

Title (en)

ROTARY DRILL BITS AND METHODS OF MANUFACTURING SUCH BITS

Publication

EP 0315221 A3 19891025 (EN)

Application

EP 88120448 A 19860221

Priority

- EP 88120448 A 19860221
- GB 8505244 A 19850228

Abstract (en)

[origin: EP0315221A2] A rotary drill bit comprises a bit body having a shank for connection to a drill string, a plurality of cutting elements mounted at the surface of the bit body, and a passage in the bit body for supplying drilling fluid to the surface of the bit body, each cutting element comprising a thin hard facing layer, for example polycrystalline diamond, bonded to a less hard backing layer, for example tungsten carbide. The maximum instantaneous load to which each cutting element may be subject in use is reduced by reducing the thickness of the cutting element. The thickness of cutting element necessary to achieve the required object is defined, alternatively, in terms of the absolute dimensions of the cutting element or backing layer, in terms of the relative thickness of the backing layer and hard facing layer, or in terms of the thickness of the cutting element or backing layer in relation to the overall dimensions of the cutting face.

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E21B 10/56

IPC 8 full level

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CPC (source: EP US)

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Citation (search report)

- [A] US 4186628 A 19800205 - BONNICE PHILLIP E [US]
- [A] GB 2084219 A 19820407 - NL INDUSTRIES INC
- [A] EP 0079243 A1 19830518 - SUMITOMO ELECTRIC INDUSTRIES [JP]

Cited by

FR2789004A1

Designated contracting state (EPC)

BE DE FR NL

DOCDB simple family (publication)

EP 0315221 A2 19890510; EP 0315221 A3 19891025

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