

Certificate

Quality-Assurance System for Manufacturer of Materials

acc. to Directive 2014/68/EU

Certificate no.: 01 202 USA/Q-13 9900

Name and address of the manufacturer: **Huron Casting Inc.
7050 Hartley St.
Pigeon, MI 48755
USA**

Herewith we certify that the material manufacturer has established and applies a Quality Management System. The system was audited according to the European Directive 2014/68/EU, Annex I, Par. 4.3, with regard to the materials as listed in the scope of approval.

Tested acc. to Directive 2014/68/EU: **QM System acc. to EN 764-5, article 4.2**

Audit report no.: USA/Q-13 9900

Range of materials: Manufacture of Steel Castings, see annex to certificate

Manufacturing plant: **Huron Casting Inc.
7050 Hartley St., Pigeon, MI 48755.**

**Blue Diamond Steel Casting LLC.
125 Sturn Rd., Pigeon, MI 48755.**

**Blue Chip
6755 Michigan Street, Caseville MI 48725**

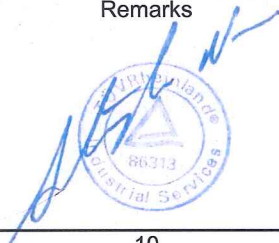
Valid until: November 17, 2019

Cologne, November 24, 2016 i. V. Dipl.-Ing. Oliver Theisen



TÜV Rheinland Industrie Service GmbH
Notified Body for Pressure Equipment, ID-No. 0035
Am Grauen Stein, D-51105 Köln

E-108-E-Rev21

| | | | | | | | | | | | | |
|---|---------------------------------|---|-----------------------------------|---|---|---|---|-------------|-----------------|-----------------------------|---|--|
| Scope according to | | <input checked="" type="checkbox"/> Directive 2014/68/EU Annex I §4.3 | <input type="checkbox"/> EN 764-4 | | <input type="checkbox"/> AD 2000-Merkblatt W0 | | <input type="checkbox"/> FPC, Regulation (EU) No. 305/2011(System 2+) | | | | | |
| Manufacturer | | | | Work | | | | Nationality | Date | Page No.. | | |
| Company Name: Huron Casting Location: 7050 Hartley Street, Pigeon, MI 48755 USA | | | | 7050 Hartley Street, Pigeon, MI 48755 (Huron) 125 Stum Road, Pigeon, MI 48755 (Blue Diamond) 6755 Michigan Street, Caseville MI 48725 (Blue Chip) | | | | USA | 3-Nov-2016 | 1 | TÜV Rheinland Industrie Service GmbH | |
| Cur | Materials-term Materials-No. | Material Specification | Delivery Cond. | Article Type of Product | Dimensions | | | | Weight max | Technical Specifications | Remarks | |
| | | | | | Thick- ness mm | | Ø mm | | 1=t / 2=kg | Requirements |  | |
| | | | | | from | Up to | from | Up to | ↓ res ult | Technical Regulations | | |
| 1 | 2 | 3 | 4 | 5 | 6a | 6b | 7a | 7b | 8a | 8b | 9 | 10 |
| Materials according to international standards (e. g. ASTM, ASME, IBR etc.) | | | | | | | | | | | | |
| The use of the materials according to DGR 2014/68/EU is bound to the publication of Harmonized European Standards or to the qualification by a European material approval or to the particular material appraisal. With that the manufacturing reliability for equivalent material grades according to other standards (e.g. BS, AFNOR, ASME) is proved. The requirements and limits of the applicable code respectively the PED must be observed for the use of material grades listed in column 2 to 4. | | | | | | | | | | | | |
| 01 | WCB | ASTM/ASME A/SA 216 | N, QT | Valve Body | 12 | 200 | 50 | 600 | 2 | 900 | ASTM/ASME* | *A PMA (Particular Material Appraisal) by the pressure equipment manufacturer is required. |
| 02 | LCB, LCC | ASTM/ASME A/SA 352 | QT | Valve Body | 12 | 200 | 50 | 600 | 2 | 900 | ASTM/ASME* | |
| 03 | 4D | ASTM/ASME A/SA 487 | N, QT | Valve Body | 12 | 200 | 50 | 600 | 2 | 900 | ASTM/ASME* | |
| 04 | Customer Spec 1E0627 | AISI/SAE 1524 Modified | N, QT | Hydraulic Cylinder Cap | 25 | 200 | 250 | 600 | 2 | 250 | Customer Spec* | |
| 05 | Customer Spec 1E1123 | AISI 4120 Modified | N, QT | Hydraulic Cylinder Cap | 25 | 200 | 250 | 600 | 2 | 250 | Customer Spec* | |
| Results | | +AT = solution annealed | | +NT = normalized and tempered | | a = PMA for the use in pressure equipment in Directive 2014/68/EU necessary | | | | | | |
| | | +AR = as rolled | | +QT = quenched and tempered | | | | | | | | |
| | | +M = thermo mechanical treated | | +S = soft annealed | | | | | | | | |
| | | +N = normalized or normalizing formed | | +SR = stress relieved | | | | | | | | |