Title (en)
DEVICE FOR CONTROLLING THE IDLE SPEED OF AN INTERNAL-COMBUSTION ENGINE

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Application
EP 84103889 A 19840407

Priority
DE 3325538 A 19830715

Abstract (en)
[origin: US4756286A] In a device for regulating the idling speed of an internal combustion engine by varying the feed by means of an electromechanical setting member which is provided with electromagnetic means developed as solenoid with at least one coil (spaces 14, 15; 36, 37), with ferromagnetic parts which conduct magnetic flux (cylindrical return sleeves 1, 19, 20), with at least one core (12, 13; 23) which can be influenced by the flux and with a magnetic flux-conducting element (push rod 9, 31) which is connected to the core, means are provided in order to set the valve element, when the excitation of the coils is interrupted, in an idling position of medium rate of flow of air. In order to maintain the structural expense for these means small and to obtain linearization of the normal manner of operation of the device with a large useful yield of force, the electromechanical setting member comprises two coils (within frames 14, 15 and 36, 37 respectively). These coils are so connected and acted on by setting currents that they act in directions opposite to each other on the element conducting the magnetic flux (push rod 9 or 31 respectively) by means of at least one core (12, 13 or 23 respectively). The means producing the return force (opposing spring 17 and adjustment spring 19 or opposing spring 32 and adjustment spring 29 respectively) are so developed that when the coils are without current the valve element is brought into a position of medium rate of flow of air.

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