

Tire defect sensing system is developed

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Purdue University engineers in West Lafayette, Ind., have developed a system that uses sensors and mathematical models to detect defects in new tires.

The new system is said to produce better results than conventional inspections, promising to help the tire industry meet more stringent federal tire-durability requirements.

The diagnostic technique works by analyzing vibration waves passing through a tire to detect damage that leads to cracks in the bead area -- where the tire connects to the steel rim of the wheel. Such cracks can spread around the tire, causing the tire to lose air or otherwise fail.

The research was led by Douglas Adams, an associate professor of mechanical engineering, who developed the system with doctoral student Timothy Johnson.

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