123032

Attachment

Dion Casey
Attorney, Office of Chief Counsel, NHTSA

Docket NHTSA-2000-8572 - 12

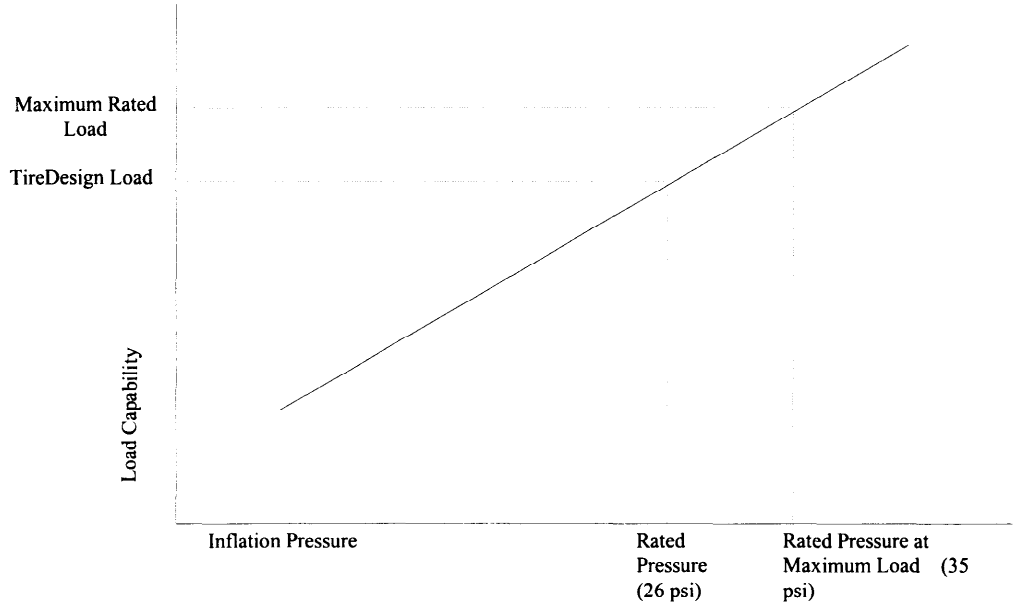
On January 23, 2001, NHTSA representatives met with representatives of Continental Teves concerning the impending rulemaking on tire pressure monitoring systems required by the recently-enacted Transportation Recall Enhancement Accountability and Documentation (TREAD) Act.

NHTSA was represented by Dion Casey, Nancy Bell, George Soodoo, Jonathan Walker, Joseph Scott, Chris Lash, Art Carter, Steve Peirce, Larry Blincoe, and August Burgett. Continental Teves was represented by Jim Gill, Russ W. Holland, Scott P. Gobrogge, Don Botka, Tom Janello, and Philip Headley.

Continental Teves representatives gave a presentation on tires, tire performance, and the effects of tire pressure monitoring systems on tire performance. The slides from that presentation are attached.

NHTSA TREAD ACT TECHNICAL PRESENTATION

Tire Load Capacity vs. Pressure

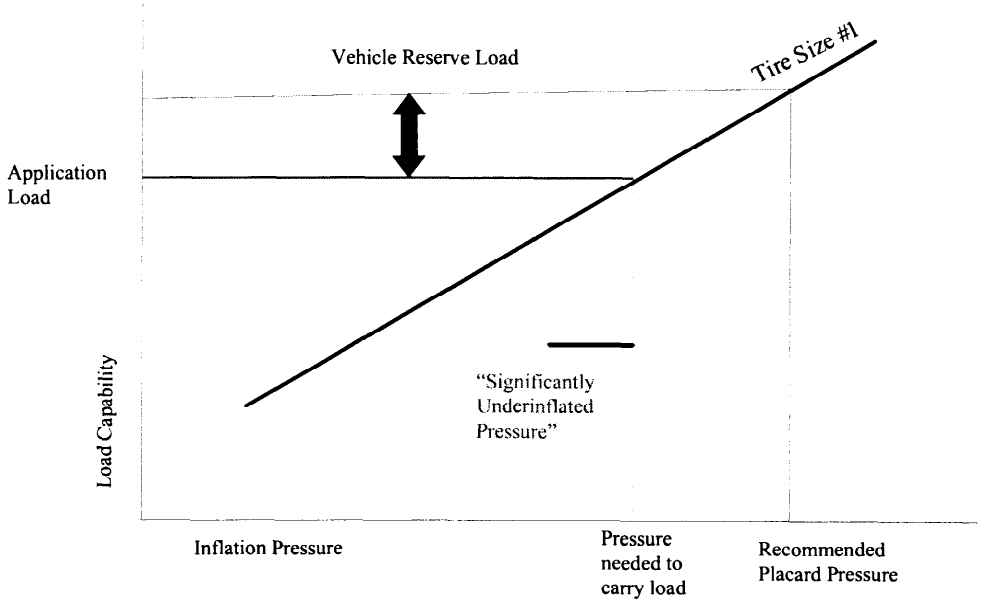


JANUARY 23, 2001

Continental

NHTSA TREAD ACT TECHNICAL PRESENTATION

Tire Load Capacity vs. Pressure

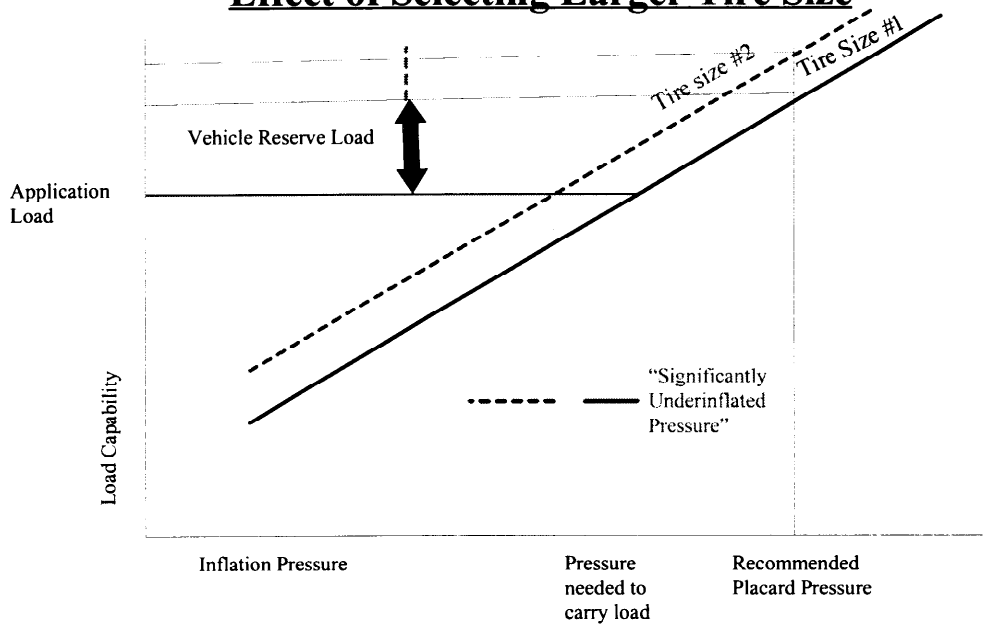


Continental

NHTSA TREAD ACT TECHNICAL PRESENTATION

Tire Load Capacity vs. Pressure

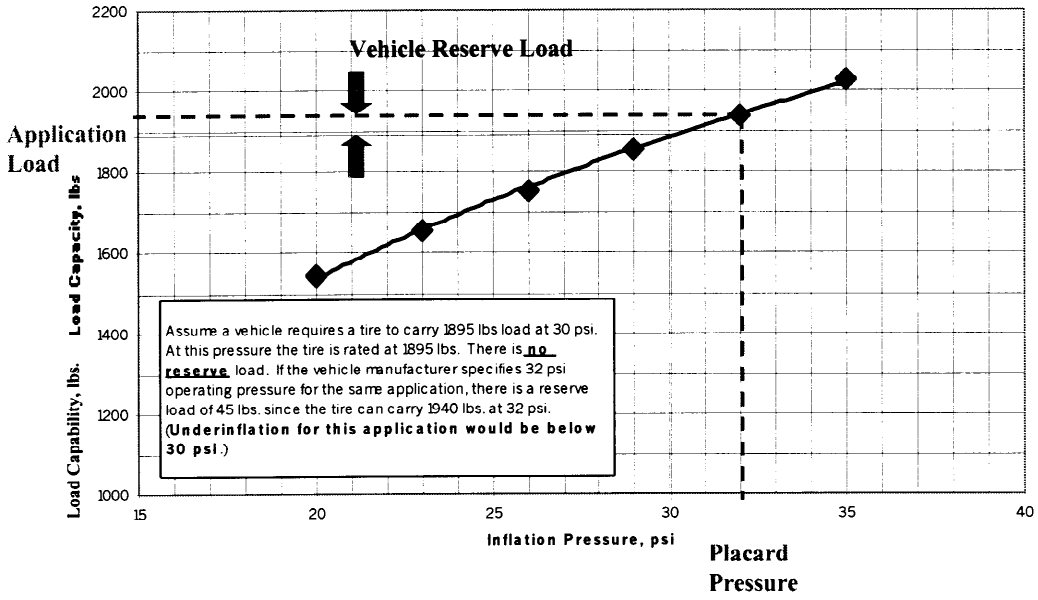
Effect of Selecting Larger Tire Size



Continental

NHTSA TREAD ACT TECHNICAL PRESENTATION

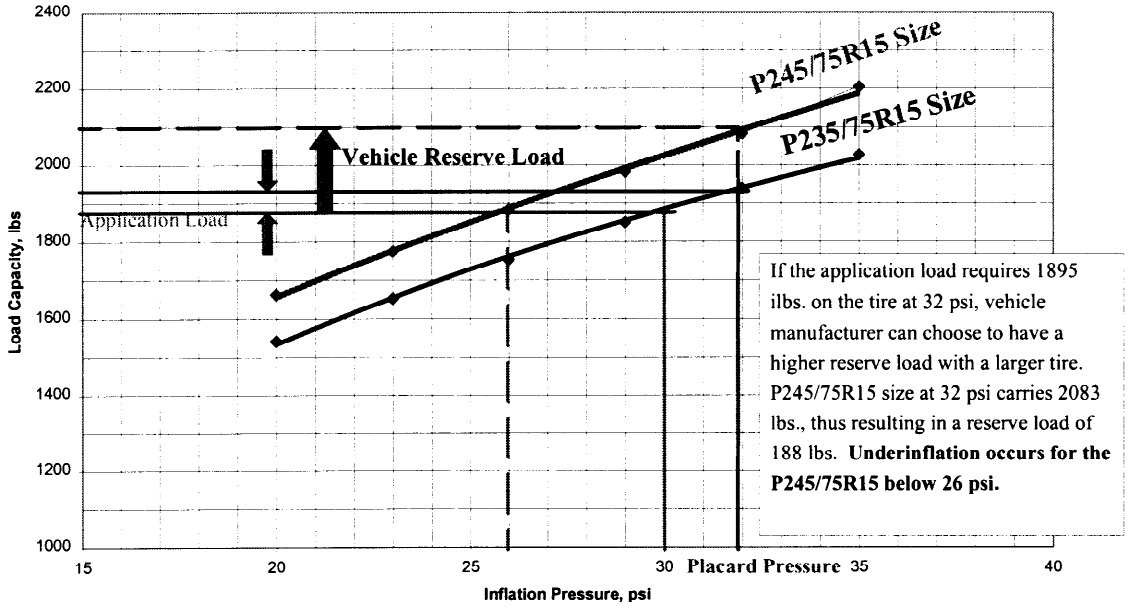
P235/75R15 Load-Pressure (Example #1)



Continental

NHTSA TREAD ACT TECHNICAL PRESENTATION

P235/75R15 Load-Pressure
P245/75R15 Load-Pressure (Example # 2)



If the application load requires 1895 ilbs. on the tire at 32 psi, vehicle manufacturer can choose to have a higher reserve load with a larger tire. P245/75R15 size at 32 psi carries 2083 lbs., thus resulting in a reserve load of 188 lbs. **Underinflation occurs for the P245/75R15 below 26 psi.**

Continental

NHTSA TREAD ACT TECHNICAL PRESENTATION

Dimensional Comparisons of Sample Tire Sizes

	Overall Diameter (inches)	Section Width (inches)	Tire Weight (lbs.)
P235/75R15	28.86	9.25	30.3
P245/75R15	29.49	9.76	33.3

NHTSA TREAD ACT TECHNICAL PRESENTATION

DDS, TPMS, SWT Feature/Cost/Content Comparison

System/Engineering Attribute/Feature	Deflation Detection System DDS	TPMS System
Correct Inflation Detection	Not Possible	Capable
	Currently, specification does not require system to detect over inflation.	System provides absolute pressure in each tire.
Deflation Detection Capability	Tire deflation detection at 30% pressure reduction.	Range: 0.5 - 6.3 bar Tolerance: 14mbar
Comments	System can only compare four tires to each other. Cannot give absolute pressure.	Can provide absolute pressure in each tire and can identify tire.
Temperature Indication Capability	Not Possbile	Range: -40°C to +100°C Tolerance: ± 4° C
Tire Signature/Identification	Not Possible	Capable.
Comments	Can identify low tire.	Each tire has module identity that allows for learning if tires are rotated. Absolute tire identification and position detection.
Deflation Detection Time	Depends on Pressure/Situation	1-10 Seconds
Comments	For example: Tire may be 10 pounds low and may need 10 miles to detect, tire may be 20 pounds low and system can detect in 1 mile. Needs to relearn after each ignition cycle.	
System Learn Time	Under ideal conditions, 46 seconds for intial threshold and 192 seconds for secondary thresholds.	2-10 seconds after ignition.

Continental