

Title (en)
ADVANCED VALVE ARRANGEMENT

Title (de)
VENTILANORDNUNG

Title (fr)
AGENCEMENT PERFECTIONNE DE SOUPAPES

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Application
EP 96938256 A 19961122

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Abstract (en)
[origin: WO9720157A1] The invention relates to an advanced valve arrangement (1) for controlling a pressure medium operated actuator. The valve arrangement (1) comprises two matched and cooperating valves (7, 8) and control members (45). According to the invention, the valve box (10) and stem (11) of the first valve (7) are divided, in the transfer direction of the stem (11), into two parts: the front space (12) of the valve box and the front part (28) of the stem, and the rear space (13) of the valve box and the rear part (29) of the stem. In the rear and front spaces (13, 12) of the valve box, there are arranged narrowing spots, where seats (310, 311) are fitted. The pressure medium channels (2, 14) and the actuator channels (5, 6) are arranged on different sides of the seats. In the rear and front part (28, 29) of the stem, there are arranged narrowing spots, provided with counterparts (312, 313) for the seats (310, 311), said counterparts and seats being pressed together in the closed position of the valve. In the rear and front part (29, 28) of the stem, there are provided connecting channels (17, 18), whereby the pressure medium channels (2, 14) and the actuator channels (5, 6) are interconnected in the open position of the valve (7). The pump (P) is connected, by means of a control channel (19), to the rear space (13) of the first valve (7), so that the stem (11) of the first valve (7) is pressed into closed position by the pressure of the pressure medium. In said closed position, the connecting channels (17, 18) are closed, and at the same time the flowing of the pressure medium through the first valve (7) via both the feed and outflow channels (2, 3) is prevented. The second valve (8) is connected to a by-pass channel (23) provided in between the rear space (13) of the first valve (7) and the tank (T), and the control members (45) are arranged in connection with the second valve (8) in order to control the second valve (8) and therethrough the first valve (7) and the whole valve arrangement (1). The invention also relates to an advanced valve system utilizing this advanced valve arrangement.

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