FORM A-1 MANUFACTURER'S DATA REPORT Pag FOR PRESSURE VESSELS As Required by the Provisions of the ASME Code Rules, Section VIII, Division 2

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| 1. | Manufactured and | lanufactured and certified by | | | | | | | | | |
|------------|--|---|------------------------|--|-------------------|---------------------|---------------------|------------------------------------|-----------------------|-----------------------|---|
| 2. | (Name and address of manufacturer) | | | | | | | | | | |
| Ζ. | Manufactured for (Name and address of purchaser) | | | | | | | | | | |
| 3. | Location of installation | | | | | | | | | | |
| 4. | Туре | or vert. tank | | | | | | | | | |
| _ | Horiz. | | serial no. | | CRN | | 0 | ving no. Nat'l. Bd. no. Year built | | | |
| 5. | The chemical and p VESSEL CODE. The | | • | • | • | | • | | | | AND PRESSURE |
| | Yea | ar | | | | Class | | | | | Code case no. |
| lter | ms 6 to 11 incl. to be | completed | l for single w | all vessels, j | ackets of | jacketed v | essels, or s | shells of | heat excha | angers | |
| 6. | Shell Material (s | pec. no., grad | le) N | Nom. thk. | | Corr. allow. | | Dia | meter | | Length (overall) |
| 7. | SeamsLongitudinal | | | | | | | | | Nondestructive | evamination |
| | | | | Heat treatment | | | | | | | |
| 8. | Girth | Nondestructive examination (b) Matl. | | | |) Matl | No. of courses | | | | |
| 0. | Heads: (a) Matl. | | | Spec. no., grade | | | | , maan _ | Spec. no., grade | | |
| | Location (Top, Bottom, End) | Minimum Thickness | Corrosion Allowance | Crown Radius | Knuckle Radius | Elliptical Ratio | Conical Ap Angle | | nispherical Radius | Flat Diameter | Side to Pressure (Convex or Concave) |
| (a) (b) | | | | | | | | | | | |
| (, | 1 | | <u> </u> | | | | | I | | | 1 |
| 9. | lf removable, bolts | used (desc | ribe other fas | stenings): | | | Matl. sp | bec. no., g | rade, size, | number | |
| 10. | Jacket closure | | | | If bar | r, give dim | ensions | | | If bolted, | describe or sketch. |
| | Jacket closure If bar, give dimensions If bolted, describe or sketch. | | | | | | | | | | |
| 11. | MAWP at max. temp Min. design metal temp at | | | | | | | | | | |
| | Impact test At test temperature of | | | | | | | | | | |
| | Hydro., pneu., or o | comb test p | ressure | | | | | | | | |
| | ms 12 and 13 to be c | ompleted f | or tube section | ons | | | | | | | |
| 12. | Tubesheets E Stationary matl. (spec. no., E grade) | | | Diam. (subject to pressure) Nom. thk. | | | k. | Corr. allow. Attach. (wld., b | | ttach. (wld., bolted) | |
| | | | | | | | | | | | |
| | Floating matl. (spec. no., grade) | | | (Diam.) Nom. thk. | | | κ. | Corr. allow. Attach. (wld., bo | | ttach. (wld., bolted) | |
| 13. | Tubes | . (spec. no., g | | 0.0 | <u> </u> | | Nom. th | | N | ımber T | ype (straight or "U") |
| lter | ms 14 to 18 incl. to b | | | | | essels, or | | | | iniber i | ype (straight of O) |
| 14. | Shell | spec. no., gra | | Nom. thk. | | Corr. allow. | | Diam | neter | - <u> </u> | ength (overall) |
| 15. | Seams | spee. no., gra | | | | | | Dian | | _ | ingth (oronall) |
| | Longitudinal Heat treatment Nondestructive examinat | | | | | | | | examination | | |
| | Girth | Nondestructive examination | | | | | | No. of courses | | | |
| 16. | Heads: (a) Matl (b) Matl Spec. no., grade Spec. no., grade | | | | | | | | | | |
| | Location Minimum Corrosion | | | ade Crown Radius Knuckle Elliptical Conical | | | ical Anov | | | | |
| | (Top, Bottom, End) | Thickness | Allowance | Crown Naulu | Radiu | | | Angle | Radius | | (Convex or Concave |
| (a) (b) | | | | | _ | | | | | | |
| L | | used (desc | ribe other fas | teninas): | 1 | 1 | 1 | | I | I | 1 |
| | If removable, bolts used (describe other fastenings): | | | | | | at | | | | |
| 10. | (Interna |) | (External) | | | nternal) | (Exter | | ini. design | metar temp. | |
| | Impact test | | | | | | | At test t | emperatu | re of | |
| | Hydro., pneu., or o | comb test p | oressure | | | | | | | | |

Manufacturer's Serial No._____ CRN _____ National Board No.____

Manufactured by

| | | ose | | | valve opening Diam. or Size | Type | Mat | erial No | n. Thk. | Reinforceme | nt Material | How Attached | Location |
|---|--------------------|--------------------|---------------|-----------------|--------------------------------|-----------------------|---------------------|-----------------|---------------------|-----------------|-----------------|---|----------------|
| Inlet | t, Outlet | , Drain, et | tc.) | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | ody Flai Flange | nges s on Shell | s | | | | | | | | | | |
| | | | | | | | | | | | | Bolting Washer | |
| No. | Туре | ID | OD | Flange | e Thk Min Hub Thk | Mate | rial | How Attached | Location | n Num & Size | Bolting Materia | al (OD, ID, thk) | Washer Materia |
| | | | | _ | | | | | | | | _ | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | l | | <u> </u> |
| lody | Flange | s on Head | s | | | | | 1 | | | | Deltier | |
| No | Turne | ID | OD | Flores | e Thk Min Hub Thk | Mate | sial | How Attached | Location | Num & Cine | Bolting Materia | Bolting Washer | Washer Materia |
| No. | Туре | | 00 | Flange | | IVIALE | 1101 | How Attached | Location | n Num & Size | Boiting Materia | al (OD, ID, thk) | washer wateria |
| | | | | | | | | | | | | | |
| | | | | | | | | | | _ | | | |
| | | 11 | | | | | | | | | | | |
| 21. \$ | Support | Skirt | | L | Lugs No. uired Yes or | Legs | | Othe | r | | Attache | | |
| | Sonvico | Ye Eatique | s or n | 10 Veie roau | No. | and | ſ | 10. | | Describe | | Where and I | IOW |
| -2. (| 0011100. | i uligue i | lindiy | 515 1040 | Yes or | no | D | escribe conte | its or serv | vice | | | |
| Rem | narks: | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | CEDTI | FICATION O | | N | | | |
| Use | r's Desi | gn Specif | icatio | on on fi | le at | | | | F DESIG | | | | |
| | | | | | n file at | | | | State | | | Reg. No. | |
| User's Design Specification certified by Manufacturer's Design Report certified by | | | | | | | | | | | Reg. No | | |
| | | | | | | | | | | | | | |
| W/0 | cortify t | hat the s | taton | nonte in | this report a | | | E OF SHOP | | | onstruction | and workmansh | in of this |
| vess | sel conf | orm to th | e AS | MF Cod | de for Pressure | • Vessels | . Section | n VIII. Divisio | on 2. | | | | |
| Date | Certin | cate of A | utno | rization | Co. name | | _ expl | res | | Signed | | Representat | |
| | | | | | | | | Manufacturer | | | | Representat | ive |
| | | | | | | CEF | RTIFICAT | E OF SHOP | INSPEC ⁻ | TION | | | |
| Ves: | sel mad e under | e by signed, h | oldin | ng a vali | id commission | n issued l | at_ ov the N | ational Boa | rd of Boi | iler and Press | ure Vessel Ir | nspectors and em | ploved by |
| | | | | | | | | | | of | | | , |
| have | e inspec | ted the p | ressi hest | ure vess | sel described i | n this Ma | anufactu he Manu | rer's Data R | eport on | 1 | ure vessel i | n accordance wit | h ASME Code |
| Sect | tion VIII | , Division | 2. B | 3y signi | ing this certifi | cate neit | her the | nspector no | or his en | nployer make | s any warra | nty, expressed of | or implied, |
| 2011(| le in an | y manner | for a | any per | sonal injury o | s manufa or proper | ty dama | ge or a loss | of any ki | ind arising fro | m or connet | tor nor his emplo cted with this ins | pection. |
| napi | | | | | | | | | | | | | |

National Board Authorized Inspector Commission number

Authorized Inspector

FORM A-1

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| Manufactured by | | | | | | | |
|--|-----|-------------------|--|--|--|--|--|
| Manufacturer's Serial No | CRN | National Board No | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| CERTIFICATE OF FIELD ASSEMBLY COMPLIANCE | | | | | | | |
| We certify that the field assembly construction of all parts of this vessel conforms with the requirements of Section VIII, Division 2 | | | | | | | |

| of the ASME BO | ILER AND PRESSURE VESSEL CODE | | |
|-----------------------------|---------------------------------------|---|---|
| "U2" Certificate | of Authorization No. | expires | |
| Date | Co. name | S | igned |
| | Asser | nbler that certified and constructed field assemb | Dly Representative |
| | CERT | IFICATE OF FIELD ASSEMBLY INSPECTIO | DN |
| I, the undersigne | ed, holding a valid commission issue | d by the National Board of Boiler and Pr | essure Vessel Inspectors and employed by |
| | | | of |
| have compared data items | the statements in this Manufacturer's | s Data Report with the described pressure | e vessel and state that parts referred to as |
| | · · · · | ave been inspected by me and that, to t ressure vessel in accordance with the AS | he best of my knowledge and belief, the ME Code, Section VIII, Division 2. |
| | · · · · · · | a hydrostatic test of | |
| vessel described | d in this Manufacturer's Data Report | | used or implied, concerning the pressure his employer shall be liable in any manner vith this inspection. |
| Date | Signed | Commissions | |

Vate _____ Commissions _____ Authorized Inspector _____ National Board Authorized Inspector Commission number

(07/17)