

Title (en)
Hole opener.

Title (de)
Werkzeug zum Erweitern von Bohrlöchern.

Title (fr)
Outil pour élargir des trous de forage.

Publication
EP 0176180 A1 19860402 (EN)

Application
EP 85305111 A 19850718

Priority
• GB 8510911 A 19850430
• US 63495684 A 19840727

Abstract (en)
A tool for enlarging well bores, comprising a tubular housing (1) a cutter (6) extending outwardly of the housing and having a cutting edge (6A, B, C) engaging a well bore wall, and a passageway (8) through the housing for delivery of pressurised fluid, the housing wall being apertured (9, 10) to direct fluid from the passageway in a direction lateral of the housing and at generally the same level on the housing as said cutting edge.

IPC 1-7
E21B 10/26; **E21B 10/60**

IPC 8 full level
E21B 10/26 (2006.01); **E21B 10/60** (2006.01)

CPC (source: EP US)
E21B 10/26 (2013.01 - EP US); **E21B 10/60** (2013.01 - EP)

Citation (search report)
• [X] US 3237705 A 19660301 - WILLIAMS JR EDWARD B
• [Y] US 3908771 A 19750930 - GARRETT WYLIE P
• [X] US 2028910 A 19360128 - MACCLATCHIE JOHN W
• [X] US 2249732 A 19410722 - GREEN PAUL F
• [A] US 3324957 A 19670613 - GOODWIN ROBERT J, et al
• [A] US 4445580 A 19840501 - SAHLEY LLOYD W [US]
• [A] US 2140417 A 19381213 - BROOKS CONKLIN ANCIL
• [A] GB 788104 A 19571223 - MODERN HARDMETALS LTD
• [A] US 2149798 A 19390307 - CARLETON STARKEY WILLIAM
• [A] US 2607562 A 19520819 - ORVILLE PHIPPS

Cited by
EP0257944A3; DE4012222A1; GB2389132A; GB2389132B; US6742607B2; WO9325794A1

Designated contracting state (EPC)
DE FR GB NL

DOCDB simple family (publication)
EP 0176180 A1 19860402; **EP 0176180 B1 19881130**; DE 3566564 D1 19890105; NO 169609 B 19920406; NO 169609 C 19920715; NO 852975 L 19860128

DOCDB simple family (application)
EP 85305111 A 19850718; DE 3566564 T 19850718; NO 852975 A 19850726