



# MODERNIZING TIRE SAFETY TESTING FOR THE 21<sup>ST</sup> CENTURY

The National Highway Traffic Safety Administration (NHTSA) has long needed to modernize tire testing to further **advance driver and roadway safety**, **enhance the performance of tires** available in the U.S. market, allow for **adoption of more innovative technologies** and **give U.S. consumers access to advanced tires** already available in other global markets. Outdated testing methods at NHTSA—designed for an earlier generation of tires—impede our ability to produce or purchase these tires in the United States.

## DRIVEN FIRST BY SAFETY

Tire manufacturers are continuously in pursuit of excellence by inventing new ways to design and engineer tires. That is why **tires today are much safer and better performing** than the tires of just a couple decades ago. With thousands of scientists and engineers at work developing tomorrow's tires, **our focus is advancing road safety**. This mission is at the forefront of every tire we engineer enabling safe mobility for drivers, passengers and cargo on the road.

## ADAPTING METHODOLOGY TO MATCH MODERN DESIGN

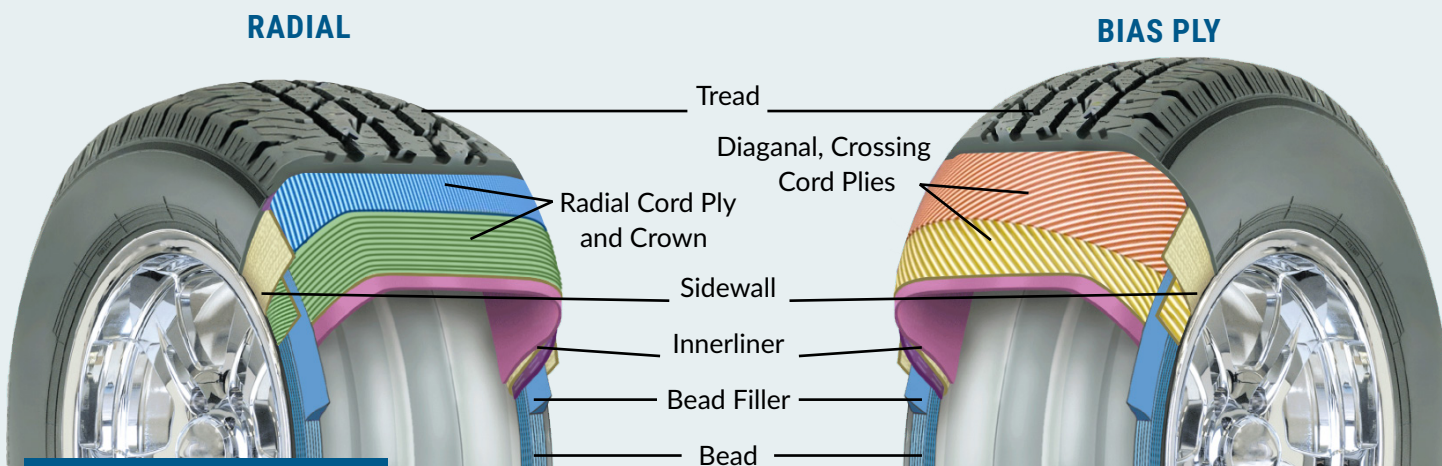
NHTSA can take an immediate and significant step towards tire safety modernization by eliminating the **bead unseat** and **plunger energy** tests for radial tires from the Federal Motor Vehicle Safety Standards (FMVSS 119 & 139). These tests were designed over half a century ago to replicate issues uniquely experienced with bias ply tires; however, **they do not deliver any safety benefit for today's radial tires**, which have been standard in all U.S. made vehicles since the early 1980s. Given the difference in the manufacturing and engineering of radial tires, the issues that make the bead unseat and plunger energy tests relevant for bias ply tires do not occur with radial tires.

**NHTSA must modernize testing standards to keep pace with the advancements of U.S. tire manufacturers and the global tire industry.**



# THE DIFFERENCE: RADIAL AND BIAS PLY TIRES

Bias ply tires and radial tires are significantly different products. Bias ply tires are produced from technology developed before the 1970s, while radial tires have been continuously improved upon over the past 40 years. Applying tests meant for remedial technology to modern sophisticated equipment does not generate data of value. This is especially the case with modern radial tires that have shorter, lower profile sidewalls, which prevent these tests from even being completed.



## Benefits of the Radial Tire:

- Superior road grip
- Consistent tread wear
- Increased stability
- Smoother Ride

## IMPROVING REGULATORY DEFINITIONS

NHTSA should also refine the definition of tread block chunking in the FMVSS 139 endurance test to focus on tread chunking that exposes the tire cord, a clear and definitive marker of failure, rather than superficial wear. The current definition lacks clarity and forces tire engineers to prioritize passing this overly prohibitive test instead of incentivizing innovative, higher-performance designs that integrate passenger safety.

## HARMONIZING GLOBAL STANDARDS



- Australia and Japan have eliminated these requirements from their tire safety tests without incident.
- In the EU, these requirements have never been implemented for radial tires.
- Transport Canada has recently issued a notice stating that they will be updating their criteria to remove these requirements by Spring 2026.

## PRECEDENT FOR NHTSA ACTION

In a 2019 advanced notice of proposed rulemaking, NHTSA acknowledged the potential need to revise the aforementioned regulations, however it has yet to act further to modernize safety testing.



Support NHTSA modernization to eliminate bead unseat and plunger energy tests for radial tires and refine the definition of tread block chunking.

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