

Title (en)
INJECTION NOZZLE FOR INTERNAL COMBUSTION ENGINES

Title (de)
EINSPRITZDUESE FUER BRENNKRAFTMASCHINEN

Title (fr)
BUSE D'INJECTION POUR DES MOTEURS A COMBUSTION INTERNE

Publication
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Application
EP 04732617 A 20040513

Priority

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Abstract (en)
[origin: WO2004109091A1] The invention relates to an injection nozzle (1) for an internal combustion engine, comprising a nozzle body (2) which comprises at least one first injection hole (3) and at least one second injection hole (4), a first nozzle needle (7) which is embodied as a hollow needle and which is guided in a first needle guide (6) of the nozzle body (2). Said nozzle needle can control the injection of fuel through the at least one first injection hole (3). Said injection nozzle also comprises a second nozzle needle (9) which is arranged in a coaxial manner on the first nozzle needle (7) and which can control the injection of fuel through the at least one second injection hole (4). In order to simplify control of the second nozzle needle (9), a first carrier contour (19) is formed on the first nozzle needle (7), said first carrier contour co-operating with a second carrier contour (20) formed on the second nozzle needle (9) when opening the first nozzle needle (7) according to a predetermined pre-stroke (24) and, during an opening movement occurring by means of the pre-stroke (24), the first nozzle needle (7) opens the second nozzle needle (9).

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