

Title (en)  
MULTI-RATIO TRANSMISSION

Title (de)  
MEHRSTUFENGETRIEBE

Title (fr)  
BOÎTE DE VITESSES MULTI-ÉTAGÉE

Publication  
**EP 2812603 A1 20141217 (DE)**

Application  
**EP 13700324 A 20130117**

Priority  

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Abstract (en)  
[origin: WO2013117394A1] The invention relates to a multi-ratio transmission provided with eight forward gears and one reverse gear, comprising four planetary gear sets (P1, P2, P3, P4) and five shift elements (03, 04, 15, 27, 56, 57, 67). The sun gear of the first planetary gear set (P1) is connected to the third shaft (3) which can be coupled to the housing (G) by means of a first brake (03) and is connected to the ring gear of the third planetary gear set (P3). The input shaft (1) is connected to the planet carrier of the first planetary gear set (P1) and can be detachably connected by means of a first clutch (15) to the fifth shaft (5) which is connected to the ring gear of the second planetary gear set (P2) and to the sun gear of the third planetary gear set (P3). Said ring gear of the first planetary gear set (P1) is connected to the sixth shaft (6) which is connected to the sun gear of the second planetary gear set (P2). The eighth shaft (8) is connected to the planet carrier of the third planetary gear set (P3) and to the sun gear of the fourth planetary gear set (P4), and the fourth shaft (4) connected to the planet carrier of the fourth planetary gear set (P4) can be coupled to the housing (G) by means of a second brake (04). The output shaft (2) is connected to the ring gear of the fourth planetary gear set (P4) and can be detachably connected by means of a second clutch (27) to the seventh shaft (7) connected to the planet carrier of the second planetary gear set (P2). The closing of a third clutch (56), a fourth clutch or a fifth clutch (57), which are also provided, can block the second planetary gear set (P2).

IPC 8 full level  
**F16H 3/66** (2006.01)

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Citation (search report)  
See references of WO 2013117394A1

Citation (examination)  

- JP 2009293762 A 20091217 - KYOWA METAL WORK CO LTD
- DE 102008041887 A1 20100311 - ZAHNRADFABRIK FRIEDRICHSHAFEN [DE]

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US 2015031493 A1 20150129; US 9382977 B2 20160705

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