

Title (en)

DOUBLE PISTON COMPRESSOR OF A SUPPLY DEVICE FOR COMPRESSED AIR

Title (de)

DOPPELKOLBENKOMPRESSOR EINER DRUCKLUFT-VERSORGUNGSEINRICHTUNG

Title (fr)

COMPRESSEUR A PISTON DOUBLE DE DISPOSITIF D'ALIMENTATION D'AIR COMPRIMÉ

Publication

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Application

**EP 16820165 A 20161207**

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Abstract (en)

[origin: WO2017097415A1] The invention relates to a double-piston compressor of a compressed-air supply device, comprising a first pressure stage (2) and a second pressure stage (3), which each have a cylinder (4, 7) with a piston (5, 8) guided therein in an axially movable manner. The cylinders are arranged radially opposite one another with respect to an axis of rotation (13) of a drive shaft (12). The pistons (5, 8) are rigidly connected to each other via a piston rod (10) and are in a driving connection with the drive shaft (12) via a slotted guide (14.1). The slotted guide comprises a cavity (15.1) which is arranged in the piston rod (10), provided with a slotted guide track (16.1) and oriented perpendicular to the axis of rotation (13) of the drive shaft (12), and a drive roller (17) which is engaged in the cavity and attached to the drive shaft (12) in an axially parallel, eccentric and rotatable manner. In order to ensure a continuous stroke path of the pistons (5, 8) without added construction requirements, the cavity (15.1) of the slotted guide (14.1) is delimited by a closed slotted guide track (16.1), which is oriented centrally with respect to a central axis (11) of the piston rod (10), and on which the drive roller (17) rolls and is permanently loaded by means of a resulting pressure force on the two pistons (5, 8). The lateral distance of the slotted guide track (16.1) corresponds at most to the total of twice the eccentricity (e) and twice the rolling radius (RR) of the drive roller (17). The stroke distance of the slotted guide track (16.1) exceeds twice the rolling radius (RR) of the drive roller (17) and falls below the sum of twice the eccentricity (e) and twice the rolling radius (RR).

IPC 8 full level

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