

Title (en)
TURBOMACHINE

Title (de)
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Title (fr)
TURBOMACHINE

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Abstract (en)
[origin: WO2007017366A1] Disclosed is a high-speed turbomachine comprising a magnetic bearing (22, 23) and a retainer bearing for mounting the rotor. The retainer bearing is embodied as a sliding bearing (26, 27) and encompasses a bearing shell (28) at the stator end, a bearing shaft (20) at the rotor end, and an intermediate bush (30) between the bearing shell (28) and the bearing shaft (20). Said intermediate bush (30) is spaced apart from both the bearing shaft (20) and the bearing shell (28) by means of a circular gap (33, 34). The intermediate bush (30) is rotatable relative to the bearing shell (28) and the bearing shaft (20). As a result of this design, the sliding bearing (26) is provided with two pairs of sliding surfaces, onto which all occurring dynamic forces are distributed such that wear is significantly reduced, thus allowing sliding bearings to be used as retainer bearings in a magnetically mounted high-speed turbomachine.

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