

Title (en)
LEANING TRICYCLE AND ITS STEERING AND LEANING METHOD

Title (de)
NEIGEDREIRAD UND VERFAHREN ZUR LENKUNG UND ZUM NEIGEN DAVON

Title (fr)
TRICYCLE INCLINÉ ET SON PROCÉDÉ DE DIRECTION ET D'INCLINAISON

Publication
EP 3966096 A1 20220316 (EN)

Application
EP 20730719 A 20200504

Priority

- LT 2019022 A 20190506
- IB 2020054225 W 20200504

Abstract (en)
[origin: WO2020225716A1] This invention relates generally to the automotive industry and, more particularly — to the unique control features of a three-wheeled vehicle. The invention suggests a type of tilting vehicle control where the direction of the vehicle is initiated by the steering wheel and the tilt of the vehicle is controlled by tilting the same steering wheel shaft to the left or the right from neutral (center) position. The tilting three-wheeled vehicle consists of the frame (1), which has a motor, seats, single drive wheel, and the vehicle body in the back, and the two-wheeled independent symmetric suspension (3) with a control unit (4) in the front part of the frame. The solution is unique for its underframe (2) mounted on the frame (1) axles (5, 6) as well as the control unit (4) which consists of two separate units — the steering unit (4a) and the tilting unit (4b), both of which are connected by the steering wheel (12) and the steering shaft (13) which is mounted in the steering shaft longitudinal bushing (14). The steering unit (4a) features mechanical components for vehicle steering which are connected between the steering shaft (13) and the wheel knuckles (9, 9a). The tilting unit (4b) features the lever (19) connected to the frame (1), underframe (2), and the steering shaft longitudinal bushing (14). The tilting of this vehicle body, including the frame and the seats, and the steering of the front wheels are two separate actions, both of which are performed by the same steering wheel and the steering shaft. Both of these actions can be performed separately.

IPC 8 full level
B62K 5/10 (2013.01); **B60G 1/00** (2006.01); **B62D 9/02** (2006.01); **B62K 5/08** (2006.01)

CPC (source: EP)
B60G 3/20 (2013.01); **B62D 9/02** (2013.01); **B62K 5/08** (2013.01); **B62K 5/10** (2013.01); **B60G 2200/144** (2013.01); **B60G 2300/122** (2013.01); **B60G 2300/45** (2013.01)

Citation (search report)
See references of WO 2020225716A1

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 2020225716 A1 20201112; EP 3966096 A1 20220316; LT 2019022 A 20201110; LT 6792 B 20201228

DOCDB simple family (application)
IB 2020054225 W 20200504; EP 20730719 A 20200504; LT 2019022 A 20190506