

Title (en)

ELECTROMAGNETIC CONTROL VALVE OF A VARIABLE DISPLACEMENT COMPRESSOR

Title (de)

ELEKTROMAGNETISCHES REGELVENTIL EINES VERDICHTERS MIT VARIABLER VERDRÄNGUNG

Title (fr)

VANNE DE CONTRÔLE ÉLECTROMAGNÉTIQUE D'UN COMPRESSEUR À DÉPLACEMENT VARIABLE

Publication

EP 3059445 A1 20160824 (EN)

Application

EP 16154786 A 20160209

Priority

- JP 2015032575 A 20150223
- JP 2015234949 A 20151201

Abstract (en)

A control valve (1) includes a shaft (68) driven in a direction of an axis line to transmit a driving force of a solenoid (3) to a valve element (24), and a vibration absorbing member (100) having viscoelasticity and being set between a shaft support member (72) and the shaft (68). During stationary control of a valve opening degree, the vibration absorbing member (100) dynamically deforms following vibration of the shaft (68) accompanying PWM control. A material and a structure of the vibration absorbing member (100) are set such that, during the stationary control, a vibration amplitude of the shaft (68) is included in a range in which the vibration absorbing member (100) and the shaft (68) are not caused to slide relative to each other.

IPC 8 full level

F04B 27/18 (2006.01); **F04B 39/00** (2006.01)

CPC (source: CN EP)

F04B 27/18 (2013.01 - EP); **F04B 27/1804** (2013.01 - CN EP); **F04B 39/0044** (2013.01 - EP); **F04B 53/10** (2013.01 - CN); **F04B 2027/1813** (2013.01 - EP); **F04B 2027/1827** (2013.01 - CN EP); **F04B 2027/1859** (2013.01 - EP)

Citation (applicant)

- JP 2005171908 A 20050630 - TGK CO LTD
- JP 2006057506 A 20060302 - TGK CO LTD

Citation (search report)

- [X] KR 20140111629 A 20140919 - TGK CO LTD [JP]
- [Y] WO 2012008787 A2 20120119 - DOOWON TECHNICAL COLLEGE [KR], et al
- [Y] JP 2009192198 A 20090827 - DENSO CORP
- [A] EP 2667118 A2 20131127 - TGK CO LTD [JP]

Cited by

EP3748158A4; CN111315986A; EP3670908A4; WO2022042633A1

Designated contracting state (EPC)

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Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

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DOCDB simple family (application)

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