

Title (en)

Pneumatic control device for a carburettor air throttle of an internal combustion engine.

Title (de)

Pneumatische Steuervorrichtung für die Vergaserluftklappe einer Brennkraftmaschine.

Title (fr)

Dispositif de commande pneumatique du volet d'air d'un carburateur pour moteur à combustion interne.

Publication

EP 0088678 A1 19830914 (FR)

Application

EP 83400411 A 19830301

Priority

FR 8203574 A 19820304

Abstract (en)

1. A device for pneumatically controlling the air throttle member of a carburettor for an internal combustion engine, in which carburettor, during operation of the engine in the cold condition, the pivotal movement of the air throttle member is controlled in dependence on the engine load between a position of minimum opening corresponding to the full load operating condition of the engine and a position of a maximum opening corresponding to a low load operating condition of the engine, said control device (16) comprising a capsule (101) having two chambers (101A, 101B) which are separated by a drive element (106) connected to the air throttle member by a linkage and subjected to the force of a return spring (107) urging the drive element (106) in the direction of tending to close the air throttle member, the first (101A) of the two chambers being subjected to atmospheric pressure and the second chamber (101B) being subjected to the depression of the intake manifold, characterised in that the second chamber (101B) has an orifice (101C) for forming a controlled communication with atmosphere, that the control device comprises a second capsule (102) which operates in a differential mode and which is adapted to open the orifice (101C) in response to small variations in the depression in the intake manifold, that the second capsule (102) comprises a drive element (112) which is fixed with respect to a rod (111) which at its free end carries a closure member (110) for controlling closure of the orifice (101C) for controlled communication with atmosphere, and that the drive element (112) of the second capsule (102) defines a first chamber (102A) directly subjected to the depression of the intake manifold by way of a conduit (113) and a second chamber (102B) subjected to the depression of the intake manifold by way of another conduit (115) in which there is disposed a calibration means (116), a return spring (114) urging the drive element (112) in the direction of tending to close the orifice (101C) for controlled communication with atmosphere.

Abstract (fr)

Ce dispositif est destiné à la commande du volet d'air d'un carburateur pour moteur à combustion interne dans lequel, pendant le fonctionnement à froid du moteur, le basculement du volet d'air est commandé en fonction de la charge du moteur entre une position d'ouverture minimale correspondant au régime de pleine charge du moteur et une position d'ouverture maximale correspondant à un régime de faible charge du moteur, ledit dispositif de commande (16) comprenant une capsule (101) présentant deux chambres (101 A, 101 B) séparées par un élément moteur (106) relié par une tringlerie au volet d'air, et soumis à l'action d'un ressort de rappel (107), sollicitant l'élément moteur (106) dans le sens qui tend à fermer le volet d'air, une première (101 A) des deux chambres étant soumise à la pression atmosphérique et la deuxième (101 B) à la dépression du collecteur d'admission. La deuxième chambre (101 B) présente un orifice (101 C) de mise à l'atmosphère contrôlée et le dispositif de commande comprend une seconde capsule (102) à fonctionnement différentiel adaptée pour ouvrir l'orifice (101 C) en réponse à de faibles variations de la dépression dans le collecteur d'admission.

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CPC (source: EP)

F02M 1/02 (2013.01); **F02M 1/14** (2013.01)

Citation (search report)

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- [A] DE 2434518 A1 19750306 - FORD WERKE AG
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