

Title (en)

CONFIGURATION OF AN INJECTION PISTON INCLUDING PISTON ROD IN DIE CASTING MACHINES

Publication

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Application

EP 90107821 A 19900425

Priority

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Abstract (en)

[origin: EP0394988A2] The invention relates to a configuration of the injection piston including piston rod on die casting machines, the configuration allowing lubrication of the outer circumferential surface of the injection piston, in particular towards the end of the die-filling phase. In all known designs, there was no guarantee that lubrication would take place, particularly towards the end of the die-filling phase within the casting chamber. To achieve this is, however, the aim of the present invention and is achieved by the fact that a lubricant chamber (1, 1a or 1') is arranged within the rod (3) of the injection piston or within the injection piston (2) itself, it being possible to fill the chamber with lubricant on the inflow side via a lubricant line (4 or 4a, 4d) run through the piston rod (3, 3a, 3b), it being possible to seal off the inflow to the lubricant chamber (1, 1a or 1') and to the lubricant line (4 or 4a, 4d) by a nonreturn valve (5, 5'), that the lubricant chamber (1) is connected on the outflow side, via lubricant lines (4a, 4b) and holes (6) or - when the lubricant chamber (1') is arranged within the injection piston (2) - directly via holes (6), to the circumferential surface (2a) of the injection piston (2) and that the lubricant chamber (1, 1') can be compressed at the end of the die-filling phase, the lubricant reaching the circumferential surface (2a) in the process. <IMAGE>

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Citation (search report)

- [A] DE 1939227 U 19660526 - DRUCKGUSS HEIDENAU VEB [DE]
- [A] CH 436588 A 19670531 - KLUEBER LUBRICATION AUSTRIA GE [AT]
- [A] DE 3316951 A1 19831117 - TOKAI RIKI CO LTD [JP]
- [A] US 3767012 A 19731023 - JIMI Y, et al

Cited by

CN108160404A; CN1295045C; EP1820584A1; AU664123B2; CN105436457A; EP0625389A1; US5472039A; CN110549572A; DE19923341A1; DE19923341B4; EP0603631A1; DE4243827A1; WO0040356A1; EP3881951A1

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