

Title (en)

CRANK DRIVE WITH PERIODIC CHANGE OF EFFECTIVE LEVER LENGTH

Title (de)

KURBELTRIEB MIT PERIODISCHER ÄNDERUNG DER WIRKSAMEN HEBELLÄNGE

Title (fr)

TRANSMISSION À MANIVELLE À MODIFICATION PÉRIODIQUE DE LA LONGUEUR EFFECTIVE DE LEVIER

Publication

**EP 3823888 A1 20210526 (DE)**

Application

**EP 19752421 A 20190718**

Priority

- DE 202018003342 U 20180718
- EP 2019000223 W 20190718

Abstract (en)

[origin: WO2020015852A1] In order to form a largely oval circulatory path, in particular a pedal (1a), a crank drive (1) is described which periodically changes the effective lever length of a crank (2). In this case, gear levers (4' or 7) are mounted on a crank (2) at both ends (2 a, 2b) which rotate in opposite directions with respect to one another and thus form two further movement axes within the pedal path and are thus adapted to the natural human leg movement in a force-saving and ergonomic manner.

IPC 8 full level

**B62M 3/06** (2006.01); **B62M 3/04** (2006.01)

CPC (source: EP US)

**B62M 1/36** (2013.01 - US); **B62M 3/04** (2013.01 - EP US); **B62M 3/06** (2013.01 - EP US); **F16H 21/20** (2013.01 - EP US);  
**B62M 2003/006** (2013.01 - US); **F16H 37/02** (2013.01 - US)

Citation (examination)

- FR 2259006 A1 19750822 - STANTIAL CHARLES [US]
- US 2007137427 A1 20070621 - STALLARD GREGORY K [US]
- WO 2016134044 A1 20160825 - DEN BOER WILLEM [US]
- See also references of WO 2020015852A1

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)

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JP 2022502314 A 20220111; JP 2024107075 A 20240808; US 11993342 B2 20240528; US 2021163095 A1 20210603;  
WO 2020015852 A1 20200123

DOCDB simple family (application)

**DE 202018003342 U 20180718**; CN 201980047912 A 20190718; EP 19752421 A 20190718; EP 2019000223 W 20190718;  
JP 2021525363 A 20190718; JP 2024090617 A 20240604; US 201917261498 A 20190718