

Title (en)
BIT RETAINING RING FOR RECOVERING DRILL STRING COMPONENTS

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EP 0286373 A3 19890712 (EN)

Application
EP 88303050 A 19880406

Priority
CA 534135 A 19870408

Abstract (en)
[origin: EP0286373A2] A drill bit retaining ring (32) for securing a drill bit (12) to a percussion hammer (14) having a percussion piston (28). The bit (12) has a shank (18) that extends into a chuck sleeve (16, 22) which forms part of the hammer (14). The bit has a set of upper splines (24) and a set of lower splines (30) that allow the bit to move vertically within the chuck sleeve but such movement is limited when the splines abut against the retaining ring (32) which is secured within the chuck sleeve. If the drill bit (12) becomes stuck in the hole, at least the hammer and the associated drill bit can be recovered thanks to the ring according to the present invention which is designed to fracture when a sufficient outward force (i.e. a force in a direction to move the drill string out of the hole) is applied to the drill string thereby releasing the hammer from the bit. However, the ring (32) must be sufficiently strong to withstand the impact forces from the splines (24, 30) under normal operation.

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