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Experimental Study of Iron Metal Powder Compacting by Controlled Impact

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Abstract : For compacting of iron powder are used hydraulic presses and high velocity hammers. In this paper are presented initial research on application of an innovative powder compacting method, which uses a hammer working with controlled impact. The results show that by this method achieves the reduction of rebounds and improve efficiency of impact, compared with a high-speed compacting. Depending on the power of the engine (industrial rocket engine), this effect may be amplified to such an extent as to obtain a impact without rebound (sticking impact) and in long-time action of the impact force.

Keywords : powder metallurgy, impact, iron powder compacting, rocket engine
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