

Title (en)
LIQUID PUMP

Title (de)
FLÜSSIGKEITSPUMPE

Title (fr)
POMPE A LIQUIDES

Publication
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Application
EP 04762564 A 20040730

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Abstract (en)
[origin: WO2005017361A1] The invention relates to a liquid pump comprising a housing (10, 12) in which a pump chamber (14) is configured. Inside said pump chamber, at least one rotatably driven delivery element (16, 18) is mounted and delivers liquid from a suction chamber (40) linked with a reservoir to a pressure chamber (42). The liquid pump is provided with a pressure control valve (50) for controlling the pressure inside the pressure chamber (42). Said control valve has a valve piston (60) disposed inside the housing (10, 12) which is impinged in the closing direction by a biased closing spring (62) and in the opening direction by the pressure prevailing in the pressure chamber (42). When the pressure inside the pressure chamber (42) exceeds a defined value, the valve piston releases a connecting channel (52) which links the pressure chamber (42) with the suction chamber (40). A filter (82) is mounted upstream of the liquid pump and/or a filter (83) is mounted downstream of the liquid pump. A pressure chamber (85) is provided in said filter and comprises a connection to an area downstream of the upstream filter (82) or a connection to an area downstream of the downstream filter (83). The pressure prevailing in the pressure chamber (85) influences the force acting upon the valve piston (60) in the closing direction in such a manner that the force acting in the closing direction onto the valve piston (60) increases with decreasing pressure in the pressure chamber (85).

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IPC 8 full level
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Cited by
US10968899B2; USRE49589E

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