

Title (en)
INTERNAL WRENCH FOR A TOP HEAD DRIVE ASSEMBLY

Publication
EP 0285386 B1 19930602 (EN)

Application
EP 88302818 A 19880330

Priority
• US 3448287 A 19870402
• US 7902487 A 19870729

Abstract (en)
[origin: EP0285386A2] An internal wrench (40) for earth drilling machine (10) of the type having a mast (12), a top head drive assembly (14) mounted for movement along the mast (12) and a quill (24) rotated by the top head drive assembly (14) includes a body (42) having an upper end (44) and a lower end (46) sized to fit within a length of casing (26). The upper end (44) of the body (42) is mounted to the quill (24) for rotation with the quill (24) and several jaws (60) are mounted to the lower end (46) of the body (42) to move between an extended position in which the jaws (60) engage in interior surface (30) of the casing (26) to rotate the casing (30) with the body (42), and a retracted position in which the jaws (60) are out of engagement with the interior surface (30). The jaws (60) are selectively moved between the extended and retracted positions in response to rotation of the body (42) by a system (66-86) which includes a drag ring (93) which operates the jaws (60) and a friction brake, (96) which engages the drag ring (93). A plug (54) is mounted to an intermediate portion of the body (42) to mate with threads at the upper end of the casing (26) to seal off the casing. Followers (100) on selected jaws (60) automatically retract the jaws (60) when the body (42) is lowered into the casing (26) to mate the plug (54) with the threads at the upper end of the casing (26).

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IPC 8 full level
E21B 3/02 (2006.01); **E21B 19/16** (2006.01)

CPC (source: EP KR US)
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Cited by
US5839330A; US5243081A; GB2299849A; AU697613B2; GB2332009A; GB2332009B; US6161617A; CN1074500C; DE102011056808A1; US6742596B2; US10138690B2; US6705405B1; US6976298B1; US6622796B1; WO0171154A1; WO03060287A1; WO2006135787A1; WO9618799A1; US6536520B1; US11002086B2; US7665515B2; US6684737B1; US6725938B1; US6598501B1; US6412554B1; US6668684B2; US6732822B2; US6527047B1; US6688398B2; US7021374B2; WO9811322A1; WO2013092911A3

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