

Title (en)

Valve assembly for an injection valve and injection valve

Title (de)

Ventilanordnung für ein Einspritzventil und Einspritzventil

Title (fr)

Ensemble de soupape pour soupape d'injection et soupape d'injection

Publication

EP 2597296 B1 20141029 (EN)

Application

EP 11190294 A 20111123

Priority

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Abstract (en)

[origin: EP2597296A1] The invention relates to a valve assembly (11) for an injection valve (10), with a valve body (12) including a central longitudinal axis (L), the valve body (12) comprising a cavity (18) with a fluid inlet portion (42) and a fluid outlet portion (40), with a valve needle (20) axially movable in the cavity (18), the valve needle (20) preventing a fluid flow through the fluid outlet portion (40) in a closing position and releasing the fluid flow through the fluid outlet portion (40) in further positions, with an upper retainer (23) being arranged in the cavity (18) and being fixedly coupled to the valve needle (20), with an electro-magnetic actuator unit (36) being designed to actuate the valve needle (20), the actuator unit (36) comprising an armature arrangement (22) which is arranged in the cavity (18) and is axially moveable relative to the valve needle (20), the armature arrangement (22) being designed to be coupled to the upper retainer (23) when the valve needle (20) is actuated to leave the closing position, the armature arrangement (22) being designed and arranged to mechanically decouple from the upper retainer (23) due to its inertia when the valve needle (20) reaches the closing position.

IPC 8 full level

F02M 51/06 (2006.01)

CPC (source: EP)

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Cited by

CN109154261A; KR20190015417A; KR20180066223A; JP2018518629A; EP3184794A1; EP3339627A1; US10570862B2; WO2016207268A1; WO2017207268A1; US10519909B2; US10731614B2; WO2017108657A1; WO2018115190A1

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