

Title (en)  
DEVICE FOR HIGH-PRESSURE FUEL INJECTION

Title (de)  
VORRICHTUNG ZUR KRAFTSTOFFHOCHDRUCKEINSPRITZUNG

Title (fr)  
DISPOSITIF POUR INJECTION SOUS HAUTE PRESSION

Publication  
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Application  
**EP 10728156 A 20100617**

Priority  
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• EP 2010058580 W 20100617

Abstract (en)  
[origin: WO2011015405A1] The invention relates to a valve arrangement for high-pressure fuel injection, comprising a valve housing (2), an outward opening valve needle (3) arranged in the valve housing (2) in a compression chamber (4) filled with fuel to which fuel (K) is supplied under pressure, wherein the valve needle (3) is sealed off at a valve seat (16), a closing spring (5) that guides the valve needle (3) back to a starting position, an electromagnetic actuator (6) with a displaceably arranged armature (7) to actuate the valve needle (3), and a control valve (8) with a valve element (10) and a valve seat (11), wherein the valve element (10) has a first functional surface (13) and a second functional surface (14), wherein the first functional surface (13) faces the compression chamber (4), the second functional surface (14) faces a pressure chamber (12) connected to a low-pressure space (ND), and the valve element (10) enables and closes a connection between the compression chamber (4) and the pressure chamber (12), and the valve seat (11) is arranged on the armature (7) or a component connected to the armature (7), wherein upon the activation of the electromagnetic actuator (6), the control valve (8) opens in front of the outward opening valve needle (3) to reduce an opening force for the valve needle (3) by enabling the connection between the compression chamber (4) and the pressure chamber (12).

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