

Title (en)
Pneumatic return spring for engine valve

Title (de)
Pneumatische Schliessfeder für ein Gaswechselventil einer Brennkraftmaschine

Title (fr)
Ressort pneumatique pour soupape de moteur

Publication
EP 0824180 B1 20010530 (DE)

Application
EP 97111990 A 19970715

Priority
DE 19632628 A 19960813

Abstract (en)
[origin: EP0824180A1] An assembly (11) is formed by a closure spring (1) and a medium supply device (9). It has a pump device (10) controlled by the spring stroke and constitutes a self-pumping closure spring. The pump device encloses a ring chamber (18) formed between an outer cylinder (4) and the skirt (12) of the piston (6) in the cylinder. The ring chamber is limited by a fixed seal (13) of the outer limit of the work chamber (7) of the closure spring. It is also limited by a ring piston (20) drive-connected to the main piston and connected to an inflow aperture (19) in the outer cylinder.

IPC 1-7
F01L 1/46

IPC 8 full level
F01L 1/46 (2006.01)

CPC (source: EP)
F01L 1/465 (2013.01)

Cited by
EP1143115A3; CN106460592A; EP3132125A4; US8375902B2; US10184361B2; US8550044B2; US8813697B2

Designated contracting state (EPC)
DE ES FR GB IT

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