

Title (en)

PROCESS FOR OPERATING A FREE-FALL HYDRAULIC HAMMER, AND CONTROLLING EQUIPMENT THEREFOR

Publication

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Application

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Priority

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Abstract (en)

[origin: EP0388497A1] The invention relates to a process for operating a free-fall hydraulic hammer in which a mass connected to a piston rod of a hydraulic cylinder alternately performs lifting and falling movements by means of a reversible hydraulic cylinder having pressure spaces which are separated by a piston and for producing the lifting movement are connected to a pressure-medium feed or a pressure-medium return, in which arrangement the two pressure spaces for producing the falling movement are directly connected during the falling movement, the pressure spaces of the cylinder and its direct connection are separated from both the pressure-medium feed and the pressure-medium return for the falling movement, and the volumes which flow out of or into the two cylinder pressure spaces separated by the piston are balanced, and at the same time internal effective losses are balanced. Suitable for carrying out the process is driving and controlling equipment which serves to operate free-fall hydraulic hammers having a mass (4) which is movably coupled to a hydraulic cylinder (1) via a piston rod (3) which is in turn connected to a piston (2) which is arranged in the hydraulic cylinder and divides the cylinder into two spaces (12, 8), the first pressure space (12) of the hydraulic cylinder having a connection (13, 14, 15, 16) to a pressure-medium supply in order to lift the mass, and the second pressure space having a connection (9) to a pressure-medium return (10), and the two pressure spaces in addition having a direct connection which can be manipulated by a valve (7), the manipulating valve being designed for the simultaneous separation of the pressure spaces (8, 12) from the pressure-medium supply and from the pressure-medium return as well as for manipulating the direct connection, and means being provided for balancing the volume and effective losses.
<IMAGE>

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IPC 8 full level

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