

Title (en)

Fuel injection system for injection carburetors.

Title (de)

Kraftstoffeinspritzvorrichtung für Einspritzvergaser.

Title (fr)

Système d'injection de carburant pour carburateurs à injection.

Publication

**EP 0397897 A1 19901122 (EN)**

Application

**EP 89108690 A 19890513**

Priority

EP 89108690 A 19890513

Abstract (en)

The fuel injection system for injection carburetors comprises an air section of regulator (5) including a depression chamber (9) and an atmosphere chamber (8) separated from each other by a first diaphragm (7), a fuel section of regulator (6) including a fuel pressure chamber (12) and a fuel injection chamber (13) separated from each other by a second diaphragm (11), a fuel jet (14) communicating the fuel pressure chamber (12) and the fuel injection chamber (13) with each other, a connecting member (15) connected between the first (7) and second diaphragms (11) and equipped with a fuel injection valve (15a) capable of opening and closing a fuel injection port (13a), an acceleration chamber (21) including an auxiliary fuel chamber (24) and an atmosphere chamber (25) separated from each other by a third diaphragm (23), said auxiliary fuel chamber (24) being communicated with said fuel injection chamber (13), and a link (27) or an electromagnetic plunger (31) for increasing and decreasing the volume of the auxiliary fuel chamber (24) in accordance with increase or decrease of opening degree of a throttle valve (2). This fuel injection system is capable of adequately preventing air-fuel ratio of the mixture from being varied in the transient conditions at abrupt acceleration time and abrupt deceleration time by eliminating the mixture lean phenomenon at the acceleration time and mixture rich phenomenon at the deceleration time.

IPC 1-7

**F02M 69/00**

IPC 8 full level

**F02M 69/44** (2006.01)

CPC (source: EP)

**F02M 69/44** (2013.01)

Citation (search report)

- [A] DE 1476227 A1 19690717 - LOEHNER DR ING KURT
- [A] US 2540735 A 19510206 - HUNT SCOTT F
- [A] US 3026860 A 19620327 - BALL THOMAS M, et al
- [A] US 3437081 A 19690408 - MENNESSON ANDRE LOUIS
- [A] US 2641237 A 19530609 - DESCHAMPS DESIRE J
- [A] US 2985160 A 19610523 - ARMSTRONG JAMES F
- [A] PATENT ABSTRACTS OF JAPAN vol. 10, no. 281 (M-520)(2337) 25 September 1986, & JP-A-61 101662 (NIPPON CARBURETER) 20 May 1986,
- [A] PATENT ABSTRACTS OF JAPAN vol. 7, no. 112 (M-215)(1257) 17 May 1983, & JP-A-58 32964 (MITSUBISHI DENKI) 26 February 1983,
- [A] Charles H. Fischer: "Spark-Ignition Engines: Fuel Injection Systems" 1966, Chapman and Hall, London

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

**EP 0397897 A1 19901122; EP 0397897 B1 19920115; DE 68900720 D1 19920227**

DOCDB simple family (application)

**EP 89108690 A 19890513; DE 68900720 T 19890513**