

Title (en)

SPINDLE MOTOR FOR HARD DISK DRIVES WITH AXIAL FIXING OF THE BEARING SYSTEM

Title (de)

SPINDELMOTOR FÜR FESTPLATTENLAUFWERKE MIT AXIALER FIXIERUNG DES LAGERSYSTEMS

Title (fr)

MOTEUR A BROCHE POUR UNITES DE DISQUE DUR A FIXATION AXIALE DU SYSTEME DE ROULEMENT

Publication

**EP 1456842 A1 20040915 (DE)**

Application

**EP 02805287 A 20021125**

Priority

- DE 10160857 A 20011212
- EP 0213196 W 20021125

Abstract (en)

[origin: WO03054875A1] The invention relates to a spindle motor for hard disk drives comprising a base plate with a stator, a shaft, and a bearing system provided with one or several rolling bearings, which is received in a bearing housing for rotatably disposing a rotor driven by a rotary operating mechanism. The bearing system encompasses at least one rolling bearing whose outer ring is positioned and rests in the bearing housing. In prior art, the bearing rings were two-dimensionally glued to a fixed or rotating part of the spindle motor; however, the bearing rings, especially the outer ring, could be deformed once the adhesive hardened because occasionally the adhesive had been applied unevenly or hardened faster in some areas than in others. In order to prevent the bearing rings from deforming in such a manner, the at least one outer ring is fixed positionally correct and in a torsion-proof fashion exclusively with fixing means that are arranged between at least one of the faces of the outer ring and the surface area of the bearing housing, without using any adhesive in the partition line between the inner circumference of the bearing housing and the outer circumference of the outer ring.

IPC 1-7

**G11B 19/20**; **F16C 35/12**

IPC 8 full level

**F16C 19/06** (2006.01); **F16C 19/54** (2006.01); **F16C 35/06** (2006.01); **F16C 35/067** (2006.01); **G11B 19/20** (2006.01); **H02K 5/173** (2006.01); **H02K 21/22** (2006.01)

CPC (source: EP US)

**F16C 19/54** (2013.01 - EP US); **F16C 35/061** (2013.01 - US); **F16C 35/067** (2013.01 - EP US); **G11B 19/2009** (2013.01 - EP US); **F16C 2370/12** (2013.01 - EP US)

Citation (search report)

See references of WO 03054875A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

DOCDB simple family (publication)

**WO 03054875 A1 20030703**; DE 10160857 A1 20030710; EP 1456842 A1 20040915; JP 2005513990 A 20050512; US 2005018351 A1 20050127

DOCDB simple family (application)

**EP 0213196 W 20021125**; DE 10160857 A 20011212; EP 02805287 A 20021125; JP 2003555510 A 20021125; US 86304004 A 20040608