

Title (en)

DIFFERENTIAL GEAR UNIT HAVING A CONTROLLED TORQUE AND SPEED DISTRIBUTION

Title (de)

DIFFERENTIALGETRIEBEEINHEIT MIT STEUERBARER DREHMOMENT- UND DREHZAHL VERTEILUNG

Title (fr)

ENSEMBLE DIFFERENTIEL A REPARTITION DU COUPLE ET DU REGIME COMMANDABLE

Publication

**EP 1792104 A2 20070606 (DE)**

Application

**EP 05785260 A 20050915**

Priority

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Abstract (en)

[origin: WO2006029434A2] The invention relates to a differential gear unit having a controlled torque and speed distribution, which comprises a housing (1), a differential gear (6), a superposition gear (7) and an auxiliary drive (8), whereby the differential gear (6) has an input member (11) driven by the vehicle engine, and two output members (15, 16) with an output shaft (3, 4). The superposition gear (7) is a planet gear that is connected to two members (15, 16) of the differential gear (6) and to the auxiliary drive (8). The aim of the invention is to provide a gear unit which allows to obtain an exact control even with a weak auxiliary drive. For this purpose, the superposition gear (7) comprises a first (22) and a second (27) sun gear, a first (20) and a second (25) internal gear and first (21) and second (26) planet gears mounted on a common planet carrier (28). The first (21) and the second (26) planet gears mesh with the first (22) and second sun gear (27), respectively, and with the first (20) and second internal gear (25), respectively.

IPC 8 full level

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