

Title (en)

Outwardly mounted nozzles for rotary drill bits.

Title (de)

Nach aussen gerichtete Düsen für Drehbohrmeissel.

Title (fr)

Duses orientées vers l'extérieur pour trépan de forage.

Publication

EP 0449415 A2 19911002 (EN)

Application

EP 91301389 A 19910221

Priority

- US 50204690 A 19900330
- US 61324190 A 19901114
- US 63294990 A 19901224

Abstract (en)

A rotary drill bit (10) has fluid discharge nozzles (36A, 36B, 36C) positioned between adjacent pairs of roller cutters (20A, 20B, 20C). A fluid discharge nozzle (36A) positioned along the outer circumference of the drill bit body (12) provides a high velocity stream of drill fluid (44) along the bore hole side wall (34) with at least a substantial side portion of the stream (44) engaging the side wall (34) adjacent roller cutter (20A) and flowing downwardly along the side wall (34) across the bore hole corner surface (33). The nozzle orifice (37) has its center (41) positioned less than one inch from the adjacent bore hole side wall (34) and the stream is directed downwardly to provide a minimal change in direction as the stream (44) sweeps across the corner surface (33) and the bore hole bottom surface (32). <IMAGE>

IPC 1-7

E21B 10/18

IPC 8 full level

E21B 10/18 (2006.01)

CPC (source: EP)

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Cited by

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