

Title (en)  
HIGH-PRESSURE PUMP

Title (de)  
HOCHDRUCKPUMPE

Title (fr)  
POMPE À HAUTE PRESSION

Publication  
**EP 2422072 B1 20121226 (DE)**

Application  
**EP 10706987 A 20100225**

Priority  
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Abstract (en)  
[origin: WO2010121857A1] A high-pressure pump (1), in particular serving as a radial piston pump or in-line piston pump for fuel injection systems of air-compressing auto-ignition internal combustion engines, has a pump assembly (13) and a driving shaft (6). The pump assembly (13) comprises a pump piston (16) guided in a cylinder bore (15) along an axis (17) of the cylinder bore (15), which can be driven by the driving shaft (6). Furthermore, a front surface (19) of the pump piston (16) in the cylinder bore (15) defines a pump working chamber (20). The pump piston (16) is made of a material which has an anisotropic elastic modulus. Thus having a high-pressure in the pump working chamber (20) causing the expansion of the cylinder bore (15), a radial deformation of the pump piston (16) can be reached, compensating the expansion of the cylinder bore (15).

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