Title (en)

FUEL INJECTION NOZZLE

Title (de)

KRAFTSTOFF-EINSPRITZDÜSE

Title (fr)

INJECTEUR DE CARBURANT

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Application

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Abstract (en)

[origin: WO0151806A1] The invention relates to a fuel injection nozzle comprising a nozzle body which is provided with at least one nozzle hole (12) and a conical bearing surface (14). The inventive nozzle also comprises a nozzle needle (16) which can be displaced in the nozzle body and is provided with an inlet surface (18) as well as a radial step (20) arranged downstream in relation to and adjacent to the inlet surface. A sealing seat is thus formed in the transitional area with the inlet surface. Said sealing seat can engage with the bearing surface. The aim of the invention is to meter fuel for the pre-injection in a more accurate manner. According to the invention, an angle that is enclosed between the centre line of the injection nozzle and a tangent which is adjacent to the radial step in the area of the sealing seat amounts to more than 45 DEG . A circumference groove (24) is formed downstream in relation to and adjacent to the radial step. Said groove extends at least to the nozzle hole (12) in such a way that the narrowest cross-section is produced between the nozzle needle and the nozzle body in the region of the sealing seat for pre-injection purposes when the nozzle needle performs an opening lift movement.

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