Abstract

Decelerator device mounted in the exhaust gas circuit of a vehicle equipped with a combustion engine

The present invention relates to a decelerator device making it possible to achieve constant and maximum braking power whatever the engine's speed, by controlling the pressure of the gas upstream from the shutter by balancing the forces at the actuator cylinder's rod.

The decelerator device (1) is characterized in that it comprises a balancing device (25) incorporated into the actuator cylinder (9) and comprising the cylinder's rod (12) dissociated from the piston (11) and a calibrated spring device (26) mounted between them. When the shutter (7) is closed and when a back pressure threshold is reached, which is predetermined by the calibration of the spring device, the cylinder's rod (12) retracts at a stroke C' which causes the shutter (7) to reopen at an angle α generating an exhaust gas leak. Beyond this threshold, the reopening angle of the shutter (7) varies according to the pressure of the exhaust gas, thereby ensuring a constant and maximum back pressure whatever the engine's speed.

Application : Vehicles equipped with a combustion engine and particularly industrial vehicles.

Figure 5.