Title (en)

ROLLER REAMER ASSEMBLY

Publication

EP 0274265 A3 19890906 (EN)

Application

EP 87311264 A 19871221

Priority

GB 8700109 A 19870106

Abstract (en)

[origin: EP0274265A2] The invention relates to a drill member and particularly to a so called roller reamer. Roller reamers are known to form part of a drill string whereby to maintain the gauge of a hole during drilling, and known to comprise a number of roller cutters each mounted on the spindle and located in equal spaced relationship around a carrier body. Ordinarily the spindle is mounted in bearing blocks themselves located on a carrier body, and it is known to pack grease around the spindle to minimise wear between the roller cutter and the spindle during use. In use it is known for damage to be occasioned to the bearing box and equally during long usage there can be a loss of lubricant/grease from between the roller cutter and the spindle. The object of the invention is to provide an improved cutter assembly for a roller reamer which objective is met by a construction comprising a cutter assembly for a roller reamer comprising a tubular spindle bearing blocks secured to the ends of the spindle and a rotary cutter rotatably mounted on the spindle characterised by rotary seals 11 between the cutter 9 and the spindle 4 at each end of the cutter, a spring loaded piston 12 mounted within the tubular spindle 4, a passageway 16 through one bearing member 5 communicating with the interior of the tubular spindle 4, valve or nipple means 17 closing the inlet to the passageway 16 and at least one outlet hole 18 through the wall of the spindle 4 communicating with at least one groove 19 extending along the outer face of the spindle 4 over substantially the length of the spindle 4 lying within the rotary cutter 9.

IPC 1-7

E21B 10/30; E21B 10/24; E21B 10/10

IPC 8 full level

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CPC (source: EP US)

E21B 10/246 (2013.01 - EP); E21B 10/30 (2013.01 - EP US)

Citation (search report)

- [X] GB 2053319 A 19810204 DRESSER IND
- [Y] US 1565788 A 19251215 CARLSON ANTHONY E
- [Y] US 4508184 A 19850402 HANSEN MICHAEL S [US]
- [A] GB 2138870 A 19841031 ONCAR CORP
- [A] US 3251634 A 19660517 DAREING DONALD W
- [A] FR 1438748 A 19660513
- [A] US 3907048 A 19750923 GRAY GARY D

Cited by

AU701439B2; AU2004269049B2; AU594885B2; AU2004236273B2; AU594885C; EP0678150A4; US10718165B2; US9157282B2; WO2004099555A1; WO9629499A1; WO2005021924A1; WO0058595A1; WO2011046960A3; US7793715B2; US8397838B2; US7530409B2

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