

Title (en)

METHOD FOR OPERATING A PNEUMATIC MOTOR AND DEVICE FOR WORKING THE METHOD

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EP 0455258 B1 19930324 (DE)

Application

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Priority

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Abstract (en)

[origin: EP0455258A1] The invention relates to a process for running a pneumatic motor using a running system so designed that it comprises a plurality of working cylinders connected in series, each of which has a closed pressure expansion chamber which contains, throughout the entire operating time, a uniform quantity of compressed air, the pressure of which applied before the working stroke drives the piston head through the stroke of the necessary working power after the working stroke correspondingly to its original expanding pressure and in each working cylinder there is a pressure by-pass chamber connected to an injection pressure line linked to the compressed air source, which is connected to the pressure by-pass chamber of all the other working pressure cylinders via controllable relay valves and is also connected to a pressure by-pass line linking the pressure by-pass chambers of all working pressure cylinders together via controllable relay valves in such a way that the working fluid expanding out of the pressure by-pass chamber via the pressure by-pass line controllable by relay valves can be stored in the individual pressure by-pass chambers of the subsequent working cylinders (see table) and, for the further raising of the pneumatic pressure in the pressure expansion chamber, pressure fluid partly stored in the pressure by-pass chambers of all subsequent working cylinders can be taken via the relay-controlled power by-pass line into the pressure by-pass chamber and the pressure fluid needed for applying the necessary pressure can be taken via the injection pressure line from the compressed air source so that the piston head acting as the working piston moves upwards and the pressure needed for the next working stroke is taken into the pressure expansion chamber. As a device fitted behind a motor, i.e. a drive system, this pneumatic motor provides more energy in the form of work than is needed to maintain the system within the operating process.

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