

Title (en)

GEAR PAIR FOR A GEARBOX AND METHOD FOR DIMENSIONING TOOTH THICKNESSES ON GEARS OF A GEAR PAIR

Title (de)

ZAHNRADPAAR FÜR EIN GETRIEBE UND VERFAHREN ZUM AUSLEGEN VON ZAHNDICKEN AN ZAHNRÄDERN EINES ZAHNRADPAARS

Title (fr)

PAIRE DE ROUES DENTÉES CONÇUE POUR UN ENGRENAGE ET PROCÉDÉ POUR DIMENSIONNER DES ÉPAISSEURS DE DENT SUR DES ROUES DENTÉES D'UNE PAIRE DE ROUES DENTÉES

Publication

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Application

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Abstract (en)

[origin: WO2022012987A1] The invention relates to a gear pair (10) for a gearbox, comprising a first gear (12) and a second gear (14), wherein: - the gears (12, 14) are designed and intended for meshing with each other; - the gears (12, 14) each have toothing (16, 18), in which a tooth (20, 22) and a tooth space (24, 26) follow each other in alternation; - a tooth root fillet (28, 30) is provided in the region of each tooth space (24, 26). According to the invention, the tooth (20, 22) has, on each of its two tooth flanks, a contact point (32, 34) at which the tooth contacts a 30° tangent (36, 38), the 30° tangent (36, 38) being oriented at an angle of 30° to a tooth center axis (40, 42) and contacting the tooth root fillet (28, 30) at the contact point (32, 34). The length of a chord (44, 46) which connects the contact points (32, 34) to one another at the tooth flanks of the tooth (20, 22) defines a tooth thickness at the contact point of the 30° tangent. The ratio of the tooth thickness at the contact point of the 30° tangent of the first gear (12) to the tooth thickness at the contact point of the 30° tangent of the second gear (14) lies in the range of 2.3 : 1.7 to 1.7 : 2.3.

IPC 8 full level

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