

Title (en)  
Hydraulic valve lash adjuster

Title (de)  
Hydraulisches Ventilspielausgleichselement

Title (fr)  
Dispositif hydraulique de ratrapage de jeu

Publication  
**EP 1586747 B1 20081112 (DE)**

Application  
**EP 05006860 A 20050330**

Priority  
DE 102004018457 A 20040416

Abstract (en)  
[origin: EP1586747A1] A reverse spring hydraulic valve, e.g. for a self adjusting valve control for an IC engine, has a hydraulic control piston (1) in a bore and with a reverse spring hydraulic valve (5) in its base (2). The spherical, or half spherical valve element (7) moves axially inside a cylindrical guide (20) which is part of a retaining cap (13) which limits the axial and radial movement of the valve element. The cap has an outer flange (11) pressed into a stepped recess (14) of the piston base by a large spring (10) while the valve element is pressed into the open setting by a smaller spring (17) between the valve element and a stepped profile in the base of the piston. The base (24) of the cap limits the displacement of the valve element and has a ring of flow holes (21) around the contact point with the valve element. For extended life the valve element can be made of titanium or ceramic.

IPC 8 full level  
**F01L 1/24** (2006.01); **F01L 1/245** (2006.01)

CPC (source: EP KR US)  
**E01D 19/125** (2013.01 - KR); **F01L 1/24** (2013.01 - EP US); **E01D 2101/268** (2013.01 - KR); **F01L 2301/00** (2020.05 - EP US);  
**F01L 2301/02** (2020.05 - EP US)

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**EP 1586747 A1 20051019**; **EP 1586747 B1 20081112**; CN 1683755 A 20051019; CN 1683755 B 20111214; DE 102004018457 A1 20051117;  
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