

Title (en)

ELECTROMAGNETICALLY DRIVEN VALVE

Title (de)

ELEKTROMAGNETISCH ANGETRIEBENES VENTIL

Title (fr)

SOUPAPE À COMMANDE ÉLECTROMAGNÉTIQUE

Publication

**EP 1784559 A1 20070516 (EN)**

Application

**EP 05753433 A 20050620**

Priority

- JP 2005011687 W 20050620
- JP 2004254193 A 20040901

Abstract (en)

[origin: WO2006025146A1] An electromagnetically driven valve (10) includes a driven valve (14) having a stem (12) extending in a prescribed direction and an umbrella-shaped portion (13) provided at a tip end of the stem (12) and opening/closing an intake/exhaust port, a lower disc (20) and an upper disc (30) having one ends (22, 32) coupled to the stem (12) and the other ends (23, 33) supported by a disc support base (51) so as to allow free oscillation of the disc respectively and oscillating around the other ends (23, 33) so as to cause the driven valve (14) to carry out reciprocating motion in the prescribed direction, a lash adjuster (16) provided in the stem (12), and a guide ring (45) guiding the lash adjuster (16) along the prescribed direction. The lash adjuster (16) contracts and expands in the prescribed direction and accommodates displacement of the stem (12) produced in a direction orthogonal to the prescribed direction as a result of reciprocating motion of the driven valve (14). With such a structure, the driven valve carries out smooth reciprocating motion.

IPC 8 full level

**F01L 9/20** (2021.01); **F01L 1/24** (2006.01); **F01L 9/21** (2021.01); **F16K 31/06** (2006.01); **H01F 7/121** (2006.01); **H01F 7/14** (2006.01)

CPC (source: EP US)

**F01L 1/24** (2013.01 - EP US); **F01L 9/20** (2021.01 - EP US); **F01L 2009/2125** (2021.01 - EP US); **F01L 2309/00** (2020.05 - EP US)

Citation (search report)

See references of WO 2006025146A1

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

**WO 2006025146 A1 20060309**; CN 101010494 A 20070801; DE 602005004927 D1 20080403; DE 602005004927 T2 20090122;  
EP 1784559 A1 20070516; EP 1784559 B1 20080220; JP 2006070968 A 20060316; US 2007252099 A1 20071101

DOCDB simple family (application)

**JP 2005011687 W 20050620**; CN 200580029342 A 20050620; DE 602005004927 T 20050620; EP 05753433 A 20050620;  
JP 2004254193 A 20040901; US 63266005 A 20050620