

Title (en)

A CARBURETTOR AND A METHOD OF CARBURATION

Publication

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Application

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- ZA 81702 A 19810202
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- ZA 816155 A 19810904

Abstract (en)

[origin: EP0051992A2] The invention provides a carburettor for an internal combustion engine, comprising an upper plate element, a lower plate element and a side wall structure which spaces the plate elements from one another to define a mixing chamber within its surround. A tangential inlet to the chamber is defined in the side wall structure while a central outlet from the chamber is provided so that fluid entering the inlet follows a vortical path en route to the outlet. In a preferred arrangement the inlet is provided with a variable throat which includes a hinged flap adapted automatically to open the throat in proportion to air flow therethrough so that velocity through the throat remains substantially constant until the flap is fully open. A fuel jet is disposed a short distance downstream from the free end of the flap so that with the flap partially open, the jet is subjected to a constant pressure differential and in order to compensate for increasing airflow, a number of jets are provided successively upstream from the first jet. Once the flap is fully open, increased air flow results in an increased pressure differential over the jets so that the air fuel ratio remains substantially constant. A feature of the invention is that during low engine speeds, for example, during starting and idling, the air velocity is sufficiently high to effect vaporisation of liquid fuel. While the carburettor is of extremely simple construction, the mixing chamber ensures a high degree of vaporisation of liquid fuel without the application of heat or dependency upon a manifold for the internal combustion engine.

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Citation (search report)

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