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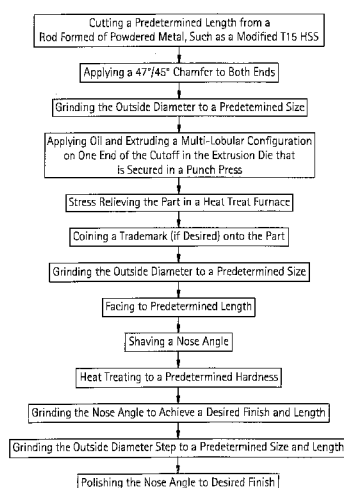
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(54) Title: POWDERED METAL MULTI-LOBULAR TOOLING AND METHOD OF FABRICATION



(57) Abstract: A tool (10) made of powdered metal, such as a modified T15 HSS in powdered form, and having a multi-lobular end profile (12) for punching multi-lobular recesses into workpieces, such as into the heads of fasteners. The tool (10) 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.



WO 2005/102559 A3