

Title (en)  
Drive and bearing for a shaft-less open-end spinning rotor

Title (de)  
Antrieb und Lager für einen schaftlosen OE-Spinnrotor

Title (fr)  
Entraînement et palier pour un rotor sans arbre de filage à fibre libérée

Publication  
**EP 0765957 A3 19970709 (DE)**

Application  
**EP 96115129 A 19930226**

Priority  
• DE 4207673 A 19920311  
• EP 93904021 A 19930226

Abstract (en)  
[origin: DE4207673C1] Open-end spinning machines require a device with a drive and a bearing for shaft-less spinning rotors (1) that rotate at a very high speed. The device must drive and support in a reliable manner different spinning rotors, with low losses. The structure and mounting of the device must not be costly. A device that can be easily and precisely mounted in a reduced space has an axial field motor whose rotor is secured to the spinning rotor and whose stator (2) is secured in a single-piece stator bearing housing (4). Besides the housing for the combined magnetic-gas bearing (35) the single-piece stator housing (4) encloses the remaining elements of the device for which it forms a common housing, on which are also shaped holders (9) for the elastic stator suspension (10, 11). The integration of the components of the device in a single stator housing not only reduces its production costs, it also avoids inaccuracies arising from jointing deviations of individual pieces and the time required for glueing together the individual pieces. A two-circuit gas system (14, 37) for the bearing (35) can improve adaptation to different working conditions and increase working safety. This device allows the axis of rotation of the open-end spinning rotor to be adjusted with respect to the axis of the drawing-off nozzle, so that both axes are aligned.

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**D01H 4/12**

IPC 8 full level  
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• [A] EP 0190440 A2 19860813 - SKF NOVA AB [SE]  
• [A] WO 9201096 A1 19920123 - SKF TEXTILMASCH KOMPONENTEN [DE]  
• [A] PATENT ABSTRACTS OF JAPAN vol. 013, no. 194 (M - 823) 10 May 1989 (1989-05-10)

Cited by  
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