

Title (en)

ROCK BIT WITH IMPROVED NOZZLE PLACEMENT

Title (de)

GESTEINSBOHRMEISSEL MIT VERBESSERTER DÜSENANORDNUNG

Title (fr)

TREPAN A MOLETTE A DISPOSITION DE TUYERE AMELIOREE

Publication

EP 1023519 A1 20000802 (EN)

Application

EP 98953355 A 19981009

Priority

- US 9821363 W 19981009
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Abstract (en)

[origin: WO9919597A1] A rotary cone drill bit (20) is provided with enhanced fluid flow near the bottom of an associated borehole resulting in improved removal of cuttings and other debris from the bottom of the borehole. The drill bit includes a plurality of fluid passageways (62) extending from the bit body (40) to the exterior of the drill bit. The bit body may include an enlarged cavity (56) with the fluid passageways extending therefrom. One end of the cavity preferably includes an opening (58) to receive fluid from a drill string attached to the drill bit. The end of the cavity opposite from the opening may have a generally parabolic configuration (57). For one application, a web member extends from the lower portion of the bit body, occupying a void area between each cutter cone assembly. The web member preferably contains a plurality of fluid passageways which direct drilling fluid from the drill string, through the bit body, through the web member, and exiting at nozzles adjacent to the bottom of the associated borehole.

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