

Title (en)

HYBRID DRIVE TRAIN FOR A HYBRID-DRIVEN MOTOR VEHICLE

Title (de)

HYBRIDANTRIEBSSTRANG FÜR EIN HYBRIDGETRIEBENES KRAFTFAHRZEUG

Title (fr)

GROUPE MOTOPROPULSEUR HYBRIDE D'UN VÉHICULE À MOTEUR À PROPULSION HYBRIDE

Publication

**EP 3532326 A1 20190904 (DE)**

Application

**EP 17788229 A 20171024**

Priority

- DE 102016221057 A 20161026
- EP 2017077209 W 20171024

Abstract (en)

[origin: WO2018077907A1] The invention relates to a hybrid drive train for a hybrid-driven vehicle, comprising a transmission (1), particularly a manual transmission, which can be shifted into different transmission stages by means of shifting elements and which can be drivingly connected to an internal combustion engine (7) via an internal combustion engine shaft (3), to an electric machine (11) via an electric machine shaft (9), and to at least one vehicle axle (VA) via an output shaft (13). The internal combustion engine shaft (3) and a take-off shaft (17), which is drivingly connected to the output shaft (13), can be connected together via spur gear sets which can be shifted by means of the shifting elements, each spur gear set forming a gear plane (V1 to V4, E1, E2), from which at least one hybrid gear plane (E1, E2) can additionally be connected to the electric machine shaft (9). According to the invention, at least one shifting element (SE-A; K1, K2) is arranged, in particular, on the electric machine shaft (9), by means of which the hybrid gear plane (E1, E2) can be decoupled from or connected to the electric machine (11).

IPC 8 full level

**B60K 6/48** (2007.10); **B60K 6/36** (2007.10); **B60K 6/547** (2007.10); **F16H 3/089** (2006.01)

CPC (source: EP US)

**B60K 6/36** (2013.01 - EP US); **B60K 6/48** (2013.01 - EP US); **B60K 6/547** (2013.01 - EP US); **B60K 17/24** (2013.01 - US); **F16H 3/089** (2013.01 - EP); **F16H 3/091** (2013.01 - US); **F16H 37/04** (2013.01 - US); **B60K 2006/4841** (2013.01 - EP US); **B60Y 2200/92** (2013.01 - US); **B60Y 2300/18191** (2013.01 - US); **B60Y 2300/19** (2013.01 - US); **B60Y 2400/42** (2013.01 - US); **B60Y 2400/71** (2013.01 - US); **B60Y 2400/79** (2013.01 - US); **F16H 2003/0822** (2013.01 - US); **F16H 2003/0933** (2013.01 - EP); **F16H 2037/047** (2013.01 - US); **F16H 2200/0069** (2013.01 - EP); **Y02T 10/62** (2013.01 - EP)

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 102016221057 A1 20180426**; **DE 102016221057 B4 20240613**; CN 109890640 A 20190614; CN 109890640 B 20220816; EP 3532326 A1 20190904; US 11420513 B2 20220823; US 2019329643 A1 20191031; WO 2018077907 A1 20180503

DOCDB simple family (application)

**DE 102016221057 A 20161026**; CN 201780066109 A 20171024; EP 17788229 A 20171024; EP 2017077209 W 20171024; US 201716343633 A 20171024