

Title (en)  
DOUBLE GEARBOX

Title (de)  
DOPPELGETRIEBE

Title (fr)  
ENGRENAGE DOUBLE

Publication  
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Application  
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Abstract (en)  
[origin: WO2021005175A1] The invention relates to a double gearbox (1) for a drive train (3) of a motor vehicle (500) comprising two electric machines (5, 7), said double gearbox being fitted with two individual gearboxes (15, 17). The individual gearboxes (15, 17) are two-stage spur gear transmissions having three positions (19, 21, 23) for gear centres (25, 27, 29). Two positions are occupied by input shafts (35) and by output shafts (39) and span a reference plane B. The position (21) for a central axis (45) that acts as one of the gear centres (27) forms a corner of a triangle (47), the longest side of which lies on the reference plane B. A straight line g can be drawn from one of the other gear centres (25, 29) to the central axis (45) forming an angle  $\alpha$  in an angular range between  $5^\circ$  and  $70^\circ$ . As a result, a force and/or a torque is transmitted by means of the gearbox (1) between one of the input shafts (35) and one of the output shafts (39) via a spur gear intermediate bearing (61, 63) using a meshing action. This allows at least partial compensation of introduced transverse forces using dissipated transverse forces on the idler wheel of the central axis (45).

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