

Title (en)

FUEL INJECTION VALVE FOR INTERNAL COMBUSTION ENGINES

Title (de)

BRENNSTOFFEINSPRITZVENTIL FÜR VERBRENNUNGSKRAFTMASCHINEN

Title (fr)

SOUPAPE D'INJECTION DE CARBURANT POUR MOTEURS A COMBUSTION INTERNE

Publication

**EP 1991773 B1 20130515 (DE)**

Application

**EP 07701891 A 20070222**

Priority

- CH 2007000091 W 20070222
- CH 3402006 A 20060303

Abstract (en)

[origin: WO2007098621A1] A control device (52) of a fuel injection valve has a mushroom-shaped intermediate valve member (56) which is guided with a sliding fit (58') in a first intermediate plate (12). An injection valve member (28), which has a control piston (28'), for opening and closing injection openings in order to realize intermittent injection processes defines a control space (54) together with a guide sleeve (36) and the lower face (12a) of the first intermediate plate (12). A second intermediate plate (14) is situated between the first intermediate plate (12) and a housing body (10), and has a valve space (70) which is hydraulically connected to the end side of a shank (58) of the mushroom-shaped intermediate valve member (56).

IPC 8 full level

**F02M 47/02** (2006.01); **F02M 55/00** (2006.01); **F02M 59/46** (2006.01); **F02M 63/00** (2006.01)

CPC (source: EP US)

**F02M 47/025** (2013.01 - EP US); **F02M 47/027** (2013.01 - EP US); **F02M 55/005** (2013.01 - EP US); **F02M 63/0026** (2013.01 - EP US); **F02M 63/0029** (2013.01 - EP US); **F02M 63/0042** (2013.01 - EP US); **F02M 63/0043** (2013.01 - EP US); **F02M 63/004** (2013.01 - EP US); **F02M 2547/001** (2013.01 - EP US)

Citation (examination)

WO 2006108309 A1 20061019 - GANSER HYDROMAG [CH], et al

Cited by

DE102018109206A1; WO2018162747A1; EP3800344A1; WO2020260285A1; DE102017002366A1; CN110546376A; WO2019202008A1; US11499513B2; WO2021165275A1; EP3800344B1

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