

Title (en)
Hole opener

Title (de)
Werkzeug zum Erweitern von Bohrlöchern

Title (fr)
Outil pour élargir des trous de forage

Publication
EP 1811124 A1 20070725 (EN)

Application
EP 06001055 A 20060118

Priority
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Abstract (en)
The present invention relates to a hole opening tool to be used in oil well drilling. This tool is typically mounted on the lower end of a drill string and is rotated by adding rotating power to the drill string from the top end or by actuation of a down hole motor. A rotating drill bit produces a borehole at a diameter equal to that of the drill bit as the drilling proceeds downward. In many cases, the earth formation may be relatively soft or subject to geometrical change. This change may take place due to absorbing moisture from the drilling mud. In such cases earth formation swells and narrows, choking the drill string movement and producing unwanted and potentially damaging negative torque. The present invention provides a hole opening tool that has: - A steel body (1) having through axial bore for passing drilling fluid through (2). - A straight stabilizing and reaming part (3) - One tapered part above (4) and one tapered part below (5) the stabilizing part (3), both hold a number of cutters (6) to cut hole back to nominal size while drilling (5) downward or while pulling the drill string out of the hole (4).

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CPC (source: EP US)
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Citation (applicant)
• GB 2041427 A 19800910 - NL INDUSTRIES INC
• WO 2004029402 A1 20040408 - TRANSCO MFG AUSTRALIA PTY LTD [AU], et al
• US 2003155155 A1 20030821 - DEWEY CHARLES H [US], et al

Citation (search report)
• [X] GB 2041427 A 19800910 - NL INDUSTRIES INC
• [X] WO 2004029402 A1 20040408 - TRANSCO MFG AUSTRALIA PTY LTD [AU], et al
• [A] US 2003155155 A1 20030821 - DEWEY CHARLES H [US], et al
• [A] US 2003029644 A1 20030213 - HOFFMASTER CARL M [US], et al
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