Title (en)

Device for transmitting electric currents between mutually rotatable parts.

Title (de)

Vorrichtung zur Übertragung elektrischer Ströme zwischen gegeneinander verdrehbaren Teilen.

Title (fr)

Appareil pour transmettre des courants électriques entre des parties mutuellement pivotables.

Publication

EP 0089625 A1 19830928 (DE)

Application

EP 83102635 A 19830317

Priority

DE 3210334 A 19820320

Abstract (en)

1. Device for transmitting electric currents between mutually rotatable parts, comprising a plurality of current-transmitting axial ball bearings (1a-1b) arranged in axial direction one above the other in a housing (15) coaxial with a component (10) which ist rotatable relatively to said housing (15), whereby axially displaceable insulating rings (2, 3) are each arranged between the opposing bearing bushes (1a-1a, 1b-1b) of two adjacent ball bearings, said bearing bushes being connected to electric supply lines, and whereby the contact pressure is effected by a spring element (22) which is common to all axial ball bearings and is arranged at one end of the housing (15), the bearing bushes (1a, 1b) and the balls (25) being made of electrically conductive material, characterized in that the component which is rotatable relatively to the housing (15), is formed as a shaft (10) received in said housing (15), said shaft being rotatably mounted in the housing (15) through radial bearings (19, 20) receiving all of the forces which occur between the housing and the shaft, that the insulating rings (3, 2) are arranged in such a way that, alternately, an insulating ring (3) which is inserted in the housing (15) and is positively connected therewith, is followed by an insulating ring (2) which is slipped onto the shaft (10) and is positively connected therewith, that the bearing bushes (1a, 1b) which are provided with V- shaped recesses (24), are made of a silver alloy and are coated with a material consisting of or containing nitrides, and that the bearing pressure of the axial ball bearings (1a, 1b) is adjustable.

Abstract (de)

Eine Vorrichtung zur Übertragung elektrischer Ströme zwischen gegeneinander verdrehbaren Teilen mit Kugellagern, bei der die Kugellager Axiallager sind, die unter einem konstanten einstellbaren Druck, insbesondere unter Federdruck stehen und von allen anderen Kräften entlastet sind. Die Lagerschalen (1a, 1b) der Axiallager weisen V-förmige Einstiche (24) auf. Lagerschalen und Kugeln bestehen vorteilhart aus Silberlegierungen insbesondere aus Legierungen des Silbers mit Kupter und/oder Beryllium.

IPC 1-7

H01R 39/64

IPC 8 full level

H01R 39/64 (2006.01)

CPC (source: EP)

H01R 39/643 (2013.01)

Citation (search report)

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