

**DEPARTMENT OF TRANSPORTATION****National Highway Traffic Safety Administration****49 CFR Parts 567, 571, 574 and 575****[Docket No. NHTSA-01-11157]****RIN 2127-AI32****Tire Safety Information**

**AGENCY:** National Highway Traffic Safety Administration (NHTSA), Department of Transportation.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** In response to the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act of 2000, this document proposes to establish a new Federal Motor Vehicle Safety Standard that contains provisions to improve the labeling of tires to assist consumers in identifying tires that may be the subject of a safety recall. It also contains proposals for providing other consumer information to increase public awareness of the importance and methods of observing motor vehicle tire load limits and maintaining proper tire inflation levels for the safe operation of a motor vehicle. The proposals would apply to all new and retreaded tires for use on vehicles with a gross vehicle weight rating of 10,000 pounds or less and to all vehicles with a gross vehicle weight rating of 10,000 pounds or less, except for motorcycles and low speed vehicles. NHTSA will also be proposing upgraded safety performance requirements for tires in a forthcoming proposal, which would also be included in this new standard.

**DATES:** Written comments may be submitted to this agency and must be received by February 19, 2002.

**ADDRESSES:** You may submit your comments in writing to: Docket Management, Room PL-401, 400 Seventh Street, SW., Washington, DC, 20590. Alternatively, you may submit your comments electronically by logging onto the Docket Management System website at <http://dms.dot.gov>. Click on "Help & Information" or "Help/Info" to view instructions for filing your comments electronically. Regardless of how you submit your comments, you should mention the docket number of this document.

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**I. Executive Summary**

The agency is proposing to establish a new standard that would contain revisions to the agency's existing tire labeling requirements, as well as contain revisions to its current regulations to improve tire information for light vehicles and light vehicle tires and its availability and understandability to consumers. As used in this document, "light vehicles" are vehicles (except motorcycles and low speed vehicles (LSVs)) with a gross vehicle weight rating (GVWR) of 10,000 pounds or less. The new standard will also contain requirements and test procedures addressing various aspects of tire performance. The agency will be issuing a separate NPRM that proposes these performance requirements and procedures. Today's NPRM concerns the labeling and other informational requirements.

Today's proposed amendments address the following aspects of tire and vehicle labeling: Tire markings, the Tire Identification Number (TIN), vehicle placard content and format, placard location, and owner's manual information. The proposal would extend all passenger car labeling requirements, including those requiring the labeling of combined occupant and cargo weight capacity and designated seating positions, to light trucks and multipurpose passenger vehicles (MPVs) with a GVWR or 10,000 pounds or less. The proposal is substantially based on NHTSA's activities undertaken in response to the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act of 2000, including publication of an ANPRM, consideration of comments in response to the ANPRM, data gathering and analysis, and NHTSA sponsored focus groups.

NHTSA proposes that the TIN, size designation, maximum permissible inflation pressure, and maximum load rating be placed on both sides of light vehicle tires. The Firestone tire recalls last year highlighted the difficulty that

consumers have in determining whether a tire is subject to a recall when the tire is mounted so that the sidewall bearing the TIN and size designation faces inward, i.e., underneath the vehicle. Requiring the TIN and size designation to be on both sides would ensure that that information would be on the sidewall facing outward, regardless of how the tire is mounted. Requiring that the other items of information be on both sidewalls would aid consumers in maintaining their tires and loading their vehicles.

NHTSA is proposing two changes to the TIN. First, the agency proposes to require a re-ordering of information in the TIN so that the first six characters would contain the information required for determining whether a particular tire is subject to a recall. The first two characters would reflect the plant code, and the next four characters would reflect the date code. Second, the agency proposes to require that each character be 6 mm (1/4") high. The agency believes that a requirement for a uniform TIN font size would significantly improve the readability of the TIN.

The agency proposes four sets of revisions for the presentation of tire inflation pressure and load limit information on the vehicle placard currently required for passenger cars by S4.3 of § 571.110 and to be required for all light vehicles with a GVWR of 10,000 pounds or less under this proposal.<sup>1</sup> This placard, permanently affixed to the glove compartment door or an equally accessible location, currently displays the vehicle capacity weight, the designated seating capacity (expressed in terms of total number of occupants and in terms of occupants for each seat location), the vehicle manufacturer's recommended cold tire inflation pressure for maximum loaded vehicle weight, and the manufacturer's recommended tire size designation.

First, the agency proposes that tire inflation pressure information would be visually separated by a red colored border on the vehicle placard or, alternatively, be placed on a separate tire inflation pressure label. The vehicle placard would contain only the information required by the proposed

information specified in the proposed version of S4.3 (paragraphs (a)–(e)).<sup>2</sup> This information would not be combined with other labeling or certification requirements. The vehicle placard would also meet the proposed color and content requirements as discussed below.

Second, the agency also proposes that the tire inflation pressure label and vehicle placard meet the following three requirements: (1) The tire inflation pressure information on the placards would be in color—red, yellow, and black on a white background, (2) contain a black and white tire symbol icon in the upper left corner of the placards, 13 millimeters (.51 inches) wide and 14 millimeters (.55 inches), and (3) the placard and label would both include the phrases "Tire Information" and "See Owner's Manual For Additional Information" in yellow text on a black background.

Third, the agency proposes to replace the vehicle capacity weight statement on the vehicle placard with the following sentence: "[t]he combined weight of occupants and cargo should never exceed XXX pounds." The "XXX" amount would equal the "vehicle capacity weight" of the vehicle as defined in FMVSS No. 110. The information is the same as that currently required to be placed on the vehicle placard by manufacturers. However, the agency believes that the statement "the combined weight of occupants and cargo should never exceed \* \* \*" is easier for consumers to comprehend than a technical phrase such as "vehicle capacity weight." "Vehicle capacity weight" is not intuitive to consumers and it requires a vehicle operator to look to the owner's manual or standard to understand which factors are included in the calculation of the sum/amount on the placard.

Fourth, the agency proposes to replace the vehicle's recommended tire size designation with the tire size designation for the tire installed as original equipment on the vehicle by the vehicle manufacturer. While in most instances these two numbers would be identical, this minor revision insures that the consumer is provided with the

correct tire inflation pressure information for the tire size actually installed on his vehicle as original equipment by the manufacturer.

We are proposing these placard changes in response to survey data which indicate that consumers need assistance in locating recommended tire pressures for their vehicle's tires and understanding load limits. The use of colors and a visual cue, such as a tire symbol icon, would aid drivers in noticing and locating this imperative information. By expressing the vehicle's load limit in easily recognizable terms such as "passenger and cargo weight", as opposed to "vehicle capacity weight" the proposed placard revisions would also aid consumers in understanding and adhering to load limit guidelines.

The agency proposes that the placard and/or label containing tire inflation pressure by tire size and other required information specified in S4.3 of FMVSS No. 110 be located on the driver's side B-pillar. If a vehicle does not have a B-pillar, then the placard and/or label would be placed on the edge of the driver's door. Currently, S4.3 of 571.110 specifies that the vehicle placard be affixed to the glove compartment door or an equally accessible location. A standardized location for tire information placards and labels would contribute to consumer awareness of recommended tire inflation pressures and load limits.

The agency proposes that owner's manuals for light vehicles contain discussion of the following five subject areas: (1) Tire labeling, (2) recommended tire inflation pressure, (3) glossary of tire terminology, (4) tire care, and (5) vehicle load limits. A single, reliable source containing the proposed required information for the tires and tire safety information listed above would aid consumers by providing to them, in one centralized location, the information that they need to properly maintain their tires and adhere to recommended load limits.

Finally, the agency proposes revising FMVSS Nos. 110, Tire selection and rims, for passenger cars, 49 CFR 571.110, and 120 Tire selection and rims for motor vehicles other than passenger cars, 49 CFR 571.120, to reflect the applicability of the proposed light vehicle tire standard to vehicles with a GVWR of 10,000 pounds or less, and revising FMVSS Nos. 117, Retreaded pneumatic tires, 49 CFR 571.117, and 129, New non-pneumatic tires for passenger cars, 49 CFR 571.129, to replace the labeling requirements contained therein with those specified in the proposed new light vehicle tire standard.

<sup>1</sup> FMVSS No. 120 currently requires that each motor vehicle other than a passenger car show, on the label required by § 567.4, or on a tire information label (§5.3.2(b)), the recommended tire size designation appropriate for the GAWR, the tire size and type designation of rims appropriate for those tires, and the recommended cold inflation pressure for those tires such that the sum of the load ratings on the tires on each axle (when the tire's load carrying capacity at the specified pressure is reduced by dividing 1.10, in the case of a tire subject to FMVSS No. 109, i.e., a passenger car tire) is appropriate for the GAWR.

<sup>2</sup> (a) Vehicle capacity weight expressed as "THE COMBINED WEIGHT OF OCCUPANTS AND CARGO SHOULD NEVER EXCEED XXX POUNDS";

(b) Designated seating capacity (expressed in terms of total number of occupants and in terms of occupant for each seat location);

(c) Vehicle manufacturer's recommended cold tire inflation pressure;

(d) Tire size designation for the tire installed as original equipment on the vehicle by the vehicle manufacturer; and

(e) "SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION".

NHTSA believes that this proposal would result in minimal costs for tire and manufacturers. NHTSA estimates that the added cost for labeling tires under this proposal would equal \$0.01 per tire or less. Vehicle labeling, including vehicle placards for passenger cars and owner's manual information for light vehicles, is already required. Therefore the cost of labeling the tire, printing new or revised placards and/or tire inflation labels, the owner's manual pages and installation of the placard and/or tire inflation pressure label should be minimal. The only costs would be one-time costs to change production for the new vehicle placard and/or tire inflation pressure label, the application of the vehicle placard and/or tire inflation pressure label to all light vehicles, not only passenger cars, and the new owner's manual pages. NHTSA estimates that, adding the total tire and vehicle manufacturing costs together, the total annual costs equal approximately \$5.5 million.

NHTSA believes that this proposal would be effective in increasing public awareness of tire safety, particularly the understanding and maintenance of proper tire inflation and load limits. This proposal will also enable consumers to more easily identify the TIN and other tire information for recalls and other notifications. The proposal will standardize the location and content of important information relating to proper inflation and load limits and other tire safety concerns. These measures, by increasing consumer knowledge and awareness, should result in reduced tire failures and tire related crashes, and therefore fewer deaths and injuries.

## II. Background

The Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act of 2000, Pub. L. 106-414, requires the agency to address numerous matters through rulemaking. One of these matters, set forth in section 11 of the Act, is the improvement of the labeling of tires required by section 30123 of title 49, United States Code, to assist consumers in identifying tires that may be the subject of a recall. Section 11 provides that the agency must initiate a rulemaking proceeding for that purpose within 30 days after the enactment of the Act and must complete it not later than June 1, 2002.

Additionally, that section provides that the agency may take whatever additional action it deems appropriate to ensure that the public is aware of the importance of observing motor vehicle tire load limits and maintaining proper

tire inflation levels for the safe operation of a motor vehicle. Section 11 states that such additional action may, for example, include a requirement that the manufacturer of motor vehicles provide the purchasers of the motor vehicles information on appropriate tire inflation levels and load limits if the agency determines that requiring such manufacturers to provide that information is the most appropriate way that information can be provided.

On December 1, 2000, this agency published an Advance Notice of Proposed Rulemaking (ANPRM) (65 FR 75222), as required by the TREAD Act, announcing our plans to (1) improve the labeling of tires, (2) assist consumers in identifying tires that may be the subject of a recall, and (3) ensure that the public is aware of the importance of observing motor vehicle tire load limits and maintaining proper tire inflation levels for the safe operation of a motor vehicle. Specifically, we discussed tire label requirements and prior rulemakings, as well as presented a number of questions for public comment on issues such as general consumer knowledge and behavior, availability of information to consumers, and Tire Identification Number (TIN) information and location.

## III. Existing Labeling Requirements

### A. Generally

NHTSA's existing labeling requirements for new passenger car tires are set forth in Federal Motor Vehicle Safety Standard (FMVSS) No. 109, New Pneumatic Tires—Passenger Cars (49 CFR 571.109). Specifically, section S4.3 of FMVSS No. 109 sets forth information labeling requirements for tires, including requirements regarding the positioning of the information on the sidewall to ensure that it is readily visible and to minimize the possibility that it will be scuffed off if the sidewall hits a curb or similar object. It provides that the information listed in paragraphs S4.3 (a) through (e) (e.g., number of plies and maximum permissible inflation pressure) must appear, on at least one sidewall, in an area between the maximum section width and the bead of the tire, unless the maximum section width of the tire falls between the bead and one-fourth of the distance from the bead to the shoulder of the tire. For tires for which the maximum section width falls in that area, all required labeling must be located between the bead and a point one-half the distance from the bead to the shoulder of the tire.<sup>3</sup> Section S4.3.1 and

S4.3.2 provide more extensive location requirements for other information (e.g., the DOT certification and the name of the manufacturer or brand name and number assigned to the manufacturer) to be placed on car tires. They provide that the labeling must be done in the manner specified in Part 574.5.

NHTSA's labeling requirement for retreaded passenger car tires is set forth in FMVSS No. 117, Pneumatic Retreaded Tires (49 CFR 571.117). FMVSS No. 117 requires that each newly retreaded passenger car tire have molded into its sidewalls information similar to that required in FMVSS No. 109, plus the words bias, or bias belted, or radial, as applicable. FMVSS No. 117 does not, though, require that the name of the manufacturer or brand name and number assigned to the manufacturer be placed on retreaded tires as is required on new passenger vehicle tires by FMVSS No. 109.

NHTSA's labeling requirements for new tires for vehicles other than passenger cars are set forth in FMVSS No. 119, New Pneumatic Tires for Vehicles other than Passenger Cars (49 CFR § 571.119). Paragraph S6.5 of FMVSS No. 119 specifies that all tires for vehicles other than passenger cars must have certain markings on the sidewalls. Among other things, these tires must show the actual number of plies in the tire, the composition of the ply cord material (S6.5(f)), and a letter designating the load range (S6.5(j)). S6.5 also provides that the designated information must appear, on at least one sidewall, in an area between the maximum section width and bead of the tire, unless the maximum section width of the tire falls between the bead and one-fourth of the distance from the bead

tires for vehicles other than passenger cars. (49 FR 37816; September 26, 1984 and 50 FR 10773; March 18, 1985). That rulemaking amended part 574, Tire Identification and Recordkeeping (49 CFR 574.4) and FMVSS No. 119, New Pneumatic Tires for Motor Vehicles Other Than Passenger Cars (49 CFR 571.119) to permit placing markings at a different location in order to permit the introduction of a new tire concept for vehicles other than cars where the tire's maximum section width is at the bead. In particular, Figure 1 of part 574 was amended to specify the requirements for the label's position if a tire's maximum section width falls within one-fourth of the distance from the bead to the tire shoulder. In that case, a marking must appear between the bead and a point one half the distance from the bead to the shoulder of the tire. Amending part 574 had the practical effect of applying the new requirement to section S4.3.1 and S4.3.2 of FMVSS No. 109, given that these provisions state that the tires must be labeled "in the manner specified in part 574." However, the 1985 final rule did not amend the labeling requirements for car tires in section S4.3 of FMVSS No. 109. Nevertheless, the notice did expressly amend section S6.5 of FMVSS No. 119. A subsequent rulemaking (55 FR 41190; October 10, 1990) amended FMVSS No. 109 to facilitate the use of this new tire technology.

<sup>3</sup> The agency initially addressed the problem of labeling tires whose maximum section width is close to the bead in a 1985 rulemaking regarding

to the shoulder of the tire. For tires for which the maximum section width falls in that area, all required labeling must be located between the bead and a point one-half the distance from the bead to the shoulder of the tire. Additionally, section S6.5(b) requires that each tire be marked with the tire identification required by part 574 of this chapter and that this number may be marked on only one sidewall.

NHTSA's labeling requirements for new temporary spare non-pneumatic tires for passenger cars are set forth in FMVSS No. 129, New non-pneumatic tires for passenger cars (49 CFR 571.129). The FMVSS No. 129 labeling requirements are similar to those set forth in section S4.3 in FMVSS No. 109 for size designation, load, rating, rim size and type designation, manufacturer or brand name, certification, and tire identification number. The standard also includes temporary use and maximum speed labeling requirements (which provide an extra margin of safety relating to the handling and braking of these tires) and allows methods of permanent marking other than "molding" in anticipation of the difficulty of molding required information on non-pneumatic tire designs. Paragraph S.4 of FMVSS No. 129 specifies that each non-pneumatic tire must have certain markings on the sidewalls including the non-pneumatic tire identification code (NPTIC), the load rating, and the tire identification number required in Part 574. These labeling requirements also specify that the labeling information must appear on both sides of the tire, except, in the case of a tire that has a particular side that must always face outward where the information must appear on the outward facing side.

#### B. Tire Identification Number (TIN)

Section 574.5 of Title 49, CFR, Tire Identification Requirements, sets forth the methods by which new tire manufacturers and new tire brand name owners must identify tires for use on motor vehicles.<sup>4</sup> The section also sets forth the methods by which tire retreaders and retreaded tire brand

name owners must identify tires for use on motor vehicles. The purpose of these requirements is to facilitate efforts by tire manufacturers to notify purchasers of defective or nonconforming tires and by such purchasers to identify those tires so that purchasers can take appropriate action in the interest of motor vehicle safety.<sup>5</sup>

Specifically, 574.5 requires each new tire manufacturer and each tire retreader to mold a TIN into or onto the sidewall of each tire produced, in the manner and location specified in the section and as depicted in Figures 1 and 2 of that section. The TIN is composed of four groups:

1. The first group represents the manufacturer's identification mark assigned to such manufacturer by this agency in accordance with § 574.6;
2. The second group represents the tire size for new tires; for retreaded tires, the second group represents the retread matrix in which the tire was processed or, if no matrix was used, a tire size code;
3. The third group may, at the option of the manufacturer, be used as a

<sup>5</sup> The agency believed that an effective method of tire identification was essential to an effective defect or noncompliance notification system for tire owners. Accordingly, on July 23, 1970, NHTSA published a Notice of Proposed Rulemaking (NPRM) (35 FR 11800) proposing to establish a tire identification system to provide a means to identify the manufacturer of the tire, the date of manufacture, the tire size, and, at the option of the manufacturer, additional information to further describe the type or other significant characteristics of the tire. The agency proposed a TIN composed of four groups of figures: the first group would contain the manufacturer's identification mark which would be assigned by NHTSA; the second group would identify the tire size; the third group would identify the date of manufacture of the tire; and the fourth group would be the manufacturer's optional description of the tire. The figures would be a minimum of 1/4 inch high and would appear on both sidewalls of the tire.

In a final rule published on November 10, 1970 (35 FR 17257), the agency revised the requirements proposed in the NPRM in response to the suggestions of various commenters. Specifically, NHTSA reversed the order of the manufacturer's optional information and the date of manufacture, so that the latter would appear in the fourth grouping and the manufacturer's optional information would appear in the third grouping. NHTSA also stated that the tire identification number need only appear on one sidewall in response to concerns relating to worker safety, and that the figures need only be 3/32 inch high on tires with a bead diameter of less than 13 inches. Many commenters requested that the date code be expressed in alpha-numeric form in order to reduce the date figures to two digits. NHTSA declined to adopt the alpha-numeric system because it could be confusing to the public and because retreaders may not be able to easily determine the age of the casing to be retreaded. In order to shorten the stencil plate, however, NHTSA dropped one of the two digits representing the decade of manufacture, thereby reducing the date of manufacture group from four digits to three. The date of manufacture grouping was later expanded to four digits. (64 FR 36807; July 8, 1999)

descriptive code for identifying significant characteristics of the tire. If the tire is produced for a brand name owner, the third grouping must identify such brand name owner; and

4. The fourth group identifies the week and year of manufacture. The first two figures identify the week, starting with "01" to represent the first full week of the calendar year; the second two figures represent the year. For example, "2198" represents the 21st week of 1998.<sup>6</sup>

#### C. Other Labeling

Labeling requirements are also contained in 49 CFR part 567, Certification, 49 CFR part 575, Consumer Information Regulations, FMVSS No. 110, Tire Selection and Rims, applicable to passenger cars and to non-pneumatic spare tire assemblies for use on passenger cars, and FMVSS No. 120, Tire Selection and Rims for Motor Vehicles Other Than Passenger Cars.

Section 567.4 requires vehicle manufacturers to affix to each vehicle a label bearing, among other things, the Gross Vehicle Weight Rating (GVWR), which must not be less than the sum of the unloaded vehicle weight, rated cargo load, and 150 pounds times the vehicles

<sup>6</sup> In response to petitions for a rulemaking, the agency amended NHTSA's tire identification and recordkeeping regulation in 1999 to require the date of manufacture to be expressed in four digits, instead of the previously required three, so that consumers would be able to determine the decade of manufacture of their tires. (64 FR 36807; July 8, 1999) This rule also reduced the minimum size of the digits from the then currently required minimum of 6 millimeters (mm) (1/4 inch) to 4 mm (5/32 inch) to relieve the manufacturers and retreaders of the burden they might otherwise have incurred by having to redesign their tire molds to accommodate the additional digit.

In that rulemaking, all commenters supported adding a fourth digit to the date code. Two of the commenters, though, opposed reducing the size of the numbers in the TIN on the basis that such reduction would make it more difficult for consumers to see, especially those with visual pathologies. These commenters did not, however, provide any data showing that drivers cannot read 4 mm figures. NHTSA said that its experience to date with 4 mm figures on tires suggest that figures of that size do not present a problem. (It should be noted that many tire manufacturers actually use figures larger than 4 mm for the date code. As discussed in the final rule, 4 mm is approximately the equivalent of font size 16 in Windows 95, which is approximately double the font size used in the **Federal Register** and also approximately double the size of the largest letters found on the U.S. quarters being minted then. Additionally, this agency pointed out that the size of the UTQGS tire grades marked on tire sidewalls has always been 4 mm (5/32 inch) and the agency had not received any complaints that those letters or numbers were too small to read. Finally, Part 574 permits tires of less than 13 inches in diameter or those that have less than a 6-inch cross section width to have a letter/number size of 4 mm. Again, the agency had not received any complaints about the size of those letters/numbers.

<sup>4</sup> NHTSA originally proposed these requirements in response to the May 22, 1970 amendments to the National Traffic and Motor Vehicle Safety Act of 1966, Pub. L. 89-563, originally 15 U.S.C. 1581 *et seq.* (Codified in 1995 and now found at 49 U.S.C. 30101 *et seq.*). Those amendments, among other things, required manufacturers and brand name owners of new and retreaded motor vehicle tires to maintain records of the names and addresses of the first purchasers of tires (other than dealers or distributors) in order to facilitate notification of such purchasers in the event tires were found to be defective or not to comply with applicable Federal motor vehicle safety standards.

rated seating capacity; and the Gross Axle Weight Rating (GAWR), which is the value specified by the manufacturer as the load carrying capacity of a single axle system.

Section 30123(e) of Title 49, U.S. Code, requires the Secretary of Transportation to prescribe a uniform quality grading system for motor vehicle tires to help consumers make an informed choice when purchasing tires. NHTSA implemented this statutory mandate by issuing the Uniform Tire Quality Grading System (UTQGS) at 49 CFR 575.104, applicable to new passenger car tires. The UTQGS require passenger car and tire manufacturers and tire brand name owners to provide consumers with information with respect to the treadwear,<sup>7</sup> traction,<sup>8</sup> and temperature resistance<sup>9</sup> performance of their tires. UTQGS information is required to be provided on two locations on the tire: a paper label affixed to the tread, and molded into the sidewalls. Excluded from the UTQGS are deep-tread, winter-type snow tires, space-saver or temporary-use spare tires, tires with nominal rim diameters of 12 inches or less and limited production tires as described in 49 CFR 575.104(c)(2).

Section 575.6(a) of Title 49, CFR, requires that when a motor vehicle is delivered to the first purchaser for purposes other than resale, the vehicle manufacturer must provide, in writing and in the English language, the information specified in Section 575.103 applicable to that vehicle, and in the owner's manual, the information specified in Section 575.104.<sup>10</sup> Section

575.104(d)(1)(iii) requires vehicle manufacturers to list all possible grades for traction and temperature resistance and restate verbatim the explanation of each of the three graded aspects of performance. The information must also contain a statement referring the reader to the tire sidewall for the specific graded performance of the tires with which the vehicle is equipped. Section 575.6(c) requires that each vehicle manufacturer, brand name owner of tires, and manufacturer of tires for which there is no brand name owner to provide the information specified in subpart B of Part 575 to prospective purchasers at each location at which its vehicles or tires are offered for sale.

Paragraph S4.3 of FMVSS No. 110 requires manufacturers to affix a placard to each passenger car's glove compartment door or an equally accessible location showing the vehicle's capacity weight, designated seating capacity, the manufacturer's recommended cold tire inflation pressure for maximum loaded vehicle weight, the manufacturer's recommended tire size designation, and, for a vehicle equipped with a non-pneumatic spare tire assembly, the non-pneumatic identification code required by FMVSS No. 129, New Non-Pneumatic Tires for Passenger Cars. The required information is intended to promote the vehicle's safe performance by preventing overloading of the tires or the vehicle itself.<sup>11</sup>

purchasers at the point of sale of new vehicles. The agency eliminated this requirement, instead requiring that the information be contained within the owner's manual, because it believed that the elimination of the point-of-sale requirement would relieve a significant burden on vehicle manufacturers and dealers and yet would have little effect on consumers. (64 FR 27921; May 24, 1999).

<sup>11</sup> Herzlich Consulting (Herzlich) petitioned the agency on March 12, 1992, to amend FMVSS Nos. 110 and 120 to include a requirement that the manufacturers of the vehicles subject to those standards place a warning in the glove compartment or some other accessible/visible location which would state, in high visibility letters: "Warning: Underinflation, Overloading, or Damage can Cause any Tire to Fail Suddenly." In support of the petition, Herzlich argued that although the Federal and state governments and the tire industry continuously communicate tire safety information, such efforts are "rather unsuccessful." Herzlich also argued that tire failure due to road hazard damage, underinflation, or overload continues to be a problem. He stated that tires are the most important safety component on the vehicle and, perhaps because of their high degree of reliability, they are often taken for granted by consumers. Herzlich also referred to unspecified surveys purporting to show that a "significant number of vehicles are running on underinflated, overloaded, worn-out or damaged tires," which, he contended, indicates that people get careless and need to be reminded over and over again to inspect and properly maintain their tires.

After a full and careful review of the petition, NHTSA decided to deny it based on several factors (57 FR 45759; October 5, 1992). First, there already

FMVSS No. 120 requires that each vehicle show, on the label required by 567.4, or on a tire information label (S5.3.2(b)), the recommended tire size designation appropriate for the GAWR, the size and type designation of rims appropriate for those tires, and the recommended cold inflation pressure for those tires such that the sum of the load ratings of the tires on each axle (when the tires load carrying capacity at the specified pressure is reduced by dividing 1.10, in the case of a tire subject to FMVSS No. 109, i.e., a passenger car tire) is appropriate for the GAWR.<sup>12</sup>

#### IV. Current Safety Problem—Inadequacy of Existing Labeling Requirements

##### A. Difficulty Locating the TIN

The continued use of tires determined to be unsafe poses a safety risk not only for the occupants of the vehicles equipped with those tires, but also for other highway users near those vehicles.

One effect of the combination of the prevalence of long-life radial tires is that tires have significantly longer service life now than 20 years ago. Another effect of radials is that there are large numbers of persons who purchase a used car with used radial tires. Unlike the case of first purchasers, there is no procedure for providing tire manufacturers with the names and addresses of subsequent purchasers. Thus there is no way for the tire manufacturers to directly contact subsequent purchasers in the event of a recall. The only way that either of these groups could determine that their tires

existed a vast amount of information on proper tire maintenance. Additionally, the agency stated that there was no reason to believe that requiring the same information be made available in another place would increase consumer's responsiveness to such information. Finally, the petitioner presented no data, and this agency was aware of none, that would support petitioner's assertion that improper maintenance causes the vast majority of tire failures or that a significant number of vehicles are running on underinflated, overloaded, worn out or damaged tires.

In summary, NHTSA believed at that time that the wealth of safety materials already available to the public through industry, government, and consumer sources adequately addressed the issue of proper tire inflation and maintenance; that existing labeling requirements provided sufficient information to enable consumers to maintain tires properly and safely; and that the petitioner had not shown that the amendments he proposed would significantly change the behavior of the public in that respect.

<sup>12</sup> In a final rule published on March 11, 1993 (58 FR 13424), the agency amended FMVSS No. 120 to clarify the requirement about tire information labels on multipurpose passenger vehicles, trucks, buses, and trailers. Specifically, this amendment required the label to specify a recommended tire inflation pressure when such vehicles are equipped with passenger car tires.

<sup>7</sup> The treadwear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions. For example, a tire graded 200 should have its useful tread last twice as long as a tire graded 100.

<sup>8</sup> Traction grades represent the tire's ability to stop on wet pavement as measured under controlled conditions on asphalt and concrete test surfaces. The traction grades from highest to lowest, are "AA", "A", "B" and "C". A tire graded "AA" may have relatively better traction performance than a tire graded "A", "B" or "C", based on straight ahead braking tests. The grades do not reflect the cornering or turning traction performance of the tires.

<sup>9</sup> Temperature grades represent the tire's resistance to heat and its ability to dissipate heat when tested under controlled laboratory conditions. Sustained high temperature can cause the tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure. The temperature grades from highest to lowest are "A", "B" and "C". The grade "C" corresponds to the minimum performance required by FMVSS No. 109. The temperature grade is for a tire that is inflated properly and not overloaded.

<sup>10</sup> Prior to May 24, 1999 (64 FR 27921), passenger car manufacturers were required to directly provide general UTQGS information and the information specified in Section 575.104 in writing and the English language to purchasers and potential

have been recalled would be to find the identification numbers on their tires and compare them with the series of identification numbers contained in general public announcements about the recall.

As a result of the difficulty and inconvenience of checking the TINs, the percentage of people who respond to a tire recall campaign is reduced and motorists unknowingly continue to drive their vehicles with potentially unsafe tires.

The side of a tire bearing the TIN is often mounted so that it faces inward. In the case of whitewall tires, this occurs because the TIN is almost always molded on the blackwall (i.e., inside sidewall) of the tire. Whitewall tires account for a small and declining percentage (currently about 5 percent or less) of original equipment tire sales in this country, but about 40 percent of replacement tires. There are about three times as many replacement tires as original equipment tires sold each year. Blackwall tires, which have the TIN on one sidewall, are as likely to be mounted with the number side facing in as out. Based on this information, we estimate that approximately 65 percent of all tires are mounted with their TINs not readily visible.

When the TINs appear on the inside sidewalls of the tires mounted on vehicles, motorists have three inconvenient ways of finding and recording the TINs. They must either: (1) Slide under the vehicle with a flashlight, pencil and paper and search the inside sidewalls for the TINs; (2) remove each tire, find and record the TIN, and then replace the tire; or (3) enlist the aid of a garage or service station which can perform option 1 or place the vehicle on a vehicle lift so that the TINs can be found and recorded.

#### *B. Lack of Consumer Knowledge Concerning Correct Tire Inflation Pressure*

Maintaining proper inflation pressure in motor vehicle tires is important to the safe and efficient use of motor vehicles.

The recommended inflation pressure is labeled on the vehicle on a placard or the vehicle certification label by the vehicle manufacturer to provide the cold tire inflation pressure for the maximum loaded vehicle weight based upon vehicle specification and

operation as determined by the vehicle manufacturer. The recommended inflation pressure is often confused with the maximum inflation pressure which is labeled on the tire by the tire manufacturer to provide the maximum cold inflation pressure to which a tire may be inflated based upon the maximum load rating for that tire.

Maintaining tires at their proper inflation pressure, instead of allowing them to become underinflated, reduces heat build up, minimizes tire wear, contributes to good vehicle handling and improves fuel economy through decreasing the rolling resistance of the tires. In light of the trend toward self-service gas stations, the motorist's responsibility for maintaining proper inflation pressure is more significant. Unfortunately, surveys indicate that a significant number of vehicles are being operated with underinflated, overloaded and/or damaged tires and that the public needs to be reminded to inspect and properly maintain their tires.

The 2000 Bureau of Transportation Statistics (BTS) Omnibus Survey, conducted in September 2000, contained four questions on the public's knowledge of tire pressure issues. This survey, which contained 1,017 household interviews, indicated that, among other things, at least 54.7 percent of the respondents do not know how to determine the proper pressure for their tires.

The AAA Tire Safety Survey, based on an omnibus nationwide telephone survey of 1070 adult Americans (539 males and 531 females) who drive a car, motorcycle, or other motor vehicle at least once a week, queried participants on how to identify the correct tire pressure.<sup>13</sup> The survey indicated that, despite a consciousness about checking tire pressure (82% surveyed said they checked their tire pressure at least every three months and 48% said they checked their tire pressure at least once a month), American drivers lack sufficient knowledge about how to determine optimum tire pressure. About half (48%) consult the tire sidewall, and fewer check more reliable methods such as the owner's manual (27%) or the vehicle placard (18%).

The Rubber Manufacturers Association (RMA) survey, based on four hundred 11-minute telephone interviews conducted between October

12 and 19, 2000, with consumers who own or lease a vehicle they drive at least once a week and are responsible for making decisions about the routine maintenance of their vehicle, explored the extent to which consumers are aware of and knowledgeable about tire safety.<sup>14</sup> To assess tire maintenance knowledge, drivers were asked 16 questions related to properly maintaining automotive tires. Of these questions pertaining to tire labeling, drivers were asked to name the best sources for the recommended tire pressure. In response, forty-five percent of drivers responded correctly to this question by saying the owner's manual or decals on the inside of the vehicle's door or glove box. Twenty-seven percent responded incorrectly by reporting that the best source for the recommended tire pressure was on the sidewall of the tire, 7% volunteered "tire manufacturer information" in general, and 12% said something else. Only 10% said they "did not know."

In Spring 2001, the National Center for Statistics and Analysis (NCSA) conducted the 2001 National Automotive Sampling System (NASS) Tire Pressure Special Study (NASS Study) in response to the TREAD Act.<sup>15</sup> *The Preliminary Analysis of Findings, 2001 NASS Tire Pressure Special Study*, dated May 4, 2001, has been placed in the NHTSA Docket No. NHTSA-2000-8572. The NASS Study was designed to assess, among other factors, the extent to which passenger vehicle operators are aware of the recommended air pressure for their tires.

During a total of 336 visits to gas stations, a NASS team collected survey data from drivers from each of the following vehicle categories: passenger cars; sport utility vehicles; vans; and pickup trucks. A total of 11,350 vehicle drivers were surveyed about their knowledge of the vehicle manufacturers recommended tire pressure.<sup>16</sup> Survey data were analyzed for the following three categories of vehicles: (1) Passenger cars with metric P-type tires; (2) Trucks, sport utility vehicles (SUVs), and Vans with metric P-type tires, and (3) Trucks, SUVs, and Vans with either metric LT-type or high flotation tires. The drivers, asked how they determine at what pressure to set their tires, answered as follows:

<sup>13</sup> Tire Safety Survey, prepared for AAA Foundation for Traffic Safety, by Roper Starch Worldwide, Inc., March 22, 1999. Interviews were conducted between March 10, 1999 and 14, 1999.

<sup>14</sup> Consumer Tire Maintenance and Safety Awareness Research, A Report to Rubber

Manufacturers Association, by Fleishman-Hillard Research, October 2000.

<sup>15</sup> Data was collected through the infrastructure of the National Accident Sampling System—Crashworthiness Data System (NASS-CDS). The NASS-CDS consists of 24 Primary Sampling Units (PSUs) located across the country. Within each

PSU, a random selection of zip codes was obtained from a list of eligible zip codes. Within each zip code, a random selection of two gas stations was obtained.

<sup>16</sup> This total was comprised of 5,442 passenger cars, 1,874 SUVs, 1,376 vans, and 1,838 pickup trucks.

How drivers determine at what pressure to set their tires	Percent		
	Passenger car P-metric tires	Trucks, SUVs and Vans	
		P-metric tires	LT or high flotation tires
Owner's Manual .....	17.84	14.8	21.9
Vehicle Placard .....	8.39	7.06	10.84
Tire Labeling .....	21.56	31.47	44.35
Visually .....	10.68	8.23	6.83
Other .....	9.75	9.56	9.89
Does not Know .....	6.87	4.31	2.02
Other person maintains .....	23.8	23.07	4.11
Unknown .....	1.1	1.51	0.06

This data indicates that only about 26 (17.84 + 8.39) percent of drivers of passenger cars, 22 (14.8 + 7.06) percent of drivers of pick-up trucks, SUVs, and vans with P-metric tires, and 32 (21.9 + 10.84) percent of drivers of pick-up trucks, SUVs, and vans with either LT or flotation tires know how to consult either the vehicle placard or the owner's manual to determine the correct inflation pressure for their vehicles' tires.

### C. Safety Problems Associated With Tires

Tire under-inflation, high ambient temperatures, and vehicle overloading are among the factors being considered in the ongoing evaluation of the radial tire failures that have occurred in recent years which have been associated with rollover and other crashes. For example, when a tire is used while significantly under-inflated, its sidewalls flex more and the air temperature inside it increases, making the tire more prone to failure. In addition, a significantly under-inflated tire loses lateral traction, making handling more difficult. The agency also has received data from

Goodyear indicating that significantly under-inflated tires increase a vehicle's stopping distance on wet surfaces.

NHTSA's crash files do not contain any direct evidence that points to low tire pressure as the cause of any particular crash. However, this lack of data does not imply that low tire pressure does not cause or contribute to any crashes. It simply reflects the fact that measurements of tire pressure are not among the vehicle information included in the crash reports received by the agency and placed in its crash data bases.<sup>17</sup>

The only tire-related data element in the agency's data bases is "flat tire or blowout." Even in crashes for which a flat tire or blowout is reported, crash investigators cannot tell whether low tire pressure contributed to the tire failure.

Under-inflated tires can contribute to other types of crashes than those resulting from blow outs or tire failure, including crashes which result from: an increase in stopping distance; skidding and/or a loss of control of the vehicle in a curve or in a lane change maneuver; or hydroplaning on a wet surface.

However, the agency does not have any data on how often under-inflated tires cause crashes or contribute to their occurrence.

Additionally, under-inflation contributes to tire overload. Tire overload describes a condition in which the vehicle is carrying more weight than the tire is rated to carry at a specified inflation pressure. For instance, for every 1-psi reduction in inflation pressure, a vehicle's tires suffer a 1.6% reduction in vehicle capacity weight (passenger plus cargo capacity). Overloading can result in handling or steering problems, brake failure, and tire failure.

Several crash files contain information on "general" tire related problems that precipitate crashes. The more recent of these files are The National Automotive Sampling System—Crashworthiness Data System (NASS-CDS)<sup>18</sup> and the Fatality Analysis Reporting System (FARS).<sup>19</sup>

NASS-CDS data for 1995 through 1998 indicate that there are an estimated 23,464 tow-away crashes caused per year by blowouts or flat tires.

### ESTIMATED ANNUAL AVERAGE NUMBER (1995–98 NASS) AND RATES OF BLOWOUTS OR FLAT TIRES CAUSING TOW-AWAY CRASHES

	Tire related cases	Percent tire related
<i>Passenger Cars Total</i> .....	10,169	0.31
Rollover .....	1,837 (18%)	1.87
Non-rollover .....	8,332 (82%)	0.26
<i>Light Trucks Total*</i> .....	13,294	0.99
Rollover .....	9,577 (72%)	6.88

<sup>17</sup> These crash databases are the National Automotive Sampling System—Crashworthiness Data System (NASS-CDS) and the Fatality Analysis Reporting System (FARS).

<sup>18</sup> For the NASS-CDS system, trained investigators collect data on a sample of tow-away crashes around the country. These data can be "weighted up" to national estimates. A NASS-CDS General Vehicle Form contains the following information: a critical pre-crash event, such as vehicle loss of control due to a blowout or flat tire. This category includes only part of the tire-related problems which cause crashes. This coding would

only be used when the tire went flat or there was a blowout that caused a loss of control of the vehicle, resulting in a crash. The value is not used for cases in which one or more of a vehicle's tires was under-inflated, preventing the vehicle from performing as well as it could have in an emergency situation.

<sup>19</sup> In FARS, tire problems are noted after the crash, if they are noted at all. The FARS file does not indicate whether the tire problem caused the crash, influenced the severity of the crash, or just occurred during the crash. For example, some crashes may have been caused by a tire blowout,

while in others the vehicle may have slid sideways and struck a curb, causing a flat tire which may or may not have influenced whether the vehicle experienced rollover. Thus, while an indication of a tire problem in the FARS file give some indication as to the potential magnitude of the tire problem in fatal crashes, it can neither be considered the lowest possible number because the tire might not have caused the crash, nor the highest number of cases because not all crashes with tire problems might have been coded by the police.



## ESTIMATED ANNUAL AVERAGE NUMBER (1995–98 NASS) AND RATES OF BLOWOUTS OR FLAT TIRES CAUSING TOW-AWAY CRASHES—Continued

	Tire related cases	Percent tire related
Non-rollover .....	3,717 (28%)	0.31
Light Vehicles Total .....	23,463	0.51
Rollover .....	11,414 (49%)	4.81
Non-rollover .....	12,049 (51%)	0.28

\* Light trucks, as used here, means pickup trucks, vans (all sizes), and SUVs.

Therefore, about one half of one percent of all crashes are caused by these tire problems. The rate of blowout-caused crashes for light trucks (0.99 percent) is more than three times the rate of those crashes for passenger cars (0.31 percent). Blowouts cause a much higher proportion of rollover crashes (4.81) than non-rollover crashes (0.28); and again more than three times the rate in light trucks (6.88 percent) than in passenger cars (1.87 percent).

FARS data for 1995 through 1998 show that 1.10 percent of all light vehicles in fatal crashes were coded with tire problems. Light trucks had slightly higher rates of tire problems (1.20 percent) than passenger cars (1.04 percent). The annual average number of vehicles with tire problems in FARS was 535 (313 passenger cars and 222 light trucks).

#### IV. Agency Response to Safety Problem

##### A. Prior Agency Rulemaking Efforts

As stated above, the TIN originated with the May 22, 1970 amendments to the National Traffic and Motor Vehicle Safety Act of 1966. Prior to that time, there were no tire labeling requirements in effect. Tire manufacturers simply followed standard industry practices.

In the early 1980's, NHTSA granted a petition for rulemaking filed by the Center for Auto Safety (the Center) requesting that 49 CFR part 574, Tire Identification and Recordkeeping, be amended to require that the TIN be placed on the outside sidewall (i.e., the sidewall visible when a tire is mounted on a vehicle) of whitewall tires and on both sides of blackwall tires. The Center stated that the current tire industry practice of placing the TIN on the inside sidewall of whitewall tires and on only one side of blackwall tires made it very difficult for most motorists to find and read the TINs on their tires once they are mounted on vehicles.

Prior to publishing an NPRM (45 FR 82293; December 15, 1980), the agency sent special orders to nine tire manufacturers who together represented 84 percent of world tire production and 90 percent of domestic production of tires for use in this country to gather

information on the feasibility and costs of implementing the proposed requirements. Among the questions in the special orders were ones asking whether the tire presses were operated 24 hours a day seven days a week and, if so, what measures could be taken to ensure that workers could safely change the identification number plates in the presses. (A tire press generally works like a clam shell. The lower half of the press remains in a fixed horizontal position, while the upper half is movable. The tire mold, which also has upper and lower halves, fits inside the press.) None of the respondents suggested that changing the number plates would present insurmountable safety problems.<sup>20</sup> Further, based on its evaluation of these responses, NHTSA determined that such a requirement would impose costs of between \$4.25 million and \$5.9 million.

On April 9, 1981, the agency published a notice of intent listing 17 actions that the agency said it intended to take to reduce unnecessary regulatory burdens upon the motor vehicle and related manufacturing industries (46 FR 21203). Among them was terminating rulemaking on the location of the TIN.

Subsequently, the agency terminated the rulemaking (48 FR 19761; May 2, 1983). The agency stated that it was taking that action because it was unable to determine that the adoption of the proposal would significantly contribute

<sup>20</sup> From the responses to the orders, the agency learned that of the 52 tire plants operated by the respondents in this country, 46 of them operated only five or six days a week. The remaining six plants operated all week. In the case of those 46 plants, workers could safely and easily change the number plates during one of the days when the molds were non-operational and at room temperature. The practice of the manufacturers was to change the number plates on these molds during their non-operational day. On that day, workers could easily change the number plates on the upper mold as on the lower mold. Additionally, the manufacturers operating seven days a week indicated that workers could safely change the number plates on operating upper molds in any of several ways. One way would be to place insulated blankets over the bottom molds. Another way would be to mold the whitewall side of whitewall tires on the lower mold so that the number plates could be placed on the more readily accessible upper molds.

to motor vehicle safety and because the compliance costs would be \$4.25 to \$5.9 million. Although the agency anticipated that the adoption of the amendment would increase the response to tire recall campaigns and that ultimately the action would reduce the chance of potentially unsafe tires being used on public roads, it was not able to provide a quantified estimate of the benefits to be gained from the proposed amendment. The data relied upon by the agency in issuing the proposal consisted solely of anecdotal comments by 13 consumers on difficulties they experienced in locating tire identification numbers. These 13 comments were among about 9,500 responses received by the agency in response to a survey in which it sent questionnaires to approximately 100,000 consumers. Thus, only 0.013 percent of the questionnaire recipients and 0.14 percent of the respondents reported this type of difficulty. Prior to issuing the proposal, the agency did not have any data or perform any analysis regarding the extent to which the proposed requirement would increase the number of people who find the identification number on their tires, the number of those people who respond to a recall, or the number of potentially defective or noncomplying tires that would be removed from service. No additional data regarding benefits were obtained by the agency as a result of the comment process.

##### B. December 2000 Advanced Notice of Proposed Rulemaking

On December 1, 2000, NHTSA published an advanced notice of proposed rulemaking pursuant to the TREAD Act and in recognition of the importance of obtaining public input before making decision regarding activities under the provisions arising under the TREAD Act. (65 FR 75222, December 1, 2000).

The ANPRM discussed NHTSA's existing tire information labeling and marking requirements, tire identification number requirements, and other labeling requirements such as those contained within its Consumer



Information Regulations, *e.g.*, UTQGS. Also discussed in the ANPRM were prior rulemaking actions and petitions pertinent to the tire labeling issues addressed by the TREAD Act, particularly those relevant to the location of the TIN, and underinflation and overloading concerns.

In addition, NHTSA solicited comments in areas such as general consumer knowledge and behavior, availability of information to consumers, TIN information, and other tire labeling information. The agency asked an extensive number of specific questions related to such matters such as tire identification number content, readability and location, loading, plies and cord material, tread wear indicators, UTQGS, speed rating, run-flat and extended mobility tires, tire inflation pressure, and the dissemination of tire safety information.

### *C. Summary of Public Comments on ANPRM*

NHTSA received 21 comments on the December 1, 2000 ANPRM. The 21 comments were submitted by: 4 manufacturers (1 tire manufacturer and 3 vehicle manufacturers), 9 associations, and 6 other entities (2 consumer advocacy organizations and 4 individuals). The comments are summarized below.

#### 1. General Consumer Knowledge and Behavior/Availability of Information to Consumers

- Commenters, as a group, stated that consumers are generally provided with the information that they need to properly maintain their tires, determine safe loads, and identify recalled tires. However, they also stated that this information must be presented in a simple, accurate, and comprehensive manner that would be understood by the average consumer who is not well educated about tires and tire maintenance.

- Commenters, as a group, also said that drivers are often unaware of tire safety and maintenance information or are confused by the information and need to be educated about the interaction between the information provided. While a small percentage of motorists understand and respond to load and speed rating, tread indicators, ply and cord materials, the vast majority remains unaware of this information. RMA reports that only 45% of drivers in its survey responded correctly to the question as to the source of information for recommended tire pressure and survey generally revealed that consumers do not know how to use tire information currently available.

Consumers Union (CU) recommended that additional wording of uniform size and standard location appear on both sidewalls stating "cold operating pressure: consult vehicle information."

- According to a tire safety survey prepared for the American Automobile Association (AAA) Foundation for Traffic Safety, 50% of American drivers who check their own tire pressure incorrectly consulted the sidewall, 27% consulted the owners manual and only 18% correctly consulted the vehicle (placard) to determine the correct tire pressure. Ford reported that the owner's guide was most popular source for obtaining tire pressure information, followed by the tire pressure information on the tire itself and the certification label on the vehicle.

- Ford suggested that NHTSA conduct a focus group to better understand consumer behavior. Prior to tire recalls, consumers simply wanted clear tire pressure information, but Ford's recent experience indicated that they also want to be able to easily read their TIN numbers and to identify recalled tires and suggested ways to improve tire safety.

#### 2. TIN Information

##### a. Location

- Commenters, as a group, generally believed that the TIN would be easier to find for consumers if it were located on the outward facing sidewall of tires or on both sidewalls and was of sufficient size as to be easily found and read.

- Several tire manufacturer association commenters objected to requiring a tire manufacturer to mark the TIN on both tire sidewalls because they believe that this continues to present tire manufacturing workers with a serious potential safety hazard. One of these commenters stated that, when marking a TIN on both sidewalls, an operator is exposed to danger such as a fatal accident due to mis-operation of curing machine, or burns, bone fracture or blow on head, arm, leg, the back and so on because the operator is forced to work looking up inside of a curing machine to put a stencil plate of the TIN on the upper mold. RMA suggested that the agency should require that the TIN be placed on the intended outward facing sidewall of the tire to minimize risks to workers.

- Tire manufacturing association commenters stated that, besides adverse safety consequences, cost and time due to changes in the manufacturing process are issues of concern and they recommend a suitable phase-in period. RMA, for example, states that manufacturers would face substantial

costs if they must change existing molds and that total costs to the economy (costs for changing existing molds, including cost of lost production during the initial change over plus the additional ongoing weekly manufacturing costs to make the additional changes) could exceed \$100 million annually. RMA states that, based on the number of recalls made over the past 30 years, the requirement to place the TIN on both sides of the sidewall is unnecessary given the cost of implementation and lack of added benefit and proposes placement of the TIN on the intended outboard side of the tire as a reasonable alternative solution.

- According to tire manufacturing association commenters, to place the TIN on both sidewalls, existing tire molds would have to be changed and because tire production occurs 24 hours a day, seven days a week, there would be substantial lost production costs to make the changes, plus on-going costs, to make changes to both sides of molds.

- Commenters generally agreed that the TIN should be placed where there will be a minimum possibility of scuffing. Commenters stated that the TIN should be placed as closely to the wheel's mounting bead or rim flange as possible, as is current practice, to avoid contact with curbs. One of these commenters stated that while it believes that the TIN would be easier for consumers if it were located on the outboard sidewall of the tires, it would be less vulnerable to abrasion as a result of contact with curbs and other hard objects if it were on the inboard sidewall of the tire as compared with the outboard sidewall. Two association commenters stated that the TIN should remain in its current location.

##### b. Content and Readability

- No commenter suggested that additional information be added to the TIN. Most commenters suggested that no change be made to contents of the TIN. Ford recommended that NHTSA should require a standardized format and font height on the outward facing sidewall of a tire and General Motors recommended that the size code in the TIN is redundant information that can only be understood by reference to Section 574 and could be eliminated from the TIN. Consumer's Union recommended standardizing placement of the TIN and date of production information and including the lettering "Manuf. ID" and "Prod. Date. ww/yy" above these codes.

- Most commenters stated that optional information in the TIN should not be removed because, for example,

the tire type may prove beneficial for consumers seeking to replace their tires with a similar type and because the optional symbols better enable the identification of the tire construction of the tire and because this information could be important in distinguishing recalled tires from similar tires of the same brand and tire size.

- Consumer group commenters stated that the TIN should be standardized by NHTSA in terms of font, font size, space, raised letters, and placement and location on the sidewall.

- Tire manufacturer association commenters stated that the symbol height of the TIN should not be changed because it will complicate the limited sidewall space available and because placing the TIN on the intended outboard sidewall will eliminate any perceived problem. Consumers Union commented that  $\frac{5}{32}$  inch (4 mm) is not an adequate font size for the TIN digits to provide optimum visibility, particularly for vision-impaired individuals.

### 3. Other Tire Labeling Information

#### a. Load Ratings

- Generally, commenters, as a group, asserted that either the maximum load rating or a load index value should continue to be shown on tires. Although the commenters disagree on which form of information makes load information more accessible to the consumer, most acknowledged that it is generally difficult for a consumer to know the actual load on an individual tire. Several commenters suggested improvements in consumer education concerning the importance of load and its relationship to proper tire inflation. RMA suggested that the maximum load rating be removed from the tire so that consumers will seek out the appropriate vehicle loading on the certification label or vehicle tire placard.

- RMA commented that the most effective way to communicate the relationship between a tire's load carrying capacity and vehicle load at a given wheel position and to ensure the purchase of correct replacement tires is through the use of load index values. If a load index value were required on the tire and the vehicle tire placard, the consumer would then simply match a two or three digit number on the tires and vehicle tire placard to assure proper tire load capacity for their vehicle.

- Tire manufacturer and dealer associations commenters stated that most customers rely on dealers for most information on tire safety and maintenance. One tire dealer association commenter said that approximately half

of the tire dealers provide information to all customers and approximately half supply information upon request. The same commenter stated that most dealers do not routinely check to see that the tires purchased are correct for the GVWR and GAWR, although most do reference GVWR or GAWR as necessary.

- Commenters, as a group, agreed that few motorists use or understand the load rating information found on sidewall tires. Advocates suggested that the load rating information remain on the tire and that NHTSA needs to provide specific consumer information about the consequences of under- and of overinflation of tires and their interdependent relationship with vehicle loads and potential instability. Tire manufacturer association commenters suggested that the load ratings be removed from the tires so that drivers will have to consult the vehicle placard for load limit information. Vehicle manufacturers generally support leaving load rating information on the tire sidewalls.

- Commenters generally stated that motorists rarely know the weight of their vehicles, empty or loaded, because this would require weighing of the vehicle. A tire manufacturer association stated that some motorists load to the capacity of the dimensions of the vehicle or they conduct an eyeball inspection.

- Commenters indicated that overloading frequently occurs, to varying degrees, on pick-up trucks, particularly full-size pick up-trucks. Data provided by a vehicle manufacturer indicate that almost all respondents surveyed in a study underestimated load, with the average respondent underestimating load for his or her vehicle by 36%. Tire manufacturer association commenters asserted that consumer knowledge, or lack thereof, instead of current allowances in tire load ratings, is to blame for overloading.

#### b. Plies and Cord Materials

- Commenters, as a group, generally agreed that while ply and cord information is generally of no value to consumers except when replacing tires or in the event of a recall, it should remain on the tire for these purposes. Commenters agreed that "mileage warranty" information is of no safety value to consumers and should be communicated at point of sale instead of on tires. One tire retread association commenter noted that ply and cord material is important for tire retread, repair, and recycling.

#### c. Tread Wear Indicator

- Vehicle manufacturer and tire manufacturer association commenters stated the treadwear indicator information should not be required to be labeled on the vehicle or tire because the information is more effectively and comprehensively provided in owner's manuals. RMA recommends that NHTSA regulations for inspection of vehicles in use (49 CFR 570.9 & 570.62) be changed to indicate that the presence of a treadwear indicator in any major groove be used as an indication of wear out rather than the current requirement of the presence of treadwear indicators in two adjacent major grooves (at three locations spaced approximately equally around the tire.) One consumer commenter stated that consumers could benefit from clearer sidewall identification and that consumers would benefit if the following words appeared elsewhere on the sidewall, "replace tire when worn to indicator."

#### d. Uniform Tire Quality Grading System (UTQGS)

- One consumer commenter stated that the UTQGS information is possibly the most important item of consumer information regarding tire performance and should be required to be marked on tire sidewalls for all light vehicles weighing 10,000 GVWR or less. A consumer commenter also stated that this information should be provided in large block letters in contrasting colors. Further, consumers should be provided with a plain language explanation of the safety considerations underlying the UTQGS ratings. The commenter also said it is preferable that an explanation of UTQGS be provided at the point of sale. A vehicle manufacturer added that more consumer education concerning the effect of inflation and loading conditions on UTQGS ratings is necessary. One tire manufacturer association commenter argued that UTQGS only serves to confuse consumers, is generally ignored, and should be discontinued. Another commenter asserts that the treadwear rating should be changed to a statement concerning the expected miles of treadwear.

- Tire manufacturer association commenters did not support labeling additional categories of tires with UTQGS information and suggested that UTQGS information either be eliminated or be replaced by a service description (load index and speed rating) and that treadwear and traction should be made available to consumers at point of sale. Consumer commenters, on the other hand, stated that UTQGS

should apply to all tires for use on cars, SUVs, pickups, and on winter tires, particularly because UTQG traction grades are probably the most meaningful of the UTQG grades for the consumer and should also be applicable to mud and snow tires.

e. Speed Rating

- Generally, commenters, as a group, believed that a tire's speed rating is important, although not necessarily intuitive, to consumers and should be required to be indicated on the tire. Commenters agreed that consumers should be helped to understand, through consumer education, that they should purchase replacement tires of an equal or greater speed rating to those issued as original equipment. One consumer group commenter suggested that maximum speed limitations should be noted on the sidewall as "speed capacity" rather than "maximum speed" and that UTQG temperature grades could be eliminated since they are redundant with the "speed capacity" information.

f. Run-Flat and Extended Mobility Tires

- Tire association commenters and Harley Davidson stated that run-flat and extended mobility tire capability should be labeled on the tire sidewall as well as on the vehicle placard. General Motors (GM) commented that this labeling would not add any additional value because low inflation pressure warning systems accompany these tires and the capability is noted in the owner's manual.

g. Retreaded Tires

- A tire retread association commenter stated that the current labeling requirements for retreaded tires are sufficient because those tires comprise a very small market share, are used primarily for commercial applications, and are serviced by well-trained service personnel.

h. Tire Inflation Pressure

- Commenters suggested that the following items be added to the vehicle placard: payload information (including an explanation of payload), tire service description (load index and speed symbol), high speed inflation pressure information, and speed rating. Commenters suggested the following locations for the tire placard: Door edge pillar, fuel door, visor, dashboard, glove box, door jamb. Commenters also suggested that the placard be in a standardized format and location in the vehicle. One vehicle manufacturer stated that the tire size, speed rating, cold inflation pressure and load

capacity should be on the certification label.

- While General Motors and the International Tire and Rubber Association (ITRA) supported retaining the maximum inflation pressure label because it provides a "point of reference" inflation pressure, most commenters argued that the maximum inflation pressure should be removed from the sidewall of tires because consumers confuse it with the recommended inflation pressure found on vehicles and because inflating a tire to maximum inflation pressure may cause uneven wear and other failures. Further, one tire manufacturer association commenter suggested that consumers will look at the certification label or vehicle placard for pressure information if pressure information is not contained on the tire. One tire manufacturer association commenter asserted that removing the maximum inflation pressure would improve safety if the correct inflation pressure is clearly and conveniently communicated to consumers and if consumers act on this information. One vehicle manufacturer commenter remarked that there should be a marking requirement for tires that would direct operators to use the information contained on the vehicle tire placard.

i. Dissemination of Tire Safety Information

- Commenters neither supported nor opposed a tire inflation warning label. Most, however, suggested that consumer awareness of correct tire pressure, size, and the relationship of load and tire pressure is appropriately addressed through consumer education.

- Commenters, as a group, said that messages about tire inflation, vehicle loads and handling, and other safety effects need to be communicated repeatedly and through the use of different media such as agency brochures, manufacturer labels, owner's manual entries, and point-of-sale literature provided by tire manufacturers. Also, a hierarchical system of providing safety information to consumers in varying forms and details based on the essential nature of the performance and safety information should be employed. The placard should be mounted consistently in the same place on all vehicles and be both easily found and readable.

j. Motorcycles and Trailers

- One vehicle manufacturer opposed including applying amendments to the tire information labeling requirements to motorcycle tires. Two tire manufacturer associations stated that

trailer and motorcycle tires should be required to have the same information as other highway tire categories molded into the sidewall.

k. Font height for labeling information

- Two tire manufacturer association commenters stated that there is no need to change the current font height specified and indicated that this issue needs to be considered as a part of a broader evaluation of tire marking and consumer awareness. Consumer group commenters, however, argued that the current font height is inadequate and needs to be increased and made uniform for the different labeling requirements. Commenters generally expressed the view that using contrasting colors for labeling is not feasible due to manufacturing process concerns and consumer preference.

4. Harmonization Issues

- RMA suggested that ECE regulations 30 and 54 address issues similar to those raised in the ANPRM. Additionally, RMA called attention to the work being done under WP.29's ongoing process for developing a global technical regulation for tires and the industry's GTS-2000 proposal.

- Manufacturers and association commenters pointed to both the WP.29 process and to the GTS-2000 proposal as means to best accomplish harmonization of this standard with foreign standards and to reduce redundancy in the current situation. These commenters suggested that decreased costs and increased information consistency would be benefits of minimizing regulatory divergence.

5. Other Comments

- Some comments included suggestions for improving the organization and coherency of the tire information that currently appears in more than six different standards and sections on tire information.

- Commenters also suggested requiring improved availability of safety related service information, including an in-vehicle safety information booklet which, in addition to owner's manual, would provide explanations concerning the operation and use of safety related systems and equipment such as tires.

D. Focus Groups

In March 2001, NHTSA conducted a series of eight focus groups to (1) explore consumer perceptions of motor vehicle tire labeling, (2) identify aspects of motor vehicle tire labels that are potentially confusing, and (3) identify means for optimizing the likelihood that

motor vehicle safety labels will be easily read and comprehended. *The Focus Group Report*, dated March 20, 2001, has been placed in the docket for this rulemaking. Four focus groups were conducted in Richmond, Virginia, and four in Phoenix, Arizona. Each focus group was comprised of approximately nine persons 18 to 75 years old who fulfilled the following criteria: (1) possess a current driver's license, (2) primarily responsibility for taking care of personal vehicle, (3) owners/users of passenger cars, SUVs, van or minivan, motorcycle or pick-up truck, (4) no current employment relating to marketing or public relations, motor vehicles or motor vehicle parts, or government employment relating to the regulation of the motor vehicles. The composition of the groups represented a mix of income, educational attainment, household income and race.

The moderator for the focus groups conducted three exercises for each group of participants. In the first exercise, the moderator discussed with participants their current use of tire information. In the second exercise, the moderator solicited responses to a tire information presentation using a brand new tire and a diagram provided by NHTSA to demonstrate the variety and nature of NHTSA-mandated information on tires. In the third exercise, the moderator presented four variations on standard tire placards (called Concepts A through D in the Report) and solicited comments from the participants. The four formats included 2 black-and-white and 2 color versions. The color and black-and-white versions each included a small version that focused on air pressure and a longer version that included tire and other vehicle information, e.g., load, seating designation, etc. Conclusions from the first two exercises were:

- Tire information is ignored except when consumers are responding to conspicuously low tire pressure or buying new tires;
- Participants only had knowledge of one or two of the following aspects of tire information: tire size, brand name, price, weight load;
- At point of sale, tire information and documentation other than price receipt and warranty is not provided;
- Retailers should be required to provide tire information, e.g., adhesive tire information labels or brochure, at point of sale;
- Consumers are unaware that there is a tire placard in their personal vehicle;
- Owner's manuals are used on a limited basis for tire information;

- Consumers have little knowledge of the information available on the tire sidewall, besides tire pressure, type and brand name. Most were perplexed by the array of alpha and numeric codes appearing on the demonstration tire;

- Metric numbers are not understood by consumers;

- Too much information on a tire is preferable to too little information;

- Tire information sheets, similar to those provided with prescription drugs, should be readily available to vehicle and tire purchasers;

- Consumers want to learn more about the meaning of the information that appears on tires, e.g., tire codes and ratings;

- The following information should be displayed on the tire: date of manufacture and recommended replacement interval;

- Tire information should be presented in "plain language";

- Tire information should be presented in a larger typeface;

- Tire information should appear on both sides of the tire;

- Tire safety information is too important and too tire-specific to be relegated to the owner's manual or tire placard—it should be provided at the point of new vehicle or replacement tire purchase in paper form, e.g., brochure;

- Owner's manuals, while a good location for general tire safety and education information, is not an appropriate location for tire-specific information; and

- The term "cold tire pressure" is not readily understood or is often misunderstood as relating to the outside temperature/weather conditions.

With regard to the actual content, placement and design of the Tire Safety Information Placards discussed in the third exercise, the following recommendations were made:

- Add/use color formats for the tire placard instead of only black-and-white;

- Use small placard formats rather than large placard formats;

- Use a tire icon, as a visual cue, on the placard (an icon makes the purpose and subject matter of the placard more easily identifiable and facilitates use of the placard information by drivers with marginal literacy skills); and

- Standardize the placement of tire placards on the B-pillar.

## VI. Agency Proposal

### A. Summary of Proposal

The agency is proposing a single standard for light vehicle tires, FMVSS No. 139, *New Pneumatic Tires for Light Vehicles*, which would contain revised versions of the existing labeling

requirements that address the following aspects of tire and vehicle labeling: Tire markings, the Tire Identification Number (TIN), vehicle placard content and format, placard location, and owner's manual information. The standard would require tires for passenger cars, multipurpose passenger vehicles, trucks, buses and trailers with a gross vehicle weight rating (GVWR) of 4,536 (10,000 pounds) or less, manufactured on or after November 1, 2003, to comply with the labeling requirements.<sup>21</sup> The proposed requirements are summarized below.

NHTSA proposes that the TIN, size designation, maximum permissible inflation pressure, and maximum load rating be placed on both sides of light vehicle tires. Requiring the TIN and size designation to be on both sides would ensure that that information would be on the sidewall facing outward, regardless of how the tire is mounted. Requiring that the other items of information be on both sidewalls would aid consumers in properly maintaining their tires and loading their vehicles.

NHTSA is proposing two changes to the TIN. First, the agency proposes to require a reordering of information in the TIN so that the first six characters would contain the information required for determining whether a particular tire is subject to a recall. The first two characters would reflect the plant code, and the next four characters would reflect the date code. Second, the agency proposes to require that each character be 6 mm (¼") high. The agency believes that a requirement for a uniform TIN font size would significantly improve the readability of the TIN.

The agency proposes four sets of revisions for the presentation of tire inflation pressure and load limit information on the vehicle placard required for passenger cars by S4.3 of § 571.110 and to be required for all light vehicles with a GVWR of 10,000 pounds or less under this proposal.<sup>22</sup> This placard, permanently affixed to the glove compartment door or an equally accessible location, currently displays the vehicle capacity weight, the

<sup>21</sup> Therefore, this proposal is applicable to LT tires up to load range E. This load range is typically used on large SUVs, vans, and trucks.

<sup>22</sup> FMVSS No. 120 currently requires that each motor vehicle other than a passenger car show, on the label required by § 567.4, or on a tire information label (§ 553.2(b)), the recommended tire size designation appropriate for the GAWR, the tire size and type designation of rims appropriate for those tires, and the recommended cold inflation pressure for those tires such that the sum of the load ratings on the tires on each axle (when the tire's load carrying capacity at the specified pressure is reduced by dividing 1.10, in the case of a tire subject to FMVSS No. 109, i.e., a passenger car tire) is appropriate for the GAWR.

designated seating capacity (expressed in terms of total number of occupants and in terms of occupants for each seat location), the vehicle manufacturer's recommended cold tire inflation pressure for maximum loaded vehicle weight, and the manufacturer's recommended tire size designation.

First, the agency proposes that tire inflation pressure information would be visually separated by a red colored border on the existing vehicle placard or, alternatively, be placed on a separate tire inflation pressure label. The vehicle placard would contain only the information specified in the proposed version of S4.3 (paragraphs (a)–(e)).<sup>23</sup> This information could not be combined with other labeling or certification requirements. The vehicle placard would also have to meet the proposed color and content requirements as discussed below.

Second, the agency also proposes that the tire inflation pressure label and vehicle placard meet the following three requirements: (1) The tire inflation pressure information would be in color—red, yellow, and black on a white background, (2) contain a black and white tire symbol icon in the upper left corner, 13 millimeters (.51 inches) wide and 14 millimeters (.55 inches) tall/high, and 3) include the phrases “Tire Information” and “See Owner’s Manual For Additional Information” in yellow text on a black background.

Third, the agency proposes to replace the vehicle capacity weight statement on the vehicle placard with the following sentence: “[t]he combined weight of occupants and cargo should never exceed XXX pounds.” The “XXX” amount would equal the “vehicle capacity weight” of the vehicle as defined in FMVSS No. 110. The information is the same as that currently required to be placed on the vehicle placard by manufacturers. However, the agency believes that the statement “the combined weight of occupants and cargo should never exceed \* \* \*” is easier for consumers to comprehend than a technical phrase such as “vehicle capacity weight.” “Vehicle capacity weight” is not intuitive to consumers and it requires a vehicle operator to look

to the owner’s manual or standard to understand which factors are included in the calculation of the sum on the placard.

Fourth, the agency proposes to replace the vehicle’s recommended tire size designation with the tire size designation for the tire installed as original equipment on the vehicle by the vehicle manufacturer. While in most instances these two numbers would be identical, this minor revision insures that the consumer is provided with the correct tire inflation pressure information for the tire size actually installed on his vehicle as original equipment by the vehicle manufacturer.

We are proposing these placard changes in response to survey data which indicate that consumers need assistance in locating recommended tire pressures for their vehicle’s tires and understanding load limits. The use of colors and a visual cue, such as a tire symbol icon, would aid drivers in noticing and locating this imperative information. By expressing the vehicle’s load limit in easily recognizable terms such as “passenger and cargo weight”, as opposed to “vehicle capacity weight” the proposed placard revisions would also aid consumers in understanding and adhering to load limit guidelines.

The agency proposes that the placard and/or label containing tire inflation pressure be located on the driver’s side B-pillar. If a vehicle does not have a B-pillar, then the placard and/or label would be placed on the edge of the driver’s door. Currently, S4.3 of § 571.110 specifies that the vehicle placard be affixed to the glove compartment door or an equally accessible location. A standardized location for tire information placards and labels would contribute to consumer awareness of recommended tire inflation pressures and load limits.

The agency proposes that owner’s manuals for light vehicles contain discussion of the following five subject areas: (1) Tire labeling, (2) recommended tire inflation pressure, (3) glossary of tire terminology, (4) tire care, and (5) vehicle load limits. A single, reliable source containing the proposed required information for the tires and tire safety information listed above would aid consumers by providing the information that they need to properly maintain their tires and adhere to recommended load limits.

## B. Applicability

The proposed FMVSS No. 139 and its labeling revisions would apply, except where noted, to new pneumatic tires for use on motor vehicles with a GVWR of 10,000 pounds or less, manufactured

after 1975, except for motorcycles and LSVs, and for new motor vehicles with a GVWR of 10,000 pounds or less manufactured after September 1, 2003.<sup>24</sup>

Given the increasing consumer preference for light truck use for passenger purposes, the agency is proposing that the safety requirements for passenger car tires also be made applicable to LT tires (load C, D, E) used on light trucks. Further, LT tires are increasingly used in the same type of on-road service as P-metric tires on light vehicles. Recent sales data for heavier trucks indicate that the use of these tires on passenger vehicles will continue to increase in the near future.

NHTSA is not proposing to require that FMVSS No. 139 apply to motorcycle tires because motorcycle tires are of a design and construction unlike the types of vehicle tires that would be subject to the proposed standard. Further, the agency is currently not aware of any consumer information concerns or problems associated with motorcycle tires. For similar reasons, NHTSA is also not proposing to require that the new standard be applicable to tires beyond load range E, which are typically used on medium (10,000–26,000 lbs. GVWR) and heavy vehicles (greater than 26,001 lbs. GVWR), and temporary spare tires.

To maintain consistent labeling requirements for all tires for use on light vehicles, the proposed labeling requirements would also be applicable to retreaded pneumatic passenger car tires and new non-pneumatic tires for passenger cars. More specifically, FMVSS No. 117, which specifies requirements for retreaded pneumatic passenger tires and FMVSS No. 129, which specifies performance requirements for new non-pneumatic tires for passenger cars would be revised to include the proposed labeling requirements.

## C. Proposed Labeling Requirements

### 1. Tire Markings

NHTSA proposes that all labeling information specified under S4.3 of FMVSS No. 109, including the TIN, be placed on both sides of light vehicle tires except for that information cited in paragraphs (d), (e), (f) and (g) of S4.3. The required information in these paragraphs (generic name of cord

<sup>23</sup> (a) Vehicle capacity weight expressed as “THE COMBINED WEIGHT OF OCCUPANTS AND CARGO SHOULD NEVER EXCEED XXX POUNDS”;

(b) Designated seating capacity (expressed in terms of total number of occupants and in terms of occupant for each seat location);

(c) Vehicle manufacturer’s recommended cold tire inflation pressure;

(d) Tire size designation for the tire installed as original equipment on the vehicle by the vehicle manufacturer; and

(e) “SEE OWNER’S MANUAL FOR ADDITIONAL INFORMATION”.

<sup>24</sup> The agency anticipates that the proposed requirements of FMVSS No. 139, including the labeling revisions discussed here and the performance requirements and testing procedures to be proposed in a forthcoming rulemaking, if adopted, would supersede the requirements of FMVSS No. 109. The deletion of FMVSS No. 109 will be discussed further in the forthcoming proposal.

material, actual number of plies, "tubeless" or "tube type" designation, and the word "radial" if applicable) must be present on one of the sidewalls. Requiring that ply, cord, and tube and tire type information only be present on one sidewall would reduce the stringency of FMVSS No. 119 which currently requires that light truck and MPV tires display the information on both sidewalls.

Comments to the docket in response to the ANPRM questions concerning placement of the TIN expressed a range of different viewpoints. Most commenters stated that placing the TIN on the outside wall of the tire was a desirable requirement. Further, many respondents also supported putting the TIN on both sides of the tire to ensure that it would be visible on the outboard tire wall, as well as the inside tire wall where there is a lesser chance of it being scuffed off of the tire. However, several tire industry respondents did not support putting the TIN on both sides of the tire because of manufacturing costs and safety issues.

The recent Firestone recall highlighted the difficulty that consumers have in identifying recalled tires when tires are mounted so that the TIN is located on the sidewall facing inwards. Improved access to the TIN would greatly enhance the consumers' ability to determine if their tires have been recalled.

Consumer commenters and focus group participants also said that other tire labeling information, such as size, speed rating, load rating and maximum pressure, should also be required on both sides of the tire to ensure that it is readily visible to consumers.

With regard to the number of plies and generic name of cord material used in the plies, most respondents believed that information to be of limited safety value to consumers and suggested its removal from the sidewall. The ITRA expressed the view that the cord and ply material is very important to the tire retread, repair and recycling industries because this information enables

consumers and industry professionals to determine the level of risk when inflating, repairing, retreading or servicing a specific tire. NHTSA believes that it is sufficient to require that this information appear on one sidewall. There is no known advantage that would arise from requiring this information on both sides of the tire.

Several tire manufacturer association commenters objected to requiring a tire manufacturer to mark the TIN on both tire sidewalls because they believe that this continues to present workers with a serious potential safety hazard. As discussed above, the agency learned during prior rulemaking efforts (45 FR 82293, December 15, 1980) that changing the TIN number plates in the tire molds would not present insurmountable safety problems. NHTSA believes that advances in tire manufacturing technology, such as removable stencil plates, have allowed for a significant reduction in the safety hazards associated with the manufacturing process by enabling workers to change labeling information on the molds outside of the tire press (A tire press generally works like a clam shell). Further, the costs associated with changing molds to implement this requirement are not considered to be onerous as discussed in the Costs section of this document. Additionally, the tire manufacturers' suggestion that the TIN be placed on the intended facing sidewall of the tire is not practicable because the vast majority of tires produced are reversible, not asymmetrical.

Requiring that the tire information specified above be placed on both sides of light vehicle tires would provide consumers with readily accessible recall information, without creating significant additional costs to tire manufacturers, and would ensure that the retread, repair and service industries continue to be provided with necessary recall information. Reducing the amount of information required to be placed on both sides of light truck tires would also

result in cost savings to manufacturers that would offset some of the increased costs resulting to changes to the TIN and the labeling of passenger car tires.

Several commenters suggested adding additional information to the tire sidewall, e.g., load index values, specifying what the digits of the TIN represent, a marking requirement directing the vehicle operator to use the information contained on the vehicle placard, a marking requirement for run-flat and extended mobility tire capability, and a warning stating: "replace tire when worn to indicator." NHTSA believes that these suggestions are not feasible. As run-flat tires and high performance low-profile tires are developed and become more common, tire diameters will increase with consequent decrease in sidewall heights. That means that reserving the ever-decreasing space on tire sidewalls for displaying necessary and required information will become even more important in the future. Other suggested tire labeling, such as load index values, are not intuitive to consumers and would require the vehicle operator to seek out reference materials and/or would require the agency to require more information to be added to the already crowded vehicle placard. NHTSA believes the items, explanations, and warnings suggested by the commenters would be better and more effectively addressed through consumer information campaigns rather than through requirements for additional in-vehicle and on-vehicle information.

## 2. TIN

The agency proposes two revisions to the TIN: (1) Require that the first six characters of the TIN to contain the following information: The first two characters would reflect the plant code, and the next four characters would reflect the date code, and (2) require 6 mm ( $\frac{1}{4}$ ") as a uniform height font size (see Figures 1 & 2).

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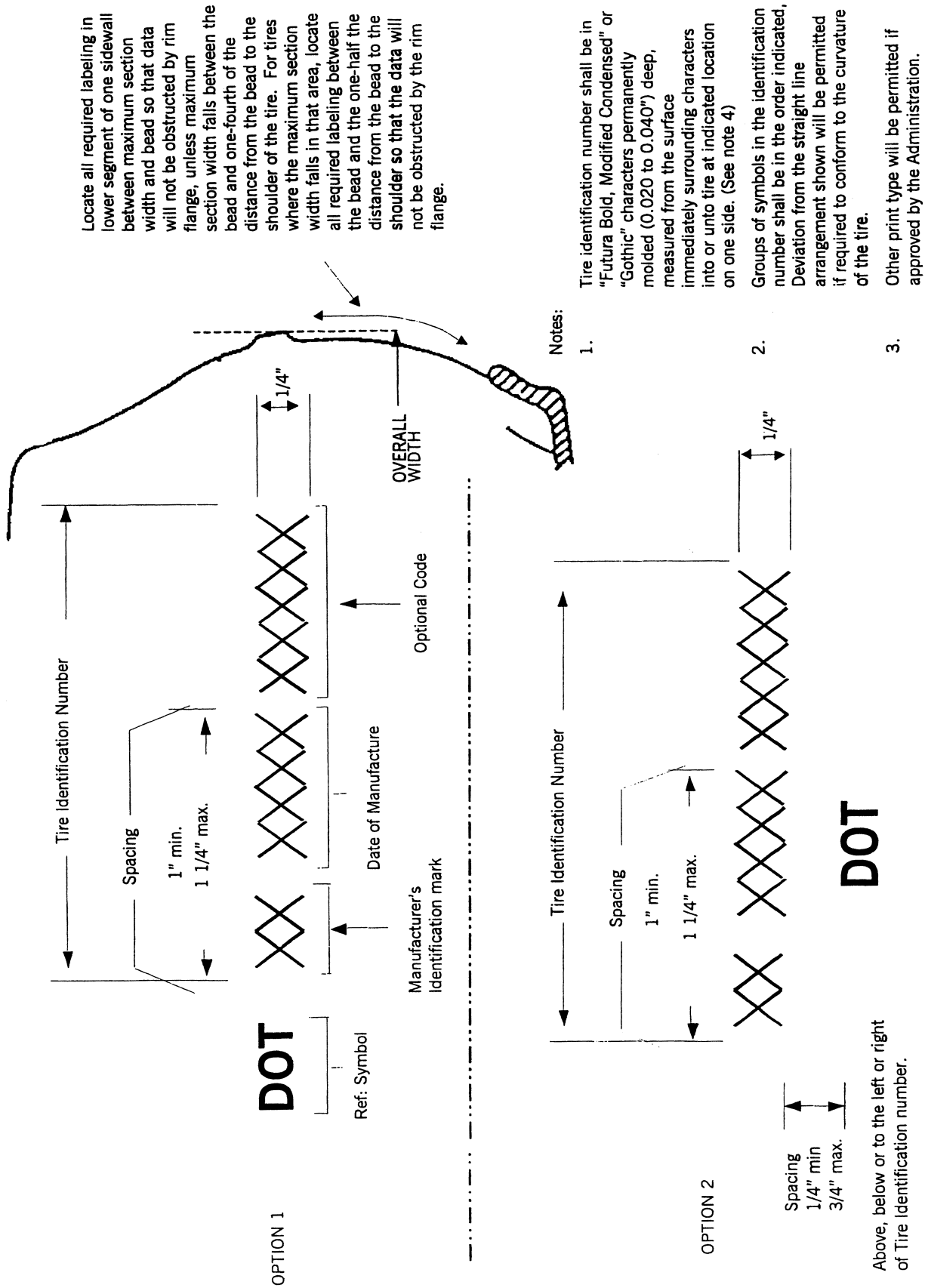


FIGURE 1: IDENTIFICATION NUMBER FOR NEW TIRES



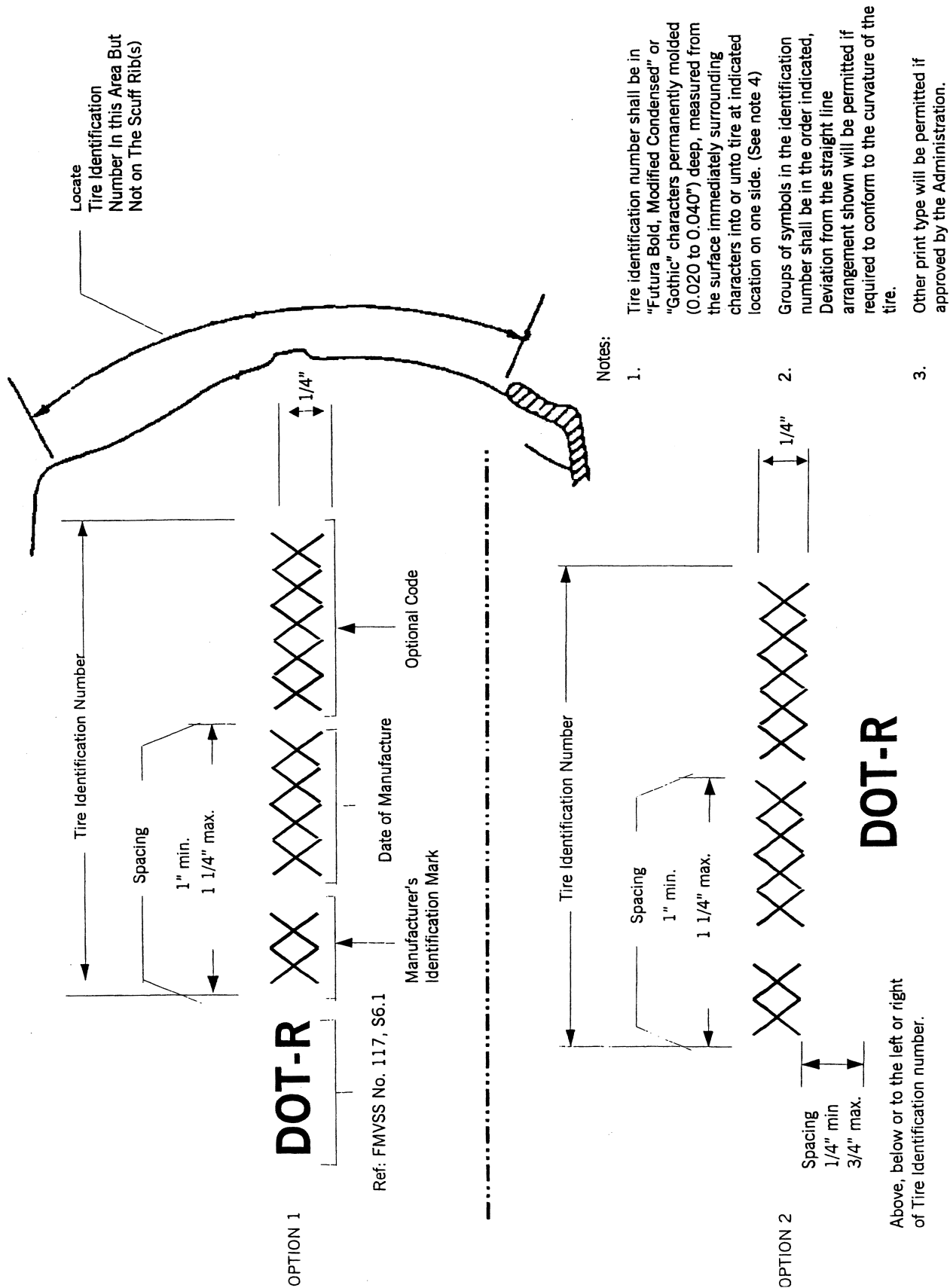


FIGURE 2. IDENTIFICATION NUMBER FOR RETREADED TIRES

Currently, the plant code resides in the first two digits of the TIN and the date of manufacture resides in the ninth through twelfth digits of the TIN. These two required sets of information are separated by optional and tire size information that reside in the third through eighth digits in the TIN. The optional information is only useful to the tire manufacturer and the tire size information is already labeled elsewhere on the tire.

The commenters on the ANPRM and the focus groups expressed consistent support for making the TIN more user-friendly and readable. To that end, the first proposed revision to the TIN reorders the sequence of the TIN characters to require that the first six numbers be those that are necessary for identifying recalled tires (i.e., the plant code and the date code). Since the tire size is required to be labeled elsewhere on the tire under another provision, the requirement for including the tire size code in TIN would be deleted. The proposed revisions to the sequence of information in the TIN would make the TIN easier for consumers to read and understand for recall and other purposes.

The second proposal, which would require a 6 mm (1/4") uniform height font size, would enhance the readability of the of the TIN. Currently, 574.5 requires the characters in the TIN, except for those in the fourth grouping, to be a minimum height of 1/4". The characters in the fourth grouping are presently required to have a minimum height of 5/32".

In previous rulemakings and comments to the ANPRM, consumer group commenters have suggested that 4 mm was not a sufficient font size for the TIN, particularly for individuals with visual impairment. Comments on the ANPRM and from the focus groups concerning the readability of the TIN did not specify a particular font size.

The agency believes that a uniform 6 mm TIN font height is a more appropriate size for information that is critical in the event of a recall. The larger size will make the TIN easier to read, without imposing a significant burden on tire manufacturers. 6 mm is approximately the equivalent of Times New Roman font size 20 in Windows 2000. While 6 mm would be the minimum required font size, there is no restriction that would prevent tire manufacturers from using a larger font size for the TIN characters. The agency requests comments on the readability of a 6 mm font size for the TIN characters. Please be specific in your response and provide a basis for your answer.

### 3. Vehicle Placard Content and Format

The agency proposes four sets of revisions for the presentation of tire inflation pressure and vehicle placard information. This placard, permanently affixed to the glove compartment door or an equally accessible location on passenger cars and to be required for all light vehicles with a GVWR of 10,000 pounds or less under this proposal,<sup>25</sup> currently displays the vehicle capacity weight, the designated seating capacity (expressed in terms of total number of occupants and in terms of occupants for each seat location), the vehicle manufacturer's recommended cold tire inflation pressure for maximum loaded vehicle weight, and the manufacturer's recommended tire size designation.

First, the agency proposes that tire inflation pressure information would be visually separated from the other information by a red colored border on the existing vehicle placard 13 required by S4.3 of § 571.110 or, alternatively, be placed on a separate tire inflation pressure label. The vehicle placard would contain only the information required by S4.3 of 571.110, could not be combined with information or statements required by other labeling or certification requirements, and would meet the proposed color and content requirements as described below.

Second, the agency also proposes that if a vehicle manufacturer uses the separate tire inflation pressure label, that label must meet the following three requirements: (1) the tire inflation pressure information on the placard would be in color—red, yellow, and black on a white background—as illustrated in Figures 3 & 4 below, (2) contain a black and white tire symbol icon that is in the upper left corner of the placard, and is 13 millimeters (.51 inches) wide and 14 millimeters (.55 inches) (see Figures 3 & 4 below), and (3) the label and placard would both include the phrases "Tire Information" and "See Owner's Manual For Additional Information," in yellow text on a black background as illustrated in Figures 3 and 4 below. If, alternatively, the manufacturer uses the separate tire inflation pressure label, that label must meet those three requirements.

<sup>25</sup> FMVSS No. 120 currently requires that each motor vehicle other than a passenger car show, on the label required by § 567.4, or on a tire information label (S5.3.2(b)), the recommended tire size designation appropriate for the GAWR, the tire size and type designation of rims appropriate for those tires, and the recommended cold inflation pressure for those tires such that the sum of the load ratings on the tires on each axle (when the tire's load carrying capacity at the specified pressure is reduced by dividing 1.10, in the case of a tire subject to FMVSS No. 109, i.e., a passenger car tire) is appropriate for the GAWR.

Third, the "vehicle capacity weight" statement on the vehicle placard would be replaced by the following statement: "[t]he combined weight of occupants and cargo should never exceed XXX pounds." The "XXX" amount would equal the vehicle capacity weight of the vehicle as defined in FMVSS No. 110. The information is the same as that currently required to be placed on the vehicle placard by manufacturers. However, the agency believes that the statement "the combined weight of occupants and cargo should never exceed \* \* \*" is easier for consumers to comprehend than a technical phrase such as "vehicle capacity weight," which is not intuitive to consumers. To understand the term "vehicle capacity weight", a driver must look through the owner's manual for an explanation of how that weight is calculated and what significance that weight has for the safe operation of his or her vehicle.

Fourth, the agency proposes to replace the vehicle's recommended tire size designation with the tire size designation for the tire installed as original equipment on the vehicle by the vehicle manufacturer. While in most instances these two numbers would be identical, this minor revision insures that the consumer is provided with the correct tire inflation pressure information for the tire size actually installed on his vehicle as original equipment by the vehicle manufacturer. The agency considered adding a requirement for the vehicle manufacturer to label all recommended optional tire size designations on the vehicle placard and/or tire inflation pressure label. While this consideration would provide recommended tire inflation pressure information for consumers who opt to replace factory installed tire sizes with optional tire sizes, we have tentatively concluded that this is not a feasible requirement for three reasons. First, most light vehicles are equipped with original equipment and replacement tires having the same tire size designation as those tires installed by the vehicle manufacturer. Second, consumers are typically not familiar with or cognizant of the size of the tires on their vehicles. A listing of more than one tire size designation and recommended tire inflation pressure would require the vehicle operator to seek out the tire size designation on the vehicle's tires. Third, listing more than one tire size designation and recommended inflation pressure would require more information to be added to the already crowded vehicle placard. The agency believes that requiring a vehicle operator to take an extra step to

properly inflate his tire and potentially overcrowding the vehicle placard and/or tire inflation pressure label with information would discourage use of

tire inflation pressure information on the placard and/or the label.

The following are samples of the proposed vehicle placard and tire inflation pressure label:

**BILLING CODE 4910-59-P**

Vehicle Placard

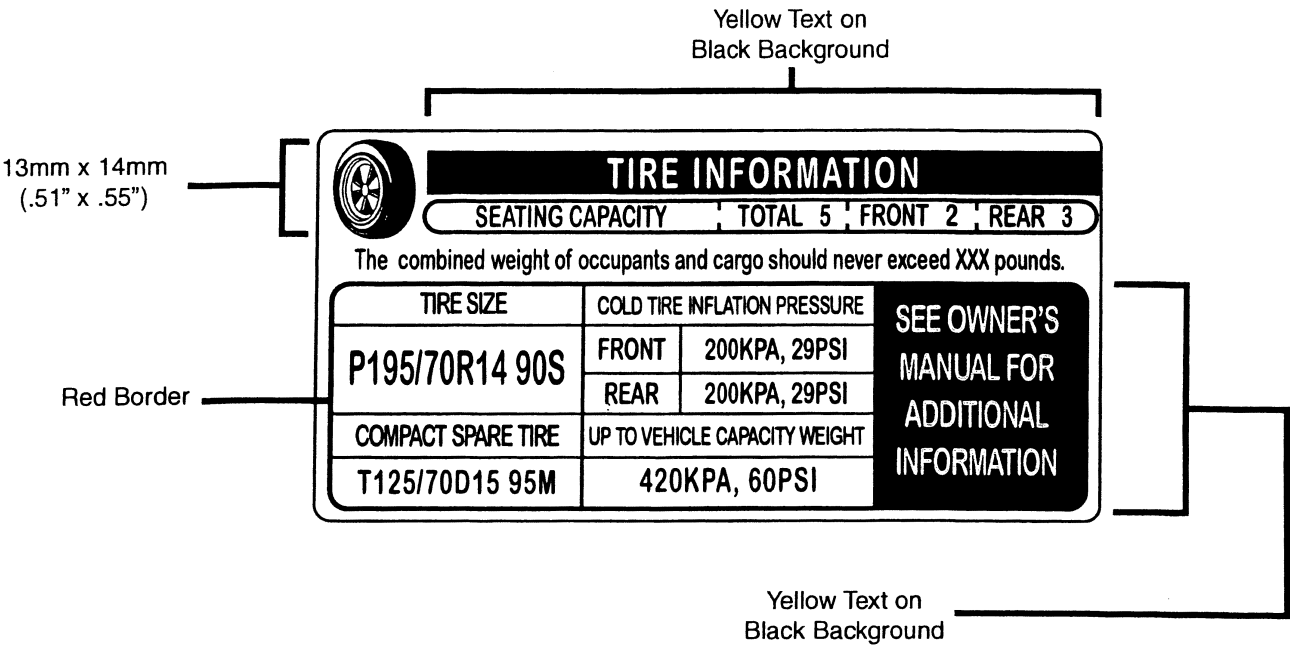


Figure 3

Tire Inflation Pressure Label

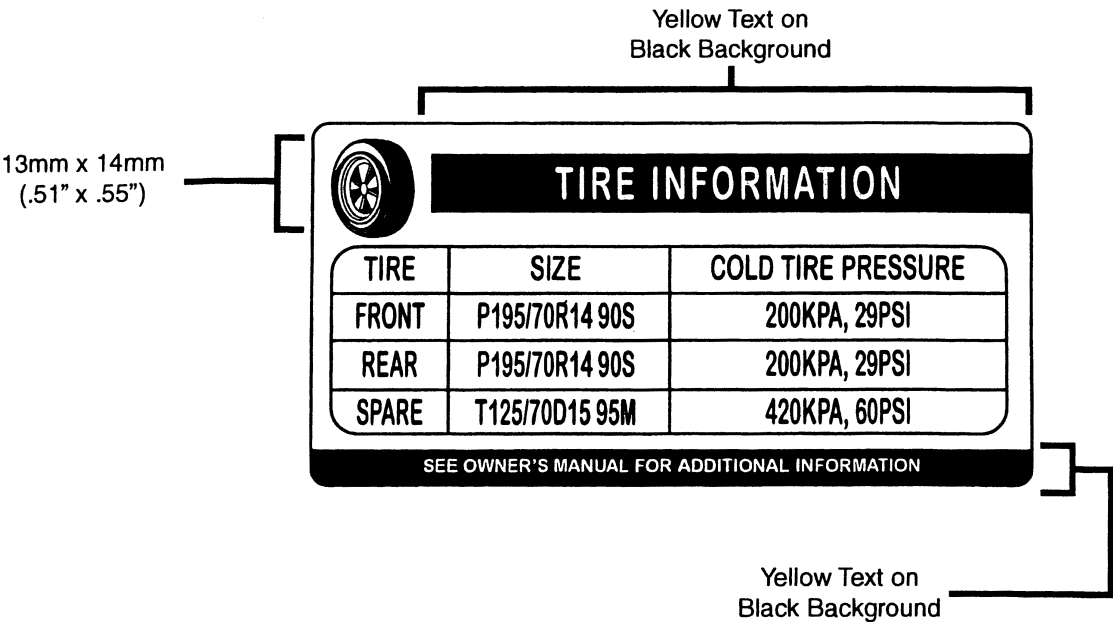


Figure 4

As discussed above, survey data indicate that most individuals are unaware of the existence and/or location of the tire inflation pressure and load limit information placards. Surveys also confirm that maximum tire pressure is often confused with recommended inflation pressure. Surveys have not addressed load limit issues, but the results from NHTSA's focus groups and comments received in response to the ANPRM indicate that consumers are unaware of that these limits exist, where they are located, and how to use them.

NHTSA's focus groups tested different versions of existing and proposed tire placards to help determine the most effective way of attracting the attention of consumers to this information and making it more understandable to them. In response to the testing, focus group participants overwhelmingly preferred color formats with contrasting colors, e.g., yellow on black, instead of black and white formats because the color attracted their attention and aided in their comprehension of the material. Participants also strongly believed that a visual cue, such as a tire symbol icon, would aid drivers in identifying and locating this imperative information.

Based on the comments to the ANPRM and the focus group results, NHTSA also recognizes that consumers need assistance in understanding load limits and how inflation pressure affects the load carrying capacity for their vehicle and in determining the total load limit in pounds for their vehicle. For instance, by replacing the technical term "vehicle capacity weight" on the placard with a sentence containing easily understandable terms such as "passenger weight" and "cargo weight", the proposed placard revisions should also aid consumers in locating and adhering to recommended load limit guidelines as well as recommended inflation pressures.

#### 4. Placard Location

The agency proposes that the vehicle placard and tire inflation pressure label be located on the driver's side B-pillar. If a vehicle does not have a B-pillar, then the placard and label would be placed on the edge of the driver's door. The tire inflation pressure label would be placed proximate to the vehicle placard. There would be no prohibition on placing additional tire inflation pressure labels on the vehicle in locations other than the B-pillar, except as precluded by other safety standards.

Currently, S4.3 of 571.110 specifies that the vehicle placard be affixed to the glove compartment door or an equally accessible location. NHTSA's focus

group results indicate that many consumers are unaware of the existence of and or location of tire inflation pressure and load limit information. Participants in the focus groups noted a strong preference for one standardized location for the placard. Both the focus group participants and commenters on the ANPRM cited the B-pillar, followed by the driver's door edge, as the most preferable locations for the placard. A standardized location for tire information placards would contribute to consumer awareness of recommended tire inflation pressure and load limits by providing a consistent and predictable place for this information.

#### 5. Owner's Manual

The agency proposes that owner's manuals for light vehicles contain discussion of the following five subject areas:

1. Tire labeling, including a description and explanation of
  - (a) each marking on the tire,
  - (b) locating information that will aid consumers in identifying tires subject to a recall campaign, and
  - (c) the TIN;
2. Recommended tire inflation pressure, including a description and explanation of
  - (a) recommended cold tire inflation pressure,
  - (b) the vehicle placard and tire inflation pressure label required in Federal Motor Vehicle Safety Standard No. 110 and their location in the vehicle,
  - (c) the adverse safety consequences of underinflation (including tire failure), and
  - (d) measuring and adjusting air pressure to achieve proper inflation;
3. Glossary of tire terminology, including "cold tire pressure," "maximum inflation pressure," and "recommended inflation pressure," and all non-technical terms defined in S3 of FMVSS Nos. 110 & 139;
4. Tire care, including maintenance and safety practices; and
5. Vehicle load limits, including a description and explanation of
  - (a) locating and understanding load limit information, total load capacity, seating capacity, towing capacity, and cargo capacity,
  - (b) calculating total and cargo load capacities with varying seating configurations including quantitative examples showing/illustrating how the vehicle's cargo and luggage capacity decreases as the combined number and/or size of occupants increases,
  - (c) determining compatibility of tire and load capabilities,

(d) the adverse safety consequences of overloading on handling and stopping and on tires, and

(e) when to use either the recommended inflation pressure or a higher pressure (up to the maximum inflation pressure) based on the amount of load being carried by the tires. This inflation pressure and load limit information could, for example, be provided on an insert in the following format:

**Figure 5.—Locating and Understanding Load Limit Information**

#### Steps for Determining Correct Load Limit

- (1) Locate the statement "The combined weight of occupants and cargo should never exceed XXX pounds" on your vehicle's placard.
- (2) Determine the combined weight of the passengers that will be riding in your vehicle.
- (3) Subtract the combined weight of the passengers from XXX pounds.
- (4) The resulting figure equals the available amount of cargo and luggage load capacity. For example, if the "XXX" amount equals 1500 lbs. and there will be 5–150 lb passengers in your vehicle, the amount of available cargo and luggage load capacity is 750 lbs. (1500 – 750 (5 × 150) = 750 lbs.)
- (5) Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity calculated in Step 4.
- (6) If your vehicle will be towing a trailer, load from your trailer will be transferred to your vehicle. Consult this manual to determine how this may reduce the available cargo and luggage load capacity of your vehicle.
- (7) A higher inflation pressure (up to the maximum inflation pressure) may be necessary to carry safely the combined weight of the passengers, cargo and luggage being carried in your vehicle. Consult this manual to determine whether a higher inflation pressure is necessary.

The agency requests comments on whether the statements in Figure 5 should be required to be included verbatim in owner's manual and on how to make those statements as vehicle owner friendly as possible.

Some commenters on the ANPRM indicated that a majority of consumers rarely consult the owner's manual or have knowledge of the information that it contains. Commenters and focus group participants, however, agreed that the owner's manual should be a primary source of information for vehicle owners and, in particular, is a good location for general tire safety information. As discussed earlier in this document, survey research indicates that a significant minority of participants, up

to 45 percent in some surveys, cites the owner's manual as the best source of information concerning proper tire inflation pressure.

The agency's review of a limited number of owner's manuals revealed that the amount and type of information provided in these documents varies widely. Based on this observation, as well as the ANPRM comments and focus group results, the agency believes that a single, reliable source containing the proposed required information for the tires and tire safety information listed above would aid consumers in properly maintaining their tires and adhering to load limits.

### C. Other Issues

#### 1. FMVSS Nos. 110 and 120

The purpose of FMVSS Nos. 110 and 120 is to provide safe operational performance by ensuring that vehicles to which they apply are equipped with tires of adequate load rating and rims of appropriate size and type designation. FMVSS No. 110 currently applies to passenger cars and FMVSS No. 120 currently applies to vehicles other than passenger cars including motorcycles and trailers.

The agency proposes that FMVSS Nos. 110 and 120 be revised to correspond with the applicability of the new light vehicle tire standard. FMVSS No. 110 would include passenger cars and other light vehicles with a GVWR of 10,000 pounds or less. Therefore, most SUVs, vans, trailers, and pickup trucks would be required to comply with the same tire selection and rim requirements as passenger cars. FMVSS No. 120 will continue to apply to vehicles over 10,000 pounds GVWR and motorcycles.

Most current requirements of FMVSS No. 110 would be retained, including S4.2.2, which establishes a linkage between the vehicle normal load<sup>26</sup> and the load specified for the high-speed test in FMVSS No. 109.<sup>27</sup> S4.2.2 will be extended to cover SUVs, vans, trailers, and pickup trucks for the first time, which means that P-metric and LT tires used on these vehicles will have a load reserve similar to P-metric tires used on passenger cars.

The proposal also would extend S4.4.1(b) of FMVSS No. 110, which requires that each rim shall retain a

deflated tire in the event of a rapid loss of inflation pressure from a vehicle speed of 97 km/h until the vehicle is stopped with a controlled braking operation, to light trucks and vans for the first time.

#### 2. Rim Size and Type Designation for Light Trucks and Multipurpose Passenger Vehicles

Currently, the rim size and type designation label information requirements for light trucks and multipurpose passenger vehicles (MPVs) (which include SUVs) are specified in S5.3.2 of FMVSS No. 120. Light trucks and MPVs, unlike passenger cars, may be outfitted with different sized rims which would require different size tires and recommended inflation pressures for those tires. Under this proposal, the rim size and designation label requirement on the certification label would be added to FMVSS No. 110 for all light vehicles to which FMVSS No. 120 is presently applicable. Rim information would not, however, appear on the proposed vehicle placard or tire inflation pressure label.

#### 3. Maximum Permissible Inflation Pressure

The agency is not proposing to remove or to revise the requirement for the maximum permissible inflation pressure marking on the tire, except to extend this requirement to tires for use on all light vehicles with a GVWR of 10,000 pounds or less, except LSVs and motorcycles.<sup>28</sup>

Commenters on the ANPRM and survey data noted that misunderstanding as to the meaning of maximum permissible inflation pressure does exist among consumers. Consumers often confuse the maximum permissible inflation pressure labeled on the tire for the recommended inflation pressure labeled on the vehicle placard. Nevertheless, most commenters did not recommend deleting this labeling requirement. Several commenters to the docket suggested adding information to the tire to distinguish the maximum permissible inflation pressure from the recommended inflation pressure. However, most expressed the view that improved consumer information would be the most effective means to correct the misunderstanding. The agency believes that it would be less effective to require tire manufacturers to add additional language to the sidewall to

clarify the distinction between maximum inflation pressure and recommended inflation pressure. Sidewalls are becoming progressively smaller with the advent of low profile tires and requiring additional information in this already crowded space could cause greater consumer confusion.

Several commenters and focus group participants also noted that the maximum inflation pressure provides a failsafe guideline for tire inflation. The agency concurs that the greatest likelihood of tire failure results from underinflation. Additionally, the inflating of tires to the maximum inflation pressure while "warm" (i.e., after being driven for any amount of time) will most likely result in the tires being inflated to an amount below the maximum inflation pressure because the warm tire will register a higher inflation pressure than when the tire is measured when "cold" (not driven for at least three hours).

The agency also anticipates that improvements in the tire placard, standardizing the placard location, and an expanded consumer information program would reduce the number of consumers who mistake the maximum inflation pressure for the recommended inflation pressure.

#### 4. UTQGS

Several commenters on the ANPRM questioned the utility of the UTQGS ratings to consumers and suggested that they be repealed. Other commenters recommended extending the applicability of UTQGS to additional categories of tires, e.g., mud and snow. One commenter suggested that temperature grades could be eliminated since they are redundant with speed rating information.<sup>29</sup> Since the TREAD Act imposed an 18-month deadline on this rulemaking, the agency does not have sufficient time to study and analyze the issues involved with proposing revisions to the UTQGS. Additionally, the UTQGS is statutorily mandated (see 49 U.S.C. 30123(b)). The agency, in a future rulemaking, may propose to revise some or all of the grading requirements in Part 575.104, Uniform Tire Quality Grading Standards.

#### 5. Consumer Information Campaign

In conjunction with the proposals discussed above and in response to the TREAD Act, the agency is also launching a consumer information

<sup>26</sup> Vehicle normal load on the tire means that load on an individual tire that is determined by distributing to each axle its share of the curb weight, accessory weight, and normal occupant weight and dividing by 2.

<sup>27</sup> This, under the proposed high speed test, would ensure at least a 15 percent load reserve (high speed test load proposed is 85 percent) when the vehicle is operated at normal load.

<sup>28</sup> FMVSS No. 119 does not contain a requirement that the maximum permissible inflation pressure be labeled on new pneumatic tires for vehicles other than passenger cars.

<sup>29</sup> The speed rating of a tire is generally indicated on the tire although not required by either FMVSS Nos. 109 and 119.

campaign addressing tire safety and maintenance. Consumer information campaigns are an institutionalized part of NHTSA's statutory mandate and operating practices. Quantifiable data confirming the crash reduction effectiveness of these programs is minimal, as funding does not exist to perform the evaluations necessary to establish this level of effectiveness. However, the successes of increased seat belt use, greater air bag knowledge, reduced drunk driving, knowledge of star ratings, vastly increased NCAP web site use, knowledge of rollover dangers, greater knowledge of child safety issues, and increased dissemination of the brochures "Buying A Safer Car" and "Buying a Safer Car For Child Passengers" demonstrate that the agency's consumer information programs are effective in increasing public awareness of safety issues and, consequently, reducing deaths and injuries.

#### 6. Point-of-Sale Information

The agency, as part of this rulemaking, does not propose to require dealers to provide point-of-sale tire information. The agency does not possess evidence that point-of-sale information would prove more successful than consumer information campaigns at educating the consumer concerning tire safety. Therefore, it cannot presently justify the additional costs to manufacturers and dealers of such a requirement. If the agency's consumer information campaign proves unsuccessful at increasing the public awareness of tire safety, the agency could reexamine this issue in a future rulemaking.

#### 7. Vehicle Certification Labels

Vehicle certification label requirements, contained in part 567, would not be revised by this proposal except to reference the proposed FMVSS No. 110, as well as FMVSS No. 120, in § 567.4 concerning tire-rim combinations for light trucks and MPVs, and to require that the label contain the tire-rim combination installed as original equipment on the vehicle by the vehicle manufacturer.

#### 8. International Harmonization

NHTSA generally supports international harmonization in cases where such harmonization is consistent with its statutory mandate to ensure motor vehicle safety. The tire industry has become global in manufacturing, marketing, and sales. In 1999, domestic tire manufacturers exported 22.3 million passenger car tires and 3.8 million light truck tires to foreign markets. In the

same year, the U.S. imported 45 million passenger car tires and 5.4 million light truck tires from foreign sources. It is apparent, therefore, that maximum harmonization of tire requirements would benefit both U.S. and foreign vehicle and tire manufacturers.

At this time, however, the overall need for safety precludes, in NHTSA's view, the adoption of foreign or international labeling provisions. The labeling requirements contained in GTS-2000 and ECE 30 and 54 do not contain counterparts for some of the provisions in our current requirements, e.g., labeling of maximum permissible inflation pressure on the tire, and in our proposed requirements, e.g., labeling of passenger and cargo weight on the vehicle. Additionally, Canada's tire labeling provisions mirror our current requirements but do not contain the novel labeling requirements proposed in this document.

Furthermore, we believe the two labeling requirements contained in GTS-2000 and ECE 30 and 54, speed-category symbol and load index<sup>30</sup>, have not been shown to communicate information effectively to the U.S. public.

The following chart illustrates the rated speed in km/h for each speed symbol. "ZR" is an open-ended speed category for tires with a maximum speed capability above 240 km/h, but is also used specifically for tires having a maximum speed capability above 300 km/h.

Speed symbol	Rated speed—km/h	Speed symbol	Rated speed—km/h
F .....	80	R	170
G .....	90	S	180
J .....	100	T	190
K .....	110	U	200
L .....	120	H	210
M .....	130	V	240
N .....	140	W	270
P .....	150	Y	300
Q .....	160	ZR	> 300

The load index requirement in GTS-2000 and ECE Regulation Nos. 30 and 54, in contrast to our current requirement to provide the maximum load rating on the sidewall of the tire, provides a value which is not intuitive to consumers and would require a vehicle operator to look to the owner's manual or standard to determine the actual tire maximum load.

<sup>30</sup> Under these regulations, the speed-category symbol and the load index are to be placed together near the size designation. For example, the sidewall would contain the size designation "PS15/65R15 89H" where "H" is the speed-category symbol and "89" is the load index.

#### 9. Organization of Tire Labeling Information

Some comments on the ANPRM suggested improving the organization and coherency of the tire information that currently appears in more than six different standards and sections on tire information. The agency will try to develop a simple brochure that explains to the public what the tire information requirements are and what they mean.

#### VII. Request for Comments on Particular Issues

(1) 49 U.S.C. 30123 states: "(c) Maximum load standards. The Secretary shall require a motor vehicle to be equipped with tires that meet maximum load standards when the vehicle is loaded with a reasonable amount of luggage and the total number of passengers the vehicle is designed to carry." Should NHTSA define or specify what a "reasonable amount of luggage" is for a vehicle with an occupant in every designated seating position? The agency requests comments on this question. Please be specific in your response and provide a basis for your answer.

(2) Tire manufacturer commenters pointed to GTS-2000 and ECE Regulations 30 and 54 to address issues raised in the ANPRM. These commenters generally cited decreased costs and increased information consistency as a benefit of minimized regulatory divergence. These commenters, however, did not cite specific labeling requirements in these international and foreign standards and did not discuss the safety impacts from the adoption of these standards. NHTSA requests comments on which, if any, labeling requirements in any foreign or international standard should be considered by NHTSA and why. Please be specific in your response and provide a basis for your answer.

(3) Most commenters agree that adding additional required information to the tire sidewall is unwarranted or challenging due to space and readability concerns. Additionally, some commenters have indicated that certain information added at the option of the manufacturer, e.g., warranty information, is not useful to consumers. Based on these sentiments, should the agency consider prohibiting some or all non-required information from being labeled on the tire sidewalls? Please be specific in your response and provide a basis for your answer.

#### VIII. Benefits

NHTSA believes that this proposal would be effective in increasing public



awareness of tire safety, particularly the understanding and maintenance of proper tire inflation and load limits. This proposal will also enable consumers to more easily identify the TIN and other tire information for recalls and other notifications. The proposal will standardize the location and content of important information relating to proper inflation and load limits and other tire safety concerns. These measures, by increasing consumer knowledge and awareness, should result in reduced tire failures and tire related crashes, and therefore fewer deaths and injuries.

## IX. Costs

NHTSA believes that this proposal would result in minimal costs for tire manufacturers. Tire labeling information is already required for tires for light vehicles. Therefore, the cost of molding this information should be the same, even if the information is changed. NHTSA estimates that the added cost for labeling tires under this proposal would equal \$0.01 per tire or less. Since 300 million tires are produced per year the total annual cost for the proposed tire labeling requirements would equal \$3 million ( $\$0.01 \times 300$  million).

NHTSA also believes that this proposal would result in minimal costs for vehicle manufacturers and consumers. Vehicle placard information is already required for passenger cars and owner's manual information is already required for light vehicles. Therefore, the costs of printing a new or revised vehicle placard and/or tire inflation pressure label, the owner's manual pages, and installation of the placard and/or label should be minimal. The only cost would be a one time cost to change production for the new vehicle placard and/or tire inflation pressure label, the application of the vehicle placard and/or tire inflation pressure label to all light vehicles, not only passenger cars, and the new owner's manual pages.

NHTSA estimates that the cost of a new vehicle placard or tire inflation pressure label would be \$0.01 or less per vehicle for producing the new placard or label and \$0.04 for the application of the new placard or label. NHTSA estimates that with approximately 100% of light trucks, MPVs, and trailers (9 million annually) utilizing both the placard and label and 30% of passenger cars (.30  $\times$  8 million = 2.4 million) utilizing both the placard and label, the total costs for the vehicle placard and tire inflation pressure label proposals would equal \$626,000.

For the owner's manual information, NHTSA estimates that one time writing and editing costs would equal \$12,000 ((8 hours labor  $\times$  \$30.00 per hour)  $\times$  (50 owner's manuals (25 manufacturers, 2 manuals each (one for passenger cars and one for light trucks, MPVs, or trailers)))). The print and layout costs per manual are estimated at \$0.10 per manual. Since 17 million light vehicles are produced annually, the total print and layout costs for the manuals equal \$1,870,000 with an overprint margin of 10 percent, and the total owner's manual costs equal \$1,882,000.

Adding the total tire and vehicle manufacturing costs together results in approximately \$5.5 million in annual costs. The agency requests comment on this estimate. Please be specific in your response and provide a basis for your answer.

## X. Lead Time

Section 11 of the TREAD Act requires the agency to issue a final rule on this tire labeling proposal by June 1, 2002. Congress did not set a date by which all covered tires and vehicles would have to meet the improved tire information requirements. The agency proposes to phase-in compliance for tires according to the following schedule: All P-metric tires manufactured on or after September 1, 2003, and all LT tires manufactured on or after September 1, 2004. Additionally, all light vehicles manufactured on or after September 1, 2003 would have to comply with the final rule. This proposed lead time would be consistent with the lead time proposed for the tire performance upgrade.

## XI. Rulemaking Notices and Analyses

### A. Executive Order 12866 and DOT Regulatory Policies and Procedures

NHTSA has considered the impact of this rulemaking action under E.O. 12866 and the Department of Transportation's regulatory policies and procedures. This rulemaking document was not reviewed under E.O. 12866, "Regulatory Planning and Review." This action has been determined to be not "significant" under the Department of Transportation's regulatory policies and procedures. The proposal is likely to result in expenditure by tire and automobile manufacturers of approximately \$5.5 million in annual costs. As explained above, NHTSA believes that this proposal would result in minimal cost for manufacturers and consumers. As this is a proposal to change existing requirements, the only cost would be a one-time cost to change production to the new tire, vehicle

placard and/or tire inflation pressure label, or vehicle owner's manual pages and a minimal costs for installation of the vehicle placard and/or tire inflation pressure label to all light vehicles.

### B. Regulatory Flexibility Act

The Regulatory Flexibility Act of 1980 (5 U.S.C. 601 *et seq.*) requires agencies to evaluate the potential effects of their proposed and final rules on small business, small organizations and small governmental jurisdictions. I hereby certify that the proposed amendment would not have a significant economic impact on a substantial number of small entities.

The proposed rule would affect motor vehicle manufacturers and tire manufacturers. The agency does not believe that any of the tire manufacturers are small businesses. However, there are about 1,000 retread manufacturers in the United States, of which about 750 deal with light vehicle tires that will in some small way be impacted by this rule. Most of these retreaders are small businesses.

NHTSA estimates that there are only about four small passenger car and light truck vehicle manufacturers in the United States. These manufacturers serve a niche market. The agency believes that small manufacturers manufacture less than 0.1 percent of total U.S. passenger car and light truck production per year.

The agency requests comments concerning the economic impact of the proposed rule on retreaders and small vehicle manufacturers.

### C. National Environmental Policy Act

NHTSA has analyzed this proposal for the purposes of the National Environmental Policy Act. The agency has determined that implementation of this action would not have any significant impact on the quality of the human environment.

### D. Executive Order 13132 (Federalism)

The agency has analyzed this rulemaking in accordance with the principles and criteria contained in Executive Order 13132 and has determined that it does not have sufficient federal implications to warrant consultation with State and local officials or the preparation of a federalism summary impact statement. The proposal would not have any substantial impact on the States, or on the current Federal-State relationship, or on the current distribution of power and responsibilities among the various local officials.

### E. Unfunded Mandates Act

The Unfunded Mandates Reform Act of 1995 requires agencies to prepare a written assessment of the costs, benefits and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditure by State, local or tribal governments, in the aggregate, or by the private sector, of more than \$100 million annually (adjusted annually for inflation with base year of 1995). Adjusting this amount by the implicit gross domestic product price deflator for the year 2000 results in \$109 million (106.99/98.11 = 1.09). The assessment may be included in conjunction with other assessments, as it is here.

This proposal is likely to result in expenditure by tire and automobile manufacturers of approximately \$5.5 million in annual costs.

### F. Civil Justice Reform

This proposal would not have any retroactive effect. Under 49 U.S.C. 21403, whenever a Federal motor vehicle safety standard is in effect, a State may not adopt or maintain a safety standard applicable to the same aspect of performance which is not identical to the Federal standard, except to the extent that the state requirement imposes a higher level of performance and applies only to vehicles procured for the State's use. 49 U.S.C. 21461 sets forth a procedure for judicial review of final rules establishing, amending or revoking Federal motor vehicle safety standards. That section does not require submission of a petition for reconsideration or other administrative proceedings before parties may file suit in court.

### G. Paperwork Reduction Act

This proposal contains the following "collections of information," as that term is defined in 5 CFR Part 1320 Controlling Paperwork Burdens on the Public:

**Tire and Vehicle Placard Labeling Requirements**—The Department of Transportation is submitting the following information collection request to OMB for review and clearance under the Paperwork Reduction Act of 1995 (Pub. L. 104–13, 44 U.S.C. Chapter 35).

**Agency:** National Highway Traffic Safety Administration (NHTSA).

**Title:** Tires and Rims Labeling, and Vehicle Placard Requirements.

**Type of Request:** Additional collection of information for an existing collection.

**OMB Clearance Number:** 2127–0503.

**Affected Public:** The tire-labeling respondents are manufacturers and

retreaders of tires. The agency estimates that there are about 8 such new tire manufacturers and 1200 retread manufacturers. The placard labeling respondents are manufacturers of MPVs covered by FMVSS 571.120. The agency estimates that there are 935 vehicle manufacturers affected by this collection.

**Estimate of the Total Annual Reporting and Record Keeping Burden Resulting from the Collection of Information:** NHTSA estimates that the total annual hour burden is 111,539 hours for tire labeling and 25,184 for vehicle placard requirements.

**Estimated Costs:** NHTSA estimates the total cost annual burden for tire labeling to be \$3,000,000. The estimated total cost annual burden for vehicle placards is \$626,000. No additional resources would be expended by manufacturers to gather additional information because they already compile this data for their own uses.

**Summary of the Collection of Information:** The provisions of the proposed amendments herein requiring manufacturers to provide certain information on both sidewalls of tires, e.g., the TIN, and certain information on a placard or label for vehicles other than passenger cars, e.g., vehicle capacity weight, seating capacity, for the benefit of consumers are considered to be third-party information collection requirements as defined by the Office of Management and Budget (OMB) in 5 CFR part 1320.

**Description of the Need for the Information and Proposed Use of the Information:** The provisions of the proposed amendments herein requiring manufacturers to provide certain information on both sidewalls of tires, e.g., the TIN, and certain information on a placard or label for vehicles other than passenger cars, e.g., vehicle capacity weight, seating capacity, are for the benefit of consumers. NHTSA requests comments on the agency's estimates of the total annual hour and cost burdens resulting from this collection of information. These comments must be received on or before February 19, 2002.

**Vehicle Owner's Manual Requirements**—The Department of Transportation is submitting the following information collection request to OMB for review and clearance under the Paperwork Reduction Act of 1995 (Pub. L. 104–13, 44 U.S.C. Chapter 35).

**Agency:** National Highway Traffic Safety Administration (NHTSA).

**Title:** Consolidated Vehicle Owner's Manual Requirements of Motor Vehicles and Motor Vehicle Equipment.

**Type of Request:** Additional collection of information for an existing collection.

**OMB Clearance Number:** 2127–0541.

**Affected Public:** The respondents are manufacturers of motor vehicles with a gross vehicle weight rating of 10,000 pounds or less, except for motorcycles and LSVs. The agency estimates that there are 50 model lines for which there are owner's manuals. It is estimated that about 25 vehicle manufacturers are affected by this collection.

**Estimate of the Total Annual Reporting and Record Keeping Burden Resulting from the Collection of Information:** NHTSA estimates that the total annual hour burden is 400 hours for this information collection.

**Estimated Costs:** NHTSA estimates the total cost annual burden for revising the owner's manuals to be \$1,882,000.

**Summary of the Collection of Information:** The provisions of the proposed amendments herein requiring manufacturers to provide information in owners' manuals explaining tire and vehicle load limit information for the benefit of consumers are considered to be third-party information collection requirements as defined by the Office of Management and Budget (OMB) in 5 CFR part 1320.

**Description of the Need for the Information and Proposed Use of the Information:** The provisions of the proposed amendments herein requiring manufacturers to provide information in owners' manuals explaining tire and vehicle load limit information are for the benefit of consumers. NHTSA requests comments on the agency's estimates of the total annual hour and cost burdens resulting from this collection of information. These comments must be received on or before February 19, 2002.

### H. Plain Language

Executive Order 12866 and the President's memorandum of June 1, 1998, require each agency to write all rules in plain language. Application of the principles of plain language includes consideration of the following questions:

- Have we organized the material to suit the public's needs?
- Are the requirements in the rule clearly stated?
- Does the rule contain technical language or jargon that isn't clear?
- Would a different format (grouping and order of sections, use of headings, paragraphing) make the rule easier to understand?
- Would more (but shorter) sections be better?

- Could we improve clarity by adding tables, lists, or diagrams?
- What else could we do to make the rule easier to understand?

If you have any responses to these questions, please include them in your comments on this proposal.

## XII. Submission of Comments

### *How Can I Influence NHTSA's Thinking on This Proposed Rule?*

In developing this proposal, we tried to address the concerns of all our stakeholders. Your comments will help us improve this rule. We invite you to provide views on options we propose, to suggest new approaches we have not considered, provide new data, indicate how this proposed rule may affect you, or provide other relevant information. We welcome your views on all aspects of this proposed rule, but request comments on specific issues throughout this document. We grouped these specific requests near the end of the sections in which we discuss the relevant issues. Your comments will be most effective if you follow the suggestions below:

- Explain your views and reasoning as clearly as possible.
- Provide solid technical and cost data to support your views.
- If you estimate potential costs, explain how you arrived at the estimate.
- Tell us which parts of the proposal you support, as well as those with which you disagree.
- Provide specific examples to illustrate your concerns.
- Offer specific alternatives.
- Refer your comments to specific sections of the proposal, such as the units or page numbers of the preamble, or the regulatory sections.
- Be sure to include the name, date, and docket number with your comments.

### *How Do I Prepare and Submit Comments?*

Your comments must be written and in English. To ensure that your comments are correctly filed in the Docket, please include the docket number of this document in your comments.

Your comments must not be more than 15 pages long. (49 CFR 553.21). We established this limit to encourage you to write your primary comments in a concise fashion. However, you may attach necessary additional documents to your comments. There is no limit on the length of the attachments.

Please submit two copies of your comments, including the attachments, to Docket Management at the address given above under **ADDRESSES**.

Comments may also be submitted to the docket electronically by logging onto the Dockets Management System Web site at <http://dms.dot.gov>. Click on "Help & Information" or "Help/Info" to obtain instructions for filing the document electronically.

### *How Can I Be Sure That My Comments Were Received?*

If you wish Docket Management to notify you upon its receipt of your comments, enclose a self-addressed, stamped postcard in the envelope containing your comments. Upon receiving your comments, Docket Management will return the postcard by mail.

### *How Do I Submit Confidential Business Information?*

If you wish to submit any information under a claim of confidentiality, you should submit three copies of your complete submission, including the information you claim to be confidential business information, to the Chief Counsel, NHTSA, at the address given above under **FOR FURTHER INFORMATION CONTACT**. In addition, you should submit two copies, from which you have deleted the claimed confidential business information, to Docket Management at the address given above under **ADDRESSES**. When you send a comment containing information claimed to be confidential business information, you should include a cover letter setting forth the information specified in our confidential business information regulation. (49 CFR part 512.)

### *Will the Agency Consider Late Comments?*

We will consider all comments that Docket Management receives before the close of business on the comment closing date indicated above under **DATES**. To the extent possible, we will also consider comments that Docket Management receives after that date. If Docket Management receives a comment too late for us to consider it in developing a final rule (assuming that one is issued), we will consider that comment as an informal suggestion for future rulemaking action.

### *How Can I Read the Comments Submitted by Other People?*

You may read the comments received by Docket Management at the address given above under **ADDRESSES**. The hours of the Docket are indicated above in the same location.

You may also see the comments on the Internet. To read the comments on the Internet, take the following steps:

(1) Go to the Docket Management System (DMS) Web page of the Department of Transportation (<http://dms.dot.gov/>).

(2) On that page, click on "search."

(3) On the next page (<http://dms.dot.gov/search/>), type in the four-digit docket number shown at the beginning of this document. Example: If the docket number were "NHTSA-1998-1234," you would type "1234." After typing the docket number, click on "search."

(4) On the next page, which contains docket summary information for the docket you selected, click on the desired comments. You may download the comments. However, since the comments are imaged documents, instead of word processing documents, the downloaded comments are not word searchable.

Please note that even after the comment closing date, we will continue to file relevant information in the Docket as it becomes available. Further, some people may submit late comments. Accordingly, we recommend that you periodically check the Docket for new material.

## XII. Proposed Regulatory Text

### List of Subjects in 49 CFR Parts 567, 571, 574, and 575

Certification, Consumer information, Imports, Motor vehicle safety, Motor vehicles, Rubber and rubber products, Tires.

In consideration of the foregoing, we propose to amend 49 CFR parts 567, 571, 574 and 575 as follows:

### PART 567—CERTIFICATION

1. The authority citation for part 567 would continue to read as follows:

**Authority:** 49 U.S.C. 322, 30111, 30115, 30117, 30166, 32502, 32504, 33101-33104, 33108, and 33109; delegation of authority at 49 CFR 1.50.

2. Part 567 would be amended by revising § 567.4(h)(2) as follows:

#### **§ 567.4 Requirements for manufacturers of motor vehicles.**

\* \* \* \* \*

(h) \* \* \*

(2) (For multipurpose passenger vehicles, trucks, buses, trailers, and motorcycles.) The manufacturer may, at its option, list more than one GVWR-GAWR-tire-rim combination on the label as long as the listing contains the tire-rim combination installed as original equipment on the vehicle by the vehicle manufacturer and conforms in content and format to the requirements for the Tire-rim-inflation information set

forth in § 571.120, § 571.129 and § 571.139 of this chapter.

\* \* \* \* \*

## PART 571—FEDERAL MOTOR VEHICLE SAFETY STANDARDS

3. The authority citation for part 571 would continue to read as follows:

**Authority:** 49 U.S.C. 322, 2011, 30115, 30166 and 30177; delegation of authority at 49 CFR 1.50.

4. Section 571.110 would be amended by revising its heading and S2, S4.3 and S4.3.1, by adding S4.3.2, and by adding Figure 1 and Figure 2 at the end of Section 571.110, to read as follows:

### § 571.110 Standard No. 110—Tire selection and rims for motor vehicles with a GVWR of 10,000 pounds or less.

\* \* \* \* \*

**S2. Application.** This standard applies to motor vehicles with a gross vehicle weight rating (GVWR) of 10,000 pounds or less, except for motorcycles, and to non-pneumatic spare tire assemblies for use on those vehicles.

**S4.** \* \* \*

**S4.3 Placard.** Each vehicle shall show the information specified in S4.3 (a) through (f) on a placard permanently affixed to the B-pillar, or, if the vehicle does not contain a B-pillar, the drivers side door edge. This information shall be in the English language, lettered in block capitals and numerals not less than 2.4 millimeters high and conform in size, color, and format as set forth in Figure 1 in S4.3. At the manufacturer's option, the information specified in

S4.3(c) and (d) may be shown, alternatively, on a tire inflation pressure label, and conform in size, color, and format as set forth in Figure 2 in S4.3, permanently affixed and proximate to the placard required by this paragraph. The information specified in S4.3(e) shall be shown on both the vehicle placard and on any existing tire inflation pressure label in the format and color scheme set forth in Figures 1 and 2.

(a) Vehicle capacity weight expressed as "THE COMBINED WEIGHT OF OCCUPANTS AND CARGO SHOULD NEVER EXCEED XXX POUNDS";

(b) Designated seated capacity (expressed in terms of total number of occupants and number of occupants for each seat location);

(c) Vehicle manufacturer's recommended cold tire inflation pressure, subject to the limitations of 4.3.2;

(d) Tire size designation for the tire installed as original equipment on the vehicle by the vehicle manufacturer;

(e) "TIRE INFORMATION";

(f) "SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION"; and

(g) For a vehicle equipped with a non-pneumatic assembly, the tire identification code with which that assembly is labeled pursuant to the requirements of S4.3(a) of § 571.129, New Non-Pneumatic Tires for Passenger Cars.

**S4.3.1 Additional labeling information for vehicles other than passenger cars.** Each vehicle shall show the size designation and, if applicable,

the type designation of rims (not necessarily those on the vehicle) appropriate for the tire appropriate for use on that vehicle, including the tire installed as original equipment on the vehicle by the vehicle manufacturer, after each GAWR listed on the certification label required by § 567.4 or § 567.5 of this chapter. This information shall be in the English language, lettered in block capitals and numerals not less than 2.4 millimeters high and in the following format:

Truck Example—Suitable Tire-Rim Choice  
GVWR: 2,441 kilograms (5381 pounds)  
GAWR: Front—1,299 kilograms (2,864 pounds) with P265/70R16 tires, 16 x 8.0 rims at 240 kPa (36 psi) cold single.  
GAWR: Rear—1,142 kilograms (2,864 pounds) with P265/70R16 tires, 16 x 8.00 rims, at 245 kPa (36 psi) cold single.

**S4.3.2** No inflation pressure other than the maximum permissible inflation pressure may be shown unless—

(a) It is less than the maximum permissible inflation pressure;

(b) It is appropriate for the load limits as calculated in accordance with S4.2; and

(c) The tire load rating specified in a submission by an individual manufacturer, pursuant to S4.1.1(a) of § 571.139 or contained in one of the publications described in S4.1.1.(b) of § 571.139, for the tire size at that inflation pressure is not less than the vehicle maximum load and the vehicle normal load.

\* \* \* \* \*

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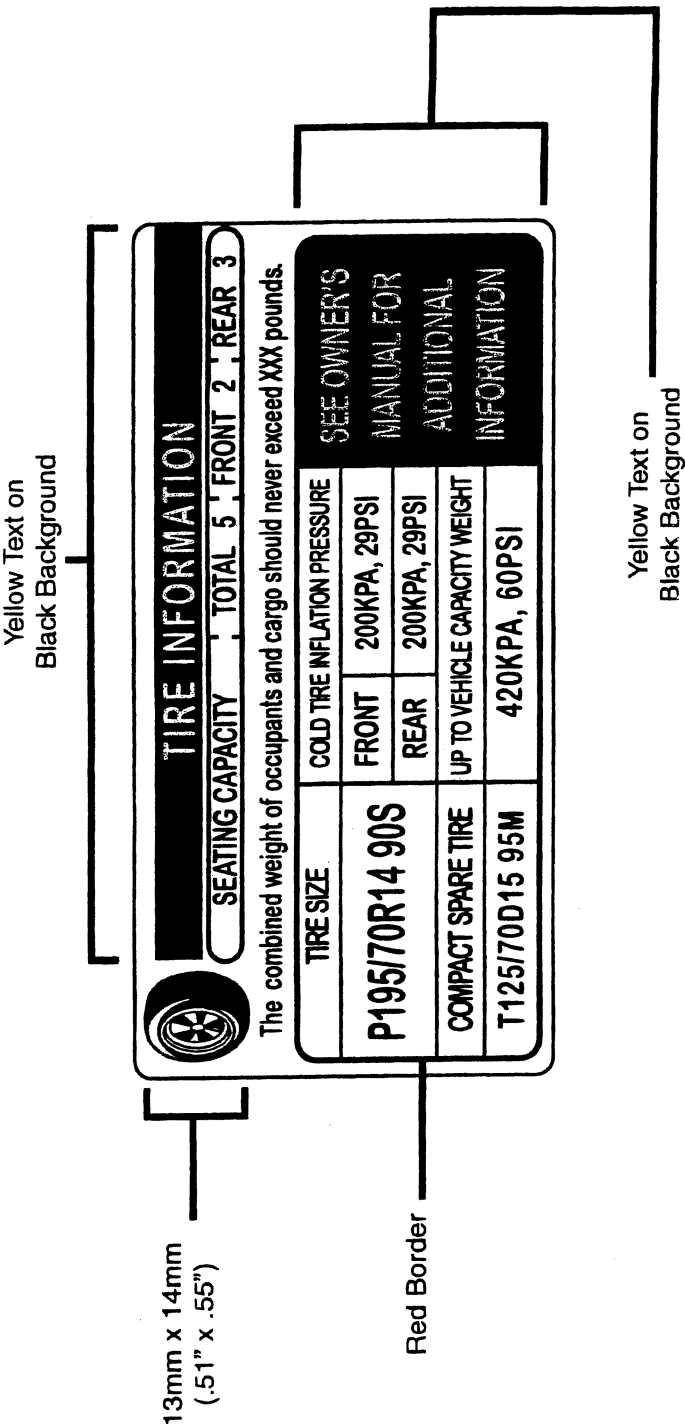


Figure 1: Vehicle Placard

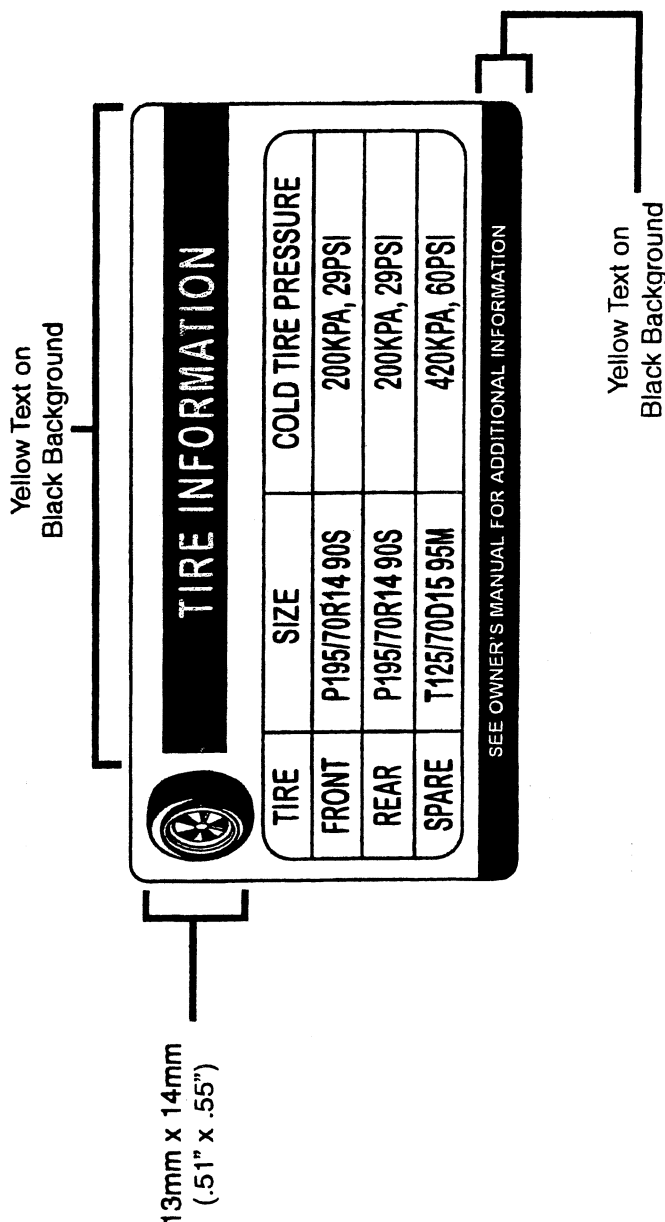


Figure 2: Tire Inflation Pressure Label

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5. Section 571.117 would be amended by revising S6.3 (including removing Table 1 and the undesignated paragraph following S6.3(h)), to read as follows:

**§ 571.117 Standard No. 117; Retreaded pneumatic tires.**

\* \* \* \* \*

S6. \* \* \*

*S6.3. Labeling.* Each retreaded tire shall comply with the requirements of S5.5. of § 571.139.

\* \* \* \* \*

6. Section 571.120 would be amended by revising its heading, and S3 to read as follows:

**§ 571.120 Standard No. 120; Tire selection and rims for motor vehicles with a GVWR of more than 10,000 pounds.**

\* \* \* \* \*

*S3. Application.* This standard applies to motor vehicles with a gross vehicle weight rating (GVWR) of more than 10,000 pounds and motorcycles, to rims for use on those vehicles, and to non-pneumatic spare tire assemblies for use on those vehicles.

\* \* \* \* \*

7. Section 571.129 would be amended by revising S4.3 to read as follows:

**§ 571.129 Standard No. 129; New non-pneumatic tires for passenger cars.**

\* \* \* \* \*

S4. \* \* \*

*S4.3. Labeling Requirements.* Each new non-pneumatic tire shall comply

with the requirements of S5.5 of § 571.139.

\* \* \* \* \*

8. Section 571.139 would be added to read as follows:

**§ 571.139 Standard No. 139; New pneumatic tires for motor vehicles with a GVWR of 10,000 pounds or less.**

*S1. Scope and purpose.* This standard specified tire dimensions, test requirements, labeling requirements, and defines tire load ratings.

*S2. Application.* This standard applies to new pneumatic tires for use on motor vehicles (other than motorcycles) that have a gross vehicle weight rating (GVWR) of 10,000 pounds or less and that were manufactured after 1975.

*S3. Definitions.* [Reserved]

#### *S4. Tire and rim matching information.*

S4.1. Each manufacturer of tires shall ensure that a listing of the rims that may be used with each tire that it produces is provided to the public in accordance with S4.1.1 and S4.1.2.

S4.1.1 Each rim listing for a tire shall include dimensional specifications and a diagram of the rim and shall be in one of the following forms:

(a) Listed by manufacturer name or brand name in a document furnished to dealers of the manufacturer's tires, to any person upon request, and in duplicate to: Docket Section, National Highway Traffic Safety Administration, 400 Seventh Street, SW, Washington, DC 20590; or

(b) Contained in publications, current at the date of manufacture of the tire or any later date, of at least one of the following organizations:

- (1) The Tire and Rim Association.
- (2) The European Tyre and Rim Technical Organization.
- (3) Japan Automobile Tire Manufacturers' Association, Inc.
- (4) Tyre & Rim Association of Australia.

(5) Associacao Latino Americana de Pneus e Aros (Brazil).

(6) South African Bureau of Standards.

S4.1.2 A listing compiled in accordance with paragraph (a) of S4.1.1 need not include dimensional specifications or a diagram of a rim whose dimensional specifications and diagram are contained in a listing published in accordance with paragraph (b) of S4.1.1.

S4.2. Information contained in a publication specified in S4.1(b) that lists general categories of tires and rims by size designation, type of construction, and/or intended use, shall be considered to be manufacturer's information pursuant to S4.1 for the listed tires, unless the publication itself or specific information provided according to S4.1(a) indicates otherwise.

*S5. General requirements.* [Reserved]

*S5.5 Tire Markings.* Except as specified in paragraphs (a) through (i) of this S5.5, each tire shall be marked on each sidewall with the information specified in S5.5 (a) through (e) and on one sidewall with the information specified in S5.5 (f) through (i). The markings shall be placed between the maximum section width and the bead on at least one sidewall, unless the maximum section width of the tire is located in an area which is not more than one-fourth of the distance from the

bead to the shoulder of the tire. If the maximum section width falls within that area, those markings shall appear between the bead and a point one-half the distance from the bead to the shoulder of the tire, on at least one sidewall. The markings shall be in letters and numerals not less than 0.078 inch high and raised above or sunk below the tire surface not less than 0.015 inch. The tire identification and DOT symbol labeling shall comply with part 574 of this chapter.

(a) The symbol DOT, which shall constitute a certification that the tire conforms to applicable Federal motor vehicle safety standards;

(b) The tire identification number required by part 574 of this chapter;

(c) The tire size designation as listed in the documents and publications specified in S4.1.1;

(d) The maximum permissible inflation pressure;

(e) The maximum load rating;

(f) The generic name of each cord material used in the plies (both sidewall and tread area) of the tire;

(g) The actual number of plies in the sidewall, and the actual number of plies in the tread area if different;

(h) The words "tubeless" or "tube type" as applicable; and

(i) The word "radial" if the tire is a radial ply tire.

S5.5.1 Each tire shall be labeled with the name of the manufacturer, or brand name and number assigned to the manufacturer in the manner specified in part 574.

S5.5.2 [Reserved]

S5.5.3 If the maximum inflation pressure of a tire is 240, 280, 290, 300, 330, 340, 350 or 390 kPa, then:

(a) Each marking of that inflation pressure pursuant to S5.5(d) shall be followed in parenthesis by the equivalent psi, rounded to the next higher whole number; and

(b) Each marking of the tire's maximum load rating pursuant to S5.5(e) in kilograms shall be followed in parenthesis by the equivalent load rating in pounds, rounded to the nearest whole number.

S5.5.4 If the maximum inflation pressure of a tire is 420 kPa (60 psi), the tire shall have permanently molded into or onto both sidewalls, in letters and numerals not less than 1/2 inch high, the words "Inflate to 60 psi" or "Inflate to 420 kPa (60 psi)." On both sidewalls, the words shall be positioned in an area between the tire shoulder and the bead of the tire. However, in no case shall the words be positioned on the tire so that

they are obstructed by the flange of any rim designated for use with that tire in this standard or in Standard No. 110 (§ 571.110 of this part).

*S6. Test procedures, conditions and performance requirements.* [Reserved]

S7. [Reserved]

## **PART 574—TIRE IDENTIFICATION AND RECORD KEEPING**

9. The authority citation for part 574 would continue to read as follows:

**Authority:** 15 U.S.C. 1392, 1401, 1403, 1407, 1411–1420, 1421; delegation of authority at CFR 1.50.

10. Section 574.5 would be amended by revising paragraphs (b) and (d), and Figures 1 and 2 to read as follows:

### **§ 574.5 Tire identification requirements.**

\* \* \* \* \*

(b) *Second grouping.* For tires produced or retreaded on and after September 1, 2003, the second grouping, consisting of four numerical symbols, must identify the week and year of manufacture. The first two symbols must identify the week of the year by using "01" for the first full calendar week in each year, "02" for the second full calendar week, and so on. The calendar week runs from Sunday through the following Saturday. The final week of each year may include not more than 6 days of the following year. The third and fourth symbols must identify the year. Example: 0101 means the 1st week of 2001, or the week beginning Sunday, January 7, 2001, and ending Saturday, January 13, 2001.

\* \* \* \* \*

(d) *Fourth grouping.* For new tires, the fourth group, consisting of no more than 2 symbols, may be used at the option of the manufacturer, to identify the tire size. For a new non-pneumatic tire or a non-pneumatic tire assembly, the fourth group, of not more than two symbols, shall be used to identify the non-pneumatic tire identification code. For retreaded tires, the fourth group, of no more than two symbols, shall identify the retread matrix in which the tire was processed or a tire size code if a matrix was not used to process the retreaded tire. Each new tire manufacturer and retreader shall maintain a record of each symbol used, with the corresponding matrix or tire size, and shall provide such record to the NHTSA upon written request.

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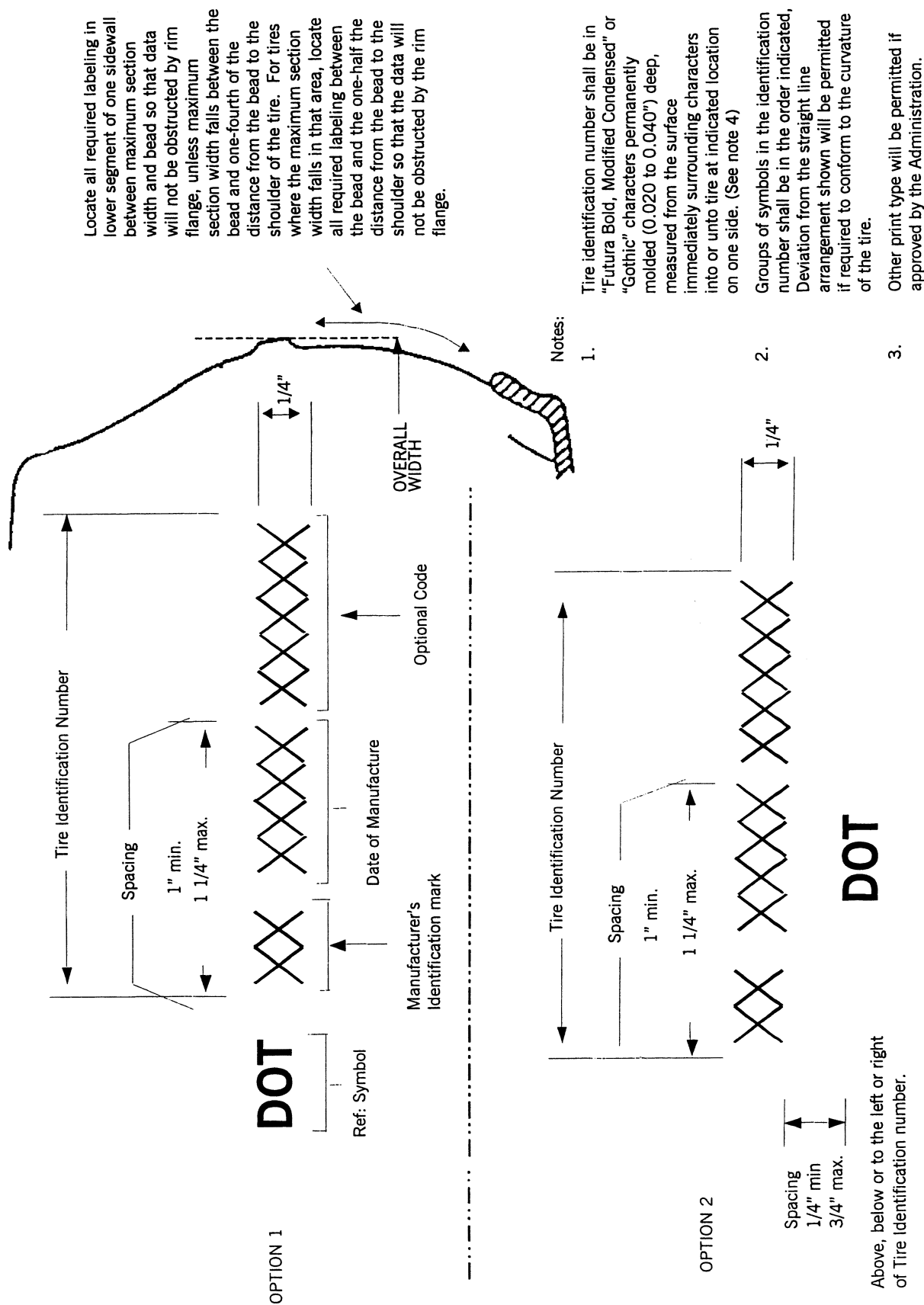


FIGURE 1: IDENTIFICATION NUMBER FOR NEW TIRES

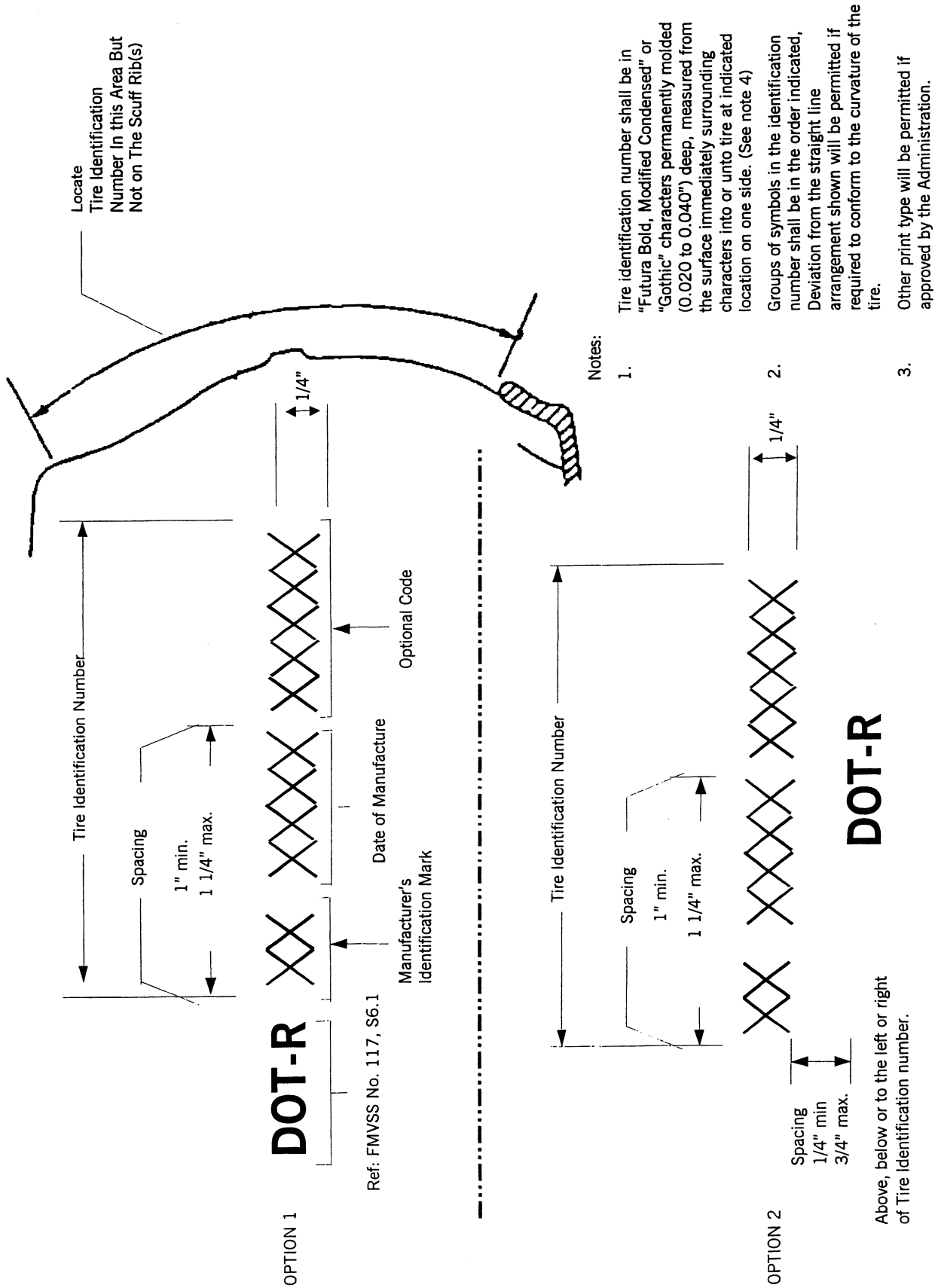


FIGURE 2. IDENTIFICATION NUMBER FOR RETREADED TIRES

\* \* \* \* \*

**PART 575—CONSUMER INFORMATION REGULATIONS**

11. The authority citation for part 575 would continue to read as follows:

**Authority:** 15 U.S.C. 322, 30111, 30115, 30117, and 30166; delegation of authority at CFR 1.50.

12. Section 575.6 would be amended by adding paragraph (a)(4) to read as follows:

**§ 575.6 Requirements**

\* \* \* \* \*

(a)(4) At the time that a motor vehicle with a GVWR of 10,000 pounds or less, except a motorcycle or low speed vehicle, manufactured on or after September 1, 2003 is delivered to the first purchaser for purposes other than resale, the manufacturer shall provide to the purchaser, in writing in the English language and not less than 10 point type, a discussion of the items specified in paragraphs (a)(4) (i) through (v) of this section in the owner's manual, or, if there is no owner's manual, in a document.

(i) Tire labeling, including a description and explanation of each marking on the tires provided with the vehicle, including locating the Tire Identification Number (TIN);

(ii) Recommended tire inflation pressure, including a description and explanation of

(A) Recommended cold tire inflation pressure,

(B) The vehicle placard and tire inflation pressure label specified in

Federal Motor Vehicle Safety Standard No. 110 and their location in the vehicle,

(C) Adverse safety consequences of underinflation (including tire failure), and

(D) Measuring and adjusting air pressure to achieve proper inflation;

(iii) Glossary of tire terminology, including "cold tire pressure," "maximum inflation pressure," and "recommended inflation pressure," and all non-technical terms defined in S3 of FMVSS Nos. 110 & 139;

(iv) Tire care, including maintenance and safety practices;

(v) Vehicle load limits, including a description and explanation of (A) Locating and understanding load limit information, total load capacity, seating capacity, towing capacity, and cargo capacity,

(B) Calculating total and cargo load capacities with varying seating configurations including quantitative examples showing/illustrating how the vehicle's cargo and luggage capacity decreases as the combined number and size of occupants increases,

(C) Determining compatibility of tire and load capabilities,

(D) Adverse safety consequences of overloading on handling and stopping and on tires, and

(E) When to use either the recommended inflation pressure or a higher inflation pressure (up to the maximum inflation pressure) based on the amount of load being carried by the tires. This information, for example, could be provided on an insert in the following format:

**Steps for Determining Correct Load Limit**

- (1) Locate the statement "The combined weight of occupants and cargo should never exceed XXX pounds" on your vehicle's placard.
- (2) Determine the combined weight of the passengers that will be riding in your vehicle.
- (3) Subtract the combined weight of the passengers from XXX pounds.
- (4) The resulting figure equals the available amount of cargo and luggage load capacity. For example, if the "XXX" amount equals 1500 lbs. and there will be 5–150 lb passengers in your vehicle, the amount of available cargo and luggage load capacity is 750 lbs. (1500 – 750 (5 × 150) = 750 lbs.)
- (5) Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity calculated in Step 4.
- (6) If your vehicle will be towing a trailer, load from your trailer will be transferred to your vehicle. Consult this manual to determine how this reduces the available cargo and luggage load capacity of your vehicle.
- (7) Under certain loading or driving conditions, a higher inflation pressure may be required. Consult your owner's manual for further information.

\* \* \* \* \*

Issued: December 12, 2001.

**Stephen R. Kratzke,**

*Associate Administrator for Safety Performance Standards.*

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