

Title (en)
CARBURETTER FOR AN INTERNAL-COMBUSTION ENGINE AND IDLING SYSTEM THEREFOR

Publication
EP 0233612 A3 19881005 (DE)

Application
EP 87102088 A 19870213

Priority
DE 3604715 A 19860214

Abstract (en)
[origin: US4708828A] A carburetor with an idling system is designed so that the full pressure differential or gradient available between approximately ambient pressure and the vacuum in the intake tube is employed for producing a critical pressure ratio of a supersonic flow in a laval nozzle. To make this possible, a fuel air emulsion formed with primary air is introduced from a mixing duct via a constricted orifice of a tubular nozzle at a bore constriction, at which there is always a sonic velocity when there is a critical and supercritical pressure ratio, into the secondary air flow where it is superfinely atomized in the secondary air flow, with a maximum velocity differential, aided by subsequent pressure surges. At least at a point far into the partial load range of operation, the idling system produces a homogeneous mixture which is homogeneously distributed in the intake tube with a practically molecular state of division so that it is even supplied to all cylinders of the engine and completely combusted with a minimum production of contaminants.

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F02M 3/12

IPC 8 full level
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CPC (source: EP US)
F02M 3/12 (2013.01 - EP US); **Y10S 261/78** (2013.01 - EP US); **Y10S 261/81** (2013.01 - EP US)

Citation (search report)
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Designated contracting state (EPC)
AT BE CH DE ES FR GB GR IT LI LU NL SE

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