Title (en)

Fuel injection device for air compressing-combustion.

Title (de)

Brennstoffeinspritzvorrichtung für luftverdichtende Brennkraftmaschinen.

Title (fr)

Injecteur de carburant pour des moteurs à combustion interne à compressiond'air.

Publication

EP 0467072 B1 19931118 (DE)

Application

EP 91109689 A 19910613

Priority

DE 4022226 A 19900712

Abstract (en)

[origin: EP0467072A1] In order to reduce disagreeable combustion noises the injection process is divided into a preinjection and a main injection. According to the invention a pressure wave former (6) is incorporated into the injection line (2, 3) and ensures that, even in the partial load range and with the internal combustion engine running at slow speed, a high pressure level is available for the preinjection due to the sudden opening of the pressure wave former (6). The opening pressure of the pressure wave former (6) is controlled by the interplay of forces between the hydraulically acting piston areas and a closing spring or a piston (15), the piston (15) being capable of being acted upon by a characteristic-controlled auxiliary pressure source. Owing to the high pressure level available the preinjection quantity is finely atomised. The main injection follows on from the preinjection, as determined by the running time differential of the two injection lines. <IMAGE>

IPC 1-7

F02M 45/04; F02M 55/02

IPC 8 full level

F02M 45/02 (2006.01); **F02M 45/04** (2006.01); **F02M 47/00** (2006.01); **F02M 55/02** (2006.01)

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