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vehicle for more than 60 days, that is equipped with new tires is considered, for purposes of this part, to be a tire dealer and shall meet the requirements specified in §574.8.

(b) Each person selling a motor vehicle to first purchasers for purposes other than resale, that is equipped with new tires that were not on the motor vehicle when shipped by the vehicle manufacturer is considered a tire dealer for purposes of this part and shall meet the requirements specified in §574.8.

(Authority: Secs. 103, 108, 112, 119, 201, Pub. L. 89–563, 80 Stat. 718 (15 U.S.C. 1392, 1397, 1401, 1407, 1421); secs. 102, 103, 104, Pub. L. 93–492, 88 Stat. 1470 (15 U.S.C. 1411–1420); 92 Stat. 2689 (15 U.S.C. 1418); delegation of authority at 49 CFR 1.51)

[44 FR 7964, Feb. 8, 1979]

§574.10 Requirements for motor vehicle manufacturers.

Each motor vehicle manufacturer, or his designee, shall maintain a record of the new tires on or in each vehicle shipped by him or a motor vehicle distributor or dealer, and shall maintain a record of the name and address of the first purchaser for purposes other than resale of each vehicle equipped with such tires. These records shall be maintained for a period of not less than 5 years from the date of sale of the vehicle to the first purchaser for purposes other than resale.

(Authority: Secs. 103, 108, 112, 119, 201, Pub. L. 89–563, 80 Stat. 718 (15 U.S.C. 1392, 1397, 1401, 1407, 1421); secs. 102, 103, 104, Pub. L. 93–492, 88 Stat. 1470 (15 U.S.C. 1411–1420); 92 Stat. 2689 (15 U.S.C. 1418); delegation of authority at 49 CFR 1.51)

[44 FR 7964, Feb. 8, 1979, as amended at 67 FR 45872, July 10, 2002]

PART 575—CONSUMER INFORMATION

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AUTHORITY: 49 U.S.C. 32302, 32304A, 30111, 30115, 30117, 30166, 32908, and 20168, Pub. L. 104–414, 114 Stat. 1800, Pub. L. 109–59, 119 Stat. 1144, 15 U.S.C. 1232(g), Pub. L. 110–140, 121 Stat. 1492; delegation of authority at 49 CFR 1.50.

Subpart A—Regulations Issued Under Section 112(d) of the National Traffic and Motor Vehicle Safety Act; General

SOURCE: 35 FR 6867, Apr. 30, 1970, unless otherwise noted.

§575.1 Scope.

This part contains National Highway Traffic Safety Administration regulations relating to consumer information.

[75 FR 15944, Mar. 30, 2010]

§ 575.2 Definitions.

(a) *Statutory definitions.*—(1) All terms used in this part, subject to paragraph (a)(2) of this section, that are defined in 49 U.S.C. 30102, are used as defined therein.

(2) All terms used in Subpart D of this part that are defined in 15 U.S.C. 1231, are used as defined therein.

(b) *Motor Vehicle Safety Standard definitions.* Unless otherwise indicated, all terms used in this part that are defined in the Motor Vehicle Safety Standards, part 571 of this subchapter (hereinafter ''the Standards''), are used as defined in the Standards without regard to the applicability of a standard in which a definition is contained.

(c) *Definitions used in this part.*

Owners manual means the document which contains the manufacturers comprehensive vehicle operating and maintenance instructions, and which is intended to remain with the vehicle for the life of the vehicle.

Skid number means the frictional resistance measured in accordance with ASTM E 274 (incorporated by reference, *see* § 575.3) at 40 miles per hour, omitting water delivery as specified in paragraph 7.1 of ASTM E 274 (incorporated by reference, *see* § 575.3).

[35 FR 6867, Apr. 30, 1970, as amended at 38 FR 5339, Feb. 28, 1973; 48 FR 44081, Sept. 27, 1983; 54 FR 48749, Nov. 27, 1989; 64 FR 27924, May 24, 1999; 75 FR 15944, Mar. 30, 2010]

§ 575.3 Matter incorporated by reference.

(a) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, the National Highway Traffic Safety Administration (NHTSA) must publish notice of change in the FEDERAL REGISTER and the material must be available to the public. All approved material is available for inspection at the NHTSA Technical Information Services Reading Room (*http://www.nhtsa.dot.gov/cars/problems/trd/*), 1200 New Jersey Avenue, SE., Washington, DC 20590 (888–327–4236), and at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: *http://www.archives.gov/federal-register/cfr/ibr-locations.html.* All approved material is also available from the sources listed below. If you experience difficulty obtaining the standards referenced below, contact NHTSA's Office of Rulemaking, 1200 New Jersey Avenue, SE., Washington, DC 20590, phone number: (202) 366–0846.

(b) *International Organization for Standardization (ISO),* 1, ch. de la Voie-Creuse, CP 56, CH–1211 Geneva 20, Switzerland, +41 22 749 01 11, *http://www.iso.org/iso/home.htm.* All ISO materials are also available from the U.S. ISO member, *American National Standards Institute (ANSI),* 25 West 43rd Street, Fourth Floor, New York, NY 10036–7417, 212–642–4900, *http://www.ansi.org/.*

(1) International Organization for Standardization (ISO), ISO 28580:2009(E) (''ISO 28580''), ''Passenger car, truck and bus tyres—Methods of measuring rolling resistance—Single point test and correlation of measurement results,'' First edition (July 1, 2009), IBR approved for § 575.106.

(2) [Reserved]

(c) *American Society for Testing and Materials (ASTM),* 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428–2959, 610–832–9500, *http://www.astm.org/.*

(1) ASTM E 1136–93 (Reapproved 2003) (''ASTM E 1136''), ''Standard Specification for a Radial Standard Reference Test Tire'' (July 1993), IBR approved for § 575.104.

(2) ASTM E 1337–90 (Reapproved 2002) (''ASTM E 1337''), ''Standard Test Method for Determining Longitudinal Peak Braking Coefficient of Paved Surfaces Using a Standard Reference Test Tire'' (April 1990), IBR approved for § 575.106.

(d) The following standards are not available from the original publisher or a standards reseller. As indicated in paragraph (a) of this section, the standards are available for inspection at the NHTSA Technical Information Services Reading Room (*http://www.nhtsa.dot.gov/cars/problems/trd/*), 1200 New Jersey Avenue, SE., Washington, DC 20590 (888–327–4236), and at NARA. For information on the availability of this material at NARA, call

202–741–6030, or go to: *http://www.archives.gov/federal-register/cfr/ibr-locations.html*. If you experience difficulty obtaining the standards referenced below, contact NHTSA's Office of Rulemaking, 1200 New Jersey Avenue, SE., Washington, DC 20590, phone number (202) 366–0846.

(1) ASTM E 274–79 (''ASTM E 274''), ''Standard Test Method for Skid Resistance of Paved Surfaces Using a Full-Scale Tire'' (February 1980), IBR approved for §575.104.

(2) ASTM F 377–74 (''ASTM F 377''), ''Standard Method for Calibration of Braking Force for Testing of Pneumatic Tires'' (March 1974), IBR approved for §575.104.

[75 FR 15944, Mar. 30, 2010]

§575.4 Application.

(a) *General*. Except as provided in paragraphs (b) through (d) of this section, each section set forth in subpart B of this part applies according to its terms to motor vehicles and tires manufactured after the effective date indicated.

(b) *Military vehicles*. This part does not apply to motor vehicles or tires sold directly to the Armed Forces of the United States in conformity with contractual specifications.

(c) *Export*. This part does not apply to motor vehicles or tires intended solely for export and so labeled or tagged.

(d) *Import*. This part does not apply to motor vehicles or tires imported for purposes other than resale.

[39 FR 1039, Jan. 4, 1974]

§575.5 Separability.

If any section established in this part or its application to any person or circumstances is held invalid, the remainder of the part and the application of that section to other persons or circumstances is not affected thereby.

§575.6 Requirements.

(a)(1) At the time a motor vehicle is delivered to the first purchaser for purposes other than resale, the manufacturer of that vehicle shall provide the Uniform Tire Quality Grading information required by §575.104(d)(1)(iii) in the owner's manual of each vehicle it produces. The vehicle manufacturer shall also provide to the purchaser, in writing and in the English language, the information specified in §575.103 of this part that is applicable to that vehicle. The information provided with a vehicle may contain more than one table, but the document must either:

(i) Clearly and unconditionally indicate which of the tables apply to the vehicle with which it is provided, or

(ii) Contain a statement on its cover referring the reader to the vehicle certification label for specific information concerning which of the tables apply to that vehicle. If the manufacturer chooses option in paragraph (a)(1)(ii) of this section, the vehicle certification label shall include such specific information.

Example 1. Manufacturer X furnishes a document containing several tables that apply to various groups of vehicles that it produces. The document contains the following notation on its front page: ''The information that applies to this vehicle is contained in Table 5.'' That notation satisfies the requirement.

Example 2. Manufacturer Y furnishes a document containing several tables as in Example 1, with the following notation on its front page:

''Information applies as follows:
Model P. Regular cab, 135 in. (3,430 mm) wheel base—Table 1.
Model P. Club cab, 142 in. (3,607 mm) wheel base—Table 2.
Model Q—Table 3.''

This notation does not satisfy the requirement, since it is conditioned on the model or the equipment of the vehicle with which the document is furnished, and therefore additional information is required to select the proper table.

(2)(i) At the time a motor vehicle manufactured on or after September 1, 1990 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, the following statement in the owner's manual, or, if there is no owner's manual, on a one-page document:

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying [INSERT NAME OF MANUFACTURER].

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or [INSERT NAME OF MANUFACTURER].

To contact NHTSA, you may call the Vehicle Safety Hotline toll-free at 1–888–327–4236 (TTY: 1–800–424–9153); go to *http://www.safercar.gov*; or write to: Administrator, NHTSA, 400 Seventh Street, SW., Washington, DC 20590. You can also obtain other information about motor vehicle safety from *http://www.safercar.gov*.

(ii) The manufacturer shall specify in the table of contents of the owner's manual the location of the statement in 575.6(a)(2)(i). The heading in the table of contents shall state ''Reporting Safety Defects.''

(3) For vehicles manufactured prior to September 1, 2000, at the time a motor vehicle is delivered to the first purchaser for purposes other than resale, the manufacturer of that vehicle shall provide the purchaser, in writing and in the English language, the information specified in §§ 575.103 and 575.104 of this part that is applicable to that vehicle and its tires. The document provided with a vehicle may contain more than one table, but the document must either clearly and unconditionally indicate which of the tables apply to the vehicle with which it is provided, or contain a statement on its cover referring the reader to the vehicle certification label for specific information concerning which of the tables apply to that vehicle. If the manufacturer chooses option (a)(2) of this section, the vehicle certification label shall include such specific information.

Example 1. Manufacturer X furnishes a document containing several tables, which apply to various groups of vehicles that it produces. The document contains the following notation on its front page: ''The information that applies to this vehicle is contained in Table 5.'' The notation satisfies the requirement.

Example 2. Manufacturer Y furnishes a document containing several tables as in Example 1, with the following notation on its front page: Information applies as follows:

Model P, 6-cylinder engine—Table 1.

Model P, 8-cylinder engine—Table 2.

Model Q—Table 3.

This notation does not satisfy the requirement, since it is conditioned on the model or the equipment of the vehicle with which the document is furnished, and therefore additional information is required to select the proper table.

(4) When a motor vehicle that has a GVWR of 10,000 pounds or less, except a motorcycle or low speed vehicle, and that is manufactured on or after September 1, 2005, 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, and information about the location of 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 vehicle load capabilities,

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

(5) When a motor vehicle that has a GVWR of 10,000 pounds or less, except a motorcycle or low speed vehicle, and that is manufactured on or after September 1, 2005, 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, the following verbatim statement, as applicable, in the owner's manual, or, if there is no owner's manual, in a document:

(i) For vehicles except trailers: ''Steps for Determining Correct Load Limit—

(*1*) Locate the statement ''The combined weight of occupants and cargo should never exceed XXX kg or XXX lbs.'' on your vehicle's placard.

(*2*) Determine the combined weight of the driver and passengers that will be riding in your vehicle.

(*3*) Subtract the combined weight of the driver and passengers from XXX kg or XXX lbs.

(*4*) The resulting figure equals the available amount of cargo and luggage load capacity. For example, if the ''XXX'' amount equals 1400 lbs. and there will be five 150 lb passengers in your vehicle, the amount of available cargo and luggage load capacity is 650 lbs. (1400–750 (5 × 150) = 650 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.''

(ii) For trailers: ''Steps for Determining Correct Load Limit—

(*1*) Locate the statement ''The weight of cargo should never exceed XXX kg or XXX lbs.'' on your vehicle's placard.

(*2*) This figure equals the available amount of cargo and luggage load capacity.''

(*3*) 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.

(b) At the time a motor vehicle tire is delivered to the first purchaser for a purpose other than resale, the manufacturer of that tire, or in the case of a tire marketed under a brand name, the brand name owner, shall provide to that purchaser the information specified in subpart B of this part that is applicable to that tire.

(c) Each manufacturer of motor vehicles, each brand name owner of tires, and each manufacturer of tires for which there is no brand name owner shall provide for examination by prospective purchasers, at each location where its vehicles or tires are offered for sale by a person with whom the manufacturer or brand name owner has a contractual, proprietary, or other legal relationship, or by a person who has such a relationship with a distributor of the manufacturer or brand name owner concerning the vehicle or tire in question, the information specified in subpart B of this part that is applicable to each of the vehicles or tires offered for sale at that location. The information shall be provided without charge and in sufficient quantity to be available for retention by prospective purchasers or sent by mail to a prospective purchaser upon his request. With respect to newly introduced vehicles or tires, the information shall be provided for examination by prospective purchasers not later than the day on which the manufacturer or brand name owner first authorizes those vehicles or tires to be put on general public display and sold to consumers.

(d)(1)(i) Except as provided in paragraph (d)(1)(ii) of this section, in the case of all sections of subpart B other than §575.104, as they apply to information submitted prior to new model introduction, each manufacturer of motor vehicles shall submit to the Administrator 2 copies of the information specified in subpart B of this part that is applicable to the vehicles offered for sale, at least 90 days before information on such vehicles is first provided

for examination by prospective purchasers pursuant to paragraph (c) of this section.

(ii) Where an unforeseen preintroduction modification in vehicle design or equipment results in a change in vehicle performance for a characteristic included in subpart B of this part, a manufacturer of motor vehicles may revise information previously furnished under paragraph (d)(1)(i) of this section by submission to the Administrator of 2 copies of the revised information reflecting the performance changes, at least 30 days before information on such vehicles is first provided to prospective purchasers pursuant to paragraph (c) of this section.

(2)(i) In the case of § 575.104, each brand name owner of tires, and each manufacturer of tires for which there is no brand name owner shall submit to the Administrator 2 copies of the information specified in Subpart B of this part that is applicable to the tires offered for sale, at least 30 days before it is first provided for examination by prospective purchasers pursuant to paragraph (c) of this section.

(ii) In the case of all other sections of Subpart B of this Part as they apply to post-introduction changes in information submitted for the current model year, each manufacturer of motor vehicles, each brand name owner of tires, and each manufacturer of tires for which there is no brand name owner shall submit to the Administrator 2 copies of the information specified in Subpart B of this part that is applicable to the vehicles or tires offered for sale, at least 30 days before it is first provided for examination by prospective purchasers pursuant to paragraph (c) of this section.

[39 FR 1039, Jan. 4, 1974, as amended at 41 FR 13923, Apr. 1, 1976; 45 FR 47153, July 14, 1980; 47 FR 7258, Feb. 18, 1982; 52 FR 27810, July 24, 1987; 54 FR 48749, Nov. 27, 1989; 64 FR 27924, May 24, 1999; 67 FR 69631, Nov. 18, 2002; 69 FR 31320, June 3, 2004; 70 FR 35557, June 21, 2005]

§ 575.7 Special vehicles.

A manufacturer who produces vehicles having a configuration not available for purchase by the general public need not make available to ineligible purchasers, pursuant to § 575.6(c), the information for those vehicles specified in subpart B of this part, and shall identify those vehicles when furnishing the information required by § 575.6(d).

[40 FR 11727, Mar. 13, 1975]

Subpart B—Regulations; Consumer Information Items

§§ 575.101–575.102 [Reserved]

§ 575.103 Truck-camper loading.

(a) *Scope*. This section requires manufacturers of slide-in campers to affix to each camper a label that contains information relating to identification and proper loading of the camper and to provide more detailed loading information in the owner's manual. This section also requires manufacturers of trucks that would accommodate slide-in campers to specify the cargo weight ratings and the longitudinal limits within which the center of gravity for the cargo weight rating should be located.

(b) *Purpose*. The purpose of this section is to provide information that can be used to reduce overloading and improper load placement in truck-camper combinations and unsafe truck- camper matching in order to prevent accidents resulting from the adverse effects of these conditions on vehicle steering and braking.

(c) *Application*. This section applies to slide-in campers and to trucks that are capable of accommodating slide- in campers.

(d) *Definitions*.

Camper means a structure designed to be mounted in the cargo area of a truck, or attached to an incomplete vehicle with motive power, for the purpose of providing shelter for persons.

Cargo Weight Rating means the value specified by the manufacturer as the cargo-carrying capacity, in pounds or kilograms, of a vehicle, exclusive of the weight of occupants in designated seating positions, computed as 68 kilograms or 150 pounds times the number of designated seating positions.

Slide-in Camper means a camper having a roof, floor, and sides, designed to be mounted on and removable from the cargo area of a truck by the user.

(e) *Requirements*—(1) *Slide-in Camper*—(i) *Labels*. Each slide-in camper shall

have permanently affixed to it, in such a manner that it cannot be removed without defacing or destroying it, and in a plainly visible location on an exterior rear surface other than the roof, steps, or bumper extension, a label containing the following information in the English language lettered in block capitals and numerals not less than 2.4 millimeters (three thirty-seconds of an inch) high, of a color contrasting with the background, in the order shown below and in the form illustrated in Figure 1.

(A) *Name of camper manufacturer*. The full corporate or individual name of the actual assembler of the camper shall be spelled out, except that such abbreviations as ''Co.'' or ''Inc.'' and their foreign equivalents, and the first and middle initials of individuals may be used. The name of the manufacturer shall be preceded by the words ''Manufactured by'' or ''Mfd by.''

(B) *Month and year of manufacture*. It may be spelled out, such as ''June 1995'' or expressed in numerals, such as ''695.''

(C) The following statement completed as appropriate:

''Camper weight is _____ kg. (_____ lbs.) maximum when it contains standard equipment, _____ liters (_____ gal.) of water, _____ kg. (_____ lbs.) of bottled gas, and _____ cubic meters (_____ cubic ft.) refrigerator (or icebox with _____ kg. (_____ lbs.) of ice, as applicable). Consult owner's manual (or data sheet, as applicable) for weights of additional or optional equipment.''

(D) ''Liters (or gal.) of water'' refers to the volume of water necessary to fill the camper's fresh water tanks to capacity. ''Kg. (or lbs.) of bottled gas'' refers to the amount of gas necessary to fill the camper's bottled gas tanks to capacity. The statement regarding a ''refrigerator'' or ''icebox'' refers to the capacity of the refrigerator with which the vehicle is equipped or the weight of the ice with which the icebox may be filled. Any of these items may be omitted from the statement if the corresponding accessories are not included with the camper, provided that the omission is noted in the camper owner's manual as required in paragraph (e)(1)(ii) of this section.

(ii) *Owner's manual*. Each slide-in camper manufacturer shall provide with each camper a manual or other document containing the information specified in paragraph (e)(1)(ii) (A) through (F) of this section.

(A) The statement and information provided on the label as specified in paragraph (e)(1)(i) of this section. Instead of the information required by paragraphs (e)(1)(i)(B) of this section, a manufacturer may use the statements ''See camper identification label located (as applicable) for month and year of manufacture.'' If water, bottled gas, or refrigerator (icebox) has been omitted from this statement, the manufacturer's information shall note such omission and advise that the weight of any such item when added to the camper should be added to the maximum camper weight figure used in selecting an appropriate truck.

(B) A list of other additional or optional equipment that the camper is designed to carry, and the maximum weight of each if its weight is more than 9 kg. (20 lbs) when installed.

(C) The statement: ''To estimate the total cargo load that will be placed on a truck, add the weight of all passengers in the camper, the weight of supplies, tools, and all other cargo, the weight of installed additional or optional camper equipment, and the manufacturer's camper weight figure. Select a truck that has a cargo weight rating that is equal to or greater than the total cargo load of the camper and whose manufacturer recommends a cargo center of gravity zone that will contain the camper's center of gravity when it is installed.''

(D) The statements: ''When loading this camper, store heavy gear first, keeping it on or close to the camper floor. Place heavy things far enough forward to keep the loaded camper's center of gravity within the zone recommended by the truck manufacturer. Store only light objects on high shelves. Distribute weight to obtain even side-to-side balance of the loaded vehicle. Secure loose items to prevent weight shifts that could affect the balance of your vehicle. When the truck-camper is loaded, drive to a scale and

weigh on the front and on the rear wheels separately to determine axle loads. The load on an axle should not exceed its gross axle weight rating (GAWR). The total of the axle loads should not exceed the gross vehicle weight rating (GVWR). These weight ratings are given on the vehicle certification label that is located on the left side of the vehicle, normally on the dash panel, hinge pillar, door latch post, or door edge next to the driver on trucks manufactured on or after January 1, 1972. If weight ratings are exceeded, move or remove items to bring all weights below the ratings.''

(E) A picture showing the location of the longitudinal center of gravity of the camper within an accuracy of 5 centimeters (2 inches) under the loaded condition specified in paragraph (e)(1)(i)(D) of this section in the manner illustrated in Figure 2.

(F) A picture showing the proper match of a truck and slide-in camper in the form illustrated in Figure 3.

(2) *Trucks.* (i) Except as provided in paragraph (e)(2)(ii) of this section, each manufacturer of a truck that is capable of accommodating a slide-in camper shall provide to the purchaser in the owner's manual or other document delivered with the truck, in writing and in the English language, the information specified in paragraphs (e)(2)(i) (A) through (E) of this section.

(A) A picture showing the manufacturer's recommended longitudinal center of gravity zone for the cargo weight rating in the form illustrated in Figure 4. The boundaries of the zone shall be such that when a slide-in camper equal in weight to the truck's cargo weight rating is installed, no GAWR of the truck is exceeded.

(B) The truck's cargo weight rating.

(C) The statements: ''When the truck is used to carry a slide-in camper, the total cargo load of the truck consists of the manufacturer's camper weight figure, the weight of installed additional camper equipment not included in the manufacturer's camper weight figure, the weight of camper cargo, and the weight of passengers in the camper. The total cargo load should not exceed the truck's cargo weight rating and the camper's center of gravity should fall within the truck's recommended center of gravity zone when installed.''

(D) A picture showing the proper match of a truck and slide-in camper in the form illustrated in Figure 3.

(E) The statements: ''Secure loose items to prevent weight shifts that could affect the balance of your vehicle. When the truck camper is loaded, drive to a scale and weigh on the front and on the rear wheels separately to determine axle loads. Individual axle loads should not exceed either of the gross axle weight ratings (GAWR). The total of the axle loads should not exceed the gross vehicle weight rating (GVWR). These ratings are given on the vehicle certification label that is located on the left side of the vehicle, normally the dash, hinge pillar, door latch post, or door edge next to the driver. If weight ratings are exceeded, move or remove items to bring all weights below the ratings.''

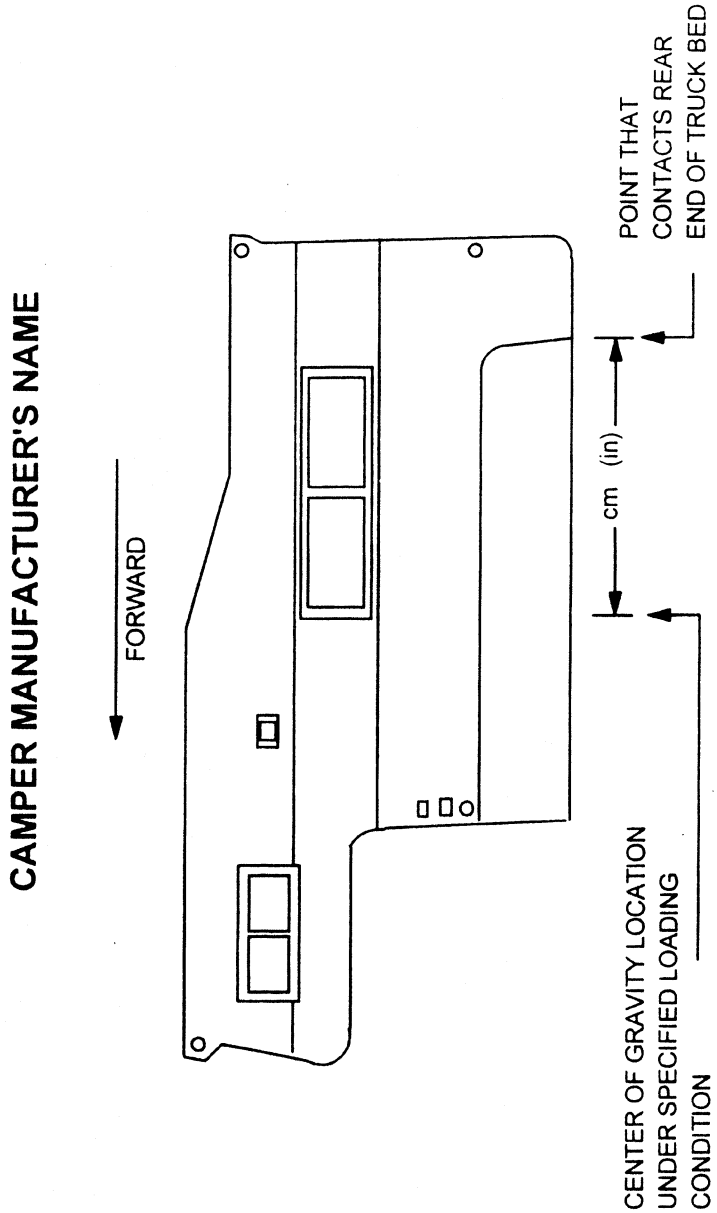
(ii) If a truck would accommodate a slide-in camper but the manufacturer of the truck recommends that the truck not be used for that purpose, the information specified in paragraph (e)(2)(i) of this section shall not be provided but instead the manufacturer shall provide a statement that the truck should not be used to carry a slide-in camper.

MFD. BY: (CAMPER MANUFACTURER'S NAME)

(MONTH AND YEAR OF MANUFACTURE)

CAMPER WEIGHT IS _____ KG (_____ LB) MAXIMUM WHEN IT CONTAINS STANDARD EQUIPMENT, _____ LITERS (_____ GAL) OF WATER, _____ KG (_____ LB) OF BOTTLED GAS, AND _____ CUBIC METERS (_____ CUBIC FT) REFRIGERATOR (OR ICEBOX WITH _____ KG (_____ LB) OF ICE, AS APPLICABLE). CONSULT OWNER'S MANUAL (OR DATA SHEET AS APPLICABLE) FOR WEIGHTS OF ADDITIONAL OR OPTIONAL EQUIPMENT.

FIGURE 1. LABEL FOR CAMPER



FGIURE 2. CAMPER CENTER OF GRAVITY INFORMATION

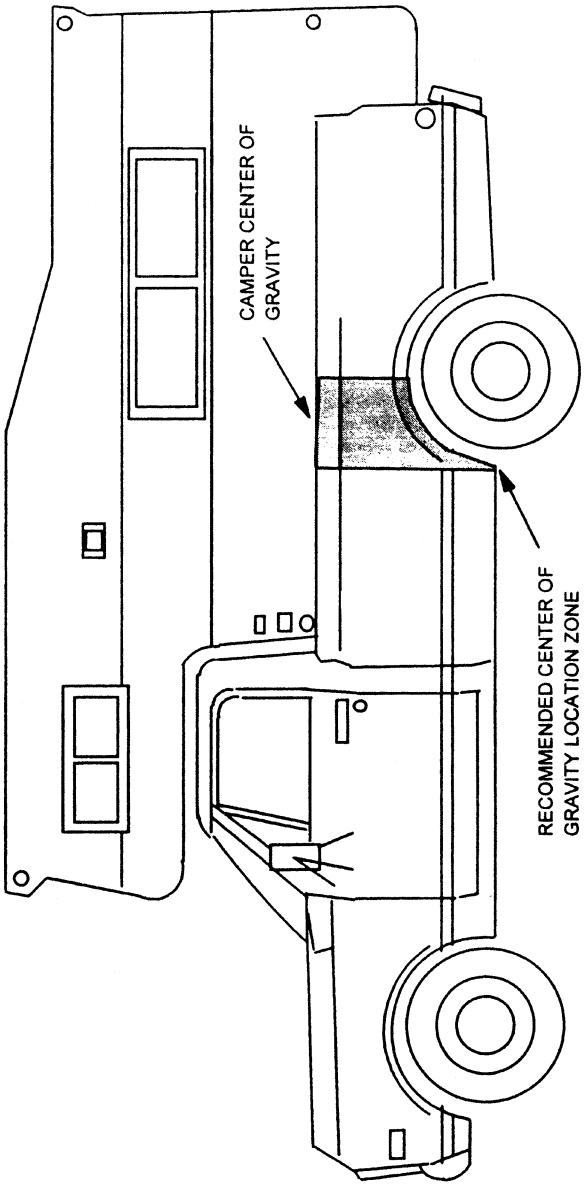


FIGURE 3. EXAMPLE OF PROPER TRUCK AND CAMPER MATCH

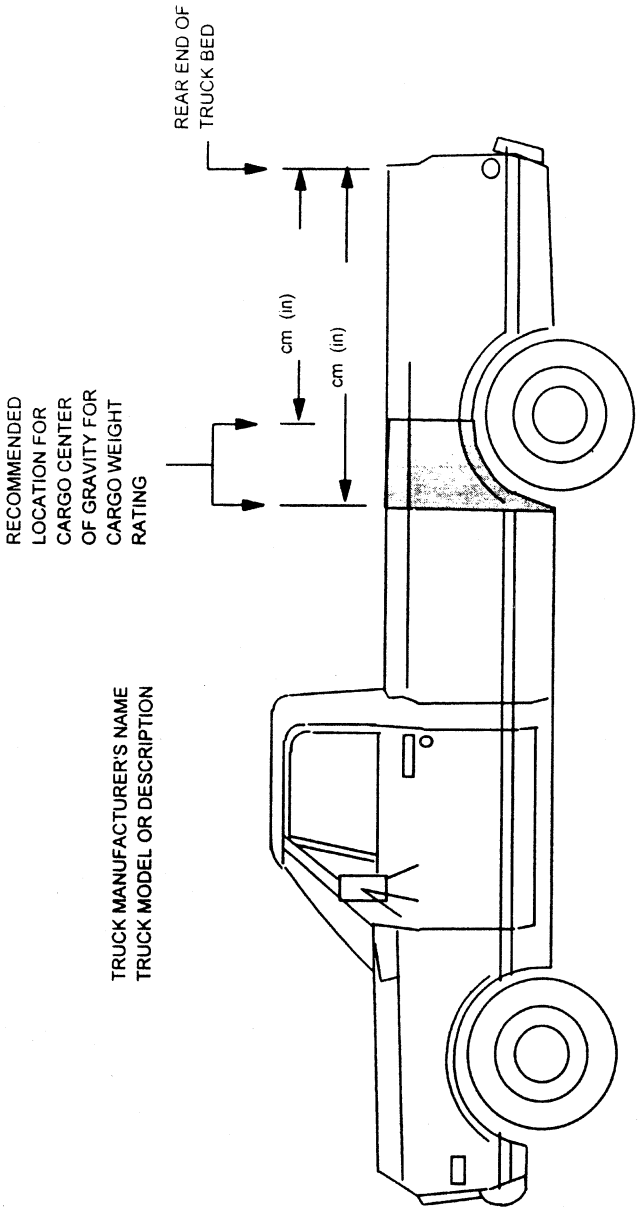


FIGURE 4. TRUCK LOADING INFORMATION

[61 FR 36657, July 12, 1996, as amended at 70 FR 39970, July 12, 2005]

§ 575.104 Uniform tire quality grading standards.

(a) *Scope.* This section requires motor vehicle and tire manufacturers and tire brand name owners to provide information indicating the relative performance of passenger car tires in the areas of treadwear, traction, and temperature resistance.

(b) *Purpose.* The purpose of this section is to aid the consumer in making an informed choice in the purchase of passenger car tires.

(c) *Application.* (1) This section applies to new pneumatic tires for use on passenger cars. However, this section does not apply to deep tread, winter-type snow tires, space-saver or temporary use spare tires, tires with nominal rim diameters of 12 inches or less, or to limited production tires as defined in paragraph (c)(2) of this section.

(2) ''Limited production tire'' means a tire meeting all of the following criteria, as applicable:

(i) The annual domestic production or importation into the United States by the tire's manufacturer of tires of the same design and size as the tire does not exceed 15,000 tires;

(ii) In the case of a tire marketed under a brand name, the annual domestic purchase or importation into the United States by a brand name owner of tires of the same design and size as the tire does not exceed 15,000 tires;

(iii) The tire's size was not listed as a vehicle manufacturer's recommended tire size designation for a new motor vehicle produced in or imported into the United States in quantities greater than 10,000 during the calendar year preceeding the year of the tire's manufacture; and

(iv) The total annual domestic production or importation into the United States by the tire's manufacturer, and in the case of a tire marketed under a brand name, the total annual domestic purchase or purchase for importation into the United States by the tire's brand name owner, of tires meeting the criteria of paragraphs (c)(2) (i), (ii), and (iii) of this section, does not exceed 35,000 tires.

Tire design is the combination of general structural characteristics, materials, and tread pattern, but does include cosmetic, identifying or other minor variations among tires.

(d) *Requirements*—(1) *Information.* (i) Each manufacturer of tires, or in the case of tires marketed under a brand name, each brand name owner, shall provide grading information for each tire of which he is the manufacturer or brand name owner in the manner set forth in paragraphs (d)(1)(i) (A) and (B) of this section. The grades for each tire shall be only those specified in paragraph (d)(2) of this section. Each tire shall be able to achieve the level of performance represented by each grade with which it is labeled. An individual tire need not, however, meet further requirements after having been subjected to the test for any one grade.

(A) Except for a tire of a new tire line, manufactured within the first six months of production of the tire line, each tire shall be graded with the words, letters, symbols, and figures specified in paragraph (d)(2) of this section, permanently molded into or onto the tire sidewall between the tire's maximum section width and shoulder in accordance with one of the methods described in Figure 1. For purposes of this paragraph, new tire line shall mean a group of tires differing substantially in construction, materials, or design from those previously sold by the manufacturer or brand name owner of the tires. As used in this paragraph, the term ''construction'' refers to the internal structure of the tire (e.g., cord angles, number and placement of breakers), ''materials'' refers to the substances used in manufacture of the tire (e.g., belt fiber, rubber compound), and ''design'' refers to properties or conditions imposed by the tire mold (e.g., aspect ratio, tread pattern).

(B) Each tire manufactured on and after the effective date of these amendments, other than a tire sold as original equipment on a new vehicle, shall have affixed to its tread surface so as not to be easily removable a label or labels containing its grades and other information in the form illustrated in Figure 2, Parts I and II. The treadwear grade attributed to the tire shall be either imprinted or indelibly stamped on the label containing the material in Part I of Figure 2, directly to the right of or below the word ''TREADWEAR.''

The traction grade attributed to the tire shall be indelibly circled in an array of the potential grade letters AA, A, B, or C, directly to the right of or below the word ''TRACTION'' in Part I of Figure 2. The temperature resistance grade attributed to the tire shall be indelibly circled in an array of the potential grade letters A, B, or C, directly to the right of or below the word ''TEMPERATURE'' in Part I of Figure 2. The words ''TREADWEAR,'' ''TRACTION,'' AND ''TEMPERATURE,'' in that order, may be laid out vertically or horizontally. The text of Part II of Figure 2 may be printed in capital letters. The text of Part I and the text of Part II of Figure 2 need not appear on the same label, but the edges of the two texts must be positioned on the tire tread so as to be separated by a distance of no more than one inch. If the text of Part I and the text of Part II of Figure 2 are placed on separate labels, the notation ''See EXPLANATION OF DOT QUALITY GRADES'' shall be added to the bottom of the Part I text, and the words ''EXPLANATION OF DOT QUALITY GRADES'' shall appear at the top of the Part II text. The text of Figure 2 shall be oriented on the tire tread surface with lines of type running perpendicular to the tread circumference. If a label bearing a tire size designation is attached to the tire tread surface and the tire size designation is oriented with lines type running perpendicular to the tread circumference, the text of Figure 2 shall read in the same direction as the tire size designation.

(ii) In the case of the information required by §575.6(c) to be furnished to prospective purchasers of tires, each tire manufacturer or brand name owner shall, as part of that information, list all possible grades for traction and temperature resistance, and restate verbatim the explanation for each performance area specified in Figure 2. The information need not be in the same format as in Figure 2. The information must indicate clearly and unambiguously the grade in each performance area for each tire of that manufacturer or brand name owner offered for sale at the particular location.

(iii) Each manufacturer of motor vehicles equipped with passenger car tires shall include in the owner's manual of each such vehicle a list of all possible grades for traction and temperature resistance and restate verbatim the explanation for each performance area specified in Figure 2, Part II. The information need not be in the exact format of Figure 2, Part II, but it must contain a statement referring the reader to the tire sidewall for the specific tire grades for the tires with which the vehicle is equipped, as follows:

UNIFORM TIRE QUALITY GRADING

Quality grades can be found where applicable on the tire sidewall between tread shoulder and maximum section width. For example:

TREADWEAR 200 TRACTION AA
TEMPERATURE A

(iv) In the case of information required in accordance with §575.6(a) to be furnished to the first purchaser of a new motor vehicle, each manufacturer of motor vehicles shall, as part of the required information, list all possible grades for traction and temperature resistance and restate verbatim the explanation for each performance area specified in Figure 2 to this section. The information need not be in the format of Figure 2 to this section, but it must contain a statement referring the reader to the tire sidewall for the specific tire grades for the tires with which the vehicle is equipped.

(2) *Performance*—(i) *Treadwear*. Each tire shall be graded for treadwear performance with the word ''TREADWEAR'' followed by a number of two or three digits representing the tire's grade for treadwear, expressed as a percentage of the NHTSA nominal treadwear value, when tested in accordance with the conditions and procedures specified in paragraph (e) of this section. Treadwear grades shall be expressed in multiples of 20 (for example, 80, 120, 160).

(ii) *Traction*. Each tire shall be graded for traction performance with the word ''TRACTION,'' followed by the symbols AA, A, B, or C, when the tire is tested in accordance with the conditions and

procedures specified in paragraph (f) of this section.

(A) The tire shall be graded C when the adjusted traction coefficient is either:

(*1*) 0.38 or less when tested in accordance with paragraph (f)(2) of this section on the asphalt surface specified in paragraph (f)(1)(i) of this section, or

(*2*) 0.26 or less when tested in accordance with paragraph (f)(2) of this section on the concrete surface specified in paragraph (f)(1)(i) of this section.

(B) The tire may be graded B only when its adjusted traction coefficient is both:

(*1*) More than 0.38 when tested in accordance with paragraph (f)(2) of this section on the asphalt surface specified in paragraph (f)(1)(i) of this section, and

(*2*) More than 0.26 when tested in accordance with paragraph (f)(2) of this section on the concrete surface specified in paragraph (f)(1)(i) of this section.

(C) The tire may be graded A only when its adjusted traction coefficient is both:

(*1*) More than 0.47 when tested in accordance with paragraph (f)(2) of this section on the asphalt surface specified in paragraph (f)(1)(i) of this section, and

(*2*) More than 0.35 when tested in accordance with paragraph (f)(2) of this section on the concrete surface specified in paragraph (f)(1)(i) of this section.

(D) The tire may be graded AA only when its adjusted traction coefficient is both:

(*1*) More than 0.54μ when tested in accordance with paragraph (f)(2) of this section on the asphalt surface specified in paragraph (f)(1)(i) of this section; and

(*2*) More than 0.38μ when tested in accordance with paragraph (f)(2) of this section on the concrete surface specified in paragraph (f)(1)(i) of this section.

(iii) *Temperature resistance.* Each tire shall be graded for temperature resistance performance with the word ''TEMPERATURE'' followed by the letter A, B, or C, based on its performance when the tire is tested in accordance with the procedures specified in paragraph (g) of this section. A tire shall be considered to have successfully completed a test stage in accordance with this paragraph if, at the end of the test stage, it exhibits no visual evidence of tread, sidewall, ply, cord, innerliner, or bead separation, chunking, broken cords, cracking or open splices as defined in § 571.109 of this chapter, and the tire pressure is not less than the pressure specified in paragraph (g)(1) of this section.

(A) The tire shall be graded C if it fails to complete the 500 rpm test stage specified in paragraph (g)(9) of this section.

(B) The tire may be graded B only if it successfully completes the 500 rpm test stage specified in paragraph (g)(9) of this section.

(C) The tire may be graded A only if it successfully completes the 575 rpm test stage specified in paragraph (g)(9) of this section.

(e) *Treadwear grading conditions and procedures*—(1) *Conditions.* (i) Tire treadwear performance is evaluated on a specific roadway course approximately 400 miles in length, which is established by the NHTSA both for its own compliance testing and for that of regulated persons. The course is designed to produce treadwear rates that are generally representative of those encountered by tires in public use. The course and driving procedures are described in appendix A of this section.

(ii) Treadwear grades are evaluated by first measuring the performance of a candidate tire on the government test course, and then correcting the projected mileages obtained to account for environmental variations on the basis of the performance of the course monitoring tires run in the same convoy.

(iii) In convoy tests, each vehicle in the same convoy, except for the lead vehicle, is throughout the test within human eye range of the vehicle immediately ahead of it.

(iv) A test convoy consists of two or four passenger cars, light trucks, or MPVs, each with a GVWR of 10,000 pounds or less.

(v) On each convoy vehicle, all tires are mounted on identical rims of design or measuring rim width specified for tires of that size in accordance with

49 CFR 571.109, S4.4.1 (a) or (b), or a rim having a width within −0 to +0.50 inches of the width listed.

(2) *Treadwear grading procedure.* (i) Equip a convoy as follows: Place four course monitoring tires on one vehicle. Place four candidate tires with identical size designations on each other vehicle in the convoy. On each axle, place tires that are identical with respect to manufacturer and line.

(ii) Inflate each candidate and each course monitoring tire to the applicable pressure specified in Table 1 of this section.

(iii) Load each vehicle so that the load on each course monitoring and candidate tire is 85 percent of the test load specified in §575.104(h).

(iv) Adjust wheel alignment to the midpoint of the vehicle manufacturer's specifications, unless adjustment to the midpoint is not recommended by the manufacturer; in that case, adjust the alignment to the manufacturer's recommended setting. In all cases, the setting is within the tolerance specified by the manufacturer of the alignment machine.

(v) Subject candidate and course monitoring tires to ''break-in'' by running the tires in the convoy for two circuits of the test roadway (800 miles). At the end of the first circuit, rotate each vehicle's tires by moving each front tire to the same side of the rear axle and each rear tire to the opposite side of the front axle. Visually inspect each tire for any indication of abnormal wear, tread separation, bulging of the sidewall, or any sign of tire failure. Void the grading results from any tire with any of these anomalies, and replace the tire.

(vi) After break-in, allow the air pressure in the tires to fall to the applicable pressure specified in Table 1 of this section or for 2 hours, whichever occurs first. Measure, to the nearest 0.001 inch, the tread depth of each candidate and each course monitoring tire, avoiding treadwear indicators, at six equally spaced points in each groove. For each tire compute the average of the measurements. Do not measure those shoulder grooves which are not provided with treadwear indicators.

(vii) Adjust wheel alignment to the midpoint of the manufacturer's specifications, unless adjustment to the midpoint is not recommended by the manufacturer; in that case, adjust the alignment according to the manufacturer's recommended setting. In all cases, the setting is within the tolerance specified by the manufacturer of the alignment machine.

(viii) Drive the convoy on the test roadway for 6,400 miles.

(A) After each 400 miles, rotate each vehicle's tires by moving each front tire to the same side of the rear axle and each rear tire to the opposite side of the front axle. Visually inspect each tire for treadwear anomalies.

(B) After each 800 miles, rotate the vehicles in the convoy by moving the last vehicle to the lead position. Do not rotate driver positions within the convoy. In four-car convoys, vehicle one shall become vehicle two, vehicle two shall become vehicle three, vehicle three shall become vehicle four, and vehicle four shall become vehicle one.

(C) After each 800 miles, if necessary, adjust wheel alignment to the midpoint of the vehicle manufacturer's specification, unless adjustment to the midpoint is not recommended by the manufacturer; in that case, adjust the alignment to the manufacturer's recommended setting. In all cases, the setting is within the tolerance specified by the manufacturer of the alignment machine.

(D) After each 800 miles, if determining the projected mileage by the 9-point method set forth in (e)(2)(ix)(A)(1), measure the average tread depth of each tire following the procedure set forth in paragraph (e)(2)(vi) of this section.

(E) After each 1,600 miles, move the complete set of four tires to the following vehicle. Move the tires on the last vehicle to the lead vehicle. In moving the tires, rotate them as set forth in (e)(2)(viii)(A) of this section.

(F) At the end of the test, measure the tread depth of each tire pursuant to the procedure set forth in paragraph (e)(2)(vi) of this section.

(ix)(A) Determine the projected mileage for each candidate tire either by the nine-point method of least squares set forth in paragraph (e)(2)(ix)(A)(*1*) of this section and appendix C to this section, or by the two-point arithmetical

method set forth in paragraph (e)(2)(ix)(A)(*2*) of this section. Notify NHTSA about which of the alternative grading methods is being used.

(*1*) *Nine-Point Method of Least Squares.* For each course monitoring and candidate tire in the convoy, using the average tread depth measurements obtained in accordance with paragraphs (e)(2)(vi) and (e)(2)(viii)(D) of this section and the corresponding mileages as data points, apply the method of least squares as described in appendix C to this section to determine the estimated regression line of y on x given by the following formula:

$$y = a + \frac{bx}{1000}$$

Where:

y = average tread depth in mils
x = miles after break-in,
a = y intercept of regression line (reference tread depth) in mils, calculated using the method of least squares; and
b = the slope of the regression line in mils of tread depth per 1,000 miles, calculated using the method of least squares. This slope will be negative in value. The tire's wear rate is defined as the absolute value of the slope of the regression line.

(*2*) *Two-Point Arithmetical Method.* For each course monitoring and candidate tire in the convoy, using the average tread depth measurements obtained in accordance with paragraph (e)(2)(vi) and (e)(2)(viii)(F) of this section and the corresponding mileages as data points, determine the slope (m) of the tire's wear in mils of tread depth per 1,000 miles by the following formula:

$$m = 1000\frac{(Y1 - Yo)}{(X1 - Xo)}$$

Where:

Yo = average tread depth after break-in, mils
Y1 = average tread depth at 6,400 miles, mils
Xo = 0 miles (after break-in).
X1 = 6,400 miles of travel

This slope (m) will be negative in value. The tire's wear rate is defined as the slope (m) expressed in mils per 1,000 miles.

(B) Average the wear rates of the four course monitoring tires as determined in accordance with paragraph (e)(2)(ix)(A) of this section.

(C) Determine the course severity adjustment factor by dividing the base course wear rate for the course monitoring tires (*see Note* to this paragraph) by the average wear rate for the four course monitoring tires.

Note to paragraph (e)(2)(ix)(C): The base wear rate for the course monitoring tires will be obtained by the government by running the tire specified in ASTM E 1136 (incorporated by reference, *see* § 575.3) course monitoring tires for 6,400 miles over the San Angelo, Texas, UTQGS test route 4 times per year, then using the average wear rate from the last 4 quarterly CMT tests for the base course wear rate calculation. Each new base course wear rate will be published in the FEDERAL REGISTER. The course monitoring tires used in a test convoy must be no more than one year old at the commencement of the test and must be used within two months after removal from storage.

(D) Determine the adjusted wear rate for each candidate tire by multiplying its wear rate determined in accordance with paragraph (e)(2)(ix)(A) of this section by the course severity adjustment factor determined in accordance with paragraph (e)(2)(ix)(C) of this section.

(E) Determine the projected mileage for each candidate tire by applying the appropriate formula set forth below:

(*1*) If the projected mileage is calculated pursuant to paragraph (e)(2)(ix)(A)(*1*) of this section, then:

$$\text{Projected mileage} = \frac{1000(a - 62)}{b^1} + 800$$

Where:

a = y intercept of regression line (reference tread depth) for the candidate tire as determined in accordance with paragraph (e)(2)(ix)(A)(*1*) of this section.
b^1 = the adjusted wear rate for the candidate tire as determined in accordance with paragraph (e)(2)(ix)(D) of this section.

(*2*) If the projected mileage is calculated pursuant to (e)(2)(ix)(a)(*2*) of this section, then:

$$\text{Projected mileage} = \frac{-1000(Yo - 62)}{mc} + 800$$

Where:

Yo = average tread depth after break-in, mils
mc = the adjusted wear rate for the candidate tires as determined in accordance with paragraph (e)(2)(ix)(D) of this section.

(F) Compute the grade (P) of the NHTSA nominal treadwear value for each candidate tire by using the following formula:

P = Projected mileage × base course wear $rate_n$/402

Where base course wear $rate_n$ = new base course wear rate, *i.e.*, average treadwear of the last 4 quarterly course monitoring tire tests conducted by NHTSA.

Round off the percentage to the nearest lower 20-point increment.

(f) *Traction grading conditions and procedures*—(1) *Conditions.* (i) Tire traction performance is evaluated on skid pads that are established, and whose severity is monitored, by the NHTSA both for its compliance testing and for that of regulated persons. The test pavements are asphalt and concrete surfaces constructed in accordance with the specifications for pads ''C'' and ''A'' in the ''Manual for the Construction and Maintenance of Skid Surfaces,'' National Technical Information Service No. DOT-HS-800-814. The surfaces have locked wheel traction coefficients when evaluated in accordance with paragraphs (f)(2)(i) through (f)(2)(vii) of this section of 0.50 ±0.10 for the asphalt and 0.35 ±0.10 for the concrete. The location of the skid pads is described in appendix B to this section.

(ii) The standard tire is the tire specified in ASTM E 501 (incorporated by reference, *see* §575.3).

(iii) The pavement surface is wetted in accordance with paragraph 4.7, ''Pavement Wetting System,'' of ASTM E 274 (incorporated by reference, *see* §575.3).

(iv) The test apparatus is a test trailer built in conformity with the specifications in paragraph 4, ''Apparatus,'' of ASTM E 274 (incorporated by reference, *see* §575.3). The test apparatus is instrumented in accordance with paragraph 4.5 of that method, except that the ''wheel load'' in paragraph 4.3 and tire and rim specifications in paragraph 4.4 of that method are as specified in the procedures in paragraph (f)(2) of this section for standard and candidate tires.

(v) The test apparatus is calibrated in accordance with ASTM F 377 (incorporated by reference, *see* §575.3), with the trailer's tires inflated to 24 psi and loaded to 1,085 pounds.

(vi) Consecutive tests on the same surface are conducted not less than 30 seconds apart.

(vii) A standard tire is discarded in accordance with ASTM E 501 (incorporated by reference, *see* §575.3).

(2) *Procedure.* (i) Prepare two standard tires as follows:

(A) Condition the tires by running them for 200 miles on a pavement surface.

(B) Mount each tire on a rim of design or measuring rim width specified for tires of its size in accordance with 49 CFR 571.109, S4.4.1 (a) or (b), or a rim having a width within −0 to +0.50 inches of the width listed. Then inflate the tire to 24 psi, or, in the case of a tire with inflation pressure measured in kilopascals, to 180 kPa.

(C) Statically balance each tire-rim combination.

(D) Allow each tire to cool to ambient temperature and readjust its inflation pressure to 24 psi, or, in the case of a tire with inflation pressure measured in kilopascals, to 180 kPa.

(ii) Mount the tires on the test apparatus described in paragraph (f)(1)(iv) of this section and load each tire to 1,085 pounds.

(iii) Tow the trailer on the asphalt test surface specified in paragraph (f)(1)(i) of this section at a speed of 40 mph, lock one trailer wheel, and record the locked-wheel traction coefficient on the tire associated with that wheel between 0.5 and 1.5 seconds after lockup.

(iv) Repeat the test on the concrete surface, locking the same wheel.

(v) Repeat the tests specified in paragraphs (f)(2) (iii) and (iv) of this section for a total of 10 measurements on each test surface.

(vi) Repeat the procedures specified in paragraphs (f)(2) (iii) through (v) of this section, locking the wheel associated with the other tire.

(vii) Average the 20 measurements taken on the asphalt surface to find the standard tire traction coefficient for the asphalt surface. Average the 20 measurements taken on the concrete

surface to find the standard tire traction coefficient for the concrete surface. The standard tire traction coefficient so determined may be used in the computation of adjusted traction coefficients for more than one candidate tire.

(viii) Prepare two candidate tires of the same construction type, manufacturer, line, and size designation in accordance with paragraph (f)(2)(i) of this section, mount them on the test apparatus, and test one of them according to the procedures of paragraph (f)(2)(ii) through (v) of this section, except load each tire to 85% of the test load specified in § 575.104(h). For CT tires, the test inflation of candidate tires shall be 230 kPa. Candidate tire measurements may be taken either before or after the standard tire measurements used to compute the standard tire traction coefficient. Take all standard tire and candidate tire measurements used in computation of a candidate tire's adjusted traction coefficient within a single three hour period. Average the 10 measurements taken on the asphalt surface to find the candidate tire traction coefficient for the asphalt surface. Average the 10 measurements taken on the concrete surface to find the candidate tire traction coefficient for the concrete surface.

(ix) Compute a candidate tire's adjusted traction coefficient for asphalt (μ_a) by the following formula:

(μ_a) = Measured candidate tire coefficient for asphalt+0.50 − Measured standard tire coefficient for asphalt

(x) Compute a candidate tire's adjusted traction coefficient for concrete (μ_c) by the following formula:

μ_c=Measured candidate tire coefficient for concrete +0.35 μMeasured standard tire coefficient for concrete

(g) *Temperature resistance grading.* (1) Mount the tire on a rim of design or measuring rim width specified for tires of its size in accordance with § 571.109, paragraph S4.4.1 (a) or (b) and inflate it to the applicable pressure specified in Table 1 of this section.

(2) Condition the tire-rim assembly to a temperature of 95 °F for at least 3 hours.

(3) Adjust the pressure again to the applicable pressure specified in Table 1 of this section.

(4) Mount the tire-rim assembly on an axle, and press the tire tread against the surface of a flat-faced steel test wheel that is 67.23 inches in diameter and at least as wide as the section width of the tire.

(5) During the test, including the pressure measurements specified in paragraphs (g) (1) and (3) of this section, maintain the temperature of the ambient air, as measured 12 inches from the edge of the rim flange at any point on the circumference on either side of the tire at 95 °F. Locate the temperature sensor so that its readings are not affected by heat radiation, drafts, variations in the temperature of the surrounding air, or guards or other devices.

(6) Press the tire against the test wheel with a load of 88 percent of the tire's maximum load rating as marked on the tire sidewall.

(7) Rotate the test wheel at 250 rpm for 2 hours.

(8) Remove the load, allow the tire to cool to 95 °F or for 2 hours, whichever occurs last, and readjust the inflation pressure to the applicable pressure specified in Table 1 of this section.

(9) Reapply the load and without interruption or readjustment of inflation pressure, rotate the test wheel at 375 rpm for 30 minutes, and then at successively higher rates in 25 rpm increments, each for 30 minutes, until the tire has run at 575 rpm for 30 minutes, or to failure, whichever occurs first.

TABLE I—TEST INFLATION PRESSURES

[Maximum permissible inflation pressure for the following test]

Test type	Tires other than CT tires									CT tires			
	psi				kPa					kPa			
	32	36	40	60	240	280	300	340	350	290	330	350	390
Treadwear test	24	28	32	52	180	220	180	220	180	230	270	230	270
Temperature resistant test	30	34	38	58	220	260	220	260	220	270	310	270	310

(h) *Determination of test load.* (1) To determine test loads for purposes of paragraphs (e)(2)(iii) and (f)(2)(viii), follow the procedure set forth in paragraphs (h) (2) through (5) of this section.

(2) Determine the tire's maximum inflation pressure and maximum load rating both as specified on the tire's sidewall.

(3) Determine the appropriate multiplier corresponding to the tire's maximum inflation pressure, as set forth in Table 2.

(4) Multiply the tire's maximum load rating by the multiplier determined in paragraph (h)(3). This is the tire's calculated load.

(5) Round the product determined in paragraph (h)(4) (the calculated load) to the nearest multiple of ten pounds or, if metric units are used, 5 kilograms. For example, 903 pounds would be rounded to 900 and 533 kilograms would be rounded to 535. This figure is the test load.

TABLE 2

Maximum inflation pressure	Multiplier to be used for treadwear testing	Multiplier to be used for traction testing
Tires other than CT tires		
32 psi	.851	.851
36 psi	.870	.797
40 psi	.883	.753
240 kPa	.866	.866
280 kPa	.887	.804
300 kPa	.866	.866
340 kPa	.887	.804
350 kPa	.866	.866
CT tires		
290 kPa	.866	.866
330 kPa	.887	.804
305 kPa	.866	.866
390 kPa	.887	.804

TABLE 2A

Tire size designation	Temp resistance			Traction	Treadwear		
	Max pressure				Max pressure		
	32	36	40		32	36	40
145/70 R13	615	650	685	523	523	553	582
155/70 R13	705	740	780	599	599	629	663
165/70 R13	795	835	880	676	676	710	748
175/70 R13	890	935	980	757	757	795	833
185/70 R13	990	1040	1090	842	842	884	926
195/70 R13	1100	1155	1210	935	935	982	1029
155/70 R14	740	780	815	629	629	663	693
175/70 R14	925	975	1025	786	786	829	871
185/70 R14	1045	1100	1155	888	888	935	982
195/70 R14	1155	1220	1280	982	982	1037	1088
155/70 R15	770	810	850	655	655	689	723
175/70 R15	990	1040	1090	842	842	884	927
185/70 R15	1100	1155	1210	935	935	982	1029
5.60–13	725	810	880	616	616	689	748
5.20–14	695	785	855	591	591	667	727
165–15	915	1,015	1,105	779	779	863	939
185/60 R 13	845	915	980	719	719	778	833

(i)–(l) [Reserved]

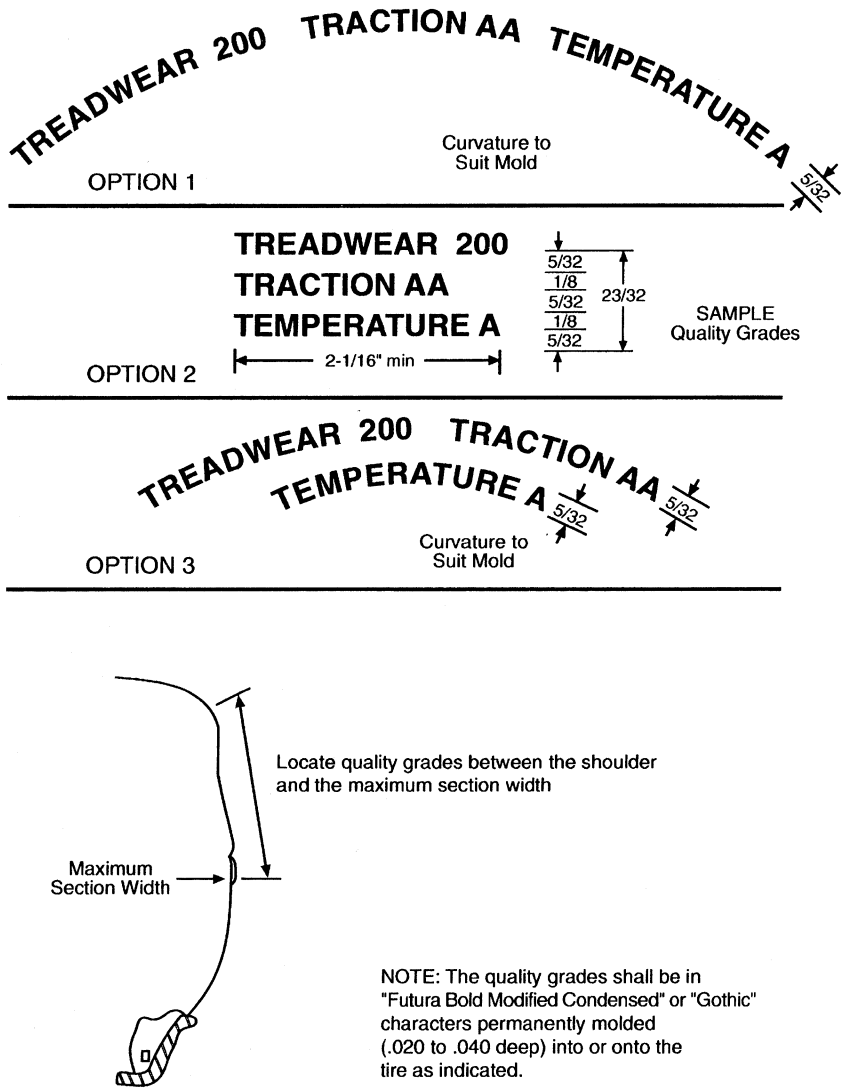


Figure 1

FIGURE 2—[PART I]—DOT QUALITY GRADES

TREADWEAR

TRACTION AA A B C

TEMPERATURE A B C

(Part II) All Passenger Car Tires Must Conform to Federal Safety Requirements in Addition to These Grades

TREADWEAR

The treadwear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, a tire graded 150 would wear one and one-half (1½) times as well on the government course as a tire graded 100. The relative performance of tires depends upon the actual conditions of their use, however, and may depart significantly from the norm due to variations in driving habits, service practices and differences in road characteristics and climate.

TRACTION

The traction grades, from highest to lowest, are AA, A, B, and C. Those grades represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete. A tire marked C may have poor traction performance. Warning: The traction grade assigned to this tire is based on straight-ahead braking traction tests, and does not include acceleration, cornering, hydroplaning, or peak traction characteristics.

TEMPERATURE

The temperature grades are A (the highest), B, and C, representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel. Sustained high temperature can cause the material of the tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure. The grade C corresponds to a level of performance which all passenger car tires must meet under the Federal Motor Safety Standard No. 109. Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law. Warning: The temperature grade for this tire is established for a tire that is properly inflated and not overloaded. Excessive speed, underinflation, or excessive loading, either separately or in combination, can cause heat buildup and possible tire failure.

APPENDIX A—TREADWEAR TEST COURSE AND DRIVING PROCEDURES

Introduction. The test course consists of three loops of a total of 400 miles in the geographical vicinity of Goodfellow AFB, San Angelo, Tex.

The first loop runs south 143 miles through the cities of Eldorado, Sonora, and Juno, Tex. to the Camp Hudson Historical Marker, and returns by the same route.

The second loop runs east over Farm and Ranch Roads (FM) and returns to its starting point.

The third loop runs northwest to Water Valley, northeast toward Robert Lee and returns via Texas 208 to the vicinity of Goodfellow AFB.

Route. The route is shown in Figure 3. The table identifies key points by number. These numbers are encircled in Figure 3 and in parentheses in the descriptive material that follows.

Southern Loop. The course begins at the intersection (1) of Ft. McKavitt Road and Paint Rock Road (FM388) at the northwest corner of Goodfellow AFB. Drive east via FM 388 to junction with Loop Road 306 (2). Turn right onto Loop Road 306 and proceed south to junction with US277 (3). Turn onto US277 and proceed south through Eldorado and Sonora (4), continuing on US277 to junction with FM189 (5). Turn right onto FM189 and proceed to junction with Texas 163 (6). Turn left onto Texas 163, and at the option of the manufacturer:

(A) Proceed south to Camp Hudson Historical Marker and onto the paved shoulder (7). Reverse route to junction of Loop Road 306 and FM 388 (2); or

(B) Proceed south to junction with Frank's Crossing. Reverse route at Frank's Crossing and proceed north on Texas 163 to junction with Highway 189; Reverse route at junction with Highway 189; proceed south on Texas 163 to junction with Frank's Crossing; reverse route at Frank's Crossing and proceed north to junction of Loop Road 306 and FM 388 (2).

Eastern Loop. From junction of Loop Road 306 and FM388 (2), make right turn onto FM388 and drive east to junction with FM2334 (13). Turn right onto FM2334 and proceed south across FM765 (14) to junction of FM2334 and US87 (15). For convoys that originate at Goodfellow AFB, make U-turn and return to junction of FM388 and Loop Road 306 (2) by the same route. For convoys that do not originate at Goodfellow AFB, upon reaching junction of FM2334 and US87 (15), make U-Turn and continue north on FM2334 past the intersection with FM388 to Veribest Cotton Gin, a distance of 1.8 miles beyond the intersection. Make U-turn and return to junction of FM2334 and FM388. Turn right onto FM388, proceed west to junction FM388 and Loop Road 306.

Northwestern Loop. From junction of Loop Road 306 and FM388 (2), make right turn onto Loop Road 306. Proceed onto US277, to junction with FM2105 (8). Turn left onto FM2105 and proceed west to junction with US87 (10). Turn right on US87 and proceed northwest to the junction with FM2034 near the town of Water Valley (11). Turn right onto FM2034 and proceed north to Texas 208 (12). Turn right onto Texas 208 and proceed south to junction with FM2105 (9). Turn left onto FM2105 and proceed east to junction with

US277 (8). Turn right onto US277 and proceed south onto Loop Road 306 to junction with FM388 (2). For convoys that originate at Goodfellow AFB, turn right onto FM388 and proceed to starting point at junction of Ft. McKavitt Road and FM388 (1). For convoys that do not originate at Goodfellow AFB, do not turn right onto FM388 but continue south on Loop Road 306.

Driving instructions. The drivers shall run at posted speed limits throughout the course unless an unsafe condition arises. If such condition arises, the speed should be reduced to the maximum safe operating speed.

Braking Procedures at STOP signs. There are a number of intersections at which stops are required. At each of these intersections a series of signs is placed in a fixed order at follows:

SIGN LEGEND

Highway Intersection 1000 (or 2000) Feet
STOP AHEAD
Junction XXX
Direction Sign (Mereta→)
STOP or YIELD

Procedures. 1. Approach each intersection at posted speed limit.

2. When abreast of the STOP AHEAD sign, apply the brakes so that the vehicle decelerates smoothly to 20 mph when abreast of the direction sign.

3. Come to a complete stop at the STOP sign or behind any vehicle already stopped.

KEY POINTS ALONG TREADWEAR TEST COURSE, APPROX. MILEAGES, AND REMARKS

		Mileages	*Remarks*
1	Ft. McKavitt Road & FM 388	0	
2	FM388 & Loop 306 *	2	STOP
3	Loop 306 & US277 . .	10	
4	Sonora	72	
5	US 277 & FM 189 . . .	88	
6	FM 189 & Texas 163 .	124	
7	Historical Marker . . . (Camp Hudson)	143	U-TURN
4	Sonora	214	
3	Loop 306 & US 277 . .	276	
2	FM 388 & Loop 306 .	283	
13	FM 388 & FM 2334 †	290	STOP
14	FM 2334 & FM 765 . .	292	STOP
15	FM 2334 & US 87 . . .	295	U-TURN
14	FM 2334 & FM 765 . .	298	STOP
13	FM 388 & FM 2334 . .	300	STOP/YIELD/ BLINKING RED LIGHT
2	FM 388 & Loop 306	307	STOP/YIELD/ BLINKING RED LIGHT
8	US 277 & FM 2105 . .	313	
9	FM 2105 & Texas 208	317	STOP
10	FM 2105 & US 87 . . .	320	STOP
11	FM 2034 & US 87 . . .	338	
12	FM 2034 & Texas 208	362	YIELD
9	FM 2105 & Texas 208	387	
8	FM 2105 & US 277 . .	391	YIELD/STOP
2	FM 388 & Loop 306 *	398	
1	Ft. McKavitt Road & FM 388	400	
16	Veribest Cotton Gin .	1.8	U-TURN

* Convoys not originating at Goodfellow AFB will not traverse the leg of course.

† Convoys not originating at Goodfellow AFB will proceed to 16, Veribest Cotton Gin, Make U-Turn and return to 13.

FIGURE 2

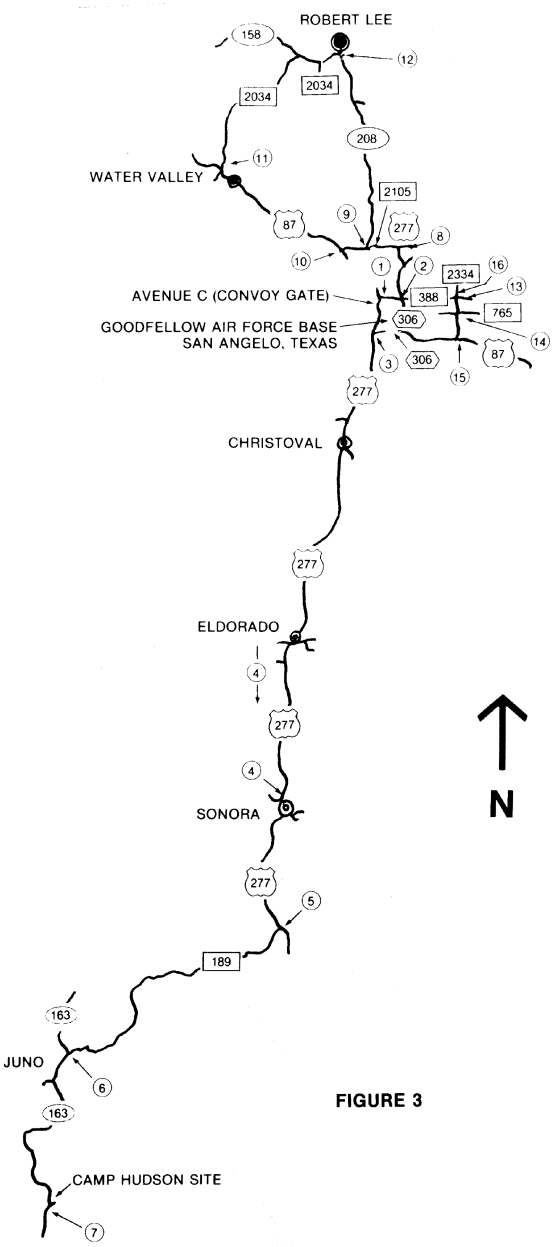


FIGURE 3

APPENDIX B—TRACTION SKID PADS

Two skid pads have been laid on an unused runway and taxi strip on Goodfellow AFB. Their location is shown in Figure 4.

The asphalt skid pad is 600 ft.×60 ft. and is shown in black on the runway in Figure 4. The pad is approached from either end by a

75 ft. ramp followed by 100 ft. of level pavement. This arrangement permits the skid trailers to stabilize before reaching the test area. The approaches are shown on the figure by the hash-marked area.

The concrete pad is 600 ft.×48 ft. and is on the taxi strip. The approaches to the concrete pad are of the same design as those for the asphalt pads.

A two lane asphalt road has been built to connect the runway and taxi strip. The road is parallel to the northeast-southwest runway at a distance of 100 ft. The curves have super-elevation to permit safe exit from the runway at operating speeds.

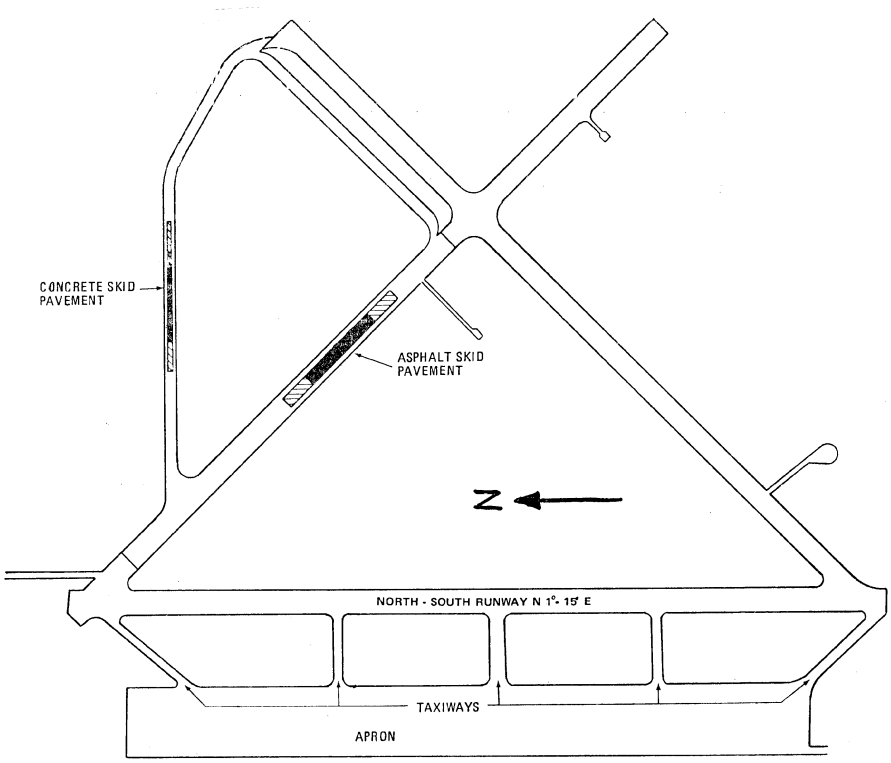


FIGURE 4

APPENDIX C—METHOD OF LEAST SQUARES

The method of least squares is a method of calculation by which it is possible to obtain a reliable estimate of a true physical relationship from a set of data which involve random error. The method may be used to establish a regression line that minimizes the sum of the squares of the deviations of the measured data points from the line. The regression line is consequently described as the line of "best fit" to the data points. It is described in terms of its slope and its "y" intercept.

The graph in Figure 5 depicts a regression line calculated using the least squares method from data collected from a hypothetical treadwear test of 6,400 miles, with tread depth measurements made at every 500 miles.

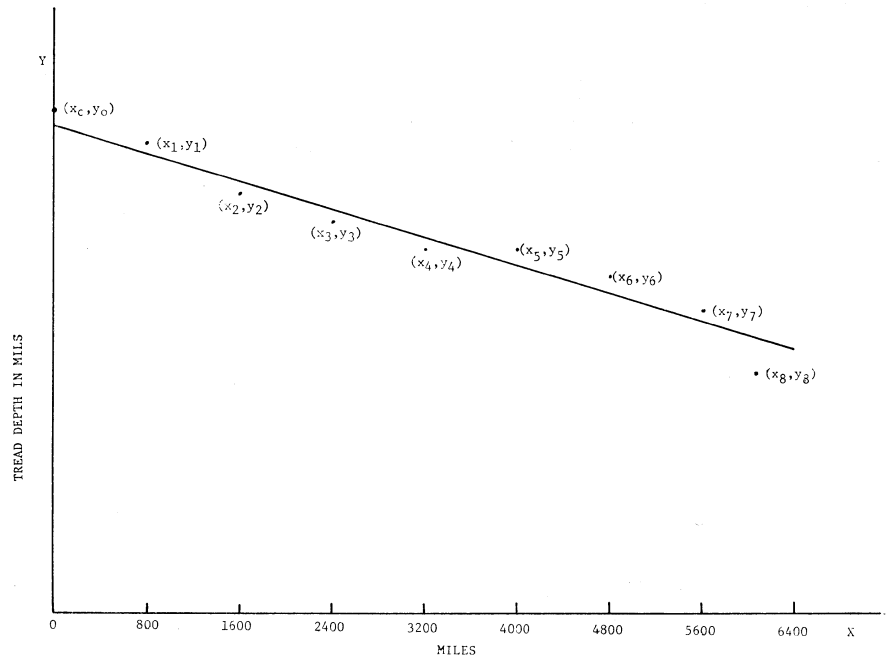


FIGURE 5

In this graph, x_j, y_j $_{(j=0,\ 1,\ \ldots\ \geq,\ 8)}$ are the individual data points representing the tread depth measurements (the overall average for the tire with 6 measurements in each tire groove) at the beginning of the test (after break-in) and at the end of each 800-mile segment of the test.

The absolute value of the slope of the regression line is an expression of the mils of tread worn per 1,000 miles, and is calculated by the following formula:

$$b = 1000\,\frac{\left(\sum_{j=0}^{8} X_j Y_j - \frac{1}{9}\sum_{j=0}^{8} X_j \sum_{j=0}^{8} Y_j\right)}{\sum_{j=0}^{8} X_j^{\,2} - \frac{1}{9}\left(\sum_{j=0}^{8} X_j\right)^2}$$

The ''*y*'' intercept of the regression line (a) in mils is calculated by the following formula:

$$a = \frac{1}{9}\sum_{j=0}^{8} Y_j - \frac{b}{9000}\sum_{j=0}^{8} X_j$$

APPENDIX D—USER FEES

1. *Course Monitoring Tires:* A fee of $333.00 will be assessed for each course monitoring tire purchased from NHTSA at Goodfellow Air Force Base, San Angelo, Texas. This fee is based upon the direct and indirect costs attributable to: (a) the purchase of course monitoring tires by NHTSA, (b) a pro rata allocation of salaries and general facility costs associated with maintenance of the tires, and (c) warehouse storage fees for the tires.

2. *Use of Government Traction Skid Pads:* A fee of $34.00 will be assessed for each hour, or fraction thereof, that the traction skid pads at Goodfellow Air Force Base, San Angelo, Texas are used. This fee is based upon the direct and indirect costs attributable to: (a) depreciation on facilities and equipment comprising or used in conjunction with the traction skid pads (i.e., skid system, water truck, air compressor, skid track, tractor sweeper, equipment, buildings), (b) the calibration of the traction skid pads, and (c) a pro rata allocation of salaries and general facility costs associated with maintenance of the traction skid pads.

3. Fee payments shall be by check, draft, money order, or Electronic Funds Transfer

System made payable to the Treasurer of the United States.

4. The fees set forth in this appendix continue in effect until adjusted by the Administrator of NHTSA. The Administrator reviews the fees set forth in this appendix and, if appropriate, adjusts them by rule at least every 2 years.

[43 FR 30549, July 17, 1978]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 575.104, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at www.fdsys.gov.

§ 575.105 Vehicle rollover.

(a) *Purpose and scope.* This section requires manufacturers of utility vehicles to alert the drivers of those vehicles that they have a higher possibility of rollover than other vehicle types and to advise them of steps that can be taken to reduce the possibility of rollover and/or to reduce the likelihood of injury in a rollover.

(b) *Application.* This section applies to utility vehicles.

(c) *Definitions.*

Utility vehicles means multipurpose passenger vehicles (other than those which are passenger car derivatives) which have a wheelbase of 110 inches or less and special features for occasional off-road operation.

(d) *Required information*—(1) *Rollover Warning Label.* (i) Except as provided in paragraph (d)(2) of this section, each vehicle must have a label permanently affixed to either side of the sun visor, at the manufacturer's option, at the driver's seating position. The label must conform in content, form and sequence to the label shown in Figure 1 of this section, and must comply with the following requirements:

(A) The heading area must be yellow, with the text and the alert symbol in black.

(B) The message area must be white with black text.

(C) The pictograms must be black with a white background.

(D) The label must be appropriately sized so that it is legible, visible and prominent to the driver.

(ii) *Vehicles manufactured on or after September 1, 1999 and before September 1, 2000.* When the rollover warning label required by paragraph (d)(1)(i) of this section and the air bag warning label required by paragraph S4.5.1(b) of 49 CFR 571.208 are affixed to the same side of the driver side sun visor, either:

(A) The rollover warning label must be affixed to the right (as viewed from the driver's seat) of the air bag warning label and the labels may not be contiguous; or

(B) The pictogram of the air bag warning label must be separated from the pictograms of the rollover warning label by text, and

(*1*) The labels must be located such that the shortest distance from any of the lettering or graphics on the rollover warning label to any of the lettering or graphics on the air bag warning label is not less than 3 cm, or

(*2*) If the rollover warning and air bag warning labels are each completely surrounded by a continuous solid-lined border, the shortest distance from the border of the rollover warning label to the border of the air bag warning label is not less than 1 cm.

(iii) The manufacturer must select the option to which a vehicle is certified by the time the manufacturer certifies the vehicle and may not thereafter select a different option for that vehicle. If a manufacturer chooses to certify compliance with more than one compliance option, the vehicle must satisfy the requirements applicable to each of the options selected.

(iv) *Vehicles manufactured on or after September 1, 2000.* When the rollover warning label required by paragraph (d)(1)(i) of this section and the air bag warning label required by paragraph S4.5.1(b) of 49 CFR 571.208 are affixed to the same side of the driver side sun visor the pictogram of the air bag warning label must be separated from the pictograms of the rollover warning label by text and:

(A) The labels must be located such that the shortest distance from any of the lettering or graphics on the rollover warning label to any of the lettering or graphics on the air bag warning label is not less than 3 cm, or

(B) If the rollover warning and air bag warning labels are each completely surrounded by a continuous solid-lined border, the shortest distance from the border of the rollover warning label to the border of the air bag warning label must be not less than 1 cm.

(2) *Alternate location for warning label.* As an alternative to affixing the warning label required by paragraph (d)(1)(i) of this section to the driver's sun visor, a manufacturer may permanently affix the label to the lower rear corner of the forwardmost driver's side window. The label must be legible, visible and prominent to a person next to the exterior of the driver's door.

(3) *Rollover Alert Label.* If the label required by paragraph (d)(1) of this section and affixed to the driver side sun visor is not visible when the sun visor is in the stowed position, an alert label must be permanently affixed to that visor so that the label is visible when the visor is in that position. The alert label must comply with the following requirements:

(i) The label must read:

ROLLOVER WARNING

Flip Visor Over

(ii) The label must be black with yellow text.

(iii) The label must be no less than 20 square cm.

(4) *Owner's Manual.* The owner's manual must include the following statements and discussions:

(i) The statement ''Utility vehicles have a significantly higher rollover rate than other types of vehicles.''

(ii) A discussion of the vehicle design features which cause this type of vehicles to be more likely to rollover (e.g., higher center of gravity);

(iii) A discussion of the driving practices that can reduce the risk of a rollover (e.g., avoiding sharp turns at excessive speed); and

(iv) The statement: ''In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a seat belt.''

(5) *Combined Rollover and Air Bag Alert Warning.* If the warnings required by paragraph (d)(1) of this section and paragraph S4.5.1(b) of 49 CFR 571.208 to be affixed to the driver side sun visor are not visible when the sun visor is in the stowed position, a combined rollover and air bag alert label may be permanently affixed to that visor in lieu of the alert labels required by paragraph (d)(3) of this section and paragraph S4.5.1(c)(2) of 49 CFR 571.208. The combined rollover and air bag alert label must be visible when the visor is in the stowed position. The combined rollover and air bag alert warning must conform in content to the label shown in Figure 2 of this section, and must comply with the following requirements:

(i) The label must read:

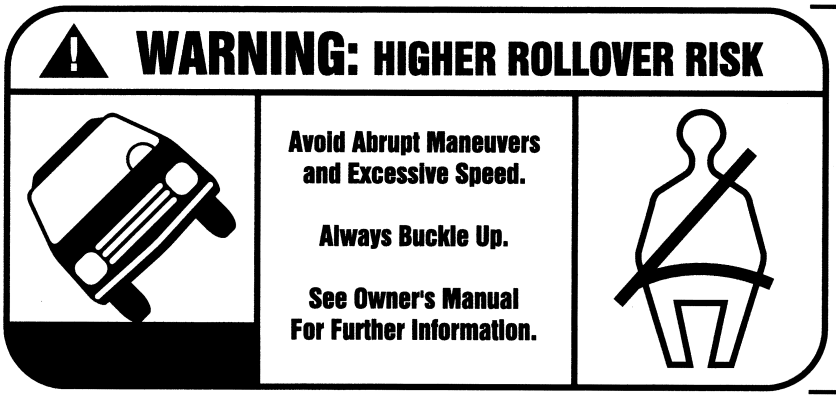
AIR BAG AND ROLLOVER WARNINGS
Flip Visor Over

(ii) The message area must be black with yellow text. The message area must be no less than 20 square cm.

(iii) The pictogram shall be black with a red circle and slash on a white background. The pictogram must be not less than 20 mm in diameter.

(6) At the option of the manufacturer, the requirements in paragraph (d)(1)(i) for labels that are permanently affixed to specified parts of the vehicle may instead be met by permanent marking and molding of the required information.

BLACK TEXT ON YELLOW BACKGROUND



ARTWORK AND REMAINING TEXT IN BLACK AND WHITE

FIGURE 1

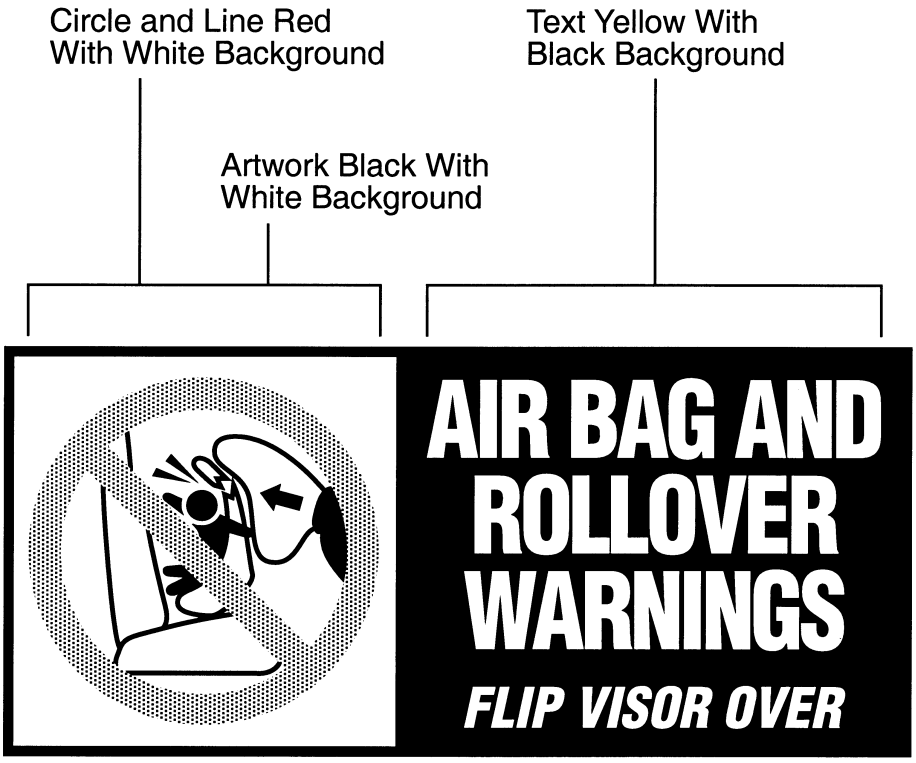


Figure 2. Sun Visor Label Visible When Visor is in Up Position.

[64 FR 11733, Mar. 9, 1999, as amended at 64 FR 47123, Aug. 30, 1999]

§ 575.106 Tire fuel efficiency consumer information program.

(a) *Scope.* This section requires tire manufacturers, tire brand name owners, and tire retailers to provide information indicating the relative performance of replacement passenger car tires in the areas of fuel efficiency, safety, and durability.

(b) *Purpose.* The purpose of this section is to aid consumers in making better educated choices in the purchase of passenger car tires.

(c) *Application.* This section applies to replacement passenger car tires. However, this section does not apply to light truck tires, deep tread, winter-type snow tires, space-saver or temporary use spare tires, tires with nominal rim diameters of 12 inches or less, or to limited production tires as defined in § 575.104(c)(2). Tire manufacturers may comply with the requirements in this § 575.106 as an alternative to complying with the requirements in § 575.104(d)(1)(i)(A) and (B).

(d) *Definitions.*—(1) All terms used in this section that are defined in Section 32101 of Title 49, United States Code, are used as defined therein.

(2) As used in this section:

Brand name owner means a person, other than a tire manufacturer, who owns or has the right to control the brand name of a tire or a person who licenses another to purchase tires from a tire manufacturer bearing the licensor's brand name.

CT means a pneumatic tire with an inverted flange tire and rim system in which the rim is designed with rim

flanges pointed radially inward and the tire is designed to fit on the underside of the rim in a manner that encloses the rim flanges inside the air cavity of the tire.

Dealer means a person selling and distributing new motor vehicles or motor vehicle equipment primarily to purchasers that in good faith purchase the vehicle or equipment other than for resale.

Distributor means a person primarily selling and distributing motor vehicles or motor vehicle equipment for resale.

Lab alignment tires or *LATs* means the reference tires which the reference lab will test to be used to align other rolling resistance machines with the reference lab in accordance with the machine alignment procedure in ISO 28580 (incorporated by reference, *see* §575.3), section 10.

Light truck (LT) tire means a tire designated by its manufacturer as primarily intended for use on lightweight trucks or multipurpose passenger vehicles.

Passenger car tire means a tire intended for use on passenger cars, multipurpose passenger vehicles, and trucks, that have a gross vehicle weight rating (GVWR) of 10,000 pounds or less.

Reference lab means the laboratory or laboratories that the National Highway Traffic Safety Administration designates and which maintains and operates a rolling resistance test machine to test LATs for rolling resistance so that other testing laboratories may correlate the results from its rolling resistance test machine in accordance with the machine alignment procedure in ISO 28580 (incorporated by reference, *see* §575.3), section 10.

Replacement passenger car tire means any passenger car tire other than a passenger car tire sold as original equipment on a new vehicle.

Size designation means the alpha-numeric designation assigned by a manufacturer that identifies a tire's size. This can include identifications of tire class, nominal width, aspect ratio, tire construction, and wheel diameter.

Stock keeping unit or *SKU* means the alpha-numeric designation assigned by a manufacturer to uniquely identify a tire product. This term is sometimes referred to as a product code, a product identifier, or a part number.

Tire line or *tire model* means the entire name used by a tire manufacturer to designate a tire product, including all prefixes and suffixes as they appear on the sidewall of a tire.

Tire retailer means a dealer or distributor of new replacement passenger car tires sold for use on passenger cars, multipurpose passenger vehicles, and trucks, that have a gross vehicle weight rating (GVWR) of 10,000 pounds or less.

(e) *Requirements.*—(1) *Information.* (i) *Requirements for tire manufacturers.* Subject to paragraph (e)(1)(iii) of this section, each manufacturer of tires, or in the case of tires marketed under a brand name, each brand name owner shall provide rating information for each tire of which it is the manufacturer or brand name owner in the manner set forth in paragraphs (e)(1)(i)(A) through (C) of this section. The ratings for each tire shall be only those specified in paragraph (e)(2) of this section. For the purposes of this section, each tire of a different SKU is to be rated separately. Each tire shall be able to achieve the level of performance represented by each rating.

(A) *Ratings.* Each tire shall be rated with the words, letters, symbols, and figures specified in paragraph (e)(2) of this section.

(B) *Tire label.* [Reserved]

(C) *Reporting requirements.* The information collection requirements contained in this section have been approved by the Office of Management and Budget under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*) and are awaiting an assigned OMB Control Number.

(*1*) Subject to paragraph (e)(1)(iii) of this section, manufacturers of tires or, in the case of tires marketed under a brand name, brand name owners of tires subject to this section shall submit to NHTSA electronically, either directly or through an agent, the following data for each rated replacement passenger car tire:

(*i*) Rolling resistance rating, as determined in paragraph (e)(2)(i) of this section.

(*ii*) Wet traction rating, as determined in paragraph (e)(2)(ii) of this section.

(*iii*) Treadwear rating, as determined in paragraph (e)(2)(iii) of this section.

(*2*) *Format of data submitted*. The information required under paragraph (e)(1)(i)(C)(*1*) of this section shall be submitted to NHTSA as extra columns in the electronic data submission required under section 26 of Part 579.

(*3*) *Exempted tires*. Manufacturers of tires or, in the case of tires marketed under a brand name, brand name owners of tires subject to this section shall submit to NHTSA all tire lines, size designations, and stock keeping units it manufactures which are exempted from this section (§ 575.106) as determined under paragraph (c) of this section. Where a manufacturer is required to report ratings under this section, the information required in this paragraph may be submitted with the ratings information reported in accordance with paragraph (e)(1)(i)(C)(*1*) of this section. Where a manufacturer of tires, or in the case of tires marketed under a brand name, brand name owners of tires only manufactures tires that are exempt from this section under paragraph (c) of this section, that manufacturer shall submit a one-time statement listing the tire lines, size designations, and stock keeping units it manufactures, and certifying that none of the tires it manufactures are required to be rated under this section.

(*4*) *New ratings information*. Whenever the tire manufacturer, or in the case of tires marketed under a brand name, the brand name owner receives information that would determine new or different information required under paragraph (e)(1)(i)(C)(*1*) of this section for a tire, the tire manufacturer or brand name owner shall submit the new ratings information to NHTSA on or before the date 30 calendar days after receipt by the manufacturer or brand name owner of the new information, whichever comes first.

(*5*) *Voluntary submission of data*. Manufacturers of tires or, in the case of tires marketed under a brand name, brand name owners of tires not subject to this section may submit to NHTSA data meeting the requirements of paragraphs (e)(1) and (2) of this section for any tire they wish to have included in the database of information available to consumers on NHTSA's Web site.

(ii) *Requirements for tire retailers*. Subject to paragraph (e)(1)(iii) of this section, each tire retailer shall provide rating information for each passenger car tire offered for sale in the manner set forth in this section.

(iii) *Date for compliance*. The requirements of paragraphs (e)(1)(i) and (e)(1)(ii) of this section will be implemented as indicated in a forthcoming final rule. These dates will be announced in the FEDERAL REGISTER.

(2) *Performance*.—(i) *Fuel efficiency*. [Reserved]

(ii) *Traction*. [Reserved]

(iii) *Treadwear*. [Reserved]

(f) *Fuel efficiency rating conditions and procedures*.—(1) *Conditions*. (i) Measurement of rolling resistance force under the test procedure specified in paragraph (f)(2) of this section shall be made using either the force or the torque method.

(ii) The test procedure specified in paragraph (f)(2) of this section shall be carried out on an 80-grit roadwheel surface.

(iii) The machine alignment procedure specified in section 10 of the test procedure specified in paragraph (f)(2) of this section shall be conducted using pairs of the LATs specified in paragraph (f)(1)(iv) of this section, and tested by the reference lab.

(iv) *Lab alignment tires*. The LATs to be used in the machine alignment procedure in section 10 of the test procedure specified in paragraph (f)(2) of this section will be specified in this section in a forthcoming final rule.

(v) *Break-in procedure for bias ply tires*. Before starting the rolling resistance testing under the test procedure specified in paragraph (f)(2) of this section on a bias ply replacement passenger car tire, the tire shall be broken in by running it for one (1) hour with the speed, loading, and inflation pressure as specified in paragraphs (f)(1)(v)(A), (f)(1)(v)(B), and (f)(1)(v)(C) of this section. After the one hour break-in, allow the tire to cool for two (2) hours and re-adjust to the required ISO 28580 (incorporated by reference, *see* § 575.3) test

inflation pressure, and verify 10 minutes after the adjustment is made. After break-in, the bias ply tire should follow the 30 minute warm-up procedure of ISO 28580 (incorporated by reference, *see* §575.3).

(A) *Speed*. The speed shall be 80 kilometer per hour (kph).

(B) *Loading*. The tire loading shall be 80 percent of the maximum tire load capacity.

(C) *Inflation pressure*. The inflation pressure shall be 210 kilopascals (kPa) for standard load tires, or 250 kPA for reinforced or extra load tires.

(2) *Procedure*. The test procedure shall be as specified in ISO 28580 (incorporated by reference, *see* §575.3), except that the conditions specified in paragraph (f)(1) of this section shall be used.

(g) *Traction rating conditions and procedures*. (1) *Conditions*. Test conditions are as specified in §575.104(f)(1), subject to the changes in paragraphs (g)(1)(i) through (g)(1)(iii) of this section to additionally measure the peak coefficient of friction.

(i) The sampling rate of the data acquisition is to be no less than 100 Hertz in accordance with Section 6.6.1.8 of ASTM E 1337 (incorporated by reference, *see* §575.3).

(ii) The rate of brake application shall be sufficient to control the time interval between initial brake application and peak longitudinal force to be between 0.3 and 0.5 seconds, and shall be determined in accordance with Section 6.3.2 of ASTM E 1337 (incorporated by reference, *see* §575.3).

(iii) The peak coefficient of friction (or peak braking coefficient) shall be determined in accordance with Section 12 of ASTM E 1337 (incorporated by reference, *see* §575.3) for each dataset.

(iv) The slide coefficient of friction will be determined in accordance with §575.104(f)(2)(iii).

(2) *Procedure*. (i) Prepare two standard tires as specified in §575.104(f)(2)(i).

(ii) Mount the tires on the test apparatus described in §575.104(f)(1)(iv) and load each tire to 1,085 pounds.

(iii) Tow the trailer on the asphalt test surface specified in §575.104(f)(1)(i) at a speed of 40 mph, lock one trailer wheel, and record the slide and peak coefficient of friction on the tire associated with that wheel.

(iv) Repeat the test on the concrete surface, locking the same wheel.

(v) Repeat the tests specified in paragraphs (g)(2)(iii) and (iv) of this section for a total of 10 measurements on each test surface.

(vi) Repeat the procedures specified in paragraphs (g)(2)(iii) through (v) of this section, locking the wheel associated with the other standard tire.

(vii) Average the 20 measurements taken on the asphalt surface to find the standard tire average peak coefficient of friction for the asphalt surface. Average the 20 measurements taken on the concrete surface to find the standard tire average peak coefficient of friction for the concrete surface. The standard tire average peak coefficient of friction so determined may be used in the computation of adjusted peak coefficients of friction for more than one candidate tire.

(viii) Average the 20 measurements taken on the asphalt surface to find the standard tire average slide coefficient of friction for the asphalt surface. Average the 20 measurements taken on the concrete surface to find the standard tire average slide coefficient of friction for the concrete surface. The standard tire average slide coefficient of friction so determined may be used in the computation of adjusted slide coefficients of friction for more than one candidate tire.

(ix) Prepare two candidate tires of the same SKU in accordance with paragraph (g)(2)(i) of this section, mount them on the test apparatus, and test one of them according to the procedures of paragraphs (g)(2)(ii) through (v) of this section, except load each tire to 85 percent of the test load specified in §575.104(h). For CT tires, the test inflation of candidate tires shall be 230 kPa. Candidate tire measurements may be taken either before or after the standard tire measurements used to compute the standard tire traction coefficient. Take all standard tire and candidate tire measurements used in computation of a candidate tire's adjusted peak coefficient and adjusted slide coefficient of friction within a single three-hour period. Average the 10 measurements taken on the asphalt

surface to find the candidate tire average peak coefficient and average slide coefficient of friction for the asphalt surface. Average the 10 measurements taken on the concrete surface to find the candidate tire average peak coefficient of friction for the concrete surface. Average the 10 measurements taken on the concrete surface to find the candidate tire average slide coefficient of friction for the concrete surface.

(x) Repeat the procedures specified in paragraph (g)(2)(viii) of this section, using the second candidate tire as the tire being tested.

(h) *Treadwear rating conditions and procedures.*—(1) *Conditions.* Test conditions are as specified in § 575.104(e)(1).

(2) *Procedure.* Test procedure is as specified in § 575.104(e)(2).

[75 FR 15944, Mar. 30, 2010]

Subpart C—Transportation Recall Enhancement, Accountability, and Documentation Act; Consumer Information

§ 575.201 Child restraint performance.

The National Highway Traffic Safety Administration has established a program for rating the performance of child restraints. The agency makes the information developed under this rating program available through a variety of means, including postings on its Web site, *http://www.nhtsa.dot.gov*.

[67 FR 67494, Nov. 5, 2002]

Subpart D—Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA–LU); Consumer Information

SOURCE: 71 FR 53585, Sept. 12, 2006, unless otherwise noted.

§ 575.301 Vehicle labeling of safety rating information (applicable unless a vehicle is subject to § 575.302).

(a) *Purpose and Scope.* The purpose of this section is to aid potential purchasers in the selection of new passenger motor vehicles by providing them with safety rating information developed by NHTSA in its New Car Assessment Program (NCAP) testing. Manufacturers of passenger motor vehicles described in paragraph (b) of this section are required to include this information on the Monroney label. Although NHTSA also makes the information available through means such as postings at *http://www.safercar.gov* and *http://www.nhtsa.dot.gov*, the additional Monroney label information is intended to provide consumers with relevant information at the point of sale.

(b) *Application.* This section applies to automobiles with a GVWR of 10,000 pounds or less, manufactured on or after September 1, 2007, that are required by the Automobile Information Disclosure Act, 15 U.S.C. 1231–1233, to have price sticker labels (Monroney labels), *e.g.* passenger vehicles, station wagons, passenger vans, and sport utility vehicles, except for vehicles that are subject to § 575.302. Model Year 2012 or later vehicles manufactured prior to January 31, 2012 may be labeled according to the provisions of § 575.302 instead of this section provided the ratings placed on the safety rating label are derived from vehicle testing conducted by the National Highway Traffic Safety Administration under the enhanced NCAP testing and rating program.

(c) *Definitions.* (1) *Monroney label* means the label placed on new automobiles with the manufacturer's suggested retail price and other consumer information, as specified at 15 U.S.C. 1231–1233.

(2) *Safety rating label* means the label with NCAP safety rating information, as specified at 15 U.S.C. 1232(g). The safety rating label is part of the Monroney label.

(d) *Required Label.* (1) Except as specified in paragraph (f) of this section, each vehicle must have a safety rating label that is part of its Monroney label, meets the requirements specified in paragraph (e) of this section, and conforms in content, format and sequence to the sample label depicted in Figure 1 of this section. If NHTSA has not provided a safety rating for any category of vehicle performance for a vehicle, the manufacturer may use the smaller label specified in paragraph (f) of this section.

(2) The label must depict the star ratings for that vehicle as reported to the vehicle manufacturer by NHTSA.

(3) Whenever NHTSA informs a manufacturer in writing of a new safety rating for a specified vehicle or the continued applicability of an existing safety rating for a new model year, including any safety concerns, the manufacturer shall include the new or continued safety rating on vehicles manufactured on or after the date 30 calendar days after receipt by the manufacturer of the information.

(4) If, for a vehicle that has an existing safety rating for a category, NHTSA informs the manufacturer in writing that it has approved an optional NCAP test that will cover that category, the manufacturer may depict vehicles manufactured on or after the date of receipt of the information as ''Not Rated'' or ''To Be Rated'' for that category.

(5) The text ''Frontal Crash,'' ''Side Crash,'' ''Rollover,'' ''Driver,'' ''Passenger,'' ''Front Seat,'' ''Rear Seat'' and where applicable, ''Not Rated'' or ''To Be Rated,'' the star graphic indicating each rating, as well as any text in the header and footer areas of the label, must have a minimum font size of 12 point. All remaining text and symbols on the label (including the star graphic specified in paragraph (e)(8)(i)(A) of this section, must have a minimum font size of 8 point.

(e) *Required Information and Format*—(1) *Safety Rating Label Border*. The safety rating label must be surrounded by a solid dark line that is a minimum of 3 points in width.

(2) *Safety Rating Label Size and Legibility*. The safety rating label must be presented in a legible, visible, and prominent fashion that covers at least 8 percent of the total area of the Monroney label (*i.e.*, including the safety rating label) or an area with a minimum of 4½ inches in length and 3½ inches in height on the Monroney label, whichever is larger.

(3) *Heading Area*. The words ''Government Safety Ratings'' must be in boldface, capital letters that are light in color and centered. The background must be dark.

(4) *Frontal Crash Area*. (i) The frontal crash area must be placed immediately below the heading area and must have dark text and a light background. Both the driver and the right front passenger frontal crash test ratings must be displayed with the maximum star ratings achieved.

(ii) The words ''Frontal Crash'' must be in boldface, cover two lines, and be aligned to the left side of the label.

(iii) The word ''Driver'' must be on the same line as the word ''Frontal'' in ''Frontal Crash,'' and be left justified, horizontally centered and vertically aligned at the top of the label. The achieved star rating for ''Driver'' must be on the same line, left justified, and aligned to the right side of the label.

(iv) If NHTSA has not released the star rating for the ''Driver'' position, the text ''Not Rated'' must be used in boldface. However, as an alternative, the words ''To Be Rated'' (in boldface) may be used if the manufacturer has received written notification from NHTSA that the vehicle has been chosen for NCAP testing. Both texts must be on the same line as the text ''Driver'', left justified, and aligned to the right side of the label.

(v) The word ''Passenger'' must be on the same line as the word ''Crash'' in ''Frontal Crash,'' below the word ''Driver,'' and be left justified, horizontally centered and vertically aligned at the top of the label. The achieved star rating for ''Passenger'' must be on the same line, left justified, and aligned to the right side of the label.

(vi) If NHTSA has not released the star rating for ''Passenger,'' the words ''Not Rated'' must be used in boldface. However, as an alternative, the words ''To Be Rated'' (in boldface) may be used if the manufacturer has received written notification from NHTSA that the vehicle has been chosen for NCAP testing. Both texts must be on the same line as the text ''Passenger'', left justified, and aligned to the right side of the label.

(vii) The words ''Star ratings based on the risk of injury in a frontal impact.'', followed (on the next line) by the statement ''Frontal ratings should ONLY be compared to other vehicles of similar size and weight.'' must be placed at the bottom of the frontal crash area.

(5) *Side Crash Area.* (i) The side crash area must be immediately below the frontal crash area, separated by a dark line that is a minimum of three points in width. The text must be dark against a light background. Both the driver and the rear seat passenger side crash test rating must be displayed with the maximum star rating achieved.

(ii) The words ''Side Crash'' must cover two lines, and be aligned to the left side of the label in boldface.

(iii) The words ''Front seat'' must be on the same line as the word ''Side'' in ''Side Crash'' and be left justified, horizontally centered and vertically aligned in the middle of the label. The achieved star rating for ''Front seat'' must be on the same line, left justified, and aligned to the right side of the label.

(iv) If NHTSA has not released the star rating for ''Front Seat,'' the words ''Not Rated'' must be used in boldface. However, as an alternative, the words ''To Be Rated'' (in boldface) may be used if the manufacturer has received written notification from NHTSA that the vehicle has been chosen for NCAP testing. Both texts must be on the same line as the text ''Front seat'', left justified, and aligned to the right side of the label.

(v) The words ''Rear seat'' must be on the same line as the word ''Crash'' in ''Side Crash,'' below the word ''Front seat,'' and be left justified, horizontally centered and vertically aligned in the middle of the label. The achieved star rating for ''Rear seat'' must be on the same line, left justified, and aligned to the right side of the label.

(vi) If NHTSA has not released the star rating for ''Rear Seat,'' the text ''Not Rated'' must be used in boldface. However, as an alternative, the text ''To Be Rated'' (in boldface) may be used if the manufacturer has received written notification from NHTSA that the vehicle has been chosen for NCAP testing. Both texts must be on the same line as the text ''Rear seat'', left justified, and aligned to the right side of the label.

(vii) The words: ''Star ratings based on the risk of injury in a side impact.'' must be placed at the bottom of the side crash area.

(6) *Rollover Area.* (i) The rollover area must be immediately below the side crash area, separated by a dark line that is a minimum of three points in width. The text must be dark against a light background. The rollover test rating must be displayed with the maximum star rating achieved.

(ii) The word ''Rollover'' must be aligned to the left side of the label in boldface. The achieved star rating must be on the same line, aligned to the right side of the label.

(iii) If NHTSA has not tested the vehicle, the words ''Not Rated'' must be used in boldface. However, as an alternative, the words ''To Be Rated'' (in boldface) may be used if the manufacturer has received written notification from NHTSA that the vehicle has been chosen for NCAP testing. Both texts must be on the same line as the text ''Rollover'', left justified, and aligned to the right side of the label.

(iv) The words: ''Star ratings based on the risk of rollover in a single vehicle crash.'' must be placed at the bottom of the rollover area.

(7) *Graphics.* The star graphic is depicted in Figure 3 and the safety concern graphic is depicted in Figure 4.

(8) *General Information Area.* (i) The general information area must be immediately below the rollover area, separated by a dark line that is a minimum of three points in width. The text must be dark and the background must be light. The text must state the following, in the specified order, on separate lines:

(A) '' Star ratings range from 1 to 5 stars (★★★★★), with 5 being the highest.'' and

(B) ''Source: National Highway Traffic Safety Administration (NHTSA)''

(9) *Footer Area.* The text ''*www.safercar.gov* or 1–888–327–4236'' must be provided in boldface letters that are light in color, and be centered. The background must be dark.

(10) *Safety Concern.* For vehicle tests for which NHTSA reports a safety concern as part of the star rating, the label must:

(i) Depict, as a superscript to the star rating, the related symbol, as depicted

in Figure 4 of this section, at ⅔ the font size of the base star, and

(ii) Include at the bottom of the relevant area (i.e., frontal crash area, side crash area, rollover area), as the last line of that area, the related symbol, as depicted in Figure 4 of this section, as a superscript of the rest of the line, and the text ''Safety Concern: Visit *www.safercar.gov* or call 1–888–327–4236 for more details.''

(11) No additional information may be provided in the safety rating label area. The specified information provided in a language other than English is not considered to be additional information.

(f) *Smaller Safety Rating Label for Vehicles with No Ratings.* (1) If NHTSA has not released a safety rating for any category for a vehicle, the manufacturer may use a smaller safety rating label that meets paragraphs (f)(2) through (f)(5) of this section. A sample label is depicted in Figure 2.

(2) The label must be at least 4½ inches in width and 1½ inches in height, and must be surrounded by a solid dark line that is a minimum of 3 points in width.

(3) *Heading Area.* The text must read ''Government Safety Ratings'' and be in 14-point boldface, capital letters that are light in color, and be centered. The background must be dark.

(4) *General Information.* The general information area must be below the header area. The text must be dark and the background must be light. The text must state the following, in at least 12-point font, be left-justified, and aligned to the left side of the label, in the specified order:

(i) ''This vehicle has not been rated by the government for frontal crash, side crash, or rollover risk.''

(ii) ''Source: National Highway Traffic Safety Administration (NHTSA).''

(5) *Footer Area.* The text ''*www.safercar.gov* or 1–888–327–4236'' must be provided in 14-point boldface letters that are light in color, and be centered.The background must be dark.

(6) No additional information may be provided in the smaller safety rating label area. The specified information provided in a language other than English is not considered to be additional information.

(g) *Labels for alterers.* (1) If, pursuant to 49 CFR 567.7, a person is required to affix a certification label to a vehicle, and the vehicle has a safety rating label with one or more safety ratings, the alterer must also place another label on that vehicle as specified in this paragraph.

(2) The additional label (which does not replace the one required by 49 CFR 567.7) must read: ''This vehicle has been altered. The stated star ratings on the safety rating label may no longer be applicable.''

(3) The label must be placed adjacent to the Monroney label or as close to it as physically possible.

Figure 1 to Sec. 575.301
Sample Label for a Vehicle with At Least One NCAP Rating

Figure 2 to Sec. 575.301
Sample Label for a Vehicle with No NCAP Ratings

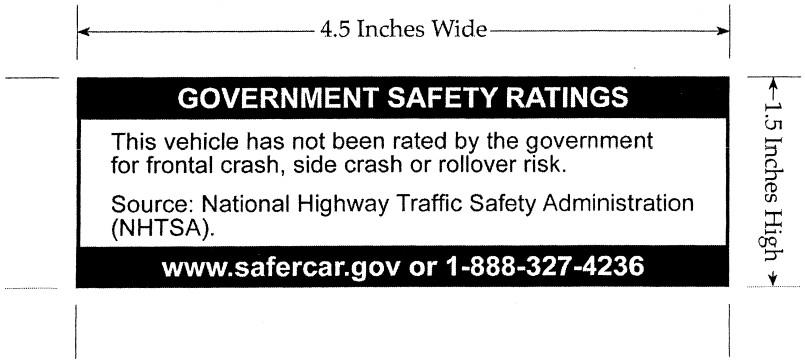


Figure 3 to Sec. 575.301
Sample Star Rating Graphic for Sec. 575.301

Figure 4 to Sec. 575.301
Sample Safety Concern Graphic for Sec. 575.301

[71 FR 53585, Sept. 12, 2006, as amended at 72 FR 45176, Aug. 13, 2007; 76 FR 45466, July 29, 2011]

§575.302 Vehicle labeling of safety rating information (compliance required for model year 2012 and later vehicles manufactured on or after January 31, 2012).

(a) *Purpose and scope.* The purpose of this section is to aid potential purchasers in the selection of new passenger motor vehicles by providing them with safety rating information developed by NHTSA in its New Car Assessment Program (NCAP) testing. Manufacturers of passenger motor vehicles described in paragraph (b) of this section are required to include this information on the Monroney label. Although NHTSA also makes the information available through means such as postings at *http://www.safercar.gov* and *http://www.nhtsa.dot.gov*, the additional Monroney label information is intended to provide consumers with relevant information at the point of sale.

(b) *Application.* This section applies to automobiles with a GVWR of 10,000 pounds or less, manufactured on or after January 31, 2012 that are have vehicle identification numbers that identify the vehicles to be model year 2012 or later and that are required by the Automobile Information Disclosure Act, 15 U.S.C. 1231–1233, to have price sticker labels (Monroney labels), *e.g.* passenger vehicles, station wagons, passenger vans, pickup trucks and sport utility vehicles. Model Year 2012 or later vehicles manufactured prior to January 31, 2012 may, at the manufacturer's option, be labeled according to the provisions of this §575.302 provided the ratings placed on the safety rating label are derived from vehicle testing conducted by the National Highway Traffic Safety Administration under the enhanced NCAP testing and rating program.

(c) *Definitions.*

(1) *Monroney label* means the label placed on new automobiles with the manufacturer's suggested retail price and other consumer information, as specified at 15 U.S.C. 1231–1233.

(2) *Safety rating label* means the label with NCAP safety rating information, as specified at 15 U.S.C. 1232(g). The safety rating label is part of the Monroney label.

(d) *Required label.*

(1) Except as specified in paragraph (f) of this section, each vehicle must

have a safety rating label that is part of its Monroney label, meets the requirements specified in paragraph (e) of this section, and conforms in content, format and sequence to the sample label depicted in Figure 1 of this section. If NHTSA has not provided a safety rating for any category of vehicle performance for a vehicle, the manufacturer may use the smaller label specified in paragraph (f) of this section.

(2) The label must depict the star ratings for that vehicle as reported to the vehicle manufacturer by NHTSA.

(3) Whenever NHTSA informs a manufacturer in writing of a new safety rating for a specified vehicle or the continued applicability of an existing safety rating for a new model year, including any safety concerns, the manufacturer shall include the new or continued safety rating on vehicles manufactured on or after the date 30 calendar days after receipt by the manufacturer of the information.

(4) If, for a vehicle that has an existing safety rating for a category, NHTSA informs the manufacturer in writing that it has approved an optional NCAP test that will cover that category, the manufacturer may depict vehicles manufactured on or after the date of receipt of the information as ''Not Rated'' or ''To Be Rated'' for that category.

(5) The text ''Overall Vehicle Score,'' ''Frontal Crash,'' ''Side Crash,'' ''Rollover,'' ''Driver,'' ''Passenger,'' ''Front Seat,'' ''Rear Seat'' and where applicable, ''Not Rated'' or ''To Be Rated,'' the star graphic indicating each rating, as well as any text in the header and footer areas of the label, must have a minimum font size of 12 point. All remaining text and symbols on the label (including the star graphic specified in paragraph (e)(9)(i) of this section), must have a minimum font size of 8 point.

(e) *Required information and format.*

(1) *Safety rating label border.* The safety rating label must be surrounded by a solid dark line that is a minimum of 3 points in width.

(2) *Safety rating label size and legibility.* The safety rating label must be presented in a legible, visible, and prominent fashion that covers at least 8 percent of the total area of the Monroney label (*i.e.*, including the safety rating label) or an area with a minimum of 4½ inches in length and 3½ inches in height on the Monroney label, whichever is larger.

(3) *Heading area.* The words ''Government 5-Star Safety Ratings'' must be in boldface, capital letters that are light in color and centered. The background must be dark.

(4) *Overall vehicle score area.*

(i) The overall vehicle score area must be placed immediately below the heading area and must have dark text and a light background. The overall vehicle score rating must be displayed with the maximum star rating achieved.

(ii) The words ''Overall Vehicle Score'' must be in boldface aligned to the left side of the label. The achieved star rating must be on the same line and be aligned to the right side of the label and left justified.

(iii) The words ''Based on the combined ratings of frontal, side and rollover.'' followed (on the next line) by the statement ''Should *only* be compared to other vehicles of similar size and weight.'' must be placed at the bottom of the overall vehicle score area and left justified.

(iv) If NHTSA has not released the star rating for the ''Frontal Crash,'' ''Side Crash,'' or ''Rollover'' area, the text ''Not Rated'' must be used in boldface. However, as an alternative, the words ''To Be Rated'' (in boldface) may be used if the manufacturer has received written notification from NHTSA that the vehicle has been chosen for the NCAP frontal, side, and/or rollover testing such that there will be ratings in all three areas.

(5) *Frontal crash area.*

(i) The frontal crash area must be placed immediately below the overall vehicle score area, separated by a dark line that is a minimum of three points in width. The text must be dark against a light background. Both the driver and the right front seat passenger frontal crash test ratings must be displayed with the maximum star ratings achieved.

(ii) The words ''Frontal Crash'' must be in boldface, cover two lines, and be aligned to the left side of the label.

(iii) The word ''Driver'' must be on the same line as the word ''Frontal'' in ''Frontal Crash,'' and be horizontally centered, left justified and vertically aligned to the top of the frontal crash area. The achieved star rating for ''Driver'' must be on the same line and be aligned to the right side of the label and left justified.

(iv) If NHTSA has not released the star rating for the ''Driver'' position, the text ''Not Rated'' must be used in boldface. However, as an alternative, the words ''To Be Rated'' (in boldface) may be used if the manufacturer has received written notification from NHTSA that the vehicle has been chosen for NCAP testing. Both texts must be on the same line as the text ''Driver'' and be aligned to the right side of the label and left justified.

(v) The word ''Passenger'' must be on the same line as the word ''Crash'' in ''Frontal Crash,'' below the word ''Driver,'' and be horizontally centered, left justified and vertically aligned to the top of the frontal crash area. The achieved star rating for ''Passenger'' must be on the same line and be aligned to the right side of the label and left justified.

(vi) If NHTSA has not released the star rating for ''Passenger,'' the words ''Not Rated'' must be used in boldface. However, as an alternative, the words ''To Be Rated'' (in boldface) may be used if the manufacturer has received written notification from NHTSA that the vehicle has been chosen for NCAP testing. Both texts must be on the same line as the text ''Passenger'' and be aligned to the right side of the label and left justified.

(vii) The words ''Based on the risk of injury in a frontal impact.'' followed (on the next line) by the statement ''Should ONLY be compared to other vehicles of similar size and weight.'' must be placed at the bottom of the frontal crash area and left justified.

(6) *Side crash area.*

(i) The side crash area must be immediately below the frontal crash area, separated by a dark line that is a minimum of three points in width. The text must be dark against a light background. Both the driver and the rear seat passenger side crash test rating must be displayed with the maximum star rating achieved.

(ii) The words ''Side Crash'' must cover two lines, and be aligned to the left side of the label in boldface.

(iii) The words ''Front seat'' must be on the same line as the word ''Side'' in ''Side Crash'' and be horizontally centered, left justified and vertically aligned to the top of the side crash area. The achieved star rating for ''Front seat'' must be on the same line as the words ''Front seat'' and be aligned to the right side of the label and left justified.

(iv) If NHTSA has not released the star rating for ''Front Seat,'' the words ''Not Rated'' must be used in boldface. However, as an alternative, the words ''To Be Rated'' (in boldface) may be used if the manufacturer has received written notification from NHTSA that the vehicle has been chosen for NCAP testing. Both texts must be on the same line as the text ''Front seat'' and be aligned to the right side of the label and left justified.

(v) The words ''Rear seat'' must be on the same line as the word ''Crash'' in ''Side Crash,'' below the word ''Front seat,'' and be horizontally centered, left justified and vertically aligned to the top of the side crash area. The achieved star rating for ''Rear seat'' must be on the same line as the text ''Rear seat'' and be aligned to the right side of the label and left justified.

(vi) If NHTSA has not released the star rating for ''Rear Seat,'' the text ''Not Rated'' must be used in boldface. However, as an alternative, the text ''To Be Rated'' (in boldface) may be used if the manufacturer has received written notification from NHTSA that the vehicle has been chosen for NCAP testing. Both texts must be on the same line as the text ''Rear seat'' and be aligned to the right side of the label and left justified.

(vii) The words ''Based on the risk of injury in a side impact.'' must be placed at the bottom of the side crash area and left justified.

(7) *Rollover area.*

(i) The rollover area must be immediately below the side crash area, separated by a dark line that is a minimum of three points in width. The text must be dark against a light background.

The rollover test rating must be displayed with the maximum star rating achieved.

(ii) The word ''Rollover'' must be aligned to the left side of the label in boldface. The achieved star rating must be on the same line and be aligned to the right side of the label and left justified.

(iii) If NHTSA has not tested the vehicle, the words ''Not Rated'' must be used in boldface. However, as an alternative, the words ''To Be Rated'' (in boldface) may be used if the manufacturer has received written notification from NHTSA that the vehicle has been chosen for NCAP testing. Both texts must be on the same line as the text ''Rollover'' and be aligned to the right side of the label and left justified.

(iv) The words ''Based on the risk of rollover in a single-vehicle crash.'' must be placed at the bottom of the rollover area and left justified.

(8) *Graphics*. The star graphic is depicted in Figure 3 and the safety concern graphic is depicted in Figure 4.

(9) *Footer area*. The footer area must be placed at the bottom of the label; the text must be in boldface letters that are light in color and centered. The background must be dark. The text must state the following, in the specified order, on separate lines:

(i) ''Star ratings range from 1 to 5 stars (★ ★ ★ ★ ★) with 5 being the highest.''

(ii) ''Source: National Highway Traffic Safety Administration (NHTSA).''

(iii) ''www.safercar.gov or 1–888–327–4236.''

(10) *Safety concern*. For vehicle tests for which NHTSA reports a safety concern as part of the safety rating, and for overall vehicle scores that are derived from vehicle tests for at least one of which NHTSA reports a safety concern as part of the safety rating, the label must:

(i) In both the rating area in which the safety concern was identified and in the overall vehicle score area, depict, as a superscript to the star rating, the safety concern symbol, as depicted in Figure 4 of this section, at ⅔ the font size of the base star, and

(ii) Include at the bottom of the overall vehicle score area only as the last line of that area, in no smaller than 8 point type, the related symbol, as depicted in Figure 4 of this section, as a superscript of the rest of the line, and the text ''Safety Concern: Visit www.safercar.gov or call 1–888–327–4236 for more details.''

(11) No additional information may be provided in the safety rating label area. The specified information provided in a language other than English is not considered to be additional information.

(f) *Smaller safety rating label for vehicles with no ratings*.

(1) If NHTSA has not released a safety rating for any category for a vehicle, the manufacturer may use a smaller safety rating label that meets paragraphs (f)(2) through (f)(5) of this section. A sample label is depicted in Figure 2.

(2) The label must be at least 4½ inches in width and 1½ inches in height, and must be surrounded by a solid dark line that is a minimum of 3 points in width.

(3) *Heading area*. The text must read ''Government 5-Star Safety Ratings'' and be at least in 14-point boldface, capital letters that are light in color, and be centered. The background must be dark.

(4) *General information*. The general information area must be below the header area. The text must be dark and the background must be light. The text must state the following, in at least 12-point font and be left justified: ''This vehicle has not been rated by the government for overall vehicle score, frontal crash, side crash, or rollover risk.''

(5) *Footer area*. The footer area must be placed at the bottom of the label; the text must be at least in 12-point boldface letters that are light in color, and centered. The background must be dark. The text must state the following, in the specified order, on separate lines:

(i) ''Source: National Highway Traffic Safety Administration (NHTSA)'' and

(ii) ''www.safercar.gov or 1–888–327–4236''.

(6) No additional information may be provided in the smaller safety rating label area. The specified information provided in a language other than

English is not considered to be additional information.

(g) *Labels for alterers.*

(1) If, pursuant to 49 CFR 567.7, a person is required to affix a certification label to a vehicle, and the vehicle has a safety rating label with one or more safety ratings, the alterer must also place another label on that vehicle as specified in this paragraph.

(2) The additional label (which does not replace the one required by 49 CFR 567.7) must read: ''This vehicle has been altered. The stated star ratings on the safety rating label may no longer be applicable.''

(3) The label must be placed adjacent to the Monroney label or as close to it as physically possible.

Figure 1 to § 575.302

Sample Label for a Vehicle with At Least One Government 5-Star Safety Rating

Figure 2 to § 575.302

Sample Label for a Vehicle with No Government 5-Star Safety Ratings

Figure 3 to § 575.302

Sample Star Rating Graphic for § 575.302

Figure 4 to § 575.302

Sample Safety Concern Graphic for § 575.302

[76 FR 45466, July 29, 2011]

Subpart E—Energy Independence and Security Act; Consumer Information

SOURCE: 76 FR 39577, July 6, 2011, unless otherwise noted.

§ 575.401 Vehicle labeling of fuel economy, greenhouse gas, and other pollutant emissions information.

(a) *Purpose and scope.* The purpose of this section is to aid potential purchasers in the selection of new passenger cars and light trucks by providing them with information about vehicles' performance in terms of fuel economy, greenhouse gas (GHG), and other air pollutant emissions. Manufacturers of passenger cars and light trucks are required to include this information on the label described in this section. Although this information will also be available through means such as postings at *http://www.fueleconomy.gov*, the additional label information is intended to provide consumers with this information at the point of sale, and to help them compare between vehicles.

(b) *Application.* This section applies to passenger cars and light trucks manufactured in model year 2013 and later. Manufacturers may optionally comply with this section during model year 2012.

(c) *Definitions.*

(1) *Data element* means a piece of information required or permitted to be included on the fuel economy and environment label.

(2) *Fuel economy and environment label* means the label with information about automobile performance in terms of fuel economy, greenhouse gases, and other emissions and with rating systems for fuel economy, greenhouse gases, and other emissions that also indicate the automobile(s) with the highest fuel economy and lowest greenhouse gas emissions, as specified at 49 U.S.C. 32908(g).

(3) *Miles per gasoline gallon equivalent (MPGe)* is a measure of distance traveled per unit of energy consumed, and functions as a recognizable equivalent to, *e.g.*, kilowatt-hours per mile (kW-hr/mile).

(4) *Monroney label* means the label placed on new automobiles with the manufacturer's suggested retail price and other consumer information, as specified at 15 U.S.C. 1231–1233 (also known as the ''Automobile Information Disclosure Act label'').

(5) *Other air pollutants* or *other emissions* means those tailpipe emissions, other than carbon dioxide (CO_2), for which manufacturers must provide EPA with emissions rates for all new light duty vehicles each model year under EPA's Tier 2 light duty vehicle emissions standards requirements (40 CFR Part 86, Subpart S) or the parallel requirements for those vehicles certified instead to the California emissions standards. These air pollutants include non-methane organic gases (NMOG), nitrogen oxides (NO_X), particulate matter (PM), carbon monoxide (CO), and formaldehyde (HCHO).

(6) *Slider bar* means a horizontal rating scale with a minimum value at one end and a maximum value at the other end that can accommodate a designation of a specific value between those values with a box or arrow. The actual rating value would be printed (displayed) at the proper position on the scale representing the vehicle's actual rating value relative to the two end values.

(d) *Required label.* Prior to being offered for sale, each manufacturer must affix or cause to be affixed and each dealer must maintain or cause to be maintained on each passenger car or light truck a label that meets the requirements specified in this section, and conforms in content, format, and sequence to the sample labels depicted in the appendix to this section. The manufacturer must have the fuel economy label affixed in such a manner that appearance and legibility are maintained until after the vehicle is delivered to the ultimate consumer.

(e) *Required label information and format—general provisions*—(1) *Location.* It is preferable that the fuel economy and environment label information be incorporated into the Monroney label, provided that the prominence and legibility of the fuel economy and environment label is maintained. If the fuel economy and environment label is incorporated into the Monroney label, it must be placed on a separate section in the Monroney label and must not be intermixed with that label information, except for vehicle descriptions as noted in 40 CFR 600.302–08(d)(1). If the fuel economy and environment label is not incorporated into the Monroney label, it must be located on a side window, and as close as possible to the

Monroney label. If the window is not large enough to accommodate both the Monroney label and the fuel economy and environment label, the latter must be located on another window as close as physically possible to the Monroney label.

(2) *Size and legibility*. The fuel economy and environment label must be readily visible from the exterior of the vehicle and presented in a legible and prominent fashion. The label must be rectangular in shape with a minimum height of 4.5 inches (114 mm) and a minimum length of 7.0 inches (177 mm) as specified in the appendix to this section.

(3) *Basic appearance*. Fuel economy and environment labels must be printed on white or very light paper with the color specified in this section; any label markings for which a color is not specified here must be in black and white. The label can be divided into three separate fields outlined by a continuous border, as described in the appendix to this section. Manufacturers must make a good faith effort to conform to the formats illustrated in the appendix to this section. Label templates are available for download at *http://www.nhtsa.gov/fuel-economy/*.

(4) *Border*. Create a continuous black border to outline the label and separate the three information fields. Include the following information in the upper and lower portions of the border:

(i) *Upper border, label name*. (A) In the left portion of the upper border, the words ''EPA'' and ''DOT'' must be in boldface, capital letters that are light in color and left-justified, with a horizontal line in between them as shown in the appendix to this section.

(B) Immediately to the right of the agency names, the heading ''Fuel Economy and Environment'' must be in boldface letters that are light in color.

(ii) *Upper border, vehicle fuel type*. In the right portion of the upper border, identify the vehicle's fuel type in black font on a blue-colored field as follows:

(A) For vehicles designed to operate on a single fuel, identify the appropriate fuel. For example, identify the vehicle with the words ''Gasoline Vehicle,'' ''Diesel Vehicle,'' ''Compressed Natural Gas Vehicle,'' ''Hydrogen Fuel Cell Vehicle,'' etc. This includes hybrid electric vehicles that do not have plug-in capability. Include a logo corresponding to the fuel to the left of this designation as follows:

(*1*) For gasoline, include a fuel pump logo.

(*2*) For diesel fuel, include a fuel pump logo with a ''D'' inscribed in the base of the fuel pump.

(*3*) For natural gas, include the established CNG logo.

(*4*) For hydrogen fuel cells, include the expression ''H_2.''

(B) Identify dual-fueled (''flexible-fueled'') vehicles with the words ''Flexible-Fuel Vehicle Gasoline-Ethanol (E85),'' ''Flexible-Fuel Vehicle Diesel-Natural Gas,'' etc. Include a fuel pump logo or a combination of logos to the left of this designation as appropriate. For example, for vehicles that operate on gasoline or ethanol, include a fuel pump logo and the designation ''E85,'' as shown in the appendix to this section.

(C) Identify plug-in hybrid electric vehicles with the words ''Plug-In Hybrid Vehicle Electricity-Gasoline'' or ''Plug-In Hybrid Vehicle Electricity-Diesel.'' Include a fuel pump logo to the lower left of this designation and an electric plug logo to the upper left of this designation.

(D) Identify electric vehicles with the words ''Electric Vehicle.'' Include an electric plug logo to the left of this designation.

(iii) *Lower border, left side:* (A) In the upper left portion of the lower border, include the statement ''Actual results will vary for many reasons, including driving conditions and how you drive and maintain your vehicle. The average new vehicle gets *a* MPG and costs $*b* to fuel over 5 years. Cost estimates are based on *c* miles per year at $*d* per gallon. MPGe is miles per gasoline gallon equivalent. Vehicle emissions are a significant cause of climate change and smog.'' For the value of *a*, insert the average new vehicle combined MPG value for that model year established by EPA. For the value of *b*, insert the estimated five year fuel cost value established by EPA for the average new vehicle in that model year. For the value of *c*, insert the annual mileage rate established by EPA. For the value

of *d*, insert the estimated cost per gallon established by EPA for gasoline or diesel fuel, as appropriate. See paragraphs (f) through (j) below for alternate statements that apply for vehicles that use a fuel other than gasoline or diesel fuel.

(B) In the lower left portion of the lower border, include the Web site reference, ''fueleconomy.gov,'' and include the following statement: ''Calculate personalized estimates and compare vehicles'' beneath it.

(iv) *Lower border, right side:* Include a field in the right-most portion of the lower border to allow for accessing interactive information with mobile electronic devices as set forth in 40 CFR 600.302–12(b)(6).

(v) *Lower border, center:* Along the lower edge of the lower border, to the left of the field described in paragraph (e)(4)(iv) of this section, include the logos for the Environmental Protection Agency, the Department of Transportation, and the Department of Energy as shown in the appendix to this section.

(5) *Fuel economy performance and fuel cost values.* To the left side in the white field at the top of the label, include the following elements for vehicles that run on gasoline or diesel fuel with no plug-in capability:

(i) The heading ''Fuel Economy'' near the top left corner of the field.

(ii) The vehicle's combined fuel economy determined as set forth in 40 CFR 600.210–12(c) in large font, with the words ''combined city/hwy'' below the number in smaller font.

(iii) A fuel pump logo to the left of the combined fuel economy value (for diesel fuel, include a fuel pump logo with a ''D'' inscribed in the base of the fuel pump).

(iv) The units identifier and specific fuel economy values to the right of the combined fuel economy value as follows:

(A) Include the word ''MPG'' to the upper right of the combined fuel economy value.

(B) Include the value for the city and highway fuel economy determined as set forth in 40 CFR 600.210–12(a) and (b) to the right of the combined fuel economy value in smaller font, and below the word ''MPG.'' Include the expression ''city'' in smaller font below the city fuel economy value, and the expression ''highway'' in smaller font below the highway fuel economy value.

(v) Below the fuel economy performance values set forth in paragraphs (e)(5)(ii) and (iv) of this section, include the value for the fuel consumption rate required by EPA and determined as set forth in 40 CFR 600.302–12(c)(1).

(vi) To the right of the word ''MPG'' described in paragraph (e)(5)(iv)(A) of this section, include the information about the range of fuel economy of comparable vehicles as required by EPA and set forth in 40 CFR 600.302–12(c)(2) and below that information, include the expression ''The best vehicle rates 99 MPGe.''

(6) *Comparative five-year fuel costs/savings.* To the right side in the white field at the top of the label, include the information required by EPA at 40 CFR 600.302–12(c)(3).

(7) *Annual fuel cost value.* In the field in the lower left portion of the label, include the information on annual fuel cost as required by EPA and set forth in 40 CFR 600.302–12(d).

(8) *Fuel economy and environment slider bar ratings.* In the field in the lower right portion of the label,

(i) Include the heading ''Fuel Economy & Greenhouse Gas Rating (tailpipe only)'' in the top left corner of the field.

(ii) Include a slider bar in the left portion of the field as shown in the appendix to this section to characterize the vehicle's fuel economy and CO_2 emission rating relative to the range of fuel economy and CO_2 emission rates for all vehicles. Position a black box with a downward-pointing wedge above the slider bar positioned to show where that vehicle's fuel economy and CO_2 emission rating falls relative to the total range. Include the vehicle's fuel economy and CO_2 emission rating determined as set forth in 40 CFR 600.311–12(d) inside the box in white text. If the fuel economy and CO_2 emission ratings are different, the black box with a downward-pointing wedge above the slider bar must contain the fuel economy rating, with a second upward-pointing wedge below the slider bar containing the CO_2 emission rating. Include the number ''1'' in white text in

the black border at the left end of the slider bar, and include the number ''10'' in white text in the black border at the right end of the slider bar, with the expression ''Best'' in black text under the slider bar directly below the ''10.'' Add color to the slider bar such that it is blue at the left end of the range, white at the right end of the range, and shaded continuously across the range.

(iii) Include the heading ''Smog Rating (tailpipe only)'' in the top right corner of the field.

(iv) Include a slider bar in the right portion of the field to characterize the vehicle's level of emission control for other air pollutants relative to that of all vehicles. Position a black box with a downward-pointing wedge above the slider bar positioned to show where that vehicle's emission rating falls relative to the total range. Include the vehicle's emission rating determined as set forth in 40 CFR 600.311–12(g) inside the box in white text. Include the number ''1'' in white text in the black border at the left end of the slider bar, and include the number ''10'' in white text in the black border at the right end of the slider bar, with the expression ''Best'' in black text under the slider bar directly below the ''10.'' Add color to the slider bar such that it is blue at the left end of the range, white at the right end of the range, and shaded continuously across the range.

(v) Below the slider bars described in paragraphs (e)(8)(ii) and (e)(8)(iv) to this section, include the statement, ''This vehicle emits *e* grams CO_2 per mile. The best emits 0 grams per mile (tailpipe only). Producing and distributing fuel also creates emissions; learn more at fueleconomy.gov.'' For the value of *e*, insert the vehicle's specific tailpipe CO_2 emission rating determined as set forth in 40 CFR 600.210–12(d).

(9) *Rounding*. Round all numerical values identified in this section to the nearest whole number unless otherwise specified.

(10) *Other label information required by EPA*. Manufacturers must include any additional labeling information required by EPA at 40 CFR 600.302–12 on the fuel economy and environment label.

(f) *Required label information and format—flexible-fuel vehicles*. (1) Fuel economy and environment labels for flexible-fuel vehicles must meet the specifications described in paragraph (e) of this section, with the exceptions and additional specifications described in this paragraph (f). This section describes how to label vehicles with gasoline engines. If the vehicle has a diesel engine, all the references to ''gas'' or ''gasoline'' in this section are understood to refer to ''diesel'' or ''diesel fuel,'' respectively.

(2) For qualifying vehicles, include the following additional expression in the statement identified in paragraph (e)(iv)(3)(A) of this section as shown in the appendix to this section: ''This is a dual fueled automobile.''

(3) Include the following elements instead of the information identified in paragraph (e)(5) of this section:

(i) The heading ''Fuel Economy'' near the top left corner of the field.

(ii) The vehicle's combined fuel economy as set forth in 40 CFR 600.210–12(c) in large font, with the words ''combined city/hwy'' below the number in smaller font.

(iii) A fuel pump logo and other logos as specified in paragraph (e)(4)(ii)(A) of this section to the left of the combined fuel economy value.

(iv) The units identifier and specific fuel economy values to the right of the combined fuel economy value as follows:

(A) Include the word ''MPG'' to the upper right of the combined fuel economy value.

(B) Include the value for the city and highway fuel economy determined as set forth in 40 CFR 600.210–12(a) and (b) to the right of the combined fuel economy value in smaller font, and below the word ''MPG.'' Include the expression ''city'' in smaller font below the city fuel economy value, and the expression ''highway'' in smaller font below the highway fuel economy value.

(v) Below the fuel economy performance value set forth in paragraph (f)(iii)(2) of this section, include the value for the fuel consumption rate required by EPA and determined as set forth in 40 CFR 600.302–12(c)(1).

(vi) To the right of the word ''MPG'' described in paragraph (e)(5)(iv)(A) of

this section, include the information about the range of fuel economy of comparable vehicles as required by EPA and set forth in 40 CFR 600.302–12(c)(2), and below that information, include the expression ''The best vehicle rates 99 MPGe. Values are based on gasoline and do not reflect performance and ratings based on E85.'' Adjust this statement as appropriate for vehicles designed to operate on different fuels.

(vii) Below the combined fuel economy value, the manufacturer may include information on the vehicle's driving range as shown in the appendix to this section, with the sub-heading ''Driving Range,'' and with range bars below this sub-heading as required by EPA and set forth in 40 CFR 600.303–12(b)(6).

(g) *Required label information and format—special requirements for hydrogen fuel cell vehicles.* (1) Fuel economy and environment labels for hydrogen fuel cell vehicles must meet the specifications set forth in paragraph (e) of this section, with the exceptions and additional specifications described in this paragraph (g).

(2) Include the following statement in the upper left portion of the lower border instead of the statement specified in paragraph (e)(4)(iii)(A) of this section: ''Actual results will vary for many reasons, including driving conditions and how you drive and maintain your vehicle. The average new vehicle gets *a* MPG and costs $*b* to fuel over 5 years. Cost estimates are based on *c* miles per year at $*d* per kilogram of hydrogen. MPGe is miles per gasoline gallon equivalent. Vehicle emissions are a significant cause of climate change and smog.'' For the value of *a*, insert the average new vehicle combined MPG value for that model year established by EPA. For the value of *b*, insert the estimated five year fuel cost value established by EPA for the average new vehicle in that model year. For the value of *c*, insert the annual mileage rate established by EPA. For the value of *d*, insert the estimated cost per kilogram established by EPA for hydrogen.

(3) Include the following elements instead of the information identified above in paragraph (e)(5) of this section:

(i) The heading ''Fuel Economy'' near the top left corner of the field.

(ii) The vehicle's combined fuel economy determined as set forth in 40 CFR 600.210–12(c) in large font, with the words ''combined city/hwy'' below the number in smaller font.

(iii) The ''H_2'' logo as specified in paragraph (e)(4)(ii)(A) of this section to the left of the combined fuel economy value.

(iv) The units identifier and specific fuel economy values to the right of the combined fuel economy value as follows:

(A) Include the word ''MPGe'' to the upper right of the combined fuel economy value.

(B) Include the value for the city and highway fuel economy determined as set forth in 40 CFR 600.311–12(a) and (b) to the right of the combined fuel economy value in smaller font, and below the word ''MPG.'' Include the expression ''city'' in smaller font below the city fuel economy value, and the expression ''highway'' in smaller font below the highway fuel economy value.

(v) To the right of the fuel economy performance values set forth in paragraph (iv)(B) of this section, include the value for the fuel consumption rate required by EPA and determined as set forth in 40 CFR 600.302–12(c)(1).

(vi) To the right of the word ''MPGe'' described in paragraph (g)(3)(iv)(A) of this section, include the information about the range of fuel economy of comparable vehicles as required by EPA and set forth in 40 CFR 600.302–12(c)(2) and below that information, include the expression ''The best vehicle rates 99 MPGe.''

(vii) Below the combined fuel economy value, include information on the vehicle's driving range as shown in the appendix to this section, as required by EPA and set forth in 40 CFR 600.304–12(b)(6)

(h) *Required label information and format—special requirements for compressed natural gas vehicles.* (1) Fuel economy and environment labels for compressed natural gas vehicles must meet the specifications described in paragraph (e) of this section, with the exceptions

and additional specifications described in this paragraph (h).

(2) Include the following statement in the upper left portion of the lower border instead of the statement specified in paragraph (e)(4)(iii)(A) of this section: ''Actual results will vary for many reasons, including driving conditions and how you drive and maintain your vehicle. The average new vehicle gets *a* MPG and costs $*b* to fuel over 5 years. Cost estimates are based on *c* miles per year at $*d* per gasoline gallon equivalent. MPGe is miles per gasoline gallon equivalent. Vehicle emissions are a significant cause of climate change and smog.'' For the value of *a*, insert the average new vehicle combined MPG value for that model year established by EPA. For the value of *b*, insert the estimated five year fuel cost value established by EPA for the average new vehicle in that model year. For the value of *c*, insert the annual mileage rate established by EPA. For the value of *d*, insert the estimated cost per gasoline gallon equivalent established by EPA for natural gas.

(3) Include the following elements instead of the information identified in paragraph (e)(5) of this section:

(i) The heading ''Fuel Economy'' near the top left corner of the field.

(ii) The vehicle's combined fuel economy determined as set forth in 40 CFR 600.210–12(c) in large font, with the words ''combined city/hwy'' below the number in smaller font.

(iii) The compressed natural gas logo as specified in paragraph (e)(4)(ii)(A) of this section to the left of the combined fuel economy value.

(iv) The units identifier and specific fuel economy values to the right of the combined fuel economy value as follows:

(A) Include the word ''MPGe'' to the upper right of the combined fuel economy value.

(B) Include the value for the city and highway fuel economy determined as set forth in 40 CFR 600.311–12(a) and (b) to the right of the combined fuel economy value in smaller font, and below the word ''MPGe.'' Include the expression ''city'' in smaller font below the city fuel economy value, and the expression ''highway'' in smaller font below the highway fuel economy value.

(v) To the right of the fuel economy performance values described in paragraph (h)(3)(iv)(B) of this section, include the value for the fuel consumption rate required by EPA and determined as set forth in 40 CFR 600.302–12(c)(1).

(vi) To the right of the word ''MPGe'' described in paragraph (g)(3)(iv)(A) of this section, include the information about the range of fuel economy of comparable vehicles as required by EPA and set forth in 40 CFR 600.302–12(c)(2), and below that information, include the expression ''The best vehicle rates 99 MPGe.''

(vii) Below the combined fuel economy value, include information on the vehicle's driving range as shown in the appendix to this section, as required by EPA and set forth in 40 CFR 600.306–12(b)(6).

(i) *Required label information and format—special requirements for plug-in hybrid electric vehicles.* (1) Fuel economy and environment labels for plug-in hybrid electric vehicles must meet the specifications described in paragraph (e) of this section, with the exceptions and additional specifications described in this paragraph (i). This paragraph (i) describes how to label vehicles equipped with gasoline engines. If a vehicle has a diesel engine, all the references to ''gas'' or ''gasoline'' in this section are understood to refer to ''diesel'' or ''diesel fuel,'' respectively.

(2) Include the following statement in the upper left portion of the lower border instead of the statement specified in paragraph (e)(4)(iii)(A) of this section: ''Actual results will vary for many reasons, including driving conditions and how you drive and maintain your vehicle. The average new vehicle gets *a* MPG and costs $*b* to fuel over 5 years. Cost estimates are based on *c* miles per year at $*d* per gallon and $*e* per kW-hr. This is a dual fueled automobile. MPGe is miles per gasoline gallon equivalent. Vehicle emissions are a significant cause of climate change and smog.'' For the value of *a*, insert the average new vehicle combined MPG value for that model year established by EPA. For the value of *b*, insert the estimated five year fuel cost value established by EPA for the average new vehicle in that model year. For the

value of *c*, insert the annual mileage rate established by EPA. For the value of *d*, insert the estimated cost per gallon established by EPA for gasoline. For the value of *e*, insert the estimated cost per kW-hr of electricity established by EPA.

(3) Include the following elements instead of the information identified above in paragraph (e)(5):

(i) The heading ''Fuel Economy'' near the top left corner of the field.

(ii) An outlined box below the heading with the following information:

(A) The sub-heading ''Electricity'' if the vehicle's engine starts only after the battery is fully discharged, or the sub-heading ''Electricity + Gasoline'' if the vehicle uses combined power from the battery and the engine before the battery is fully discharged.

(B) The expression ''Charge Time: x hours (240 V),'' as required by EPA and as set forth in 40 CFR 600.308–12(b)(2)(ii).

(C) The vehicle's combined fuel economy determined as set forth in 40 CFR 600.210–12(c) in large font, with the words ''combined city/hwy'' below the number in smaller font.

(D) An electric plug logo as specified in paragraph (e)(4)(ii)(A) of this section to the left of the combined fuel economy value. For vehicles that use combined power from the battery and the engine before the battery is fully discharged, also include the fuel pump logo as shown in the appendix to this section.

(E) The units identifier and specific fuel economy values to the right of the combined fuel economy value as follows:

(*1*) Include the word ''MPGe'' to the upper right of the combined fuel economy value.

(*2*) If the vehicle's engine starts only after the battery is fully discharged, identify the vehicle's electricity consumption rate as required by EPA and determined as set forth in set forth in 40 CFR 600.308–12(b)(2)(v).

(*3*) If the vehicle uses combined power from the battery and the engine before the battery is fully discharged, identify the vehicle's gasoline and electricity consumption rates as required by EPA and determined as set forth in 40 CFR 600.308–12(b)(2)(v).

(iii) A second outlined box to the right of the box described in paragraph (i)(3)(ii) of this section with the following information:

(A) The sub-heading ''Gasoline Only.''

(B) The vehicle's combined fuel economy determined as set forth in 40 CFR 600.210–12(c) in large font, with the words ''combined city/hwy'' below the number in smaller font.

(C) A fuel pump logo to the left of the combined fuel economy value.

(D) The units identifier and consumption values to the right of the combined fuel economy value as follows:

(*1*) Include the word ''MPGe'' to the upper right of the combined fuel economy value.

(*2*) Identify the vehicle's gasoline consumption rate required by EPA and determined as set forth in 40 CFR 600.308–12(b)(3).

(iv) Below the boxes specified in paragraphs (i)(3)(ii) and (iii) of this section, include information on the vehicle's driving range as shown in the appendix to this section, as required by EPA and as set forth in 40 CFR 600.308–12(b)(4).

(v) To the right of the heading ''Fuel Economy'' described in paragraph (i)(3)(i) of this section, include the information about the range of fuel economy of comparable vehicles as required by EPA and set forth in 40 CFR 600.302–12(c)(2) and to the right of that information, include the expression ''The best vehicle rates 99 MPGe.''

(4) Include the following statement instead of the statement identified in paragraph (e)(8)(v) of this section: ''This vehicle emits *f* grams CO_2 per mile. The best emits 0 grams per mile (tailpipe only). Producing and distributing fuel & electricity also creates emissions; learn more at fueleconomy.gov.'' For the value of *f*, insert the vehicle's specific tailpipe CO_2 emission rating determined as set forth in 40 CFR 600.210–12(d).

(j) *Required label information and format—special requirements for electric vehicles.* (1) Fuel economy and environment labels for electric vehicles must meet the specifications described in paragraph (e) of this section, with the exceptions and additional specifications described in this section.

(2) Include the following statement in the upper left portion of the lower border instead of the statement specified above in paragraph (e)(4)(iii)(A) of this section: ''Actual results will vary for many reasons, including driving conditions and how you drive and maintain your vehicle. The average new vehicle gets *a* MPG and costs $*b* to fuel over 5 years. Cost estimates are based on *c* miles per year at $*e* per kW-hr. MPGe is miles per gasoline gallon equivalent. Vehicle emissions are a significant cause of climate change and smog.'' For the value of *a*, insert the average new vehicle combined MPG value for that model year established by EPA. For the value of *b*, insert the estimated five year fuel cost value established by EPA for the average new vehicle in that model year. For the value of *c*, insert the annual mileage rate established by EPA. For the value of *e*, insert the estimated cost per kW-hr of electricity established by EPA.

(3) Include the following elements instead of the information identified in paragraph (e)(5) of this section:

(i) The heading ''Fuel Economy'' near the top left corner of the field.

(ii) The vehicle's combined fuel economy determined as set forth in 40 CFR 600.210–12(c) in large font, with the words ''combined city/hwy'' below the number in smaller font.

(iii) The electric plug logo as specified in paragraph (e)(4)(ii)(A) of this section to the left of the combined fuel economy value.

(iv) The units identifier and specific fuel economy values to the right of the combined fuel economy value as follows:

(A) Include the word ''MPGe'' to the upper right of the combined fuel economy value.

(B) Include the value for the city and highway fuel economy determined as set forth in 40 CFR 600.311–12(a) and (b) to the right of the combined fuel economy value in smaller font, and below the word ''MPGe.'' Include the expression ''city'' in smaller font below the city fuel economy value, and the expression ''highway'' in smaller font below the highway fuel economy value.

(v) To the right of the fuel economy performance values described in paragraph (iv)(B) of this section, include the value for the fuel consumption rate required by EPA and determined as set forth in 40 CFR 600.310–12(b)(5).

(vi) Below the combined fuel economy value, include information on the vehicle's driving range as shown in the appendix to this section, as required by EPA and as set forth in 40 CFR 600.310–12(b)(6).

(vii) Below the driving range information and left-justified, include information on the vehicle's charge time, as required by EPA and as set forth in 40 CFR 600.310–12(b)(7).

(4) Include the following statement instead of the statement identified in paragraph (e)(8)(v) of this section: ''This vehicle emits 0 grams CO_2 per mile. The best emits 0 grams per mile (tailpipe only). Does not include emissions from generating electricity; learn more at fueleconomy.gov.''

APPENDIX TO § 575.401

Figure 1. Gasoline-fueled vehicles, including hybrid gasoline-electric vehicles with no plug-in capabilities.

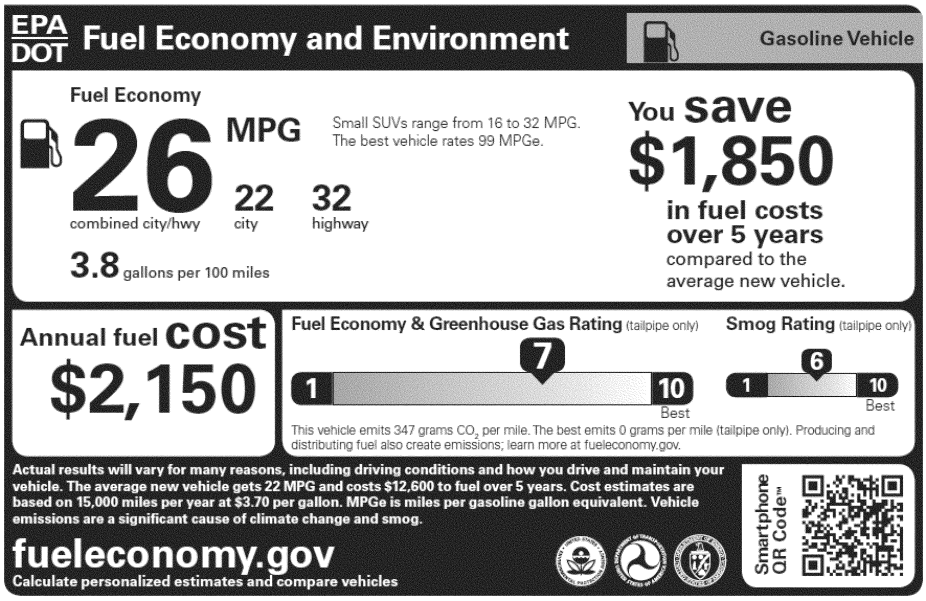


Figure 2. Gasoline-fueled vehicles, including hybrid gasoline-electric vehicles with no plug-in capabilities, with Gas Guzzler Tax.

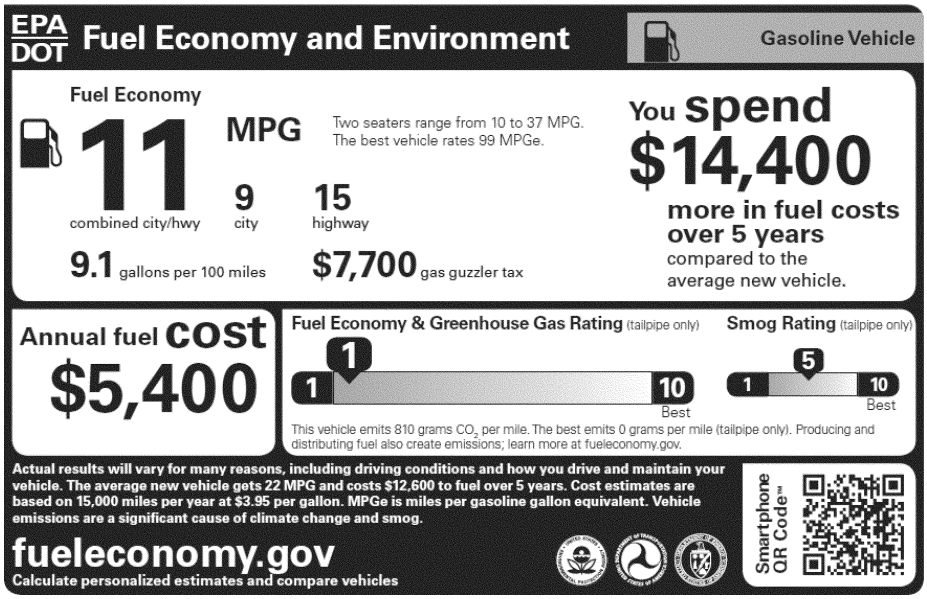


Figure 3. Diesel-fueled vehicles, including hybrid diesel-electric vehicles with no plug-in capabilities.

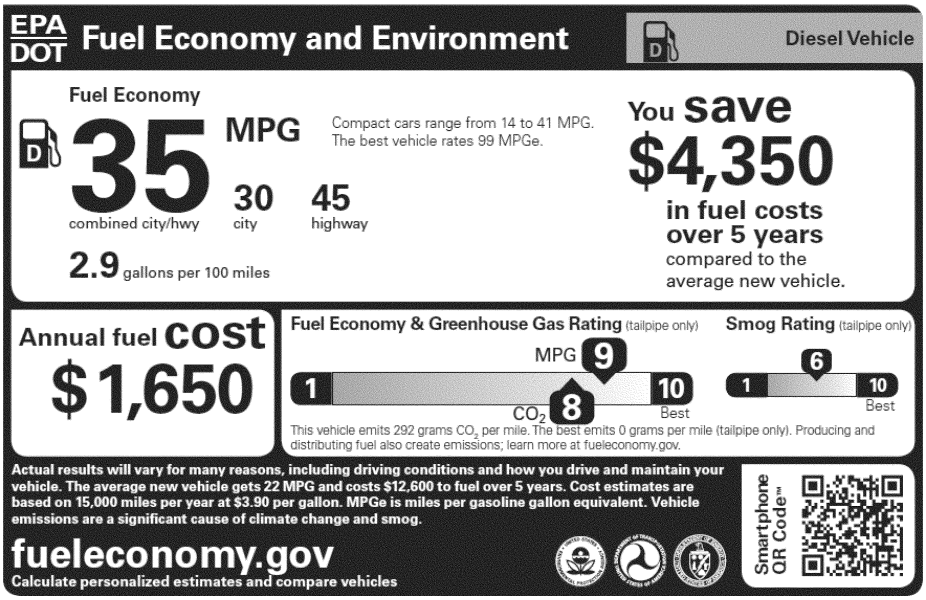


Figure 4. Dual Fuel Vehicle Label (Ethanol/Gasoline)

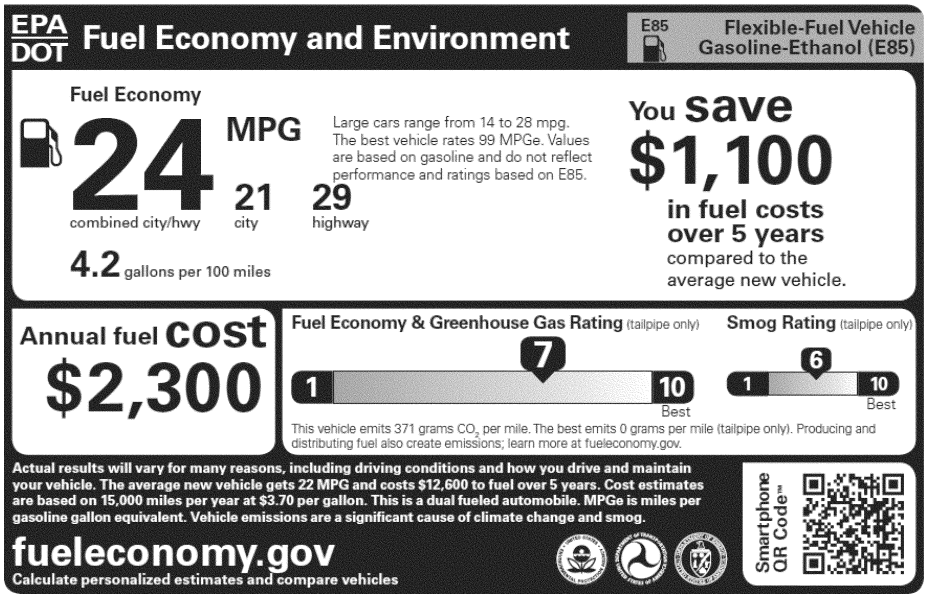


Figure 5. Dual Fuel Vehicle Label (Ethanol/Gasoline) with optional display of driving range values

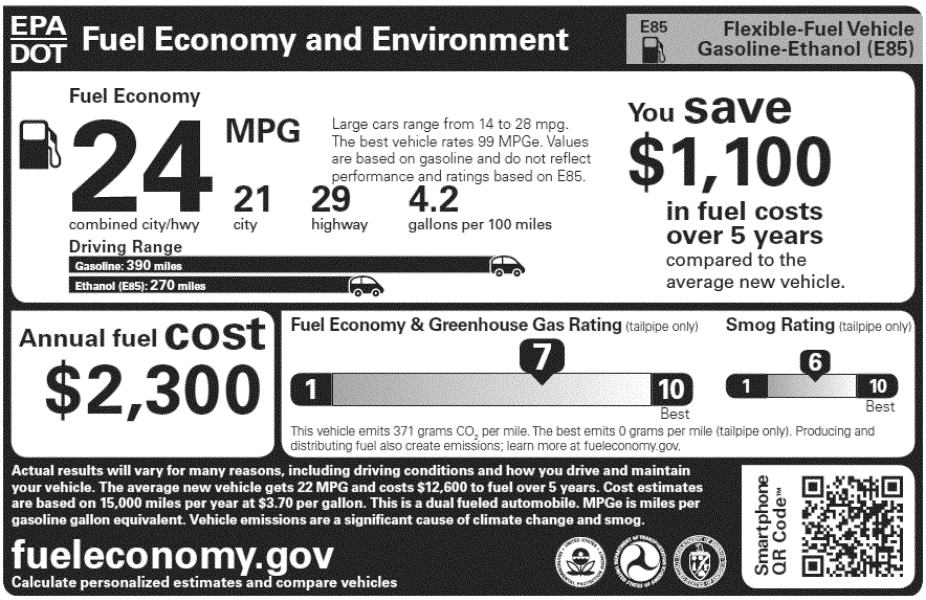


Figure 6. Hydrogen Fuel Cell Vehicle Label

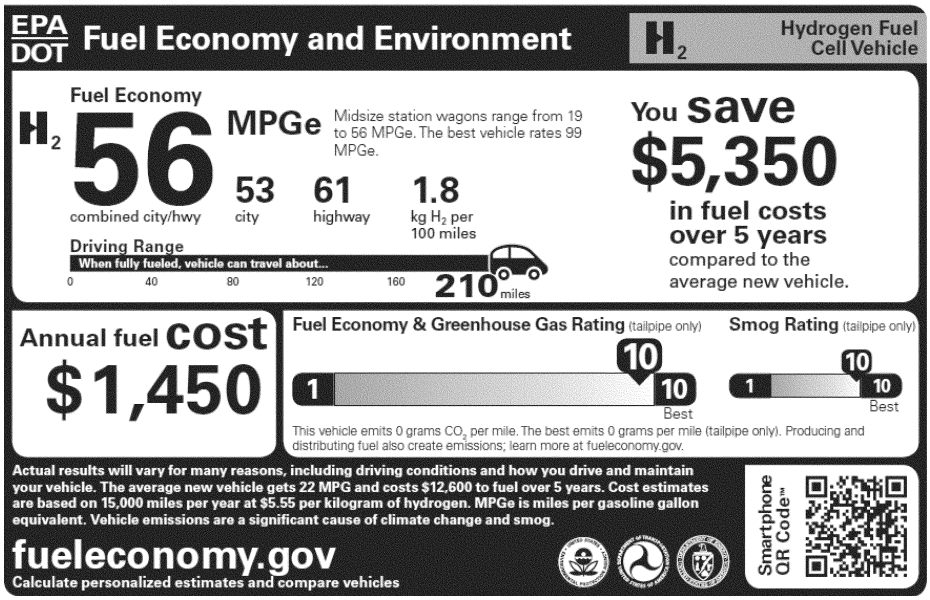


Figure 7. Natural Gas Vehicle Label

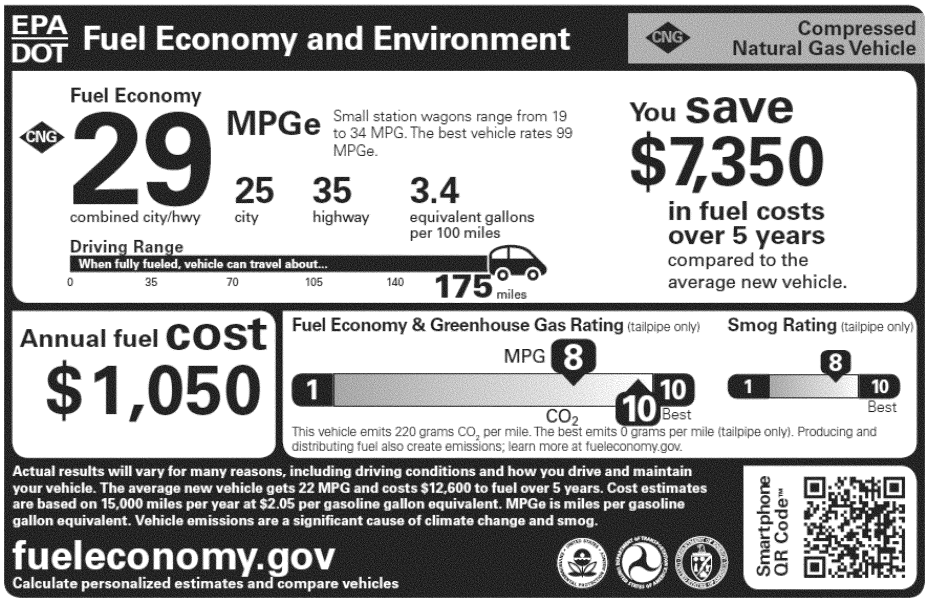


Figure 8. Plug-in Hybrid Electric Vehicle Label, Series PHEV

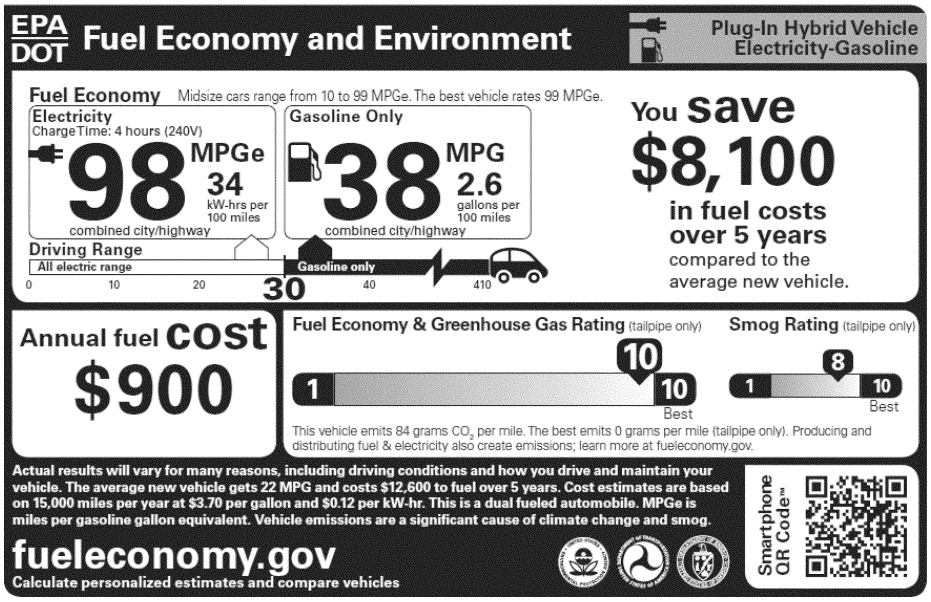


Figure 9. Plug-in Hybrid Electric Vehicle Label, Blended PHEV

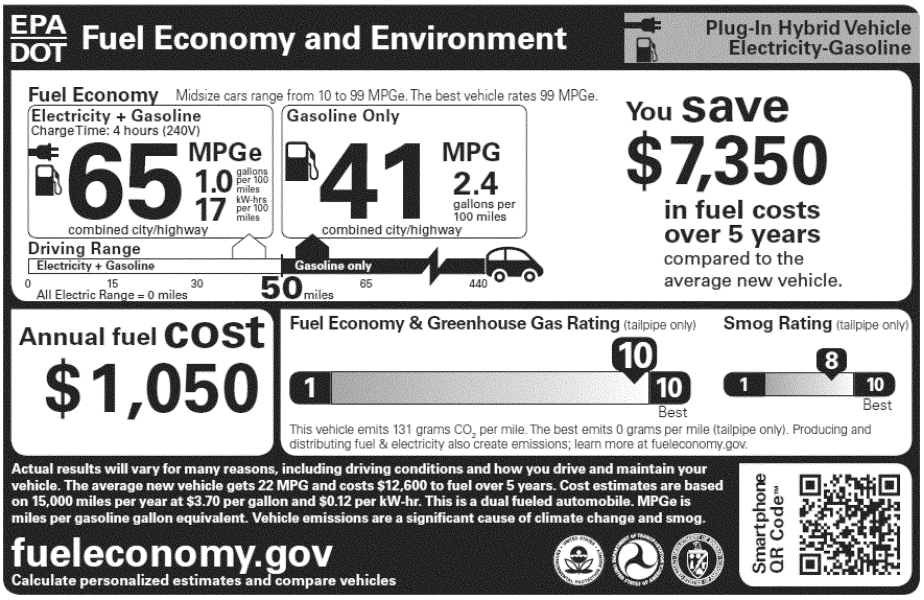
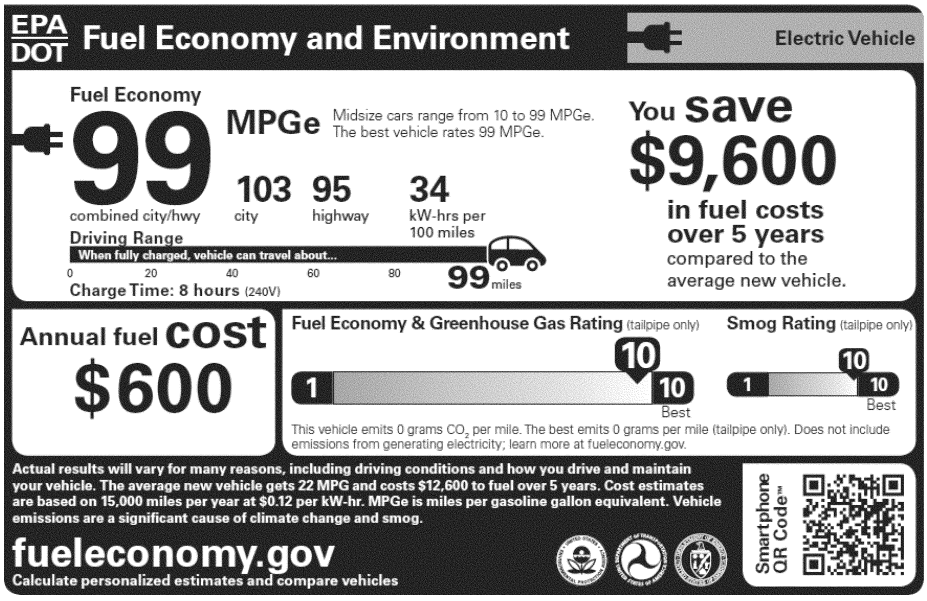



Figure 10. Electric Vehicle Label