Title (en)

CARBURETTER FOR AN INTERNAL-COMBUSTION ENGINE

Publication

EP 0233612 B1 19921230 (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.

IPC 1-7

F02M 3/12

IPC 8 full level

F02M 3/12 (2006.01)

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)

Cited by

EP0741241A1; FR2733793A1; FR2733794A1

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EP 0233612 A2 19870826; **EP 0233612 A3 19881005**; **EP 0233612 B1 19921230**; AT E84119 T1 19930115; DE 3604715 A1 19870820; DE 3783241 D1 19930211; US 4708828 A 19871124

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EP 87102088 A 19870213; AT 87102088 T 19870213; DE 3604715 A 19860214; DE 3783241 T 19870213; US 85350786 A 19860418