

Title (en)  
ROTARY CUTTING TOOLS

Title (de)  
ROTIERENDE SCHNEIDWERKZEUGE

Title (fr)  
OUTILS DE COUPE ROTATIFS

Publication  
**EP 3405642 A1 20181128 (EN)**

Application  
**EP 17742086 A 20170123**

Priority  
• GB 201601130 A 20160121  
• US 2017014484 W 20170123

Abstract (en)  
[origin: GB2546518A] A rotary cutting tool for incorporation into a drill string to enlarge a borehole underground or mill out tubing within a borehole has a tool body insertable into a drill string with a plurality of projecting or extendable cutter assemblies at positions distributed azimuthally around the longitudinal axis of the tool body wherein each cutter assembly includes a supporting structure 48 bearing a plurality of cutters 53, 211 - 216 with exposed hard cutting surfaces facing in a direction of rotation of the tool. The support structure of a cutter assembly has at least one surface 220 positioned to contact the conduit wall and this support structure is made as a body of particulate material infiltrated with a metal binder. The particulate material includes material such as tungsten carbide having a Knoop hardness of at least 1000. The support structure may have a functionally graded composition with hard material to contact the wall and steel in a region which will be machined during manufacture.

IPC 8 full level  
**E21B 10/32** (2006.01); **E21B 10/56** (2006.01); **E21B 17/00** (2006.01)

CPC (source: EP GB US)  
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