

Abstract

The present invention relates to current insulated bearing components and bearings.

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A bearing component of a linear bearing of a rolling element bearing and a sliding bearing, for example a component selected from the group comprising a bearing race, a rolling element such as a tapered roller, a barrel
10 roller, a needle roller, a bearing ball and a rolling element cage, the bearing component having at least one layer having a high hardness and a high current insulation property applied by a PVD (physical vapor deposition) process, by a CVD (chemical vapor deposition) process, or by a PECVD (plasma enhanced chemical vapor deposition) process at at least
15 one surface region of said article, said at least one layer comprising a non-conductive oxide layer selected from the group comprising an Al_2O_3 layer, a TaO layer, an SiO_2 layer, a mixed layer comprising two or more of the foregoing oxides, a multilayer structure comprising alternating layers of two or more of the foregoing oxides and a DLC layer such as a ta-C layer,
20 there being at least one ALD layer comprising at least one layer of a material deposited by an ALD (atomic layer deposition) process on said at least one layer having a high hardness and a high current insulation property, the ALD layer itself having a high current insulation property and comprising a material or layer structure selected from the said group of materials.
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Figure 4A to 4E