

Title (en)

HYBRID DRIVE OF A MOTOR VEHICLE AND METHOD FOR CONTROLLING SAME

Title (de)

HYBRIDANTRIEB EINES KRAFTFAHRZEUGS UND VERFAHREN ZU DESSEN STEUERUNG

Title (fr)

ENTRAÎNEMENT HYBRIDE D'UN VÉHICULE AUTOMOBILE ET PROCÉDÉ POUR SA COMMANDE

Publication

EP 3027450 A1 20160608 (DE)

Application

EP 14734462 A 20140630

Priority

- DE 102013215114 A 20130801
- EP 2014063794 W 20140630

Abstract (en)

[origin: WO2015014555A1] The invention relates to a hybrid drive (1.1 - 1.10) of a motor vehicle, which hybrid drive comprises: an internal combustion engine (VM) having a drive shaft (2); an electrical machine (EM), which can be operated as a motor and as a generator and which has a rotor (3); an automated manual transmission (4.1 - 4.6), which has a countershaft design and comprises an input shaft (GE) and at least one output shaft (GA; GA1, GA2); and a superposition transmission (5.1, 5.2), which has a planetary design and comprises two input elements (6, 7) and an output element (8). For said hybrid drive, it is provided that the superposition transmission is arranged coaxially over a free end (9, 9') of the output shaft (GA; GA2), that the first input element (6) of the superposition transmission is connected in a rotationally fixed manner to a hollow shaft (10) arranged coaxially over the output shaft, which hollow shaft can be connected in a rotationally fixed manner to an idler gear (11, 12) of the immediately axially adjacent spur gear stage (Z2, Z3) of the manual transmission by means of a coupling shift element (K) in order to couple the internal combustion engine (VM) and can be connected in a rotationally fixed manner to the second input element (7) or the output element (8) of the superposition transmission by means of a bridging shift element (L, L') in order to bridge the superposition transmission, that the second input element (7) of the superposition transmission has a permanent drive connection to the rotor (3) of the electric machine (EM), and that the output element (8) of the superposition transmission is connected in a rotationally fixed manner to the superposition transmission.

IPC 8 full level

B60K 6/40 (2007.10); **B60K 6/365** (2007.10); **B60K 6/48** (2007.10); **B60K 6/547** (2007.10); **B60W 20/00** (2016.01); **F16H 3/72** (2006.01)

CPC (source: EP US)

B60K 6/365 (2013.01 - EP US); **B60K 6/387** (2013.01 - EP US); **B60K 6/40** (2013.01 - EP US); **B60K 6/48** (2013.01 - EP US); **B60K 6/547** (2013.01 - EP US); **B60W 10/02** (2013.01 - EP US); **B60W 10/06** (2013.01 - EP US); **B60W 10/08** (2013.01 - EP US); **B60W 20/40** (2013.01 - EP US); **F16H 3/0915** (2013.01 - EP US); **F16H 3/093** (2013.01 - EP US); **F16H 3/725** (2013.01 - EP US); **B60K 2006/4808** (2013.01 - EP US); **B60W 2710/0644** (2013.01 - EP US); **B60W 2710/081** (2013.01 - EP US); **B60Y 2200/92** (2013.01 - EP US); **F16H 2003/0931** (2013.01 - EP US); **F16H 2200/0043** (2013.01 - EP US); **Y02T 10/62** (2013.01 - EP US); **Y10S 903/911** (2013.01 - EP US); **Y10S 903/914** (2013.01 - EP US); **Y10S 903/951** (2013.01 - EP US)

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 2015014555 A1 20150205; CN 105431317 A 20160323; CN 105431317 B 20171222; DE 102013215114 A1 20150205; DE 102013215114 B4 20240425; EP 3027450 A1 20160608; US 2016176280 A1 20160623; US 9764630 B2 20170919

DOCDB simple family (application)

EP 2014063794 W 20140630; CN 201480043487 A 20140630; DE 102013215114 A 20130801; EP 14734462 A 20140630; US 201414909287 A 20140630