

Title (en)

COMPRESSOR FOR A COMPRESSED AIR SYSTEM IN PARTICULAR FOR A MOTOR VEHICLE

Title (de)

VERDICHTER FÜR EIN DRUCKLUFTSYSTEM INSBESONDERE EINES KRAFTFAHRZEUGS

Title (fr)

COMPRESSEUR D'AIR POUR SYSTÈME À AIR COMPRIMÉ, NOTAMMENT D'UN VÉHICULE AUTOMOBILE

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2015118001A1] The invention relates to an air compressor (1) for an air compression system of a motor vehicle, consisting of at least a suction chamber and a pressure chamber, wherein an intake gas, in particular air, is output in a compressed state from the suction chamber into the pressure chamber. In order to enable the increase in the delivery rate of the air compressor in the lower pressure range without foregoing the advantages of multiple stages, for example higher efficiency or lower compression end temperatures, the discharge system uses the pressure of the pressure chamber as a signal or uses a control signal of an external controller, for example a pressure signal of a control line. Upon underrunning a default pressure in the further pressure chamber (14), a switchover of the compressor (1) takes effect in such a way that for example the first suction chamber (11) is connected to the further suction chamber (13) and the compressor (1) compresses directly into the second pressure chamber (14). This achieves, for example, that a two-stage air compressor is designed as a single-stage air compressor with two working chambers/cylinders (with suction volumes increased by the suction volume of the second stage (Z2)), in which compressor the total suction volume is increased, in comparison to two-stage operation, by the suction volume of the second cylinder. The function can also be applied to a compressor with more than two stages.

IPC 8 full level

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Citation (search report)

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