

Title (en)
MULTI-SPEED GEARBOX

Title (de)
MEHRSTUFENGETRIEBE

Title (fr)
BOÎTE DE VITESSES MULTI-ÉTAGÉE

Publication
EP 2841806 A1 20150304 (DE)

Application
EP 13709881 A 20130313

Priority
• DE 102012206819 A 20120425
• EP 2013055076 W 20130313

Abstract (en)
[origin: WO2013160000A1] The invention relates to a multi-speed gearbox comprising four planetary gear sets (P1, P2, P3, P4), eight rotatable shafts (1, 2, 3, 4, 5, 6, 7, 8) and six shift elements (03, 04, 05, 14, 17, 8), wherein the sun gear of the first planetary gear set (P1) is connected to the fifth shaft (5), which can be coupled to the housing (G) via a third brake (05). The drive shaft (1) can be detachably connected to the fourth shaft (4) via a first clutch (14), which connects to the web of the first planetary gear set (P1), to the ring gear of the first planetary gear set (P1), to the planet carrier of the second planetary gear set (P2) and can be coupled to the housing (G) via a second brake (04). The drive shaft (1) can be connected to the seventh shaft (7) which is connected to the planet carrier of the fourth planetary gear set (P4) and to the ring gear of the third planetary gear set (P3) by means of a second clutch (17), and can be connected to the eighth shaft (8) which is connected to the sun gear of the second planetary gear set (P2) by means of a third clutch (18). The sixth shaft (6) is connected to the planet carrier of the first planetary gear set (P1), to the ring gear of the second planetary gear set (P2) and to the ring gear of the fourth planetary gear set (P4), the third shaft (3) is connected to sun gear of the third planetary gear set (P3) and to the sun gear of the fourth planetary gear set (P4) and can be coupled to the housing (G) by means of a first brake (03). The output shaft (3) of the gearbox is connected to the planet carrier of the third planetary gear set (P3).

IPC 8 full level
F16H 3/66 (2006.01)

CPC (source: CN EP US)
F16H 3/66 (2013.01 - CN EP US); **F16H 2003/445** (2013.01 - CN EP US); **F16H 2200/0065** (2013.01 - CN EP US); **F16H 2200/2012** (2013.01 - CN EP US); **F16H 2200/2046** (2013.01 - CN EP US); **F16H 2200/2064** (2013.01 - US); **F16H 2200/2094** (2013.01 - CN EP US)

Citation (search report)
See references of WO 2013160000A1

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 2013160000 A1 20131031; CN 104246293 A 20141224; CN 104246293 B 20160907; DE 102012206819 A1 20131031; EP 2841806 A1 20150304; US 2016084353 A1 20160324; US 9599195 B2 20170321

DOCDB simple family (application)
EP 2013055076 W 20130313; CN 201380021093 A 20130313; DE 102012206819 A 20120425; EP 13709881 A 20130313; US 201314396080 A 20130313