

Title (en)
Load reduction

Title (de)
Lastverringierung

Title (fr)
Réduction de charge

Publication
EP 2660459 A1 20131106 (EN)

Application
EP 12166665 A 20120503

Priority
EP 12166665 A 20120503

Abstract (en)
In a fuel injection pump during the pumping stroke of the cycle, the contact load between the surfaces of the tappet (401) and plunger (400) can be very high leading to lubrication breakdown and fretting wear at the contact area surfaces. The present invention reduces wear rates by flushing fresh lubricant in the contact area gap (420) before each load cycle of the pump. Therefore, a resilient disc-like spring seat (403) provides the wanted gap (420) by a concave profile on its underside causing the spring seat to flex against the pumping stroke direction.

IPC 8 full level
F02M 59/10 (2006.01); **F04B 1/04** (2006.01)

CPC (source: EP KR US)
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F02M 2200/30 (2013.01 - EP KR US)

Citation (search report)

- [XY] DE 102010041002 A1 20120322 - BOSCH GMBH ROBERT [DE]
- [YA] EP 1557558 A1 20050727 - BOSCH AUTOMOTIVE SYSTEMS CORP [JP]
- [A] DE 10355027 A1 20050623 - BOSCH GMBH ROBERT [DE]
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Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

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JP 6185985 B2 20170823; KR 101629903 B1 20160613; KR 20150004415 A 20150112; US 2015118066 A1 20150430;
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KR 20147033558 A 20130423; US 201314396177 A 20130423