

Title (en)  
POWDERED METAL MULTI-LOBULAR TOOLING AND METHOD OF FABRICATION

Title (de)  
MULTI-LOBULARES WERKZEUG AUS PULVERFÖRMIGEM METALL UND HERSTELLUNGSVERFAHREN

Title (fr)  
OUTIL A LOBES MULTIPLES EN METAL FRITTE ET SON PROCEDE DE FABRICATION

Publication  
**EP 1735117 A2 20061227 (EN)**

Application  
**EP 05724557 A 20050303**

Priority  

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- US 5243805 A 20050207

Abstract (en)  
[origin: US2005227772A1] A tool made of powdered metal, such as a modified T15 HSS in powdered form, and having a multi-lobular end profile for punching multi-lobular recesses into workpieces, such as into the heads of fasteners. The tool is homogenous and contains only carbides which are relatively small, such as in the 1-4 micron range. Also provided is a method of fabricating such a tool. The method requires that a powdered metal bar is cut and then the cut piece is worked to provide the multi-lobular tool. The final part is theoretically 100% dense, as opposed to being only 95-98% dense as in metal injection molded parts. In use, the final part, due to how it is fabricated, has increased column strength and increased impact resistance.

IPC 8 full level  
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