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Manzoor

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(54) **RADIAL VIBRATION DAMPERS FOR ROTATING SHAFTS**

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See application file for complete search history.

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(57) **ABSTRACT**

Radial vibration dampers (RVD's) press-fittable to a shaft and shaft systems incorporating RVD's are disclosed herein. The RVD's include a first inertia member and a second inertia member fixedly connected to one another to define an annular channel having a radially facing, open side and a spring damper material seated in the annular chamber and axially compressed between the two inertia members. The spring damper material has a compressible portion protruding from the radially facing, open side so that, when the compressible portion is compressed against a shaft, the spring damper material defines a gap between the shaft and the inertia members. The RVD may be press-fittable inside a hollow shaft or to the outside of a hollow or solid shaft. The RVD's disclosed herein have first vibration mode shapes that are radial in nature and decoupled from latter vibration modes.

20 Claims, 5 Drawing Sheets
(1 of 5 Drawing Sheet(s) Filed in Color)