

Analysis of the Properties Aluminium Casting Motorcycle Forks Arm after Compression Test

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The article describes the course of a pressure test that was made to determine the maximum force in the case of breaking the integrity of the casting. Observation of the forks arm deformation can be done with using sensors on the universal tensile testing machine. Using a high-speed camera to monitor this test will provide results in digital form that can serve to further research. Subsequently, analysis of the material properties of the AlSi7Mn0.3 casting is described, using the methods of evaluation of mechanical and structural properties. Periodic tests check the castings status to ensure recurrent quality in order to achieve the required safety in accordance with the standards for road vehicles.

Keywords: AlSi7Mg0.3 alloy, compression test, mechanical properties, microstructure, fractography

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