Title (en)

BARREL FOR A TIMEPIECE

Title (de)

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Title (fr)

BARILLET POUR UNE PIECE D'HORLOGERIE

Publication

EP 3067755 A1 20160914 (EN)

Application

EP 16159999 A 20160311

Priority

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Abstract (en)

The present invention relates to a timepiece having a barrel, wherein a main spring is located within the barrel, wherein the hardness of the material of the main spring is substantially equal or higher than the hardness of the material of the mating wall surface of the barrel, wherein the mating wall surface of the barrel comprises titanium. Titanium generally gives the barrel a lighter weight compared to other common barrels made of brass. Such characteristic is highly sought after as it reduces the overall weight of te timepiece, thus allowing more components to be included into the timepiece. The titanium surface of the barrel is oxidized by plasma electrolytic oxidation or microarc oxidation, through anodization process. The oxidized titanium surface of the barrel allows less surface frictions between the mating surface of the barrel and the mating surface of the main spring, thus avoiding energy loss while allowing for an efficient energy transfer from the main spring to the barrel. The accuracy of the timepiece can thus be enhanced.

IPC 8 full level

G04B 1/16 (2006.01)

CPC (source: EP)

G04B 1/16 (2013.01)

Citation (search report)

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- [A] KEUN-TAEK OH ET AL: "Cytocompatibility and electrochemical properties of Ti-Au alloys for biomedical applications", JOURNAL OF BIOMEDICAL MATERIALS RESEARCH PART B: APPLIED BIOMATERIALS, vol. 83B, no. 2, 1 November 2007 (2007-11-01), pages 320 - 326, XP055047686, ISSN: 1552-4973, DOI: 10.1002/jbm.b.30798

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