**产品质量证明书**

**Quality Certificate**

产品名称

Name

产品编号

MFR S/N.

图 号

DWG

出厂日期

Date

编制/Prepared by：李乃理 审核/Checked by：朱龙

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| QQ截图20160102104656 | | | | | | | | | | | | | | | | **产品质量证明书**  **Quality Certificate** | | | | | | | | | | | | | | | | | | | | |
| 编号Iden .No. {certificateNo} | | | | | | | | | | | | | | | | 日期Date {authorAt} | | | | | | | | | | | | | | | | | | | | |
| 零 件 图 号  Drawing No | | 零 件 名 称  Part Name | | | | | | | | 材 质  Material | | | | | | | | 件 数  Qt’ y | | | | 交货状态  Delivery status | | | | | | | | | | 铸件重量Kg  Casting weight | | | | |
| {items[0].partNo} | | {items[0].partName} | | | | | | | | {items[0].material} | | | | | | | | {items[0].num} | | | | {deliveryStatus} | | | | | | | | | | {items[0].weight} | | | | |
| 零 件 标 记  Part Mark | | {items[0].serialNumber} | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 化学成分%  Chemical Composition | | 熔炼炉号**:**  **{items[0].heatNo}**  Heat No | | | | | | | | | | | | | | | | 报告编号**:**  **{reserved2}**  Test Report No. | | | | | | | | | | | | | | | | | | |
| 元素  Element | | {chemicalComposition[0][0]} | | {chemicalComposition[0][1]} | | {chemicalComposition[0][2]} | | | {chemicalComposition[0][3]} | | | {chemicalComposition[0][4]} | | | {chemicalComposition[0][5]} | | | {chemicalComposition[0][6]} | | | {chemicalComposition[0][7]} | | {chemicalComposition[0][8]} | | | {chemicalComposition[0][9]} | | | | {chemicalComposition[0][10]} | | | {chemicalComposition[0][11]} | | | {chemicalComposition[0][12]} |
| 要求含量（熔炼）  Ladle Analysis Specified | | {chemicalComposition[1][0]} | | {chemicalComposition[1][1]} | | {chemicalComposition[1][2]} | | | {chemicalComposition[1][3]} | | | {chemicalComposition[1][4]} | | | {chemicalComposition[1][5]} | | | {chemicalComposition[1][6]} | | | {chemicalComposition[1][7]} | | {chemicalComposition[1][8]} | | | {chemicalComposition[1][9]} | | | | {chemicalComposition[1][10]} | | | {chemicalComposition[1][11]} | | | {chemicalComposition[1][12]} |
| 实测含量（熔炼）  Ladle Analysis Measured | | {chemicalComposition[2][0]} | | {chemicalComposition[2][1]} | | {chemicalComposition[2][2]} | | | {chemicalComposition[2][3]} | | | {chemicalComposition[2][4]} | | | {chemicalComposition[2][5]} | | | {chemicalComposition[2][6]} | | | {chemicalComposition[2][7]} | | {chemicalComposition[2][8]} | | | {chemicalComposition[2][9]} | | | | {chemicalComposition[2][10]} | | | {chemicalComposition[2][11]} | | | {chemicalComposition[2][12]} |
| 检查员Examiner {inspector} | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 热处理炉号  HeatTreatment Furnace No | | | 状态  Condition | | | | 正火  N ℃ | | | | 淬火  Q ℃ | | | | | 回火  T ℃ | | | | 晶粒度  G. S. | | | | 脆性夹渣物  B.I. | | | | | 塑性夹渣物  P.I. | | | | | | 总和  Total | |
| {reserved3} （正火）  （回火） | | | {reserved4} | | | | {reserved5} | | | | {reserved6} | | | | | {reserved7} | | | | {grainSize} | | | | {reserved9} | | | | | {reserved10} | | | | | | {reserved11} | |
| 机械性能 报告编号**:**  **{reserved2}**  Physical Properties Test Report | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | ReL  MPa | Rm  MPa | | | A  % | | | Z  % | | | 冲击Akv（U）Impact Energy  V-notch(U-notch) J(kg—m) ≥35 | | | | | | | | | | | | | | | | | | | | | | | 硬 度 | | |
| 室温  Room Temp. | | | | | | | | | | | {reserved8}℃ | | | | | | | | | | | | {hardness} | | |
| 高  L | | 中  M | | | | 低  U | | 平均  Ave | | | 高  L | | | 中  M | | | 低  U | | | 平均  Ave | | |  | | |
| 要求数据  Value Required | {tensileTest[0][0]} | {tensileTest[0][1]} | | | {tensileTest[0][2]} | | | {tensileTest[0][3]} | | | {impactTest[0][0]} | | {impactTest[0][1]} | | | | {impactTest[0][2]} | | {impactTest[0][3]} | | | {impactTest[0][4]} | | | {impactTest[0][5]} | | | {impactTest[0][6]} | | | {impactTest[0][7]} | | | / | | |
| 实测数据  Value Measured | {tensileTest[1][0]} | {tensileTest[1][1]} | | | {tensileTest[1][2]} | | | {tensileTest[1][3]} | | | {impactTest[1][0]} | | {impactTest[1][1]} | | | | {impactTest[1][2]} | | {impactTest[1][3]} | | | {impactTest[1][4]} | | | {impactTest[1][5]} | | | {impactTest[1][6]} | | | {impactTest[1][7]} | | |  | | |
| 检查员Examiner {inspector} | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 附化分报告 份 附探伤报告 份  附性能报告 份 附尺检报告 份  附热处理铸件明细表 份  附缺陷焊补记录 份  带试棒 块 | | | | | | | | 检 查 结 果 | | | | | | 尺寸外观检验（NTC联检签字） | | | | | | | | | | | | | 无损检测（NTC联检签字） | | | | | | | | | |
| 合 格 | | | | | |  | | | | | | | | | | | | |  | | | | | | | | | |

质量保证工程师 {qualityEngineer} 检查工程师 {checkByName}

代号Abbreviations Q---淬火 Quenching PT----渗透探伤 Penetrant Testing

A---退火Annealing G. S----晶粒度 Grain Size UT.---超探 Ultrasonic Testing

N---正火Normalizing B.I-----脆性夹渣物 Brittle Inclusion MT---磁探 Magnetic Particle Testing

T----回火Tempering P.I.-----塑性夹渣物 Plastic Inclusion RT----射线探伤 Radiographic Testing

铸 件 热 处 理 明 细 表

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **送 检**  **代 表**  **铸 件** | 图 号 |  | | **材 质** | ZG12Cr9Mo1VNbN |
| 名 称 |  | | 送检试样  及铸号 |  |
| 冶炼炉次号 |  | | 热处理炉次号 |  |
| **其**  **余**  **铸**  **件** | 图 号 | | 名 称 | **铸 号** | 备 注 |
|  | |  |  |  |
|  | |  |  |  |
|  | |  |  |  |
|  | |  |  |  |
|  | |  |  |  |
|  | |  |  |  |
|  | |  |  |  |
|  | |  |  |  |
|  | |  |  |  |
|  | |  |  |  |
|  | |  |  |  |
| 毛坯终检：朱龙 | | | 检查员：张斌 | | 操作者：李文胜 |

尺 寸 划 线 记 录 报 告

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 订货单位 | | {items[0].num} | | | | 零件名称 | | {items[0].partName} | | |
| 公差标准 | | {executiveStandard} | | | | 零件图号 | | {items[0].partNo} | | |
| 数量 | | {items[0].num}件 | | | | 材质 | | {items[0].material} | | |
| 验收标准 | | {forgingsStandard} | | | | 铸号 | | {items[0].serialNumber} | | |
| 测 量 值： | | | | | | | | | | |
| 序号 | 图区位置 | | | 图 纸 尺 寸 | | | 实 测 尺 寸 | | 结论 | |
| 1 |  | | |  | | |  | |  | |
| 2 |  | | |  | | |  | |  | |
| 3 |  | | |  | | |  | |  | |
| 4 |  | | |  | | |  | |  | |
| 5 |  | | |  | | |  | |  | |
| 6 |  | | |  | | |  | |  | |
| 7 |  | | |  | | |  | |  | |
| 8 |  | | |  | | |  | |  | |
| 9 |  | | |  | | |  | |  | |
| 10 |  | | |  | | |  | |  | |
| 11 |  | | |  | | |  | |  | |
| 12 |  | | |  | | |  | |  | |
| 13 |  | | |  | | |  | |  | |
| 14 |  | | |  | | |  | |  | |
| 15 |  | | |  | | |  | |  | |
| 16 |  | | |  | | |  | |  | |
| 17 |  | | |  | | |  | |  | |
| 18 |  | | |  | | |  | |  | |
| 19 |  | | |  | | |  | |  | |
| 20 |  | | |  | | |  | |  | |
| 21 |  | | |  | | |  | |  | |
| 22 |  | | |  | | |  | |  | |
| 23 |  | | |  | | |  | |  | |
| 24 |  | | |  | | |  | |  | |
| 25 |  | | |  | | |  | |  | |
| 26 |  | | |  | | |  | |  | |
| 27 |  | | |  | | |  | |  | |
| 联检 |  | | 审 核 | |  | | 检 查 员 | |  | 委托加工单位 |
| 日期 |  | | 日 期 | |  | | 日 期 | |  |  |

铸 件 缺 陷 记 录

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 名称：{items[0].partName} | | | | 图号： {items[0].partNo} | | | |
| 材质：{items[0].material} | | | | 铸号：{items[0].serialNumber} | | | |
| 缺 陷 记 录 表 | | | | | | | |
| 缺陷  序号 | 缺陷  类型 | 长（㎜） | 宽（㎜） | | 深（㎜） | 探伤方法 | 焊后结果 |
| 1 |  |  |  | |  |  |  |
| 2 |  |  |  | |  |  |  |
| 3 |  |  |  | |  |  |  |
| 4 |  |  |  | |  |  |  |
| 5 |  |  |  | |  |  |  |
| 6 |  |  |  | |  |  |  |
| 7 |  |  |  | |  |  |  |
| 8 |  |  |  | |  |  |  |
| 9 |  |  |  | |  |  |  |
| 10 |  |  |  | |  |  |  |
| 11 |  |  |  | |  |  |  |
| 12 |  |  |  | |  |  |  |
| 13 |  |  |  | |  |  |  |
| 14 |  |  |  | |  |  |  |
| 15 |  |  |  | |  |  |  |
| 16 |  |  |  | |  |  |  |
| 17 |  |  |  | |  |  |  |
| 18 |  |  |  | |  |  |  |
| 19 |  |  |  | |  |  |  |
| 20 |  |  |  | |  |  |  |
| 21 |  |  |  | |  |  |  |
| 22 |  |  |  | |  |  |  |
| 23 |  |  |  | |  |  |  |
| 24 |  |  |  | |  |  |  |
| 25 |  |  |  | |  |  |  |
| 26 |  |  |  | |  |  |  |
| 27 |  |  |  | |  |  |  |
| 28 |  |  |  | |  |  |  |
| 29 |  |  |  | |  |  |  |
| 30 |  |  |  | |  |  |  |
| 31 |  |  |  | |  |  |  |
| 注A：缩松 B；气孔 C：砂眼 D；裂纹 E：割伤 F：缺肉 | | | | | | | |

检查员：

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 四、其他项目检查结果  合 格 | | | | | | | | | |
| 五、附带试棒： | | | | | | | | | |
| 试棒数量 | | |  | | / | | | / | |
| 六、附带其它质量证明资料： | | | | | | | | | |
| 资料名称 | 化学成分报告 份 | | | | | | | | |
| 力学性能报告 份 | | | | | | | | |
| 探伤报告 份 | | | | | | | | |
| 热处理铸件明细表份 附热处理曲线 份 | | | | | | | | |
| 尺检报告 份 缺陷焊补记录 份 | | | | | | | | |
| 该零件经检查符合图纸，技术标准({reserved12})技术协议，同意发货。 | | | | | | | | | |
| 七、NTC联检 | | | | | | | | | |
|  | | | | | | | | | |
| 尺寸外观检验（签字） | | |  | | 无损检测（签字） | | |  | |
| 日期 | | |  | | 日期 | | |  | |
| 备注：{description} | | | | | | | | | |
| 质量保证工程师 | | {qualityEngineer} | | 检查工程师 | | {checkByName} | 检查员 | | {inspector} |