

Tire Safety

Future Technologies

December 10, 2014

- **Air maintenance technology (AMT)**

Tire safety starts with proper inflation pressure.

- **Tire wear sensing**

Tire safety requires adequate tread.

- **Intelligent tires**

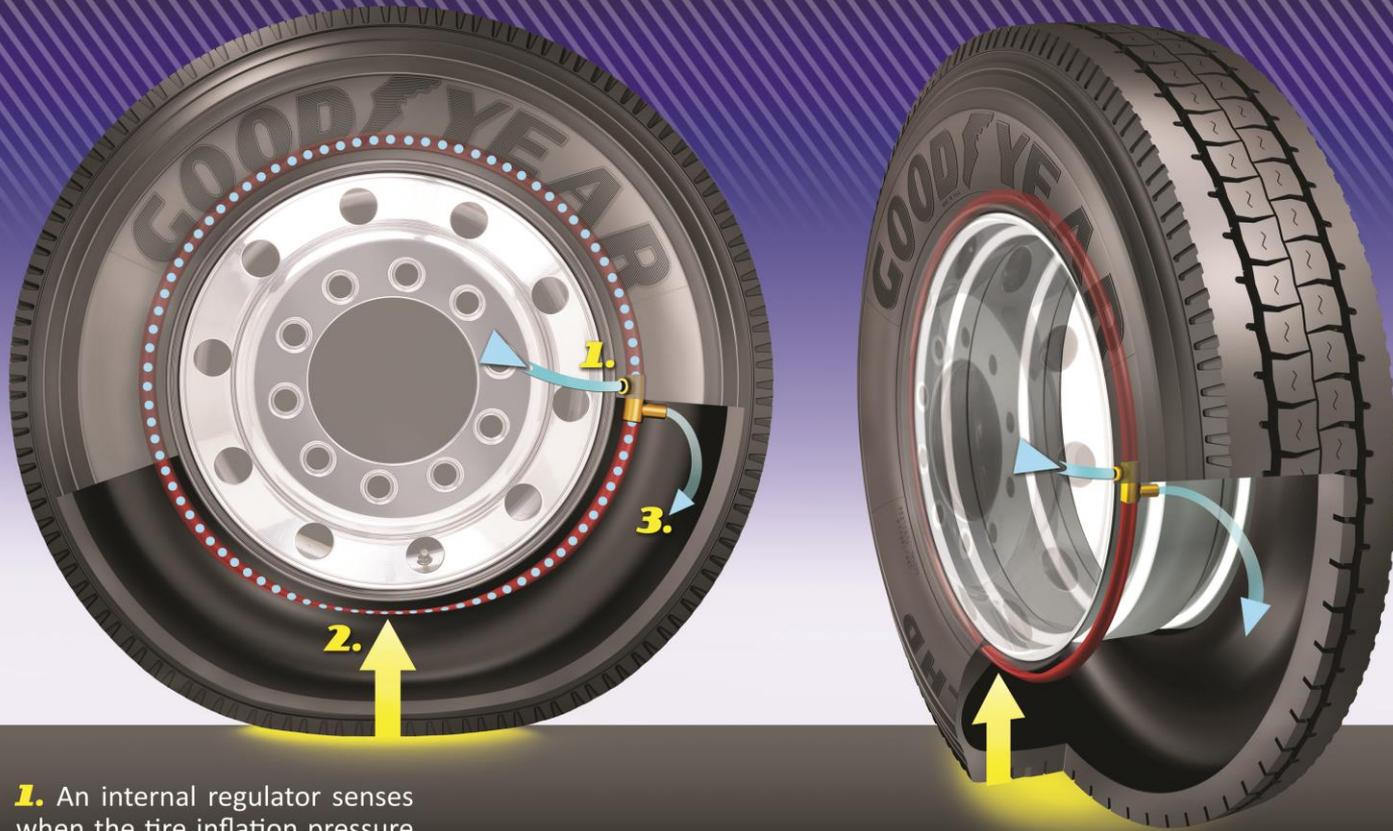
Information can improve tire safety

Air Maintenance Technology (AMT)

AMT system is powered by the tire itself as it rolls down the road



GOODYEAR AIR MAINTENANCE TECHNOLOGY



1. An internal regulator senses when the tire inflation pressure has dropped below the specified pressure. The regulator then opens to allow air flow into the pumping tube.

2. As the tire rolls, the deflection of the tire flattens the tube, pushing the air through the tire to the inlet valve.

3. The air flows into the tire cavity, resulting in the specified inflation pressure.

Value Proposition



Improve (reduce) **fuel consumption** up to 2%



Reduced **CO₂** emissions



Save money (\$)



Improved **tread wear** up to 11%



Reduced roadside tire **service calls**

Safety benefits of proper tire inflation

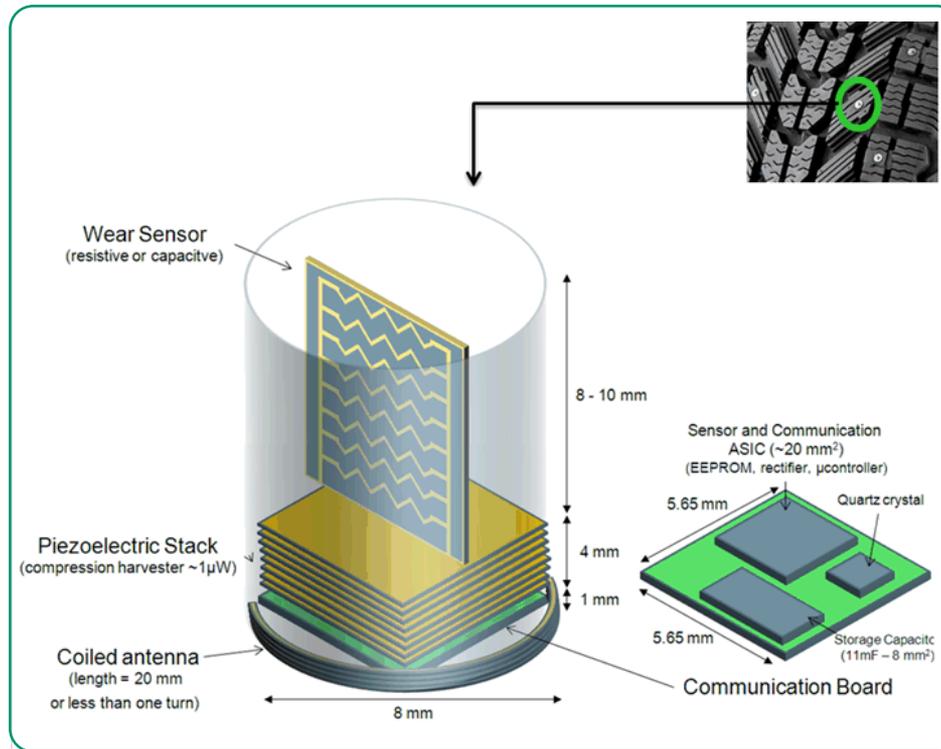
Properly inflated tires

- ✓ *Have consistent tire footprints*
- ✓ *Have more balanced loading*
- ✓ *Have nearly equivalent tire rolling diameters*
- ✓ *Are less susceptible to heat build-up issues*
- ✓ *Help improve vehicle handling*
- ✓ *Help traction and stopping distances*
- ✓ *Have more predictable steering response*



**Improved
SAFETY**

Tire wear sensing concept



X-ray view wear sensing stud

- Goodyear's wear sensing stud can be used for wear and for block temperature sensing
- Stud is self powered and communicates wirelessly

ALL-NEW EVOLVING TRACTION™ GROOVES!

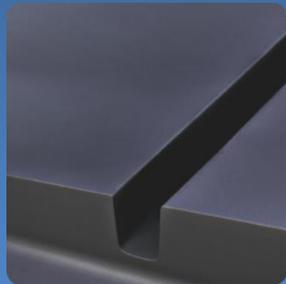
An industry-first technology that differentiates the new Assurance® TripleTred™ All-Season!

How It Works

Evolving Traction Grooves help maintain confident traction in rain and snow as the tire wears.



Evolving Traction Grooves first have the appearance of a standard sipe.



As the tire wears, the sipe evolves into a groove to help evacuate water from under the tread for enhanced wet traction.

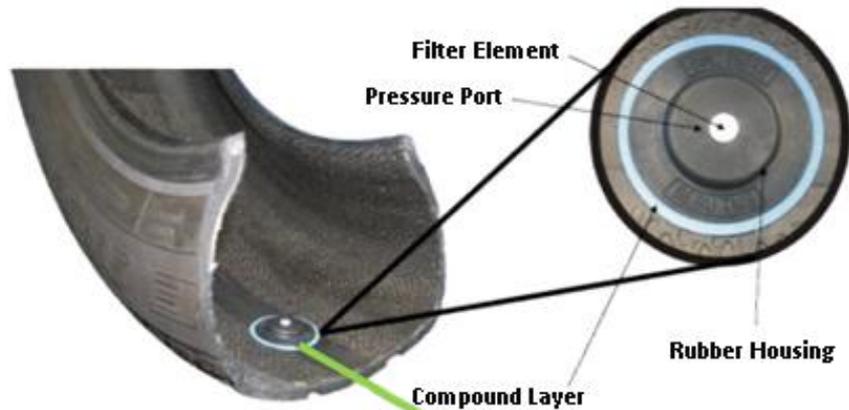
Goodyear Fact:

There are more than 100 Evolving Traction Grooves on each Assurance TripleTred All-Season tire.

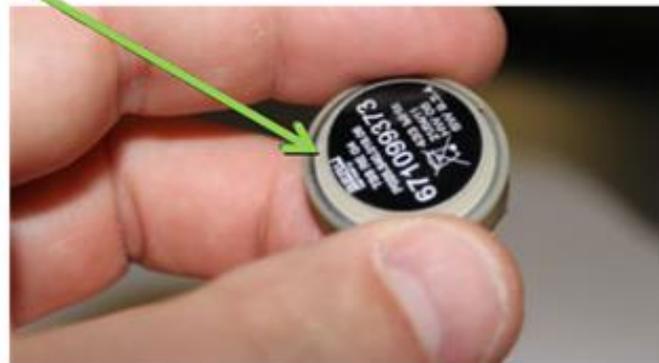


**ASSURANCE
TRIPLETRED™ ALL-SEASON**

GOODYEAR
MORE DRIVEN



RU's tire based TPMS
with energy harvester
(i.e. no battery)



+



Goodyear
adaptive
tire models

- Tire Pressure, Tire Temperature (cavity and bulk), Tire ID (i.e. Tire attached TPMS)



Tire chip communicates with onboard vehicle computer

- Braking target
 - Reduction in **Stopping Distance**
- Handling target
 - Better turn-in **response**
 - Improved yaw **stability**
 - Reduced **lap timings**
 - Minimizing **false controller interventions**

Goodyear Global Purpose

To increase the value of our brands for everyone...

With market driven innovation...

Delivering the highest quality tires, related products and services for our customers and consumers