

Title (en)

COMPONENT, IN PARTICULAR FOR A VALVE TRAIN SYSTEM, AND METHOD FOR PRODUCING A COMPONENT OF THIS TYPE

Title (de)

BAUTEIL, INSBESONDERE FÜR EIN VENTILTRIEBSYSTEM, UND VERFAHREN ZUR HERSTELLUNG EINES SOLCHEN BAUTEILS

Title (fr)

ÉLÉMENT STRUCTURAL, EN PARTICULIER DESTINÉ À UN SYSTÈME DE COMMANDE DE SOUPAPES, ET PROCÉDÉ DE PRODUCTION D'UN TEL ÉLÉMENT STRUCTURAL

Publication

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Application

**EP 19768704 A 20190902**

Priority

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Abstract (en)

[origin: WO2020078505A1] The invention relates to a component (100), in particular for a valve train system, comprising a substrate (3) and a layer system (1) applied to the substrate (3) at least in parts, wherein: the layer system (1) comprises a friction- and wear-reducing protective layer (2) for forming a component surface; the protective layer (2) comprises at least one first sub-layer (4, 4a) of doped tetrahedral amorphous carbon, which comprises sp<sup>3</sup>-hybridized carbon at a mole fraction of at least 50%; the first sub-layer (4, 4a) contains oxygen at a concentration in the range of 0.1 at% to 3.0 at% and hydrogen at a concentration in the range of 0.1 at% to 15 at%; and the first sub-layer (4, 4a) comprises one or more of the following dopants at a concentration in the range of 0.03 at% to 15 at%: chromium, molybdenum, tungsten, silicon, copper, niobium, zirconium, vanadium, nickel, iron, silver, hafnium, fluorine, boron, nitrogen. The invention further relates to a method for producing a component (100) of this type.

IPC 8 full level

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