thicknes 1, Table 1, Table 1, Lap, Butt) A 285 G (Spec. No inimum inckness  | If bar, give dimens  O 90 W/FV psi at maressure 135 psi Items 12 at Diam. No. Gr.) Hoating—No. Gr.) Hoating—No. Gr. In. Nominal Thickers of racketed vessels In. Corrosion UW-12 No. Gr. UW-12 No. Gr. UW-12 R.T. IR. Co., Grade)  Corrosion Allowance   | (Material, Spin Proof Test sions Not appropriate Not appropria | NA A Min temp (when plicable. Nominal Thickner. No., Grade)  uge Number (xchangers.) Diam. 5 ft 0 % H.T. Temp or Full) SA 285 (Spe   | NA  If bolted, describe or sketch less than -20 F)  NA  If bolted, describe or sketch less than -20 F)  In Corrosio  Diam.  Type  (Straight or "U)  in Length 5 ft 8 in NO F Time  No. of courses 1  CR. C  C. No. Gr.)  Elliptical Ratio  2:1   |  |
| (a) NA  If removable, bolts use  9. Type of Jacket UA  10. Jacket Closure UA (Description of the community o | d (describe  101 Ty  104 (1) be as ogee & illowable wo pleted for to Material  Attachm  in. Spec. No., Gr.) Type #1 (Weided, Dh. #1, Tak ded, Db., Sng  Mi Th  1:  | ype 5 b-2) i weld, bar, etc prking pressuration test pr ube sections (Special (Welder Corrosion Al O.D. inner chamber inal Thicknes 1, Table (Special UW- A 285 G (Special Corrosion Al O.D. inimum sickness 1/16"   | If bar, give dimens to 90 w/FV property of psi at marges 12 are points. The state of the state o | (Material, Spin Proof Test sions No  | Min temp (when plicable.  Nominal Thickner. No., Grade)  Inge Number (Schangers.)  White H.T. Temp  Or Full)  SA 285  (Spe  Knuckle Radius  Nome   | NA  If bolted, describe or sketch less than -20 F)  NA  If bolted, describe or sketch less than -20 F)  In Corrosio  Diam.  Type  (Straight or "U)  in Length 5 ft 8 in NO F Time  No. of courses 1  CR. C  C. No. Gr.)  Elliptical Ratio  2:1   |  |
| (a) NA  (b) NA  If removable, bolts use  9. Type of Jacket 10. Jacket Closure 11. Constructed for max. a Hydrostatic, pneumation Items 12 and 13 to be com 12. Tubesheets: Stationary Allowance in Nominal Thickness 13. Tubes: Material Items 14-17 incl. Ao be son 14. Shell: Material Spec. 15. Seams: Longitudinal Girth Type (Welcomb) 16. Heads: (a) Material  (Top, Bottom, Ende  (A) Top (b) Bottom  Conical Apex An   | d (describe  101 Ty  104 (1) be as ogee & illowable wo pleted for to Material  Attachm  in. Spec. No., Gr.) Type #1 (Weided, Dh. #1, Tak ded, Db., Sng  Mi Th  1:  | ype 5 b-2) i weld, bar, etc prking pressuration test pr ube sections (Special (Welder Corrosion Al O.D. inner chamber inal Thicknes 1, Table (Special UW- A 285 G (Special Corrosion Al O.D. inimum sickness 1/16"   | If bar, give dimens  90/90 W/FV psi at ma ressure 135 psi Items 12 ar  No. Gr.)  Hoating—No. Gr.  In. Nominal Thic  ress of racketed vessels  In. Corrosion  UW-12 No  utt) (Spot or F  R.T.  R. C.  Co., Grade)  Corrosion  Allowance  None  None  Hemispherical  Radius  | (Material, Spin Proof Test Sions Not   | Min temp. (when plicable.  Nominal Thicknet. Nominal Thicknet. No., Grade)  uge Number (xchangers.)  iam. 5 ft 0  % H.T. Temp.  or Full) SA 285 (Special Content of Special Content of S | NA  If bolted, describe or sketch less than -20 F)  NA  If bolted, describe or sketch less than -20 F)  In Corrosio  Diam.  Type  (Straight or "U)  in Length 5 ft 8 in NO F Time  No. of courses 1  CR. C  C. No. Gr.)  Elliptical Ratio  2:1 2:1  Side to Pressure (Convex or Concave)   |  |
| (a) NA  If removable, bolts use  9. Type of Jacket UA  10. Jacket Closure UA (Description of the product of the | d (describe  101 Ty  104 (1) be as ogee & illowable wo pleted for to Material  Attachm  in. Spec. No., Gr.) Type #1 (Weided, Dh. #1, Tak ded, Db., Sng  Mi Th  1:  | ype 5 b-2) i weld, bar, etc prking pressuration test pr ube sections (Special (Welder Corrosion Al O.D. inner chamber inal Thicknes 1, Table (Special UW- A 285 G (Special Corrosion Al O.D. inimum sickness 1/16"   | If bar, give dimens  O 90 W/FV  D  | Material, Spin Proof Test sions Not appropriate Not appropriat | Min temp. (when plicable.  Nominal Thicknet. Nominal Thicknet. No., Grade)  uge Number (xchangers.)  in H.T. Temp.  or Full)  SA 285 (Spe Knuckle Radius None  | NA  If bolted, describe or sketch less than -20 F)  NA  If bolted, describe or sketch less than -20 F)  In Corrosio  Diam.  Type  (Straight or 'U)  in Length 5 ft 8  NO F Time  No. of courses 1  GR. C  C. No. Gr.)  Elliptical Ratio  2:1  2:1  Side to Pressure  |  |

riaudier Order No. R180-0235 FORM U-1 (BACK) Customer Order No. R140084

17. Constructed for max. allowable working pressure 100/Fysi at max temp 650 F. Min. temp. (when less than 20 F) NA Hydrostatic, pneumatic, or combination test pressure 100 psi. Items below to be completed for all vessels where applicable prot. to be installed in connecting piping.

18. Safety Valve Outlets: Number Over pressures received to be installed in connecting piping. Purpose Diam Nominal Reinforcement How Type Material (Inlet, Outlet, Drain) Number Thickness Material Attached 2"4"8" Inlet 7 L.J.Flg. Case1251 150# Integral W Outlet L.J.Flg. Case1251 150 **Integral** W Drive 4-3/8" L.J.Flg. Case1251 Integral W 20. Inspection Openings: Size 30" Location Top Head
Size NA Locatior NA
Size 1/2"1-1/2"2"3"Location Jacket shell and head. Manholes No. 0 Handholes No Threaded No. None (Describe) Anached Welded to jkt. shell Lugs Legs (No ) jacketed glassed steel vessel for chemical service. 22. Remarks: 1000 gal. 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 Kena Padula 12-31 vessel conform to the ASME Code for Pressure Vessels, Section VIII, Division 1.

Date 9-24-80 Signed The Pfaudler Company Date 9-24-80 (Manufacturer) 408 "U" Certificate of Authorization No 1982 CERTIFICATE OF SHOP INSPECTION The Pfaudler Company Rochester, New York Vessel made by at 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 H. S. B. I. & I. Co. H. S. B. I. & I. Co. Province of and employed by of Hartford, Conn have inspected the pressure vessel described in this Manufacturers! Data Report on 9-27 19 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. N.B.#6658, Ohio, PA #WC1849 (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. Signed (Manufacturer) (Representative) "U" Certificate of Authorization No. . 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 have compared the statements in this Manufacturers' Data Report with the described pressure , not included in the certificate of shop inspection, have vessel and state that parts referred to as data items 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 DSI. 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

Commissions

(Nat'l Board, State, Province and No.)

Signed

(Authorized Inspector)