



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification⁶:

B23B 31/113, B25D 17/08

A1

(11) International Publication Number:

WO 00/47356

(43) International Publication Date:

17 August 2000 (17.08.00)

(21) International Application Number: PCT/US99/26988

(22) International Filing Date: 12 November 1999 (12.11.99)

(30) Priority Data:

09/249,422

12 February 1999 (12.02.99)

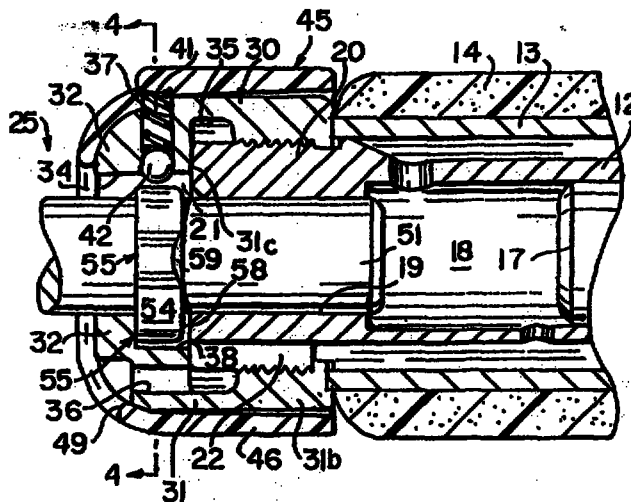
US

(71) Applicant: SNAP-ON TOOLS COMPANY [US/US];
2801-80th Street, Kenosha, WI 53141-1410 (US).(72) Inventor: HARTMAN, Robert, L.; 1328 N. Jefferson
Street-#201, Milwaukee, WI 53202 (US).(74) Agent: STOTLAND, Harold, V.; Emrich & Dithmar, Suite
3000, 300 South Wacker Drive, Chicago, IL 60606 (US).(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR,
BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE,
GH, GM, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
TM, TR, TT, UA, UG, UZ, VN, YU, ZW, European patent
(AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT,
LU, MC, NL, PT, SE).

Published

With international search report.

(54) Title: QUICK COUPLER MECHANISM FOR POWER TOOL BITS



(57) Abstract

A pneumatic impact power tool (10) has a tool body (12) with a bit-receiving axial bore (19). A cap (30) is threaded on the tool body (12) and has an end wall (32) spaced from an end surface (21) to define a cavity (38) and a lobed opening (33) matably receiving a like-lobed bit shank (51). Spring-biased balls (42) project into the cavity (38) from radial bores (37) in the end cap (30) to engage the shank lobes (55) and bias them to a rotational position non-aligned with the opening lobes (34) to inhibit removal. The cavity (38) is dimensioned to afford a slight axial clearance to accommodate axial movement of the lobes (55). A cover (45) on the end cap (30) is in place. The end cap (30) has an annular channel (35) communicating with an exhaust passage (22) in the tool body (12) and four exhaust ports (36) in the end wall (32).