

Title (en)
MULTI-SPEED GEARBOX

Title (de)
MEHRSTUFENGETRIEBE

Title (fr)
BOÎTE DE VITESSES MULTI-ÉTAGÉE

Publication
EP 2841801 A1 20150304 (DE)

Application
EP 13709418 A 20130313

Priority
• DE 102012207085 A 20120427
• EP 2013055057 W 20130313

Abstract (en)
[origin: WO2013159988A1] The invention relates a four-speed multi-speed gearbox in which a planet carrier (12) of the first planetary gear set (1) is connected to a sun gear (41) of the fourth planetary gear set (4), a ring gear (43) of the fourth planetary gear set (4) is connected to the output shaft (71), a ring gear (13) of the first planetary gear set (1) and a planet carrier (22) of the second planetary gear set (2) can be coupled to the housing (72) by means of a first brake (51), a sun gear (11) of the first planetary gear set (1) can be coupled to the housing (72) by means of a second brake (52), and the ring gear (43) can be coupled to the sun gear (41) respectively of the fourth planetary gear set (4) by means of a first clutch (61). By varying other clutches within the multi-speed gearbox, a set of gearboxes which have similar characteristics are provided.

IPC 8 full level
F16H 3/66 (2006.01)

CPC (source: CN EP US)
F16H 3/66 (2013.01 - CN EP US); **F16H 57/023** (2013.01 - CN); **F16H 2200/0065** (2013.01 - CN EP US); **F16H 2200/0069** (2013.01 - EP US); **F16H 2200/0082** (2013.01 - US); **F16H 2200/0086** (2013.01 - EP US); **F16H 2200/2012** (2013.01 - EP US); **F16H 2200/2041** (2013.01 - CN US); **F16H 2200/2046** (2013.01 - EP US); **F16H 2200/2094** (2013.01 - EP US); **F16H 2700/02** (2013.01 - CN)

Citation (search report)
See references of WO 2013159988A1

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 2013159988 A1 20131031; CN 104204610 A 20141210; CN 104204610 B 20161221; DE 102012207085 A1 20131031; DE 102012207085 B4 20210429; EP 2841801 A1 20150304; US 2015119188 A1 20150430; US 9377085 B2 20160628

DOCDB simple family (application)
EP 2013055057 W 20130313; CN 201380017944 A 20130313; DE 102012207085 A 20120427; EP 13709418 A 20130313; US 201314396085 A 20130313