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分析·研发·检测

Beijing ZKGX Institute of Science and Technology
Beijing ZKGX Institute of Science and Technology Shandong Branch

Report ID:ZX250708-C040201~02

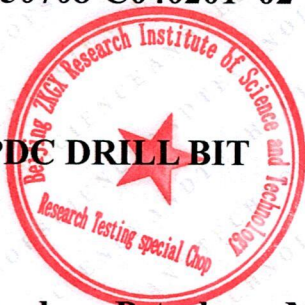
Date:JUL.17,2025

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Test Report

Report ID: ZX250708-C040201~02

Sample name: PDC DRILL BIT



Client: Hejian Sanlong Petroleum Machinery Co.,LTD

Test type: Commissioned inspection

Test requirement: Test according to client's requirement

Test result: See next page



Scan the query report for authenticity

Compile:

袁梦锦

Review:

李庆坤

Issue:

王林

NAME :Beijing ZKGX Research Institute of Science and Technology Tel: 400-635-0567 Website: <http://www.bjhgys.com> Report Tel:010-82491398

Statement: This test result is only responsible for the samples submitted for inspection; Comments are for reference only; This test report shall not be partially copied (the copy is invalid);

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Research Test Report

Research test result:

NO.	Test Item		Test Result	Index	Conclusion
1	Outer diameter, mm		215.90	215.39~215.90	Pass
2	Inner diameter, mm		100.98	100.49~101.00	Pass
3	Connection thread code		4 ¹ / ₂ REG	4 ¹ / ₂ REG	Pass
4	Mechanical properties	Tensile strength, MPa	1159.7	≥931	Pass
		Yield strength, MPa	721.21	≥690	Pass
		Elongation after fracture, %	14.1	≥13	Pass
		Breaking elongation after fracture, %	49.8	≥45	Pass
		Impact energy, J	50.5	≥48	Pass
		Rockwell hardness, HRC	31.5	≥29.8	Pass
5	Surface quality of the tire body		There are no defects such as cracks and porosity	After sintering, the surface of the drill bit matrix is not allowed to have defects such as network cracks and looseness that affect the embedding of cutting teeth.	Pass



Research Test Report

Research test result:

NO.	Test Item	Test Result	Index	Conclusion
6	Surface quality of the weld between the drill body and the joint	The weld surface has no defects such as cracks, lack of fusion, pores, arc craters, unfilled parts, slag inclusions, and spatter.	The weld between the drill body and the joint shall be free of defects such as cracks, lack of fusion, pores, arc craters, unfilled parts, slag inclusions, and spatter.	Pass
7	The coaxiality between the axis of the outer cylindrical surface of the drill bit and the axis of the connecting thread	12-level precision	Not less than 12 - level precision	Pass
8	The coaxiality between the axis of the inner cylindrical surface of the drill bit and the axis of the connecting thread	10-level precision	Not less than 10 - level precision	Pass
9	Damage to the cutting elements on the drill bit working surface	On the surface, there is no damage to the diamond.	Diamond chipping is not allowed.	Pass

Reference standards: SY/T 5217-2016



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Sample picture:



*** (End) ***

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2. The report is invalid without the signature of the responsible person of the service party. The report is invalid without the special seal for scientific research and test of "Beijing ZKGX Research Institute of Science and Technology".
3. Any result of the test application will be strictly confidential to the client. Unless required by relevant government departments, laws or courts, the service party shall not discuss or disclose the results to any third party without the consent of the principal.
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