

Title (en)

Improved rock bit and compact inserts and method of manufacture.

Title (de)

Verbesserter Bohrmeissel, Schneideinsätze und Herstellungsmethode.

Title (fr)

Trépan de forage perfectionné et insertions compactes et procédé de fabrication.

Publication

EP 0501447 A1 19920902 (EN)

Application

EP 92103262 A 19920226

Priority

- US 66326691 A 19910301
- US 66344391 A 19910301

Abstract (en)

Apparatus and a method are shown for manufacturing a diamond filled compact (11, 23, 29, 31, 41, 43, 53, 55) of the type used as a cutting insert which is received in a cutting insert pocket in a drill bit face. Also shown is a fixed cutter earth boring drill bit (84) using the compact. The compact includes a hard metal jacket (13) having an open end and an open interior. The open interior is substantially filled with diamond (19). The diamond filled jacket is subjected to a temperature and a pressure sufficient to sinter the diamond and integrally form a diamond core within the hard metal jacket. The outer dimensions of the hard metal jacket are then reduced to a size selected to conform to a cutting insert pocket provided on the face of a drill bit. The compact is mounted over the cutting surfaces of the one-piece fixed cutter drill bit. <IMAGE>

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E21B 10/46

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

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Cited by

CN104508229A; EP2486221A4; US9375827B2; US9957757B2; US9708858B2; WO2013192578A1; WO2011038263A3; US9816324B2; US10309157B2; US9744646B2; US10012030B2

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