

Title (en)

Fuel metering method and apparatus.

Title (de)

Verfahren und Gerät zur Kraftstoffmessung.

Title (fr)

Procédé et appareil pour la mesure de combustible.

Publication

**EP 0424821 A1 19910502 (EN)**

Application

**EP 90120109 A 19901019**

Priority

- US 42667289 A 19891026
- US 59402190 A 19901009

Abstract (en)

Method, system and apparatus for metering fuel to an internal combustion engine via a carburetor (20) having a mixture conduit with a venturi (42) therein. A main fuel nozzle (70) supplies fuel to the venturi of the carburetor in response to the static pressure drop induced across an associated main fuel flow controlling restriction (36) by the engine intake induced air flow through the carburetor mixture conduit. A pitot tube (80) is disposed in the venturi with an opening (82) facing upstream in a zone of maximum air flow through the carburetor venturi. A vent passageway (82-100) system connects the pitot tube to a single closed air chamber (62) cooperable with either a diaphragm (60) or a float to regulate operation of an inlet valve (58) controlling flow of fuel to a main fuel controlling restriction. The adverse effect of engine intake induced tuning pressure wave forms in the mixture conduit of the carburetor transiting the venturi is eliminated, reduced or modulated by the dynamic pressure exerted by said tuning waves at the pitot tube and transmitted by the vent passageway to said chamber and to said main fuel restriction.

IPC 1-7

**F02M 7/10**; **F02M 17/04**

IPC 8 full level

**F02B 63/00** (2006.01); **F02M 5/08** (2006.01); **F02M 7/11** (2006.01); **F02M 17/04** (2006.01)

CPC (source: EP US)

**F02M 7/11** (2013.01 - EP US); **F02M 17/04** (2013.01 - EP US)

Citation (search report)

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- [A] PATENT ABSTRACTS OF JAPAN vol. 7, no. 223 (M-247)(1368) 4 October 1983, & JP-A-58 117323 (YAMAHA HATSUDOKI K.K.) 12 July 1983,

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DOCDB simple family (publication)

**EP 0424821 A1 19910502**; **EP 0424821 B1 19931124**; CA 2028577 A1 19910427; CA 2028577 C 19971230; DE 69004779 D1 19940105; DE 69004779 T2 19940317; IE 64317 B1 19950726; IE 903709 A1 19910508; JP 2549199 B2 19961030; JP H03151557 A 19910627

DOCDB simple family (application)

**EP 90120109 A 19901019**; CA 2028577 A 19901025; DE 69004779 T 19901019; IE 370990 A 19901016; JP 28737390 A 19901026