

Title (en)  
DYNAMIC BONDING OF POWDER METALLURGY MATERIALS

Title (de)  
DYNAMISCHE VERBINDUNG VON PULVERMETALLURGIEMATERIALIEN

Title (fr)  
LIAISON DYNAMIQUE DE MATÉRIAUX DE LA MÉTALLURGIE DES POUDRES

Publication  
**EP 3187283 B1 20200311 (EN)**

Application  
**EP 16206377 A 20161222**

Priority  
US 201514982627 A 20151229

Abstract (en)  
[origin: EP3187283A1] A dynamic compaction process comprising providing a preform (20; 112) including forming a first container (28) having an interior and an exterior. Filling the interior of the first container (28) with a first powder material (22); sealing the first container (28); subjecting the exterior of the first container (28) to an instantaneous dynamic compaction, forming a solid powder metallurgy billet (210) encased by the first container (28). The process includes attaching a second container (116) to a portion of the preform (20; 112), filling the second container (116) with a second powder material (110, 118); subjecting the exterior of the second container (116) to an instantaneous dynamic compaction. The process includes forming a second solid powder metallurgy material (24; 110, 118) from the second powder material (24; 110, 118) encased by the second container (116). The process includes bonding the second solid powder metallurgy material (24; 110, 118) to the portion of the preform (20; 112); and removing the second container (116) from the component precursor (10; 100).

IPC 8 full level  
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Citation (examination)  
• US 5161950 A 19921110 - KRUEGER DANIEL D [US], et al  
• G. SETHI ET AL: "An overview of dynamic compaction in powder metallurgy", INTERNATIONAL MATERIALS REVIEWS, vol. 53, no. 4, 1 July 2008 (2008-07-01), US, pages 219 - 234, XP055514575, ISSN: 0950-6608, DOI: 10.1179/174328008X309690

Cited by  
CN114829062A; CN115070039A; CN115070040A; CN115070043A; CN115070044A; CN115070041A

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