

certification requirements for retreaded pneumatic passenger car tires. Among other things, the standard requires retreaded passenger car tires to comply with the tubeless tire resistance to bead unseating and the tire strength requirements of FMVSS No. 109. FMVSS No. 117 also specifies requirements for casings to be used for retreading, and certification and labeling requirements.

FMVSS No. 119, *New pneumatic tires for vehicles other than passenger cars*, 49 CFR 571.119, specifies performance and labeling requirements for new pneumatic tires designed for highway use on multipurpose passenger vehicles, trucks, buses, trailers and motorcycles manufactured after 1948, and requires treadwear indicators in tires, and rim matching information concerning those tires. Under this standard, each tire must meet requirements that are qualitatively similar to those in FMVSS No. 109 for passenger car tires. The high speed performance test in this standard only applies to motorcycle tires and to non-speed-restricted tires of 14.5-inch nominal rim diameter or less marked load range A, B, C, or D. In addition, FMVSS No. 119 does not contain a resistance-to-bead unseating test.

A tire under FMVSS No. 119 is generally required to meet the performance requirements when mounted on any rim listed as suitable for its size designation in the publications, current at the time of the tire's manufacture, of the tire and rim associations that are listed in the standard. Further, the tire is required to meet the dimensional requirements when mounted on any such rim of the width listed in the load-inflation table of this standard. In addition to the permanent marking for any non-matching listed rims, each tire manufacturer is required to attach to the tire, for the information of distributors, dealers and users, a label listing the designations of rims appropriate for use with the tire.

FMVSS No. 120, *Tire Selection and rims for motor vehicles other than passenger cars*, 49 CFR 571.120, requires that vehicles other than passenger cars equipped with pneumatic tires be equipped with rims that are listed by the tire manufacturer as suitable for use with those tires and that rims be labeled with certain information. It also requires that these vehicles shall be equipped with tires and rims that are adequate to support the vehicle's certified gross weight.

Tire selection under FMVSS No. 120 consists of two elements. With one exception, each vehicle must be equipped with tires that comply with

FMVSS No. 119 and the load rating of those tires on each axle of the vehicle must together at least equal the gross axle weight rating (GAWR) for that axle. If the certification label lists more than one GAWR-tire combination for the axle, the sum of the tire's maximum load ratings must meet or exceed the GAWR that corresponds to the tire's size designation. If more than one combination is listed, but the size designation of the actual tires on the vehicle is not among those listed, then the sum of the load ratings must simply meet or exceed the lowest GAWR that does appear.

FMVSS No. 120 also contains a requirement related to the use of passenger car tires on vehicles other than passenger cars. The requirement states that when a tire that is subject to FMVSS No. 109 is installed on a multipurpose passenger vehicle, truck, bus, or trailer, the tire's load rating must be reduced by a factor of 1.10 by dividing by 1.10 before determining whether the tires on an axle are adequate for the GAWR. This 10 percent de-rating of P-metric tires provides a greater load reserve when these tires are installed on vehicles other than passenger cars. The reduction in the load rating is intended to provide a safety margin for the generally harsher treatment, such as heavier loading and possible off-road use, that passenger car tires receive when installed on a MPV, truck, bus or trailer, instead of on a passenger car.

FMVSS No. 129, *New non-pneumatic tires for passenger cars*, 49 CFR 571.129, includes definitions relevant to non-pneumatic tires and specifies performance requirements, testing procedures, and labeling requirements for these tires. To regulate performance, the standard contains performance requirements and tests related to physical dimensions, lateral strength, strength (in vertical loading), tire endurance, and high-speed performance. The performance requirements and tests in FMVSS No. 129 were based upon those contained in FMVSS No. 109.

III. Pre-TREAD Act Enactment Agency Response to Safety Problem

Prior to this rulemaking, NHTSA embarked on a program of global harmonization for light vehicle tire standards under the auspices of the United Nations/Economic Commission for Europe's (UN/ECE) World Forum for Harmonization of Vehicle Regulations

(WP.29).¹⁴ NHTSA, within the WP.29's Working Party on Brakes and Running Gear (GRRF),¹⁵ had been working cooperatively with other countries to develop a global tire standard that could better assess the safety performance of modern tires.

Beginning in July 1999, the GRRF had been considering a draft global technical regulation (GTR) based on the Global Tire Standard 2000 for New Pneumatic Car Tires (GTS-2000),^{16 17} an industry developed standard. Prior to the enactment of the TREAD Act, tentative consensus within an ad hoc tire harmonization working group of the GRRF concerning the draft GTR had been reached on the following issues: (1) to adopt the ECE R30 high speed test methodology (see **Note**) in place of the FMVSS No. 109 high speed test, (2) to keep the current FMVSS No. 109 resistance-to-bead unseating test until NHTSA develops an alternative that is more appropriate for radial tires, and (3) to develop an optional requirement for testing wet grip.

Note: The ECE Regulation 30 includes a single performance requirement, the high-speed test, which is conducted at a speed close to and up to the rated speed of the tire. The methodology used in ECE R30 and suggested by the tire industry in GTS-2000 for tire harmonization determines the test speed based on the tire's speed symbol rated speed. The following chart illustrates the rated speed in km/h for each speed symbol.

Speed symbol	Rated speed— km/h
F	80
G	90
J	100
K	110
L	120
M	130
N	140
P	150
Q	160
R	170
S	180
T	190

¹⁴ Formerly, "Working Party on the Construction of Vehicles (WP.29)." The Forum's Web site is <http://www.unecce.org/trans/main/welcwp29.htm>.

¹⁵ The GRRF is a Working Party within WP.29 that is responsible for developing draft global technical regulations on brakes, tires, wheels, and other chassis components of motor vehicles.

^{16 17} GTS-2000 would replace the current FMVSS No. 109 high-speed test with the high-speed test required by ECE-R30 (the European tire regulation for tires used on light passenger vehicles), including temporary spares. It would also limit the application of the other three tests currently required by FMVSS No. 109, namely the strength test, the bead unseating test, and the endurance test, to bias tires and low speed rated radial tires because industry believes that these three tests have relevance to bias and bias-belted tires, but little, if any, relevance to radial tires, with the single exception of the endurance test for low speed (160 km/h/99 mph, or less) radial tires.