

Title (en)

BRAKE HAVING A WEDGE GEAR AND MECHANICAL ENERGY STORE, AND METHOD FOR THE OPERATION THEREOF

Title (de)

BREMSE MIT KEILGETRIEBE UND MECHANISCHEM ENERGIESPEICHER SOWIE VERFAHREN FÜR DEREN BETRIEB

Title (fr)

FREIN AVEC MÉCANISME À CLAVETTE ET ACCUMULATEUR D'ÉNERGIE MÉCANIQUE AINSI QUE LEUR PROCÉDÉ DE FONCTIONNEMENT

Publication

**EP 3818279 A1 20210512 (DE)**

Application

**EP 19749575 A 20190703**

Priority

- DE 102018116437 A 20180706
- DE 2019000172 W 20190703

Abstract (en)

[origin: WO2020007384A1] The invention relates to a brake, comprising a brake housing; at least one clamping body for applying brake force to a linearly moving or rotating counter piece to be braked; a mechanical energy store having a spring arrangement, which during braking applies force to an actuating piston of a wedge gear, which actuating piston is in at least indirect drive connection with the clamping body until the braking position is reached; an actuator device for ventilating the brake; and a fixing device for controllably holding the brake ventilation position. The invention comprises an actuator device having a mechanical gearbox and a shape memory actuator, wherein in the brake ventilation position, the fixing device at least indirectly acts upon the spring arrangement or a separate brake release assembly in the mechanical gearbox via the mechanical gearbox, and the gearbox input side of the mechanical gearbox is in constant drive connection with the shape memory actuator, and the gearbox output side of the mechanical gearbox is in constant drive connection with the spring arrangement. The shape memory actuator is configured such that in an activated state, said shape memory actuator moves the spring arrangement into the brake ventilation position by means of the mechanical gearbox; and the gradient of the transmission ratio of the mechanical gearbox increases for the entire course of the transmission movement directed against the force of the spring arrangement in the direction of the brake ventilation position, wherein in the brake ventilation position, the magnitude of the transmission ratio of the mechanical gearbox is greater than one and corresponds to at least twice the transmission ratio in the braking position.

IPC 8 full level

**F16D 63/00** (2006.01)

CPC (source: EP)

**F16D 63/008** (2013.01); **F16D 2121/14** (2013.01); **F16D 2121/32** (2013.01); **F16D 2125/66** (2013.01)

Citation (search report)

See references of WO 2020007384A1

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 2020007384 A1 20200109**; CN 112689717 A 20210420; CN 112689717 B 20221014; DE 102018116437 A1 20200109; DE 102018116437 B4 20210204; EP 3818279 A1 20210512

DOCDB simple family (application)

**DE 2019000172 W 20190703**; CN 201980057707 A 20190703; DE 102018116437 A 20180706; EP 19749575 A 20190703