

Title (en)
HIGH PRESSURE PUMP

Title (de)
HOCHDRUCKPUMPE

Title (fr)
POMPE HAUTE PRESSION

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Application
EP 03773421 A 20031204

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Abstract (en)
[origin: WO2004072477A1] A piston (6) of a piston pump unit (2), which can be displaced in a translatory manner, is guided in a cylinder bore (7). The piston (6) is driven by a crank drive (13) comprising an eccentric element (15) which is arranged on a drive shaft (14). A stroke ring (12) is rotationally mounted on the eccentric element (15) but does not rotate therewith. A sliding surface (10) of the piston (6) is arranged on a sliding bearing surface (11) on the stroke ring (12). A discharge chamber (22) is embodied inside the piston (6) on an end opposite the stroke ring (12). Said discharge chamber is open towards the sliding bearing surface (11). The discharge chamber (22) is connected in a pressure-wise manner to a working chamber (8) by means of a passage (23) in the piston (6). A displaceable control piston (25) is guided in a longitudinal bore (24) pertaining to said passage (23). Said control piston (25) is impinged upon on one side by a medium in the working chamber (8) and on the other front side by a pressure medium in the discharge chamber (22). The control piston (25) separates the medium which is to be transported from the pressure medium in the discharge chamber (22) and ensures that the pressure in the discharge chamber (22) increases if the pressure increases in the working chamber (8). This results in decompression of the sliding bearing between the piston (6) and the stroke ring (12).

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