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| **FORM H-4 MANUFACTURER'S PARTIAL DATA REPORT**  **As Required by the Provisions of the ASME Code Rules**  **(Attach to the Applicable Data Report, Section IV)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. | Manufactured and certified by | | | | | | | | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | H-4 ID# | | |  | | | |
|  |  | | | | | | | | | (name and address of manufacturer) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  | | |  | | | |
| 2. | Manufactured for | | | | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  |  | | | | | (name and address of purchaser) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. | Location of installation | | | | | | | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  |  | | | | | | | | (name and address) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. | Identification of part(s): | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Name of Part | | | | | | | Line  No. | | | | | | | Manufacturer’s  Serial No. | | | | | | | | | | Manufacturer’s  Drawing No. | | | | | | | | | | | | CRN | | | | | | | | National Bd. No. | | | | | | | Year  Built | | |
|  | | | | | | |  | | | | | | |  | | | | | | | | | |  | | | | | | | | | | | |  | | | | | | | |  | | | | | | |  | | |
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| 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 Code, Section IV, | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | xx | | |  | - | | | | | |  | xx | | |
|  |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | (year) | | |  | [addenda  (as applicable)(date)] | | | | | |  | (Code Case no.) | | |
| 6. | (a) | Drums: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| No. | | Inside  Diameter | | | Inside Length | | | | | | Shell Plates | | | | | | | | | | | | | | | | | | | | | | | | | | | Tube Sheets | | | | | | | | | | Tube Hole Ligament  Efficiency, % | | | | | |
| Material Spec. No. Grade | | | | | | | | | | | | | | Thickness | | | | | | | | Inside Radius | | | | | Thickness | | | | | Inside Radius | | | | | Longitu-  dinal | | | | Circum-  ferential | |
| 1 | |  | | |  | | | | | |  | | | | | | | | | | | | | |  | | | | | | | |  | | | | |  | | | | |  | | | | |  | | | |  | |
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| No. | | Longitudinal  Joints | | | | | | Circum.  Joints | | | | | | | | | | Heads | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Hydro-  static  Test | | |
| No. &  Type\* | | Effi-  ciency | | | | No. &  Type | | | | | Effi-  ciency | | | | | Material Spec. No. Grade | | | | | | | | | | | | | | Thickness | | | | | | | | | Type\*\* | | | | | | Radius  of Dish | | | |
| 1 | |  | |  | | | |  | | | | |  | | | | |  | | | | | | | | | | | | | |  | | | |  | | | | |  | | | | | |  | | | |  | | |
| 2 | |  | |  | | | |  | | | | |  | | | | |  | | | | | | | | | | | | | |  | | | |  | | | | |  | | | | | |  | | | |  | | |
| \*Indicate if (1) seamless, (2) fusion welded. | | | | | | | | | | | | | | | | | | \*\* Indicate if (1) flat, (2) dished, (3) ellipsoidal, (4) hemispherical. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6. | (b) | Boiler tubes: | | | | | | | | | | | | | | | | | | | | | | | | | 6. | | (c) | | | Headers no | | | |  | | | | | | | | | | | | | | | | | |
|  | | |  | | | | Material | | | | | | | | | |  | | How | | | | |  | | |  | |  | | |  | | | | (box or sinuous or round, material spec. no., thickness) | | | | | | | | | | | | | | | | | |
| Diameter | | | Thickness | | | | Spec. No. Grade | | | | | | | | | | No. | | Attached | | | | |  | | |  | |  | | | Heads or ends | | | | |  | | | | | | | | Hydro. test | | | |  | | | | |
|  | | |  | | | |  | | | | | | | | | |  | |  | | | | |  | | |  | |  | | |  | | | | | (shape, material spec. no.,  thickness) | | | | | | | |  | | | |  | | | | |
|  | | |  | | | |  | | | | | | | | | |  | |  | | | | |  | | | 6. | | (d) | | | Staybolts | | |  | | | | | | | | | | | | | | | | | | |
|  | | |  | | | |  | | | | | | | | | |  | |  | | | | |  | | |  | |  | | |  | | | (material spec. no. diameter, size telltale; net area) | | | | | | | | | | | | | | | | | | |
|  | | |  | | | |  | | | | | | | | | |  | |  | | | | |  | | |  | |  | | | Pitch | |  | | | | Net area | | | |  | | | | | Design pressure | | | | | |  |
|  | | |  | | | |  | | | | | | | | | |  | |  | | | | |  | | |  | |  | | |  | |  | | | |  | | | | (supported  by one bolt) | | | | |  | | | | | |  |
| 6. | (e) | Mud drum | | |  | | | | | | | | | | | | | | Heads or ends | | | | | | | |  | | | | | | | | | | | | | | Hydro. test | | | | | |  | | | | | | |
|  |  |  | | | (for sect. header boilers, state size,  shape, material spec. no., thickness) | | | | | | | | | | | | | |  | | | | | | | | (shape, material spec. no.,  thickness) | | | | | | | | | | | | | |  | | | | | |  | | | | | | |
| 7. | Waterwall headers: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | |  | | | | |  | | | | | | | | |  | | | | | Heads or Ends | | | | | | | | | | | | | | | |  | | | | Waterwall Tubes | | | | | | | | | | | | |
| No. | | Size and Shape | | | | | Material  Spec. No. Gr. | | | | | | | | | Thickness | | | | | Shape | | Thickness | | | | | | | | Material  Spec. No. Gr. | | | | | | Hydro  Test | | | | Diameter | | | | | Thickness | | | Material  Spec. No. Gr. | | | | |
| 1 | |  | | | | |  | | | | | | | | |  | | | | |  | |  | | | | | | | |  | | | | | |  | | | |  | | | | |  | | |  | | | | |
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| 3 | |  | | | | |  | | | | | | | | |  | | | | |  | |  | | | | | | | |  | | | | | |  | | | |  | | | | |  | | |  | | | | |
| 8. | (a) | Other parts (1) | | | | |  | | | | | (2) | | |  | | | | | (3) | |  | | | |  | | (b) | | Tubes for other parts | | | | | | | | |  | | | | | | | | | | | | | | |
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| 3 | |  | | | | |  | | | | | | | | |  | | | | |  | |  | | | | | | | |  | | | | | |  | | | |  | | | | |  | | |  | | | | |

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| **FORM H-4 (Back)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9. | Nozzles, inspection and safety valve openings: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Purpose  (inlet, outlet, drain, etc. | | | | | | | | No. | | Diameter  or Size | | Type | | | | How  Attached | | | | Material | | | | | Nom.  Thickness | | | | Reinforcement  Material | | Location | |
| ~~Handhole~~ | | | | | | | |  | |  | |  | | | |  | | | | ~~NA~~ | | | | |  | | | | ~~NA~~ | |  | |
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| 10. | | |  | | | | MAWP | | | | Maximum  Water Temp. | | | | Shop Hydro Test | | | | Heating  Surface | | | |  | | | Heating surface or  kW to be stamped  on drum heads | | | | 11. Field Hydro. Test | | |
| a | | | Boiler | | | |  | | | |  | | | |  | | | |  | | | |  | | |  | | | |  | | |
| b | | | Waterwall | | | |  | | | |  | | | |  | | | |  | | | |  | | | This heating surface  not to be used for  determining minimum  safety valve capacity. | | | |  | | |
| c | | | Other parts | | | |  | | | |  | | | |  | | | |  | | | |  | | |  | | | |  | | |
|  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12. | Remarks | | | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| **CERTIFICATE OF SHOP COMPLIANCE** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | We certify that the statements made in this partial data report are correct and that all details of design, material, construction, and workmanship | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  |
|  | of these parts conform to Section IV of the ASME BOILER AND PRESSURE VESSEL CODE. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  |
|  | "H" Certificate of Authorization no. | | | | | | | |  | | | | | expires | | | |  | | | | | | , | |  | | . | | | |  |
|  | Date | | |  | | | | Signed |  | | | | | | | | | | | | | Name | | | | |  | | | | |  |
|  |  | | |  | | | |  | (by representative) | | | | | | | | | | | | |  | | | | | (manufacturer that constructed and certified boiler) | | | | |  |
| **CERTIFICATE OF SHOP INSPECTION** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  |
|  | TÜV NORD Systems GmbH & Co KG, Essen, Germany | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  |
|  |  | | | | | | | | | | | | | | | | | have inspected the part of a boiler described in this Manufacturer’s Partial | | | | | | | | | | | | | |  |
|  | Data Report on | | | | |  | | | | | | , |  | | | | , | and state that to the best of my knowledge and belief, the manufacturer has | | | | | | | | | | | | | |  |
|  | constructed this part in accordance with Section IV 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 part described in this Manufacturer's Partial 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. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  |
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|  | Date | | |  | | | | Signed |  | | | | | | | | | | | | Commission | | | | | |  | | | | |  |
|  |  | | |  | | | |  | (Authorized Inspector) | | | | | | | | | | | |  | | | | | | (National Board commission number and endorsement) | | | | |  |