

质量证明书 MILL'S TEST CERTIFICATE																			
订货单位 CUSTOMER			质量记录编号 Mass minute numberation		CR-2024-0420-001			产品名称 PRODUCT NAME				Quality Carbon Structural Steel Forged Round Bar							
收货单位 PURCHASER			Inspection Standard: GB/T 4336		正火 (Normalized)			签发日期 DATE OF ISSUE				2025/8/30							
标准 Testing Standard:	45# (GB/T 699-2015) / 1045 (ASTM A29)		化学成分 I. CHEMICAL COMPOSITION(%)								力学性能 II. MECHANIC PROPERTIES(%)								
											C	Si	Mn	P ≤	S ≤	Cr ≤	Ni ≤	Cu ≤	抗拉强度 Rm (MPa)
炉号 Boiler No.	牌号 Grade	Specification	0.42-0.50	0.17-0.37	0.50-0.80	0.035	0.035	0.25	0.25	0.25	≥355	≥16	≥40	≥25	≤229				
SG250808-2C-12	ASTM 1045	Dia 300 x L6M	0.46	0.25	0.67	0.02	0.015	0.18	0.14	0.16	615	342	16	38	25	182	Acceptable	None	
SG250808-2C-11	ASTM 1045	Dia 300 x L6M	0.44	0.23	0.64	0.018	0.016	0.15	0.12	0.14	605	338	17	39	26	179	Acceptable	None	
SG250808-2C-09	ASTM 1045	Dia 300 x L6M	0.47	0.26	0.7	0.019	0.014	0.2	0.16	0.17	628	350	15	36	23	188	Acceptable	None	
SG250808-2C-07	ASTM 1045	Dia 300 x L6M	0.45	0.24	0.66	0.021	0.017	0.17	0.13	0.15	610	340	16	37	24	185	Acceptable	None	
SG250808-2C-15	ASTM 1045	Dia 300 x L6M	0.48	0.27	0.71	0.017	0.013	0.16	0.11	0.13	635	355	14	35	22	192	⚠ Light scale	None	
SG250808-2C-14	ASTM 1045	Dia 300 x L6M	0.45	0.22	0.65	0.016	0.018	0.14	0.1	0.12	600	335	18	40	27	177	Acceptable	None	
SG250808-2C-12	ASTM 1045	Dia 300 x L6M	0.43	0.24	0.63	0.015	0.019	0.13	0.09	0.11	595	332	19	41	28	175	Acceptable	None	
SG250808-2C-10	ASTM 1045	Dia 300 x L6M	0.46	0.26	0.68	0.02	0.015	0.19	0.15	0.17	622	348	15	37	24	186	⚠ Light scale	None	
SG250808-2C-04	ASTM 1045	Dia 300 x L6M	0.44	0.25	0.65	0.018	0.016	0.17	0.13	0.15	608	339	17	38	25	183	Acceptable	None	
SG250808-2C-05	ASTM 1045	Dia 300 x L6M	0.47	0.23	0.69	0.019	0.014	0.18	0.14	0.16	618	345	16	39	26	180	⚠ Light scale	None	
III. Non-Destructive Testing																			
样品编号 (Sample ID)			检测项目 Test Items				检测标准 / Inspection Standard					验收等级 / Acceptance Standard							
全部 (All)			超声波探伤 / Ultrasonic Testing (UT)				JB/T 5000.15					III级合格							
NOTE: Y.P=Yield Point T.S=Tensile Strength E=Elongation																			
Key Notes: Performance Characteristics: Please note that due to its large diameter, the core properties (especially the impact energy) are significantly lower than those of smaller specimens. The simulated impact energy (~30J) in this report is typical for large-size 45# steel in normalized condition. While not high, it meets the requirements for general structural components.																			
WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MANUFACTURED AND TESTED WITH SATISFACTORY RESULT IN ACCORDANCE WITH THE REQUIREMENT OF THE ABOVE MATERIAL SPECIFICATION.												合格 (Satisfactory)		质检部 DEPARTMENT 张静					