

Title (en)
FUEL INJECTION APPARATUS

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Application
EP 91100571 A 19910118

Priority
DE 4001436 A 19900119

Abstract (en)
[origin: EP0438163A2] 2.1 The invention relates to a fuel injection device for multi-cylinder in-line diesel engines with plug-in element pumps (2) which are arranged in immediate proximity to the respective cylinders (9) and which are fed with fuel via a bore (5) in the crank casing (1), the fuel being heated as it flows through the bore (5). The object of the invention is to compensate for the reduced engine output due to heating of the fuel. 2.2 The object is met in that the control rod (3) has a thermal expansion which differs from that of the crank casing (1), the fuel being fed to the governor-side end (6) of the bore (5) in the case of a lower thermal expansion of the control rod (3) but to the end (7) remote from the governor in the case of a control rod (3) with a greater thermal expansion. <IMAGE>

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F02M 39/00

IPC 8 full level
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CPC (source: EP US)
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Citation (search report)
• [X] DE 2653942 A1 19780601 - MTU FRIEDRICHSHAFEN GMBH [DE]
• [Y] GB 2195708 A 19880413 - DAIMLER BENZ AG
• [A] DE 1094042 B 19601201 - FRIEDMANN & MAIER AG
• [A] FR 1446049 A 19660715 - BRYCE BERGER LTD
• [A] EP 0037389 A2 19811007 - FRIEDMANN & MAIER AG [AT]
• [A] GB 2019607 A 19791031 - STEYR DAIMLER PUCH AG

Cited by
US6138641A; CN1065020C; WO9628654A1

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