|  |  |  |  |
| --- | --- | --- | --- |
| Mfr. Representative: |       | Date: |       |
| Authorized Inspector: |       | Date: |       |
| Page |       | of |       |
|  |  |  |  |  |
|  |
| **FORM U-1 MANUFACTURER’S DATA REPORT FOR PRESSURE VESSELS** |
| **As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1** |
|  |
| 1. Manufactured and certified by
 |       |
|  |  |
|       |
| (Name and address of Manufacturer) |
| 1. Manufactured for
 |       |
|  | (Name and address of Purchaser) |
| 1. Location of installation
 |       |
|  | (Name and address) |
| 1. Type
 |       |  |       |  |       |
|  | (Horizontal, vertical, or sphere) | (Tank, separator, jkt. vessel, heat exch., etc.) | (Manufacturer’s serial number) |
|       |  |       |  |       |  |       |
| (CRN) | (Drawing Number) | (National Board number) | (Year built) |
| 1. ASME Code, Section VIII, Div. 1
 |       |  |       |  |       |
|  | [Edition and Addenda, if applicable (date)] | (Code Case number) | [Special service per UG-120(d)] |
|  |
| *Items 6-11 incl. to be completed for single wall vessels, jackets of jacketed vessels, shell of heat exchangers, or chamber of multichamber vessels.* |
|  |
| 1. Shell:
 |  | (a) Number of course(s) |       | (b) Overall length |       |  |
|  |
| Course(s) | Material | Thickness | Long. Joint (Cat. A) | Circum. Joint (Cat. A, B & C) | Heat Treatment |
| No. | Diameter | Length | Spec./Grade or Type | Nom. | Corr. | Type | Full, Spot, None | Eff. | Type | Full, Spot,None | Eff. | Temp. | Time |
|       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|  |
| **Body Flanges on Shells** |
| No. | Type | ID | OD | Flange Thk | Min Hub Thk | Material | How Attached | Location | Bolting |
| Num & Size | Bolting Material | Washer (OD, ID, thk) | Washer Material |
|       |       |       |       |       |       |       |       |       |       |       |       |       |
|       |       |       |       |       |       |       |       |       |       |       |       |       |
|       |       |       |       |       |       |       |       |       |       |       |       |       |
|       |       |       |       |       |       |       |       |       |       |       |       |       |
|  |
| 1. Heads: (a)
 |  | (b) |  |
|  | (Material spec. number, grade or type) (H.T. - time and temp.) |  | (Material spec. number, grade or type) (H.T. - time and temp.) |
|  | Location (Top, Bottom, Ends) | Thickness | Radius | EllipticalRatio | ConicalApex Angle | Hemis. Radius | Flat Diameter | Side to Pressure | Category A |
| Min. | Corr. | Crown | Knuckle | Convex | Concave | Type | Full, Spot, None | Eff. |
| (a) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| (b) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|  |
|

|  |
| --- |
| **Body Flanges on Heads** |
|  |  |  |  |  |  |  |  |  | Bolting |
|  | Location | Type | ID | OD | Flange Thk | Min Hub Thk | Material | How Attached | Num & Size | Bolting Material | Washer(OD, ID, thk) | Washer Material |
| (a) |       |       |       |       |       |       |       |       |       |       |       |       |
| (b) |       |       |       |       |       |       |       |       |       |       |       |       |

 |
|  |
| 1. Type of jacket
 |       |  | Jacket closure |       |
|  |  |  |  | (Describe as ogee and weld, bar, etc.) |
| If bar, give dimensions; if bolted, describe or sketch  |       |
|  |  |
| 1. MAWP
 |       |  |       |  | at max. temp. |  |       |  |       | Min. design metal temp. |       | at |       | . |
|  | (Internal) |  | (External) |  |  |  | (Internal) |  | (External) |  |  |  |  |  |
| 1. Impact test
 |       | at test temperature of |       | . |
|  | [Indicate *yes or no* and the component(s) impact tested] |  |  |  |
| 11. Hydro., pneu., or comb. test pressure |       | Proof test |       |
|  |  |
| *Items 12 and 13 to be completed for tube sections.* |  |
|  |
| 1. Tubesheet
 |       |  |       |  |       |  |       |  |       |
|  | [Stationary (material spec. no)] |  | [Diameter (subject to press.)] |  | (Nominal thickness) |  | (Corr. allow.) |  | [Attachment (welded or bolted)] |
|  |       |  |       |  |       |  |       |  |       |
|  | [Floating (material spec. no)] |  | (Diameter) |  | (Nominal thickness) |  | (Corr. allow.) |  | (Attachment) |
| 1. Tubes
 |       |  |       |  |       |  |       |  |       |
|  | (Material spec. no., grade or type) |  | (O.D.) |  | (Nominal thickness) |  | (Number) |  | [Type (straight or U)] |
| (07/17) |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Mfr. Representative: |       | Date: |       |
| Authorized Inspector: |       | Date: |       |
| Page |       | of |       |
| **Form U-1** |
|  |
| Manufactured by |       |
|  |  |
| Manufacturer’s Serial No. |       | CRN |       | National Board No. |       |
|  |  |  |  |  |  |
|  |
|  |
| *Items 14-18 incl. to be completed for inner chambers of jacketed vessels or channels of heat exchangers.* |
|  |
| 1. Shell:
 |  | (a) No of course(s) |       |  | (b) Overall length |       |  |
|  |
| Course(s) | Material | Thickness | Long Joint (Cat. A) | Circum. Joint (Cat. A, B & C) | Heat Treatment |
| No. | Diameter | Length | Spec./Grade or Type | Nom. | Corr. | Type | Full, Spot, None | Eff. | Type | Full, Spot, None | Eff. | Temp. | Time |
|       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|  |
| **Body Flanges on Shells** |
| No. | Type | ID | OD | Flange Thk | Min Hub Thk | Material | How Attached | Location | Bolting |
| Num & Size | Bolting Material | Washer (OD, ID, thk) | Washer Material |
|       |       |       |       |       |       |       |       |       |       |       |       |       |
|       |       |       |       |       |       |       |       |       |       |       |       |       |
|       |       |       |       |       |       |       |       |       |       |       |       |       |
|       |       |       |       |       |       |       |       |       |       |       |       |       |
|  |
| 1. Heads: (a)
 |       | (b) |       |
|  | (Material spec. number, grade or type) (H.T. - time and temp.) |  | (Material spec. number, grade or type) (H.T. - time and temp.) |
|  | Location (Top, Bottom, Ends) | Thickness | Radius | EllipticalRatio | ConicalApex Angle | Hemis. Radius | Flat Diameter | Side to Pressure | Category A |
| Min. | Corr. | Crown | Knuckle | Convex | Concave | Type | Full, Spot, None | Eff. |
| (a) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| (b) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|  |
| **Body Flanges on Heads** |
|  | Location | Type | ID | OD | Flange Thk | Min Hub Thk | Material | How Attached | Bolting |
| Num & Size | Bolting Material | Washer(OD, ID, thk) | Washer Material |
| (a) |       |       |       |       |       |       |       |       |       |       |       |       |
| (b) |       |       |       |       |       |       |       |       |       |       |       |       |
|  |
| 1. MAWP
 |       |  |       |  | at max. temp. |  |       |  |       | Min. design metal temp. |       | at |       | . |
|  | (Internal) |  | (External) |  |  |  | (Internal) |  | (External) |  |  |  |  |  |
| 1. Impact test
 |       | at test temperature of |       | . |
|  | [Indicate *yes* or *no* and the component(s) impact tested] |  |  |  |
| 1. Hydro., pneu., or comb. test pressure
 |       | Proof test |       |
|  |  |
| 1. Nozzles, inspection, and safety valve openings:
 |
|  |
| Purpose (Inlet, Outlet, Drain, etc.) | No. | Diameter or Size | Type | Material | Nozzle Thickness | ReinforcementMaterial | Attachement Details | Location (Inspe. Open) |
| Nozzle | Flange | Nom. | Corr. | Nozzle | Flange |
|       |       |       |       |       |       |       |       |       |       |       |       |
|       |       |       |       |       |       |       |       |       |       |       |       |
|       |       |       |       |       |       |       |       |       |       |       |       |
|       |       |       |       |       |       |       |       |       |       |       |       |
|       |       |       |       |       |       |       |       |       |       |       |       |
|       |       |       |       |       |       |       |       |       |       |       |       |
|       |       |       |       |       |       |       |       |       |       |       |       |
|  |
| 1. Support: Skirt
 |       | Lugs |       | Legs |       | Others |       | Attached |       |
|  | (Yes or No) |  | (Number) |  | (Number) |  | (Describe) |  | (Where and how) |
| 1. Manufacturer’s Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of
 |
| the report (list the name of part, item number, Manufacturer’s name, and identifying number): |
|  |       |
|  |       |
|  |
|  | Remarks |       |
|  |  |  |
|  |       |
|  |       |
| (07/17) |

|  |  |  |  |
| --- | --- | --- | --- |
| Mfr. Representative: |       | Date: |       |
| Authorized Inspector: |       | Date: |       |
| Page |       | of |       |
|  |  |  |  |
| **Form U-1** |
|  |
| Manufactured by |       |
|  |  |
| Manufacturer’s Serial No. |       | CRN |       | National Board No. |       |
|  |  |  |  |  |  |
|  |
|  |
| **CERTIFICATE OF SHOP COMPLIANCE** |
| We certify that the statements in this report are correct and that all details of design, material, construction, and workmanship of this vessel conform |
| to the ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1.  |
| U Certificate of Authorization Number |       | Expires |       |  |
|  |  |  |  |  |  |
| Date |       | Name |       | Signed |       |  |
|  |  |  | (Manufacturer) |  | (Representative) |  |
|  |
| **CERTIFICATE OF SHOP INSPECTION** |
| I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors an employed by |
|       | of |       |
|  |  |  |
| have inspected the pressure vessel described in this Manufacturer's Data Report on  |       | , and |
| state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME BOILER AND |
| PRESSURE VESSEL CODE, Section VIII, Division 1. By signing this certificate neither the Inspector nor his/her employer makes any warranty, |
| expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his/her  |
| 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 |       |
|  |  |  | (Authorizied Inspector) |  | [National Board Authorized Inspector Commission number] |
|  |
| **CERTIFICATE OF FIELD ASSEMBLY COMPLIANCE** |
| We certify that the statements in this report are correct and that the field assembly construction of all parts of this vessel conforms with the requirements |
| of ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. U Certificate of Authorization Number |       | Expires |       | . |
|  |  |  |  |  |
| Date |       | Name |       | Signed |       |
|  |  |  | (Assembler) |  | (Representative) |
|  |  |  |  |  |  |
| **CERTIFICATE OF FIELD ASSEMBLY INSPECTION** |
| I, the undersigned, holding a valid eissued by the National Board of Boiler and Pressure Vessel Inspectors and employed by |
|       |
| of |       | , have compared the statements in this Manufacturer’s Data Report with the described pressure vessel |
| andstate that parts referred to as data items |       | , not included in the certificate of shop inspection, have been |
| inspected by me and to the best of my knowledge and belief, the Manufacturer has constructed and assembled this pressure vessel in accordance |
| with the ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. The described vessel was inspected and subjected to a pressure |
| test of |       | . By signing this certificate neither the Inspector nor his/her employer makes any warranty, expressed or concerning |
| the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his/her 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 |       |
|  |  |  | (Authorizied Inspector) |  | [National Board Authorized Inspector Commission number] |
|  |
| (07/17) |
|  |