

Title (en)

SYSTEM AND METHOD OF REDUCING VIBRATION IN A TIRE

Title (de)

SYSTEM UND VERFAHREN ZUR VERRINGERUNG VON VIBRATIONEN IN EINEM REIFEN

Title (fr)

SYSTEME ET PROCEDE DE REDUCTION DES VIBRATIONS DANS UN PNEU

Publication

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Application

EP 05714001 A 20050224

Priority

US 2005005831 W 20050224

Abstract (en)

[origin: WO2006093479A1] A tire assembly with integrated features for adjusting the resonance characteristics of a tire structure includes a pneumatic tire structure, a dielectric elastomer actuator configuration and a charge source. The dielectric elastomer actuator configuration is integrated with selected interior surface locations of the tire structure and may correspond to such embodiments as a plurality of dielectric elastomer portions attached between two rubber plates, a plurality of dielectric elastomer sheets combined to define a volumetric cavity, or a plurality of dielectric elastomer cords attached between interior sidewall locations of a tire structure. Each dielectric elastomer portion includes a layer of elastomeric material provided with first and second electrodes on opposing surfaces thereof and may correspond to a single sheet, a folded sheet, a pleated sheet or a rolled sheet. The charge source is coupled to selected of the first and second electrodes of the dielectric elastomer portions and is configured to selectively apply voltage thereto. The charge source dually functions in some embodiments as an energy storage device for storing electric charge generated when the dielectric elastomer portions are subjected to mechanical forces.

IPC 8 full level

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- No further relevant documents disclosed
- See references of WO 2006093479A1

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