

Speed symbol	Rated speed— km/h
U	200
H	210
V	240
W	270
Y	300
ZR	>300

These speeds range from a minimum of 140 km/h (88 mph) to 300 km/h (188 mph) for W, Y categories. The total test time is 50 minutes. The inflation pressures for the ECE R30 high-speed test are typically much higher than those recommended by vehicle manufacturers for vehicle operation.

Other issues that had also been under discussion in the ad hoc group prior to the TREAD Act included: (a) the U.S.'s suggestion to lower the inflation pressures for and increase the duration of the high speed test (current ECE R30 test), (b) the U.S.'s suggestion to agree on the need for tire labeling requirements that are unique to the U.S., such as maximum inflation pressure, and UTQG consumer information, (c) the U.S.'s suggestion to identify requirements that should be included as optional requirements, (d) assigning to the UN the responsibility for tire plant code registration for a global standard, and (e) the U.S.'s suggestion to increase the ambient temperature for the high speed test.

In a February 2001 submission to the docket (Docket No. NHTSA-2000-8011), the Chairman of the GRRF Tire Harmonization Working Group had recommended on behalf of the GRRF that NHTSA adopt a draft text that reflects the current state of deliberations for developing a harmonized tire standard. At its 126th session in March 2002, WP.29 decided that there was little prospect of achieving global agreement at this stage and suspended further work indefinitely. The group, as its final task, submitted comments on the NPRM in this rulemaking. The U.S. representative to the GRRF recused himself from these deliberations.

IV. Post-TREAD Act Enactment Agency Response to Safety Problem

A. Tire Testing and Opening of Docket No. 2000-8011

Shortly after the enactment of the TREAD Act, the agency had initiated tire testing at Standards Testing Labs (STL) in November 2000 to evaluate the high-speed performance, endurance performance, and low inflation pressure performance of a limited number of current production tires. The agency had developed a test matrix which focused on the five main parameters currently used in tire testing under

FMVSS Nos. 109 and 119: load, inflation pressure, speed, duration, and ambient temperature. Copies of the test matrix and testing results for P-metric tires and for LT tires have been available in the docket (*see* the Tire Test Matrix in NHTSA Docket No. 2000-8011-1).

In summary, the results of the high speed and endurance tests had indicated that the agency could develop and propose test requirements that were realistic in terms of the test parameters, yet more stringent than the current FMVSS No. 109, FMVSS No. 119 requirements, European Regulation ECE R 30, GTS 2000, and RMA 2000. The proposed test requirements had differentiated tires with better high speed and endurance performance from those with lesser performance. The low pressure validation tests had indicated that tires that were able to successfully complete the endurance testing could also complete an additional 90-minute test at a low inflation pressure, 140 kPa for P-metric tires, thus providing an adequate safeguard for consumers to take corrective action when the low pressure warning lamp proposed under the tire pressure monitoring system rulemaking is activated at a "significantly" under-inflated level.

In September 2000, NHTSA had opened a docket, NHTSA-2000-8011, titled "Tire Testing—Federal Motor Vehicle Safety Standard (FMVSS No. 109)." The purpose of this docket has been to collect tire test data and receive feedback on its high speed and endurance performance testing matrices. At issuance of the NPRM, comments and recommendations from 7 entities had been received in the docket. Additionally, Toyota Motor Company (Toyota) had submitted a copy of its air loss test procedure to the docket. Substantive comments and recommendations in response to NHTSA's testing matrices were discussed in the NPRM.

B. March 5, 2002, Notice of Proposed Rulemaking (NPRM)

As a result of the aforementioned testing and data collection efforts, the agency identified an array of amendments for revising and updating its tire standards and thereby improving tire performance in a NPRM published on March 5, 2002. Some of these amendments would have upgraded existing tests, while the others would have added new ones.

In the NPRM, the agency proposed to include the new tire performance requirements in Standard No. 139, a new tire standard established in a November 18, 2002 final rule on Tire Safety Information (Docket No. NHTSA-

02-13678, 67 FR 69600, November 18, 2002). The standard applies to light vehicle tires. As used in the tire safety information final rule, "light vehicles" are vehicles (except motorcycles) with a gross vehicle weight rating (GVWR) of 10,000 pounds or less.

Under the NPRM, the new standard would have contained requirements and test procedures addressing the following aspects of tire performance: Tire dimension, high speed, endurance, road hazard impact, bead unseating, low inflation pressure performance, and aging effects.¹⁸

The proposed high speed and endurance tests would have replaced the current high speed and endurance tests in FMVSS No. 109, *New Pneumatic Tires—Passenger Cars*, 49 CFR 571.109, with a more stringent combination of testing parameters (ambient temperature, load, inflation pressure, speed, and duration.) Most significantly, the proposed high speed test would have specified test speeds (140, 150 and 160 km/h (87, 93, and 99 mph)) that are substantially higher than those currently specified in FMVSS No. 109 (120, 128, 136 km/h (75, 80, 85 mph)). Likewise, the proposed endurance test would have specified a test speed 50 percent faster (120 km/h (75 mph)) than that currently specified in FMVSS No. 109 (80 km/h (50 mph)), as well as a duration 6 hours longer (40 hours total) than that currently specified in FMVSS No. 109 (34 hours total). At the specified test speed (120 km/h), the proposed endurance test distance (4800 km) would have been almost double the distance accumulated than under the current endurance test (2720 km at 80 km/h). These new testing parameters were based on NHTSA's activities undertaken in response to the TREAD Act, including extensive agency testing, data gathering and analyses as well as agency review of other existing international, industry and National standards and proposals, and submissions by the public.

The proposed road hazard impact test and the bead unseating test were modeled on SAE Recommended Practice J1981, *Road Hazard Impact Test for Wheel and Tire Assemblies (Passenger Car, Light Truck, and Multipurpose Vehicles)*, and the Toyota air loss test, respectively. These new tests would have replaced the strength and bead unseating resistance tests in the current FMVSS No. 109 with tests

¹⁸ For the convenience of the reader, we have placed in the docket for today's final rule a document that shows how the recently promulgated tire safety information requirements (*see* Footnote # 1) and performance requirements appear together in FMVSS No. 139.