World Academy of Science, Engineering and Technology International Journal of Industrial and Manufacturing Engineering Vol:8, No:04, 2014

Experimental Study of Upsetting and Die Forging with Controlled Impact

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Abstract: The results from experimental research of deformation by upsetting and die forging of lead specimens wit controlled impact are presented. Laboratory setup for conducting the investigations, which uses cold rocket engine operated with compressed air, is described. The results show that when using controlled impact is achieving greater plastic deformation and consumes less impact energy than at ordinary impact deformation process.

Keywords: rocket engine, forging hammer, sticking impact, plastic deformation

Conference Title: ICMSE 2014: International Conference on Manufacturing Science and Engineering

Conference Location: Lisbon, Portugal Conference Dates: April 17-18, 2014