



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 :

E21B 10/18

A1

(11) International Publication Number:

WO 96/18020

(43) International Publication Date:

13 June 1996 (13.06.96)

(21) International Application Number: PCT/US95/15889

(22) International Filing Date: 6 December 1995 (06.12.95)

(30) Priority Data:

08/350,910

7 December 1994 (07.12.94)

US

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(81) Designated States: AL, AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT, UA, UG, UZ, VN, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG), ARIPO patent (KE, LS, MW, SD, SZ, UG).

Published

With international search report.

Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

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IPER

(54) Title: ROTARY CONE DRILL BIT WITH ANGLED RAMPS

(57) Abstract

A rotary cone drill bit (10) for forming a borehole having a bit body (18) with an upper end portion (20) adapted for connection to a drill string (21). A number of support arms (24) extend from the bit body (18). Each support arm (24) has an exterior surface (38). A number of cutter cone assemblies (12) equal to the number of support arms (24) are mounted respectively on the support arms (24) and project generally downwardly and inwardly with respect to an associated support arm (24). A ramp (36) is formed on the exterior surface (38) of the support arm (24) and is inclined at an angle from the leading edge (40) of the support arm (24) toward a trailing edge (42) of the support arm (24) such that the ramp (36) directs cuttings upward in the borehole.

