

Title (en)

FLUID PRESSURE ACTUATOR HAVING A PISTON CUSHIONING DEVICE IN FINAL POSITIONS

Publication

EP 0141215 B1 19870128 (DE)

Application

EP 84111136 A 19840919

Priority

DE 3338781 A 19831026

Abstract (en)

[origin: US4633758A] A fluid-pressure-operated, double-acting working cylinder which dampens the final braking of the work piston, includes a cylinder housing with a movable work piston disposed therein, the work piston dividing the cylinder into two work chambers. A piston rod, on which the work piston is mounted, extends through the housing. At least one auxiliary braking member is disposed on at least one side of the work piston in an offset slidable relation to the work piston. A braking arrangement disposed on the auxiliary braking member is controlled by fluid pressure to brake the auxiliary braking member to a desired position within the cylinder. A dampening chamber, a dampening spring configuration is disposed between the auxiliary braking member work piston such that, following braking of the auxiliary braking member, continued movement of the work piston is effectively dampened. An auxiliary check valve formed in the auxiliary braking member allows communication of fluid pressure between the dampening chamber and the auxiliary braking arrangement to increase the effective braking of the auxiliary braking member. A throttle is disposed on the auxiliary braking member to allow communication of the fluid pressure in the dampening chamber to the work chamber into which the work piston is moving. A check valve is disposed between the pressurized work chamber and the dampening chamber to allow fluid pressure introduced to the pressurized work chamber to flow into the dampening chamber thereby pressurizing the dampening chamber as well.

IPC 1-7

F15B 15/22; **F15B 15/26**

IPC 8 full level

F15B 15/22 (2006.01); **F15B 15/26** (2006.01)

CPC (source: EP US)

F15B 15/227 (2013.01 - EP US); **F15B 15/262** (2013.01 - EP US)

Citation (examination)

- DE 3146998 A1 19830601 - WABCO STEUERUNGSTECH [DE]
- US 4073217 A 19780214 - COLIN JEAN-PAUL

Designated contracting state (EPC)

AT CH DE FR GB IT LI NL SE

DOCDB simple family (publication)

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