Title (en)

LUBRICANT VALVE FOR OIL PUMPS OF INTERNAL COMBUSTION ENGINES

Title (de)

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Title (fr)

VALVE DE LUBRIFICATION POUR POMPES À HUILE DE MOTEURS À COMBUSTION INTERNE

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Application

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Abstract (en)

[origin: WO2011137890A2] The invention relates to a lubricant valve for oil pumps of internal combustion engines, in order to supply the bearings and sliding surfaces of the engines with lubricant in an optimum manner in order to reduce the wear. The invention is based on the problem of developing a lubricant valve for oil pumps of internal combustion engines, which lubricant valve combines, in particular, the functions of a cold-start valve and those of a control valve within itself with a minimum amount of installation space and is constructed in such a way that it is insensitive with respect to the wear debris and/or foundry sand which is entrained by the lubricant, in the process makes high throughflow quantities possible, in addition is of inexpensive construction in terms of production and assembly technology and can be produced inexpensively, and, moreover, always operates robustly, reliably and insusceptible to disruptions, even under extreme use conditions. The lubricant valve according to the invention for oil pumps of internal combustion engines is distinguished, in particular, by a double piston (12) in a piston guide (11) of a valve seat (7) of the pump housing (1), said double piston (12) consisting of a cold-start piston (14) which is arranged in a control piston (13) and is arranged in a cold-start piston guide (15) which is arranged in the control piston (13), wherein, lying opposite the cold-start piston guide (15), a piston rod (17) is arranged on the piston head (16) of the control piston (13), on which piston rod (17), spaced apart from the piston head (16) of the control piston (13), a working piston (18) is arranged which the piston rod (17) protrudes beyond in the form of a spacer rod (19), wherein, adjacent to the working piston (18), inflow holes (20) are arranged in the piston head (16) of the control piston (13) and, adjacent to the piston head (16), outflow holes (22) are arranged in the cylinder wall (21) of the cold-start piston guide (15) of the control piston (13).

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