



浙江特检

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特种设备制造监督检验证书

Manufacture Supervision Inspection Certificate for Special Equipment

(气瓶)

(Gas Cylinders)

证书编号(Certificate Number): PZJ2023BA0092

制造单位 Manufacturer	浙江蓝能氢能科技股份有限公司		
制造许可级别 Manufacture Licensing Level	A2、C3、B1、B4	制造许可证编号 Manufacture License No.	TS2233580-2027
产品名称 Product Name	大容积钢质无缝气瓶	产品型号 Product specification	TUBE1-719-3740-20 I
产品批号 Batch No	23042	产品数量 Quantity	30 只
产品标准 Standard	Q/LNQ 002-2020		
设计单位 design organization	浙江蓝能氢能科技股份有限公司	产品图号 Drawing Number	TUBE1-719-V-20 I-02
设计日期 Date of design	2021年03月	制造日期 Date of Manufacturing	2023年04月
产品编号 Serial No.	001-030	监督检验所抽的产品编号 Sample Gas Cylinders No.	027
不包括下列编号: Un-including the numbers as below	-		

按照《特种设备安全监察条例》的规定,该批气瓶产品经我机构实施制造监督检验,安全性能符合《气瓶安全技术规程》(TSG 23-2021)的要求,特发此证书,并且在该批气瓶产品瓶肩标注有如下监督检验标志。

According to 《Regulations on Safety Supervision of Special Equipment》, this batch of products has been supervised and inspected and its safety performance conforms to 《Supervision Regulation on Safety technology for Gas Cylinders》(TSG 23-2021), the certificate is issued and TS stamp is marked on the shoulder of the products.

监督检验人员人员(Inspector):

日期(DATE): 2023-04-18

TS

审核(Reviewer):

日期(DATE): 2023-04-18

批准(Approver):

日期(DATE): 2023-04-18

监督检验机构: 浙江省特种设备科学研究院

Supervisory Inspection Institute: Zhejiang Academy of Special Equipment Science

(检验检测专用章)

(Inspection and Testing Stamp)

监督检验机构核准证编号: TS7110448-2025

Approved Certificate No. TS7110448-2025

注: 本证书一式三份, 一份监督检验机构存档, 两份送制造单位, 其中一份由制造单位随产品出厂资料交付。

Note: This certificate in triplicate, one save in Supervisory Inspection Institute, one save in manufacturer, and one send to user with Ex-factory Documents.

地址Address: 杭州市凯旋路211号 Kaixuan Rd 211#, Hangzhou 邮 编Post Cod: 310020

业务电话Business Tel.: 0571-86025622, 85114617

投诉电话Complaint Tel.: 0571-86024818, 86026725

	浙江蓝能氢能科技股份有限公司 Zhejiang Rein Hytec Co.,Ltd.	版本状态/Rev	A/03
		记录编号/Sheet No.	REIN/MR-WD068-QD021

钢质无缝气瓶批量检验质量证明书

Lot Inspection Quality Certificate of Seamless Steel Cylinder

证书编号 Certificate No.: LNZB042-2023

产品名称 Product Name	大容积钢质无缝气瓶 Seamless Steel Cylinder of Large Capacity	生产批号 Batch No.	23042
产品编号 Eng.No.	001~030	产品图号 Product drawing No.	TUBE1-719-V-20 I-02
充装介质 (以整车介质为准)	Design or Type of Gas (The vehicle medium shall prevail)	CNG、H2、O2、Air、N2、Ar、He、Ne、Kr、NO、CO 及可兼容混合气	
制造厂 Manufacture	浙江蓝能氢能科技股份有限公司 Zhejiang Rein Hytec Co.,Ltd	生产许可证编号 Production license number	TS2233580-2027
地址 Address	浙江省杭州湾上虞经济技术开发区东一区振兴大道 5 号 No 5 Zhenxing Road , Eastern Area I, Shangyu Economic and Technological Development Zone ,Hangzhou Bay, Zhejiang Province.		

1.技术数据 Technical Data

工作压力 MPa SERVICE Pressure	20	水压试验压力 MPa Hydraulic Test Pressure	33.34
工作环境温度℃ Working Environment Temperature	-40~60	气密性试验压力 MPa Leak Test Pressure	随整车进行气密性试验 Carry out air tightness test with the whole vehicle
气瓶规格 Specification	Φ719×21.2×10980	气瓶型号 Cylinder Model	TUBE1-719-3740-20 I

2.主体材料化学成分复验值 Chemical Analysis of Main Material

材料牌号 Material	4130X		炉号 Heat No.	E12302291		入库编号 Stock No.		G23123	
项目 Item	C %	Si %	Mn %	P %	S %	P+S %	Cr %	Mo %	
标准值 Standard Value	0.28~0.35	0.15~0.35	0.40~0.90	≤0.020	≤0.010	≤0.025	0.80~1.10	0.15~0.25	
供应值 Supplied value	0.30	0.28	0.81	0.012	0.002	0.014	1.00	0.20	
复验值 Retest value	0.31	0.27	0.80	0.011	0.003	0.014	0.99	0.21	

3.热处理 Heat Treatment

热处理方法 Heat Treatment Method	调质 Hardening and Tempering	淬火介质 Quenching Medium	水基淬火剂 Water-based Hardening Agent
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证书编号 Certificate No.: LNZB042-2023

4.调质处理后机械性能试验值 Mechanical Properties After Heat Treatment

项目 Item	抗拉强度 T.S Rm MPa	屈服强度 Y.S Re1 MPa	屈强比 Re1 /Rm	伸长率 Elongat ion A ₅₀ %	冲击试验 Impact Tset (-40℃)J		压扁试验 Flattening Test	硬度 Hardness HBW
					平均值 Avg.Value	单个试验 最小值 Min.Value		
标准值 Standard Value	725~880	485~750	≤0.86	≥20	≥60	≥48	无裂纹 No crack	195~269
试验值 Test value	824	707	0.86	29.0	151	149	无裂纹 No crack	合格 OK

5.金相检查 Micrographic Examination

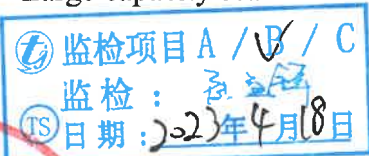
编号 Id	组织 Structure	晶粒度 (级) Grain Size (Grade)	脱碳层深度 Decarburized Depth (mm)	
			内壁 Inside	外壁 Outside
标准值 Standard value	回火索氏体 Tempered Sorbite	≥7.0	≤0.25mm	≤0.30mm
检验值 Test value	回火索氏体 Tempered Sorbite	8.0	0.13	0.23

经检验，符合 Q/LNQ 002-2020 《大容积钢质无缝气瓶》及设计图样的要求，

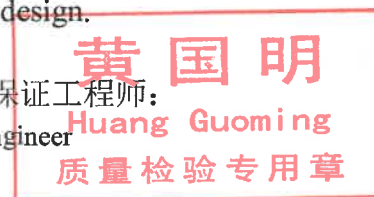
该批气瓶合格。

Through inspection, this batch of cylinders is qualified to conform to the requirements of standard Q/LNQ 002-2020 "Large capacity seamless steel cylinders" and drawing design.

监督检查员:
Inspector



质量保证工程师:
QA Engineer



监检单位专用章
Special Seal For Inspection Agency
日期 Date:



制造厂检验专用章
Special Seal For Quality Examination
日期 Date:

