

Title (en)

COMPRESSOR SYSTEM AND METHOD FOR OPERATING THE COMPRESSOR SYSTEM IN DEPENDENCE ON THE CURRENT SITUATION OF THE RAIL VEHICLE

Title (de)

KOMPRESSORSYSTEM UND VERFAHREN ZUM BETRIEB DES KOMPRESSORSYSTEMS IN ABHÄNGIGKEIT DER AKTUELLEN SITUATION DES SCHIENENFAHRZEUGS

Title (fr)

SYSTÈME DE COMPRESSEUR ET PROCÉDÉ PERMETTANT DE FAIRE FONCTIONNER LE SYSTÈME DE COMPRESSEUR EN FONCTION DE LA SITUATION INSTANTANÉE D'UN VÉHICULE FERROVIAIRE

Publication

EP 3077672 A1 20161012 (DE)

Application

EP 14808923 A 20141202

Priority

- DE 102013113556 A 20131205
- EP 2014076165 W 20141202

Abstract (en)

[origin: WO2015082431A1] The invention relates to a compressor system for a rail vehicle, comprising a compressor (3), driven by an electrical machine (1) via a drive shaft (2), for producing compressed air for at least one compressed air tank (4), wherein the electrical machine (1) can be activated at least indirectly via a control device (5) for operating the electrical machine (1) at at least one speed between a maximum speed (m) and a minimum speed (i), wherein furthermore at least one pressure sensor (7) for determining the pressure for the control device (5) is disposed in a compressed-air-carrying line (6) downstream of the compressor (3). According to the invention, a final control element (8) for continuously influencing the speed of the electrical machine (1) is disposed between an electrical supply (15) and the electrical machine (1), wherein the activation of the final control element (8) takes place via the control device (5) in accordance with a sensor device (10), comprising at least one sensor element (16) for sensing at least one external boundary condition of the rail vehicle. Furthermore, the invention also relates to a method for controlling the compressor system according to the invention, wherein, in accordance with the sensor device (10), the compressor (3) is operated at a variable speed, assuming any intermediate value between the maximum speed (m) and the minimum speed (i).

IPC 8 full level

F04B 35/04 (2006.01); **B60T 17/22** (2006.01); **F04B 41/02** (2006.01); **F04B 49/06** (2006.01); **F04B 49/08** (2006.01); **F04B 49/20** (2006.01);
F04C 28/08 (2006.01); **F04D 25/06** (2006.01); **F04D 27/00** (2006.01)

CPC (source: EP KR US)

B60T 17/228 (2013.01 - EP KR US); **B61D 27/00** (2013.01 - US); **B61L 25/025** (2013.01 - US); **F04B 35/04** (2013.01 - EP KR US);
F04B 41/02 (2013.01 - EP KR US); **F04B 49/06** (2013.01 - EP KR US); **F04B 49/08** (2013.01 - EP KR US); **F04B 49/20** (2013.01 - EP KR US);
B61L 2205/04 (2013.01 - US); **F04B 2203/0209** (2013.01 - EP KR US); **F04B 2205/05** (2013.01 - EP KR US)

Citation (search report)

See references of WO 2015082431A1

Citation (examination)

US 4432212 A 19840221 - TACHIBANA KEIJI [JP], et al

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2015082431 A1 20150611; AU 2014359380 A1 20160623; AU 2014359380 B2 20180125; CA 2932640 A1 20150611;
CN 105934584 A 20160907; CN 105934584 B 20190222; DE 102013113556 A1 20150611; EP 3077672 A1 20161012;
HK 1223141 A1 20170721; JP 2017500477 A 20170105; JP 6279740 B2 20180214; KR 20160093053 A 20160805; RU 2640681 C1 20180111;
US 10393104 B2 20190827; US 2016377075 A1 20161229

DOCDB simple family (application)

EP 2014076165 W 20141202; AU 2014359380 A 20141202; CA 2932640 A 20141202; CN 201480074100 A 20141202;
DE 102013113556 A 20131205; EP 14808923 A 20141202; HK 16111459 A 20160930; JP 2016536599 A 20141202;
KR 20167017553 A 20141202; RU 2016126775 A 20141202; US 201415101842 A 20141202