

Title (en)  
HIGH-PRESSURE PUMP, IN PARTICULAR FOR A FUEL INJECTION DEVICE OF AN INTERNAL COMBUSTION ENGINE

Title (de)  
HOCHDRUCKPUMPE, INSBESONDERE FÜR EINE KRAFTSTOFFEINSPRITZEINRICHTUNG EINER BRENNKRAFTMASCHINE

Title (fr)  
POMPE A HAUTE PRESSION, EN PARTICULIER POUR DISPOSITIF D'INJECTION DE CARBURANT D'UN MOTEUR A COMBUSTION INTERNE

Publication  
**EP 1966481 B1 20100505 (DE)**

Application  
**EP 06819509 A 20061115**

Priority  
• EP 2006068499 W 20061115  
• DE 102005061886 A 20051223

Abstract (en)  
[origin: US2008279707A1] The high-pressure pump has at least one pump element which has a pump plunger which is driven in a reciprocating motion and defines a pump working space into which fuel is drawn in from a fuel feed via an inlet valve during the suction stroke of the pump plunger and from which fuel is displaced into a high-pressure region via an outlet valve during the delivery stroke of the pump plunger. The inlet valve and/or the outlet valve has a valve member at least approximately in the shape of a ball which interacts by means of a sealing surface with a valve seat arranged in a valve housing. By means of the valve member, in the open state, when said valve member is lifted with its sealing surface from the valve seat, a first cross section of flow is cleared between the valve member and the valve seat, and downstream of the first cross section of flow, a second cross section of flow is formed between the valve member and the valve housing. In the direction of flow between the first cross section of flow and the second cross section of flow, a third cross section of flow is formed between the valve member and the valve housing, said third cross section of flow being larger than the first cross section of flow and the second cross section of flow.

IPC 8 full level  
**F02M 59/46** (2006.01)

CPC (source: EP KR US)  
**F02M 59/26** (2013.01 - KR); **F02M 59/46** (2013.01 - KR); **F02M 59/464** (2013.01 - EP US); **Y10T 137/7911** (2015.04 - EP US); **Y10T 137/7928** (2015.04 - EP US)

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