

Title (en)
FUEL INJECTION PUMP FOR INTERNAL COMBUSTION ENGINES

Publication
EP 0408915 B1 19921202 (DE)

Application
EP 90111723 A 19900621

Priority
DE 3924127 A 19890720

Abstract (en)
[origin: US4982713A] A fuel injection pump including a pump piston, which pumps fuel at injection pressure to an injection nozzle as long as a control valve blocks the flow of the fuel, which overflows from the pump work chamber via a flow conduit, to a low-pressure chamber. In this operating state, if the control valve jams and the supply of fuel to the pump work chamber is not completely prevented. A Venturi pump is provided to evacuate the fuel. By means of the Venturi pump with a permanent flow of fuel through it, the static pressure is partially dropped at a flow throttle and this negative pressure is utilized at bottom dead center (UT) of the pump piston to evacuate the pump work chamber by suction, thereby preventing an unintended injection. The apparatus is especially suitable for high-pressure injection in Diesel engines, to achieve redundantly safe operation.

IPC 1-7
F02M 59/36; **F02M 63/02**

IPC 8 full level
F02M 57/02 (2006.01); **F02M 55/00** (2006.01); **F02M 59/36** (2006.01); **F02M 63/02** (2006.01); **F02B 3/06** (2006.01)

CPC (source: EP US)
F02M 55/00 (2013.01 - EP US); **F02M 59/366** (2013.01 - EP US); **F02B 3/06** (2013.01 - EP US); **F02M 55/007** (2013.01 - EP US)

Cited by
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