

Title (en)

CONTROL DEVICE OF THE AIR FLOW IN A THROTTLE BODY FOR THE SUPPLY OF AN INTERNAL COMBUSTION ENGINE

Title (de)

VORRICHTUNG ZUR STEUERUNG DES LUFTFLUSSES IN EINEM DROSSELKLAPPENKÖRPER ZUR VERSORGUNG EINER BRENNKRAFTMASCHINE

Title (fr)

DISPOSITIF DE COMMANDE DE L'ÉCOULEMENT D'AIR DANS UN CORPS DE PAPILLON POUR L'ALIMENTATION D'UN MOTEUR À COMBUSTION INTERNE

Publication

EP 3203055 A1 20170809 (EN)

Application

EP 17155068 A 20170207

Priority

IT UB20160567 A 20160208

Abstract (en)

It is disclosed a control device of a primary air flow duct and a secondary air channel within a throttle assembly for the air supply to an internal combustion engine, comprising a driving electric motor (2) and a toothed gearing transmission (5, 6, 7) for transferring the motion from said electric motor (2) to a driving shaft (A) of at least one throttle valve for the choking of said primary air flow duct and to a driving element (12, 12') of a bypass valve (18, 18') of said secondary air channel, wherein said toothed gearing transmission (5, 6, 7) is arranged to mesh with a first toothed-sector element (8) integral in rotation with said driving shaft (A) of said throttle valve of the primary air flow duct, said toothed gearing transmission (5, 6, 7) is arranged to mesh also with a second toothed-sector element (9, 9'), idle with respect to said driving shaft (A) of the throttle valve and apt to be coupled in rotation with said first toothed-sector element (8) by rigid coupling in one direction and through an elastic element (11) in the opposite direction, said second toothed-sector element (9, 9') having a driving appendix (12a, 12a') of said bypass valve (18, 18').

IPC 8 full level

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CPC (source: EP)

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Citation (applicant)

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- DE 102011076446 A1 20121129 - BAYERISCHE MOTOREN WERKE AG [DE]
- DE 102013006044 A1 20141009 - BING POWER SYSTEMS GMBH [DE]
- US 5657731 A 19970819 - KIM YOONSUK [KR]
- JP H06167262 A 19940614 - MAZDA MOTOR

Citation (search report)

- [A] EP 1785615 A1 20070516 - KEIHIN CORP [JP]
- [A] DE 102011076446 A1 20121129 - BAYERISCHE MOTOREN WERKE AG [DE]
- [A] US 5657731 A 19970819 - KIM YOONSUK [KR]
- [A] JP H06167262 A 19940614 - MAZDA MOTOR

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