

Title (en)  
AIR SPRING ELLIPTICAL PISTON

Title (de)  
ELLIPTISCHER LUFTFEDERKOLBEN

Title (fr)  
PISTON ELLIPTIQUE DE RESSORT PNEUMATIQUE

Publication  
**EP 1540200 A2 20050615 (EN)**

Application  
**EP 03759325 A 20030917**

Priority  
• US 0329616 W 20030917  
• US 41247202 P 20020920

Abstract (en)  
[origin: WO2004027283A2] A side load compensating air spring piston having an elliptical cross-section. The side load compensating air spring comprises an air spring sleeve forming a chamber and having a rolling lobe. One end of the sleeve is attached to a tilted end cap for side load compensation. The other end of the sleeve has a rolling lobe engaged with a piston elliptical outer surface. The piston elliptical outer surface is disposed at a 90° angle to an elliptical stress distribution in the sleeve, thereby rendering the stress distribution uniform in the sleeve rolling lobe portion as it rolls on the piston.

IPC 1-7  
**F16F 9/05**

IPC 8 full level  
**F16F 9/05** (2006.01)

CPC (source: EP KR)  
**F16F 9/05** (2013.01 - KR); **F16F 9/057** (2013.01 - EP)

Citation (search report)  
See references of WO 2004027283A2

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