Title (en)

MULTI-STAGE PLANETARY GEAR MECHANISM

Title (de)

MEHRSTUFEN-PLANETENGETRIEBE

Title (fr)

TRAIN PLANÉTAIRE À PLUSIEURS ÉTAGES

Publication

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Application

EP 14706053 A 20140225

Priority

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Abstract (en)

[origin: WO2014154411A1] A multi-stage planetary gear mechanism, in particular an automatic transmission for a motor vehicle, comprises a housing (3) having a housing longitudinal axis (2), a driveshaft (10) which can be connected to a drive train in order to transmit a drive torque from the drive train to the multi-stage planetary gear mechanism (1), an output shaft (11) which can be connected to an output train in order to transmit an output torque from the multi-stage planetary gear mechanism (1) to the output train, four individual planetary gear mechanisms (12, 13, 14, 15) which are arranged along the housing longitudinal axis (2) and which each have a sun gear (18, 22, 26, 30), a ring gear (19, 23, 27, 31) and at least one planetary gear (21, 25, 29, 33), each having a web (20, 24, 28, 32), six shifting elements which are arranged inside the housing (3) and which are embodied as four clutch elements (4, 5, 6, 7) and two brakes (8, 9), and connecting shafts (34, 35, 36, 37, 38, 39, 40, 41, 44) for connections between the individual planetary gear mechanisms (12, 13, 14, 15), the driveshaft (10), the output shaft (11), the clutch elements (4, 5, 6, 7) and/or the brakes (8, 9). The individual planetary gear mechanisms (12, 13, 14, 15) can be shifted by means of the shifting elements (4, 5, 6, 7, 8, 9) in such a way that various transmission ratios (i) act between the driveshaft (10) and the output shaft (11), with the result that the multi-stage planetary gear mechanism (1) has nine forward gears (G1, G2, G3, G4, G4a, G4b, G4c, G5, G6, G7, G8, G9) and one reverse gear (R), and the shifting elements (4, 5, 6, 7, 8, 9) are arranged so as to be easily accessible from outside the housing (3).

IPC 8 full level

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CPC (source: CN EP US)

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Citation (search report)

See references of WO 2014154411A1

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