

Title (en)

Engine brake for heavy goods vehicle 4 stroke engine

Title (de)

Motorbremse bei einer 4-Takt-Brennkraftmaschine eines Nutzfahrzeuges

Title (fr)

Frein moteur pour moteur 4 temps de véhicule utilitaire

Publication

EP 0608521 B1 19951227 (DE)

Application

EP 93119699 A 19931207

Priority

AT 10593 A 19930125

Abstract (en)

[origin: EP0608521A1] The invention relates to an engine brake in a 4-stroke internal combustion engine of a commercial vehicle in which, during braking, the engine's own injection pump acts as hydraulic sensing device for hydromechanical actuating devices, by means of which the exhaust valves of the internal combustion engine are for a limited period during the compression cycles kept open by a smaller amount than normal. The engine brake according to the invention is characterised in that the delivery elements (K1 - Kn) of the injection pump (EP) with their control grooves and edges (5, 6) can be set to such a position and each control pressure line (S1 - Sn) emerging from a switching element (U1 - Un) provided in an injection pressure line (L1 - Ln) is connected to the actuating device (2) of the exhaust valve (A1 - An) of that cylinder Z (1-n) which is staggered by at least one angular ignition interval within the given firing order, so that in braking, by making the greatest possible use of a delivery stroke on the injection pump side, the fuel delivered opens the actuated exhaust valve (A1 - An) prior to compression in the area of the bottom dead centre, keeps it open during the subsequent compression cycle almost to ignition tdc and then closes it. Such an engine brake can be achieved with relatively few components and is thereby cost-effective. <IMAGE>

IPC 1-7

F01L 13/06

IPC 8 full level

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CPC (source: EP)

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