NUMERICAL SIMULATION OF MANUFACTURING AND ANALYSIS OF IN USE PROPERTIES FOR AUTOMOTIVE PART MADE OF MAGNESIUM ALLOY

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Abstract

New generations of steels (AHSS) have been increasingly developed and investigated by the automotive industry. These steels ensure the safety of users and the range of their applications is developing. However, in recent years an interest have occurred in the application of light alloys, such as magnesium alloys, for manufacturing of car body parts. This interest is mainly due to the weight of those components, the scope of the accessibility and the possibility of production. Use of light alloys in the car body can contribute to safety, environmental regulations and decrease of costs. At the same time possibilities of production of such components, as well as research on their subsequent exploitation, are developing.

Keywords: Magnesium alloy, automotive parts, hot forming

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