

Title (en)

DISK BRAKE DEVICE OF A VEHICLE HAVING TEMPERATURE SENSING OF THE BRAKE DISK

Title (de)

SCHEIBENBREMSVORRICHTUNG EINES FAHRZEUGS MIT TEMPERATURERFASSUNG DER BREMSSCHEIBE

Title (fr)

DISPOSITIF FREIN À DISQUE D'UN VÉHICULE À DÉTECTION DE TEMPÉRATURE DU DISQUE DE FREIN

Publication

**EP 3601835 A1 20200205 (DE)**

Application

**EP 18715534 A 20180321**

Priority

- DE 102017106552 A 20170327
- EP 2018057152 W 20180321

Abstract (en)

[origin: WO2018177834A1] The invention relates to a disk brake device (100) of a vehicle, comprising a brake disk (1), at least one brake pad (15), which is in frictional contact with the brake disk (1) in a brake application position, and a temperature-measuring apparatus for determining the temperature of the brake disk (1), which temperature-measuring apparatus contains at least one thermoelement (26) and measurement electronics (24), the at least one thermoelement (26) being arranged in or on the brake disk (1) and thermoelement signals produced by the at least one thermoelement (26) being related to the temperature of the brake disk (1), and the measurement electronics (24) being arranged for conjoint rotation with the brake disk (1) and producing output signals on the basis of the thermoelement signals, which output signals are related to the temperature of the brake disk (1) and can be further processed by a data-processing apparatus (64), and the temperature-measuring apparatus containing an energy supply apparatus (40), which supplies at least the at least one thermoelement (26) and/or the measurement electronics (24) with electrical energy. According to the invention, the energy supply apparatus (40) has at least one thermoelectric element (42) separate from the at least one thermoelement (26), said at least one thermoelectric element being arranged in or on the brake disk (1) or on a component that rotates conjointly with the brake disk (1) and the thermal energy arising between the brake pads (15) and the brake disk (1) being applied to said at least one thermoelectric element at least in the brake application position, the at least one thermoelectric element (42) producing a voltage of the energy supply apparatus (40) on the basis of the thermal energy.

IPC 8 full level

**F16D 65/12** (2006.01); **F16D 66/00** (2006.01)

CPC (source: EP)

**B60T 17/22** (2013.01); **B60T 17/228** (2013.01); **B61H 5/00** (2013.01); **F16D 55/2245** (2013.01); **F16D 65/12** (2013.01); **F16D 66/00** (2013.01);  
**F16D 2066/001** (2013.01)

Citation (search report)

See references of WO 2018177834A1

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)

**DE 102017106552 A1 20180927**; CN 110462249 A 20191115; CN 110462249 B 20210202; EP 3601835 A1 20200205;  
WO 2018177834 A1 20181004; WO 2018177834 A9 20190221

DOCDB simple family (application)

**DE 102017106552 A 20170327**; CN 201880021785 A 20180321; EP 18715534 A 20180321; EP 2018057152 W 20180321