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REQUIREMENTS FOR TRAILER MANUFACTURERS

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TRAILER MANUFACTURER INTRODUCTION

Dear Trailer Manufacturer:

This package contains information concerning legislation and regulations pertaining to the manufacture of motor vehicles (a trailer is defined as a motor vehicle). The National Highway Traffic Safety Administration (NHTSA) is responsible for improving safety on the Nation's highways. As part of these responsibilities, NHTSA establishes and enforces Federal motor vehicle safety standards (FMVSS) which require minimum levels of safety performance for motor vehicles. A part of our enforcement program is the monitoring of vehicles manufactured, sold, or imported into the United States to ensure that they comply with applicable FMVSS.

49 U.S.C. 30112 requires all motor vehicles, including vehicles manufactured in more than one stage, to comply with all applicable FMVSS in effect on their date of manufacture. 49 U.S.C. 30165 provides that whoever violates Section 30112 or regulations issued thereunder, will be subject to a civil penalty not to exceed \$1,100 for each violation, or \$925,000 for any related series of violations. The FMVSS are found at Title 49, Code of Federal Regulations (49 CFR Part 571).

49 CFR Part 567 requires that the manufacturer permanently affix a tag or label to a motor vehicle certifying that it conforms to all applicable FMVSS.

If you determine that any vehicle manufactured by you does not conform with an applicable FMVSS or contains a safety-related defect, 49 U.S.C. 30118 requires that you furnish notification to NHTSA and affected vehicle owners and to remedy, without cost, the defect or failure to conform in accordance with 49 U.S.C. 30120. Specific instructions on furnishing notification to NHTSA and affected owners are contained in 49 CFR Parts 573 and 577.

Manufacturers are required to:

- Yes G (Foreign manufacturers only) submit designation to NHTSA in accordance with 49 CFR 551.45, *Agent for Service of Process*.**
- Yes G (All manufacturers) submit information to NHTSA in accordance with 49 CFR 565.7(c) and (d), *VIN Identification*.**
- Yes G (All manufacturers) submit information to NHTSA in accordance with 49 CFR 566.5, *Manufacturer Identification*.**
- Yes G Ensure conformity, and apply a certification label to the vehicle in accordance with 49 CFR Part 567, *Certification*.**
- Yes G Provide NHTSA with a facsimile of your certification label with all GVWR, GAWR, and tire information imprinted (fax) 202-366-1024.**
- Yes G Provide information to consumers as required by 49 CFR 575.6(a)(2)(I).**
- Yes G Maintain a list of first purchasers (owners) of vehicles you manufacture as required by 49 CFR 569, 574.10 and 576.**

FMVSS AND REGULATIONS APPLICABLE TO TRAILERS

Copies of these standards and regulations are found in 49 CFR Parts 400-999, available from the Government Printing Office. It is important that every manufacturer have a copy of these standards and be familiar with them. Since many of the standards are revised each year, it is important that a manufacturer order the 49 CFR each year to know the latest requirements. Changes to the 49 CFR which occur between publications are found in the Federal Register at the Government Printing Office website.

http://www.access.gpo.gov/su_docs/aces/aces140.html

1. FMVSS No. 106, *Brake Hoses*
2. FMVSS No. 108, *Lamps, Reflective Devices, and Associated Equipment* (also see lighting charts)
3. FMVSS No. 116, *Motor Vehicle Brake Fluids*
4. FMVSS No. 119, *New Pneumatic Tires for Vehicles Other Than Passenger Cars*
5. FMVSS No. 120, *Tire Selection and Rims for Motor Vehicles Other Than Passenger Cars*
6. FMVSS No. 121, *Air Brake Systems*
7. FMVSS No. 223, *Rear Impact Guards*
8. FMVSS No. 224, *Rear Impact Protection*
9. 49 CFR 551.45, *Agent for Service of Process*
10. 49 CFR 565, *Vehicle Identification Number Content Requirement*
11. 49 CFR 566, *Manufacturer Identification*
12. 49 CFR 567, *Certification*
13. 49 CFR 574.10, *Tire Identification and Recordkeeping*
14. 49 CFR 575.6(a)(2)(I), *Consumer Information*
15. 49 CFR 576, *Record Retention*

OVERVIEW OF FMVSS APPLICABLE TO TRAILERS

FMVSS No. 106, *Brake Hoses*. A trailer manufacturer may carry through the certification offered from a brake hose assembly manufacturer. This brake hose certification can be in the form of a band, around the brake hose, identifying the brake hose manufacturer, or it can be a designation, that is etched, stamped or embossed, with a character at least one-sixteenth of an inch high, on at least one of the metal end fittings of the hose assembly, that identifies the manufacturer of the brake hose.

FMVSS No. 108, *Lamps, Reflective Devices, and Associated Equipment*. A trailer manufacturer should observe 49 CFR 571.108, *Requirements*, for regulations pertaining to specialty trailers. General references to lamp placement and SAE markings of lamps can be found within Tables I through Table IV at Section 12.5, *Figures and Tables*. Upon request, NHTSA will supply manufacturers with wall charts that illustrate “zones” of acceptable placement of lamps. Trailers with a width of 80 inches or more and a GVWR over 10,000 lb must be equipped with retroreflective sheeting, reflex reflectors or a combination of both.

FMVSS No. 116, *Motor Vehicle Brake Fluids*. A trailer manufacturer, when using containers of brake fluid marked with the DOT symbol by the brake fluid manufacturer, may carry through that certification.

FMVSS No. 119, *New Pneumatic Tires for Vehicles Other Than Passenger Cars*. A tire manufacturer shall ensure that a listing of the rims that may be used with each tire that he produces, is provided to the public. The trailer manufacturer should procure this information from his tire distributor, or from a standards association like the Tire and Rim Association. The trailer manufacturer is required to record this information, with GVWR, GAWR, and tire, rim, and cold inflation pressure, on a label affixed to the trailer as described under 49 CFR 571.120.

FMVSS No. 120, *Tire Selection and Rims for Motor Vehicles Other than Passenger Cars*. A trailer manufacturer must equip his trailers with new tires that are of adequate size and load rating, and with rims of appropriate size and type designation. If passenger car tires are used on a trailer, the tire’s load carrying capacity shall be reduced by dividing by 1.10. The tire must carry the tire manufacturer’s certification in the form of the DOT symbol, and subsequent identifying characters. The rim must be marked with the DOT symbol, a designation indicating the source of the rim’s published nominal dimensions; typically “T” for the Tire and Rim Association, the rim manufacturer’s designation, and the month, day, and year of manufacture of the rim.

FMVSS No. 121, *Air Brake Systems*. A trailer manufacturer should ensure that, if his product is of designated width, weight capacity, and configuration, the trailer will comply with requirements such as electrical connectivity, parking brake performance, fitment of ABS lamps, volume of brake reservoir, apply/release timing of actuators, and other requirements as listed in 49 CFR 571.121.5. This standard requires semi-trailers (including trailer converter dollies) manufactured on or after March 1, 1998 to meet stopping performance criteria as specified in the standard, and to be equipped with an anti-lock brake system that directly controls the wheels of at least one axle of the vehicle.

FMVSS No. 223, *Rear Impact Guards*. Sets strength and energy absorption requirements for rear impact guards. The guard manufacturer, who may also be a trailer manufacturer, must certify the guards with the DOT symbol, the guard manufacturer's name, and the statement "Manufactured in _____" (inserting the month and year of guard manufacture). The guard manufacturer must provide installation instructions to the trailer manufacturer.

FMVSS No. 224, *Rear Impact Protection*. After January 25, 1998, a trailer manufacturer producing trailers, with GVWR of greater than 4,536 kg, with the exception of pole trailers, low chassis trailers, special purpose vehicles, wheels back vehicles or trailers with temporary living quarters, shall equip such trailers with a rear impact guard certified as meeting FMVSS No. 223. A trailer manufacturer may carry through the certification offered by the rear impact guard manufacturer if it installs the guard as specified in the installation instructions.

A list of testing laboratories, and the Office of Vehicle Safety Compliance Laboratory Test Procedures can be found at the NHTSA website: www.nhtsa.dot.gov/cars/testing/procedures.



TRAILER MANUFACTURER INFORMATION

PURPOSE:

To identify relevant Federal statutes and National Highway Traffic Safety Administration (NHTSA) standards and other regulations that affect motor vehicle and motor vehicle equipment manufacturers. This information document merely highlights the major requirements for manufacturers; each manufacturer should consult the specific statutes, regulations, and standards to determine its responsibilities. All references below to NHTSA regulations are found in *Title 49 of the Code of Federal Regulations (CFR) Parts 400-999*. This manual also refers to Federal Motor Vehicle Safety Standards (FMVSS) which are found at 49 CFR Part 571.

FEDERAL MOTOR VEHICLE SAFETY STANDARDS (FMVSS) and REGULATIONS:

Title 49 U.S.C. 30111 authorizes NHTSA to issue safety standards for new motor vehicles and new motor vehicle equipment. All motor vehicles and items of motor vehicle equipment manufactured or imported for sale in the United States must comply with all applicable FMVSS.

<p>Information that must be submitted to NHTSA or applied to product by all motor vehicle or motor vehicle equipment manufacturers (equipment covered by FMVSS) offering products for use in the USA NOTE: Foreign motor vehicle equipment manufacturers (equipment covered by FMVSS) must designate an “Agent for Service of Process” before offering products for importation in the USA.</p>		
Motor Vehicle Manufacturers (including Final Stage and Alterers) or Motor Vehicle Equipment Manufacturers	Required Submissions	Certification of Compliance
Domestic motor vehicles	Part 565, Part 566 <i>(Part 565 not required of final stage manufacturers or alterers)</i>	Must attach Part 567 Certification Label to vehicle; final stage manufacturers and alterers must attach labels respectively § 567.5 and § 567.7
Foreign motor vehicles	Part 551.45, Part 565, Part 566 <i>(Part 565 not required of final stage manufacturers or alterers)</i>	Must attach Part 567 Certification Label to vehicle: final stage manufacturers and alterers must attach labels respectively § 567.5 and § 567.7
Domestic manufacturers of brake hose, brake hose assemblies, lamps, and (other than passenger car) rims	Part 566, Brake hose and brake hose assembly manufacturers must also file their designation (symbol) with NHTSA	DOT symbol and manufacturer’s designation (symbol) on product
Foreign manufacturers of brake hose, brake hose assemblies, lamps, and (other than passenger car) rims	Part 551.45, Part 566, Brake hose and brake hose assembly manufacturers must also file their designation (symbol) with NHTSA	DOT symbol and manufacturer’s designation (symbol) on product
Domestic manufacturers of glazing, new tires, passenger car retreaded tires	Part 566 (glazing), Part 574.6 (tires) Must secure an identifier from NHTSA to label products	DOT symbol and manufacturer’s identifier on product
Foreign manufacturers of glazing, new tires, passenger car retreaded tires	Part 551.45, Part 566 (glazing), Part 574.6 (tires) Must secure an identifier from NHTSA to label products	DOT symbol and manufacturer’s identifier on product

Manufacturers of motor vehicles must certify compliance of their products in accordance with Part 567, *Certification*. Persons finishing an incomplete vehicle must submit information in accordance with Part 566, *Manufacturer Identification*, and certify compliance of a vehicle in accordance with Part 567 and Part 568, *Vehicles Manufactured In Two Or More Stages*. Persons altering a new vehicle prior to its first sale to a consumer, must submit information in accordance with Part 566, *Manufacturer Identification*. Vehicle alterers, under Part 567.7, *Requirements for Persons Who Alter Certified Vehicles*, are required to certify that vehicles, as altered, continue to comply with FMVSS.

49 U.S.C. 30122 prohibits manufacturers, distributors, dealers, or motor vehicle repair businesses from knowingly making inoperative any part of a device or element of design installed on or in a motor vehicle or item of motor vehicle equipment in compliance with an applicable Federal motor vehicle safety standard. 49 U.S.C. 30113 provides limited grounds for NHTSA to grant a **motor vehicle** manufacturer a temporary exemption from compliance with one or more of the safety standards. The procedures for a temporary exemption are found at 49 CFR 555. Exemptions cannot be granted to manufacturers of **motor vehicle equipment**.

DESIGNATION OF AGENT FOR FOREIGN MANUFACTURERS: Part 551, *Procedural Rules*, requires all manufacturers offering motor vehicles or equipment for importation into the United States to designate a permanent resident of the United States as the manufacturer's agent for service of all process, notices, orders, and decisions. This designation must be mailed to the NHTSA Chief Counsel (Section 551.45).

VEHICLE IDENTIFICATION NUMBER (VIN): Part 565, *Vehicle Identification Number*, requires each motor vehicle to have a VIN. The content requirements for the VIN are in Part 565.6. The requirement for manufacturers to submit VIN identifiers to the NHTSA VIN Coordinator is in Part 565.7(c).

MANUFACTURER IDENTIFICATION: Part 566, *Manufacturer Identification*, requires each manufacturer of motor vehicles or motor vehicle equipment, to which a FMVSS applies, to submit information identifying itself and its products to NHTSA no later than 30 days after it begins production of that product and to submit revised information not later than 30 days after the relevant change occurs.

CONSUMER INFORMATION: Part 575, *Consumer Information*, requires manufacturers to make specific information available to consumers.

TIRES AND RIMS: In addition to the safety standards for tires in FMVSS 109, 117, 119, and 129, manufacturers of tires should also consult Part 569, *Regrooved Tires*, and Part 574, *Tire Identification and Recordkeeping*. Information concerning tire and rim selection requirements are found in FMVSS 110 and 120.

SAFETY-RELATED DEFECTS AND NONCOMPLIANCES: 49 U.S.C. 30118 requires manufacturers to notify purchasers of motor vehicles or motor vehicle equipment containing safety-related defects and failures to comply with the standards. 49 U.S.C. 30120 requires manufacturers

to remedy such defects and noncompliance without charge. The following regulations relate to defect and noncompliance notification and remedy campaigns: Part 556, *Exemption for Inconsequential Defect or Noncompliance*; Part 573, *Defect and Noncompliance Reports*; Part 577, *Defect and Noncompliance Notification*; and Part 579, *Defect and Noncompliance Responsibility*. Part 576, *Record Retention*, sets forth requirements for motor vehicle manufacturers' retention of complaints, reports, and other records concerning safety-related motor vehicle malfunctions.

VIOLATIONS: Each Violation is punishable by a civil penalty of up to \$1,100 per violation, with a maximum of \$925,000 for a related series of violations (49 U.S.C. 30165, 49 CFR Part 578, *Civil Penalties*).

REQUESTS FOR INTERPRETATIONS: Persons requesting an interpretation of NHTSA regulations and standards should write the Office of Chief Counsel. Existing interpretations may be found at the NHTSA website: www.nhtsa.dot.gov/cars/rules/interps/.

WHERE TO OBTAIN MOTOR VEHICLE SAFETY STANDARDS AND REGULATIONS: The Federal motor vehicle safety standards (FMVSS) and other National Highway Traffic Safety Administration regulations can be obtained from Superintendent of Documents, U.S. Government Printing Office.

OTHER REGULATIONS: Persons requiring information for importation of motor vehicles, and motor vehicle equipment may visit the NHTSA Website on the Internet. They may also contact the U.S. Customs Service, Department of the Treasury (www.customs.ustreas.gov/travel/auto.htm), (Address and phone number can be found in the Federal Government section in your local telephone directory).

Manufacturers should also contact appropriate State authorities to determine if any State laws apply to their business. An excellent source of information concerning State requirements is the American Association of Motor Vehicle Administrators.

ADDRESSES YOU MIGHT NEED

Auto Safety Hotline

800-424-9393
(202) 366-0123
www.nhtsa.dot.gov/cars/rules

NHTSA Interpretations

Attn: Chief Counsel/room 5219
DOT/NHTSA
Washington, DC 20590
(202) 366-9511
www.nhtsa.dot.gov/cars/rules/interps

Motor Vehicle Safety Standards & Regulations

Government Printing Office (GPO)
Superintendent of Documents
P.O. Box 371954
Pittsburgh, PA 15250-7954 Payment by Credit
Card call: (202) 512-1800, or
FAX: (202) 512-2233

NHTSA Regulations: 49 CFR Part 501 - 594
website:
www.nhtsa.dot.gov/cars/rules/standards

Motor Carrier Safety

DOT/FHWA
Motor Carrier Research & Standards
HCI-1/RM 3107, Washington, DC 20590
(202) 366-1790

Hazardous Material Regulations

DOT/RSPA
DHM-10/RM 8102
Washington, DC 20590
800-467-4922

State Regulations Concerning Vehicles

American Assoc of Motor Vehicle
Administrators
4301 Wilson Boulevard, Suite 400
Arlington, VA 22203
(703) 522-4200

Society of Automotive Engineers (SAE)

400 Commonwealth Drive
Warrendale, PA 15096-0001
World Manufacturing Identifier
(724) 772-8511

The Tire & Rim Association, Inc.

175 Montrose Avenue, Suite 150
Copley, OH 44321
(330) 666-8121
FAX: (330) 666-8340
e-mail: TireandRim@AOL.com

Trailer Manufacturer's Associations

GVWR less than 26,000 lb

National Association of Trailer Manufacturers

3310 SW Harrison Street
Topeka, KS 66611-2279
(785) 266-7013
FAX: (785) 266-0272
www.natm.com Corey Peterson, Ex Dir

Trailer Manufacturers Association

200 East Randolph Drive, Suite 5100
Chicago, IL 60601-6528
Tammy Rossow, Exec Dir
(312) 946-6200

Trailer Manufacturer's Associations

GVWR greater than 26,000 lb

Truck Trailer Manufacturers Association

1020 Princess Street
Alexandria, VA 22314
Paul Kromberg, Engineering Manager
(703) 549-3010
FAX: (703) 549-3014

PART 551, PROCEDURAL RULES

Foreign Manufacturers and Importers must designate an agent before bringing motor vehicles and/or motor vehicle equipment into the U.S.

§ 551.45 ***Service of process on foreign manufacturers and importers.***

§ 551.31 ***Form of communications.***

Any communication in writing relating to official business (including formal documents) shall be on opaque and durable paper not larger than 9 by 14 inches in size. Tables, charts, or originals of other documents that are attached to communications shall be folded to this size, if possible. The left margin of communications shall be at least 1½ inches wide, and if a communication is bound, it shall be bound on the left side. All copies submitted shall be legible.

§ 551.33 ***Address of communications.***

Unless otherwise specified, communications shall be addressed to the Administrator, National Highway Traffic Safety Administration, 400 Seventh Street SW, NCC-01, Washington, DC 20590. Communications may not be addressed to a staff member's private address.

§ 551.35 ***Subscription of communications.***

Each communication shall be signed in ink and shall disclose the full legal name and the address of the person signing it and, if he is an agent, of his principal.

§ 551.37 ***Language of communications.***

Communications and attachments thereto shall be in English. Any matter written in a foreign language will be considered only if accompanied by a translation into English. A translation shall bear a certificate by the translator certifying that he is qualified to make the translation; that the translation is complete except as otherwise clearly indicated; and that it is accurate to the best of the translator's knowledge and belief. The translator shall sign the certificate in ink and state his full legal name, occupation, and address.

Subpart D Service of Process; Agents

§ 551.45 *Service of process on foreign manufacturers and importers.*

(a) Designation of agent for service. Any manufacturer, assembler, or importer of motor vehicles or motor vehicle equipment (hereinafter called manufacturer) before offering a motor vehicle or item of motor vehicle equipment for importation into the United States, shall designate a permanent resident of the United States as his agent upon whom service of all processes, notices, orders, decisions, and requirements may be made for him and on his behalf as provided in section 110(e) of the National Traffic and Motor Vehicle Safety Act of 1966 (80 Stat. 718) and in this section. The agent may be an individual, a firm, or a domestic corporation. Any number of manufacturers may designate the same person as agent.

(b) Form and contents of designation. The designation shall be addressed to the Administrator, National Highway Traffic Safety Administration, 400 Seventh Street SW, Washington, DC 20590. It shall be in writing and dated; all signatures shall be in ink. The designation shall be made in legal form required to make it valid, and binding on the manufacturer, under the laws, corporate bylaws, or other requirements governing the making of the designation by the manufacturer at the place and time where it is made, and the person or persons signing the designation shall certify that it is so made. The designation shall disclose the full legal name, principal place of business, and mailing address of the manufacturer. If any of the products of the manufacturer do not bear his legal name, the marks, trade names, or other designations of origin which these products bear shall be stated in the designation. The designation of agent shall provide that it remains in effect until withdrawn or replaced by the manufacturer. The designation shall bear a declaration of acceptance duly signed by the designated agent. The full legal name and mailing address of the agent shall be stated. Designations are binding on the manufacturer even when not in compliance with all the requirements of this section, until rejected by the Administrator. The designated agent may not assign performance of his functions under the designation to another person.

(c) Method of service. Service of any process, notice, order, requirement, or decision specified in section 110(e) of the National Traffic and Motor Vehicle Safety Act of 1966 may be made by registered or certified mail addressed to the agent, with return receipt requested, or in any other manner authorized by law. If service cannot be effected because the agent has died (or, if a firm or a corporation ceased to exist) or moved, or otherwise does not receive correctly addressed mail, service may be made by posting as provided in section 110(e).

SAMPLE PART 551.45, AGENT FOR SERVICE OF PROCESS SUBMISSION

Appointment of Agent for Service of Process on Foreign Manufacturer

Pursuant to section 110(e) of the National Traffic and Motor Vehicle Safety Act, 15 U.S.C. 1399(e), the manufacturer listed below hereby designates in writing an agent upon whom service of all administrative and judicial processes, notices, orders, decisions and requirements may be made for and on behalf of said manufacturer. The appointment of an agent is for service of process only; it is for no other purpose whatsoever.

In accordance with the implementing regulation of the DOT/National Highway Traffic Safety Administration, 49 CFR 551.45 (1989), the manufacturer listed below hereby appoints (*agent name*) as its agent for the purpose of service of process and hereby certifies as follows:

1. This designation is in legal form required to make it binding on the manufacturer under the laws, corporate bylaws, or other requirements governing the making of the designation by the manufacturer at the place and time where it is made.
2. The full legal name, principal place of business and mailing address of the manufacturer are as follows:

(company name and address)

3. Any products of the manufacturer that do not bear the manufacturer's legal name, bear the following marks, trade names, or other designations of origin:

(brand name(s))

4. The designation of (*agent name*) as an agent solely for the service of process shall remain in effect until it is withdrawn or replaced by the manufacturer.
5. The full legal name and address of the designated agent is as follows:

(agent name)
(agent address)

Date: _____

By: _____
(principal of company)

Capacity: _____
(president, owner, etc.)

SAMPLE PART 551.45

COMPANY LETTERHEAD STATIONERY

Acceptance of Appointment

The undersigned (agent name) accepts the appointment by (company name) as an agent solely for the purpose of process on the manufacturer within the scope of the above appointment.

Agent Name and Address: _____

By: _____

Capacity: _____

Effective as of this Date: _____

PART 565, VEHICLE IDENTIFICATION NUMBER REQUIREMENTS

§ 565.1 Purpose and scope.

This part specifies the format, content and physical requirements for a vehicle identification number (VIN) system and its installation to simplify vehicle identification information retrieval and to increase the accuracy and efficiency of vehicle recall campaigns.

§ 565.2 Applicability.

This part applies to passenger cars, multipurpose passenger vehicles, trucks, buses, trailers (including trailer kits), incomplete vehicles, and motorcycles. Vehicles imported into the United States under 49 CFR 591.5(f), other than by the corporation responsible for the assembly of that vehicle or a subsidiary of such a corporation, are excluded from requirements of § 565.4(b), § 565.4(c), § 565.4(g), § 565.4(h), § 565.5 and § 565.6.

§ 565.3 Definitions.

(a) *Federal Motor Vehicle Safety Standards Definitions.* Unless otherwise indicated, all terms used in this part that are defined in 49 CFR 571.3 are used as defined in 49 CFR 571.3.

(b) *Body type* means the general configuration or shape of a vehicle distinguished by such characteristics as the number of doors or windows, cargo-carrying features and the roof line (e.g., sedan, fastback, hatchback).

(c) *Check digit* means a single number or the letter “X” used to verify the accuracy of the transcription of the vehicle identification number.

(d) *Engine type* means a power source with defined characteristics such as fuel utilized, number of cylinders, displacement, and net brake horsepower. The specific manufacturer and make shall be represented if the engine powers a passenger car or a multipurpose passenger vehicle, or truck with a gross vehicle weight rating of 4536 kg (10,000 lb) or less.

(e) *Incomplete vehicle* means an assemblage consisting, as a minimum, of frame and chassis structure, power train, steering system, suspension system and braking system, to the extent that those systems are to be part of the completed vehicle, that requires further manufacturing operations, other than the addition of readily attachable components, such as mirrors or tire and rim assemblies, or minor finishing operations such as painting, to become a completed vehicle.

(f) *Line* means a name that a manufacturer applies to a family of vehicles within a make which have a degree of commonality in construction, such as body, chassis or cab type.

(g) *Make* means a name that a manufacturer applies to a group of vehicles or engines.

(h) *Manufacturer* means a person-

- (1) *Manufacturing* or assembling motor vehicles or motor vehicle equipment; or
- (2) *Importing* motor vehicles or motor vehicle equipment for resale.

(i) *Model* means a name that a manufacturer applies to a family of vehicles of the same type, make, line, series and body type.

(j) *Model Year* means the year used to designate a discrete vehicle model, irrespective of the calendar year in which the vehicle was actually produced, so long as the actual period is less than two calendar years.

(k) *Plant of manufacture* means the plant where the manufacturer affixes the VIN.

(l) *Series* means a name that a manufacturer applies to a subdivision of a “line” denoting price, size or weight identification and that is used by the manufacturer for marketing purposes.

(m) *Trailer kit* means a trailer that is fabricated and delivered incomplete but unassembled form and that is designed to be assembled without special machinery or tools.

(n) *Type* means a class of vehicle distinguished by common traits, including design and purpose. Passenger cars, multipurpose passenger vehicles, trucks, buses, trailers, incomplete vehicles and motorcycles are separate types.

(o) *VIN* means a series of Arabic numbers and Roman letters that is assigned to a motor vehicle for identification purposes.

§ 565.4 *General requirements.*

(a) Each vehicle manufactured in one stage shall have a VIN that is assigned by the manufacturer. Each vehicle manufactured in more than one stage shall have a VIN assigned by the incomplete vehicle manufacturer. Vehicle alterers, as specified in 49 CFR 567.7, shall utilize the VIN assigned by the original manufacturer of the vehicle.

(b) Each VIN shall consist of seventeen (17) characters.

(c) A check digit shall be part of each VIN. The check digit shall appear in position nine (9) of the VIN, on the vehicle and on any transfer documents containing the VIN prepared by the manufacturer to be given to the first owner for purposes other than resale.

(d) The VINs of any two vehicles manufactured within a 30 year period shall not be identical.

(e) The VIN of each vehicle shall appear clearly and indelibly upon either a part of the vehicle, other than the glazing, that is not designed to be removed except for repair or upon a separate plate or label that is permanently affixed to such a part.

(f) The VIN for passenger cars, multipurpose passenger vehicles and trucks of 4536 kg or less GVWR shall be located inside the passenger compartment. It shall be readable, without moving any part of the vehicle, through the vehicle glazing under daylight lighting conditions by an observer having 20/20 vision (Snellen) whose eye-point is located outside the vehicle adjacent to the left windshield pillar. Each character in the VIN subject to this paragraph shall have a minimum height of 4 mm.

(g) Each character in each VIN shall be one of the letters in the set: [ABCDEFGHJKLMNPRSTUVWXYZ] or a numeral in the set: [0123456789] assigned according to the method given in § 565.5. *Note the letters I, O, and Q are not used.*

(h) All spaces provided for in the VIN must be occupied by a character specified in paragraph (g) of this section.

(i) The type face utilized for each VIN shall consist of capital, sanserif characters.

§ 565.5 *Motor vehicles imported into the United States.*

(a) Importers shall utilize the VIN assigned by the original manufacturer of the motor vehicle.

(b) A passenger car certified by a Registered Importer under 49 CFR Part 592 shall have a plate or label that contains the following statement, in characters with a minimum height of 4 mm, with the identification number assigned by the original manufacturer provided in the blank: SUBSTITUTE FOR U.S. VIN: _____ SEE PART 565. The plate or label shall conform to § 565.4 (h) and

(i). The plate or label shall be permanently affixed inside the passenger compartment. The plate or label shall be readable, without moving any part of the vehicle, through the vehicle glazing under daylight lighting conditions by an observer having 20/20 vision (Snellen) whose eye-point is located outside the vehicle adjacent to the left windshield pillar. It shall be located in such a manner as not to cover, obscure, or overlay any part of any identification number affixed by the original manufacturer. Passenger cars conforming to Canadian Motor Vehicle Safety Standard 115 are exempt from this paragraph.

§ 565.6 *Content requirements.* The VIN shall consist of four sections of characters which shall be grouped accordingly:

(a) The first section shall consist of three characters that occupy positions one through three (1-3) in the VIN. This section shall uniquely identify the manufacturer, make and type of the motor vehicle if its manufacturer produces 500 or more motor vehicles of its type annually. If the manufacturer produces less than 500 motor vehicles of its type annually, these characters along with the third, fourth and fifth characters of the fourth section shall uniquely identify the manufacturer, make and type of the motor vehicle. These characters reassigned in accordance with § 565.7(a).

(b) The second section shall consist of five characters, which occupy positions four through eight (4-8) in the VIN. This section shall uniquely identify the attributes of the vehicle as specified in

Table I. For passenger cars, and for multipurpose passenger vehicles and trucks with a gross vehicle weight rating of 4536 kg (10,000 lb) or less, the first and second characters shall be alphabetic and the third and fourth characters shall be numeric. The fifth character may be either alphabetic or numeric. The characters utilized and their placement within the section may be determined by the manufacturer, but the specified attributes must be decipherable with information supplied by the manufacturer in accordance with § 565.7(c). In submitting the required information to NHTSA relating to gross vehicle weight rating, the designations in Table II shall be used. The use of these designations within the VIN itself is not required.

Table I -Type of Vehicle and Information Decipherable

Passenger car: Line, series, body type, engine type and restraint system type.

Multipurpose passenger vehicle: Line, series, body type, engine type, gross vehicle weight rating.

Truck: Model or line, series, chassis, cab type, engine type, brake system and gross vehicle weight rating.

Bus: Model or line, series, body type, engine type, and brake system.

Trailer, including trailer kits and incomplete trailer: Type of trailer, body type, length and axle configuration.

Motorcycle: Type of motorcycle, line, engine type, and net brake horsepower.

Incomplete Vehicle other than a trailer: Model or line, series, cab type, engine type and brake system.

Note to Table I: Engine net brake horsepower when encoded in the VIN shall differ by no more than 10 percent from the actual net brake horsepower; shall in the case of motorcycle with an actual net brake horsepower of 2 or less, be not more than 2; and shall be greater than 2 in the case of a motorcycle with an actual brake horsepower greater than 2.

Table II - Gross Vehicle Weight Rating Classes

- Class A - Not greater than 1,360 kg (3,000 lb)
- Class B - Greater than 1,360 kg to 1,814 kg (3,001-4,000 lb)
- Class C - Greater than 1,814 kg to 2,268 kg (4,001-5,000 lb)
- Class D - Greater than 2,268 kg to 2,722 kg (5,001-6,000 lb)
- Class E - Greater than 2,722 kg to 31,75 kg (6,001-7,000 lb)
- Class F - Greater than 3,175 kg to 3,629 kg (7,001-8,000 lb)
- Class G - Greater than 3,629 kg to 4,082 kg (8,001-9,000 lb)
- Class H - Greater than 4,082 kg to 4,536 kg (9,001-10,000 lb)
- Class 3 - Greater than 4,536 kg to 6,350 kg (10,001-14,000 lb)
- Class 4 - Greater than 6,350 kg to 7,257 kg (14,001-16,000 lb)
- Class 5 - Greater than 7,257 kg to 8,845 kg (16,001-19,500 lb)
- Class 6 - Greater than 8,845 kg to 11,793 kg (19,501-26,000 lb)
- Class 7 - Greater than 11,793 kg to 14,968 kg (26,001-33,000 lb)
- Class 8 - Greater than 14,968 kg (33,001 lb and over)

(c) **The third section** shall consist of one character, which occupies position nine (9) in the VIN. This section shall be the check digit whose purpose is to provide a means for verifying the accuracy of any VIN transcription. After all other characters in VIN have been determined by the manufacturer, the check digit shall be calculated by carrying out the mathematical computation specified in paragraphs (c)(1) through (4) of this section. (1) Assign to each number in the VIN its actual mathematical value and assign to each letter the value specified for it in Table III, as follows:

Table III - Assigned Values

A = 1	J = 1	T = 3
B = 2	K = 2	U = 4
C = 3	L = 3	V = 5
D = 4	M = 4	W = 6
E = 5	N = 5	X = 7
F = 6	P = 7	Y = 8
G = 7	R = 9	Z = 9
H = 8	S = 2	

(2) Multiply the assigned value for each character in the VIN by the position weight factor specified in Table IV, as follows:

Table IV -VIN Position and Weight Factor

1st8	10th..... 9
2nd7	11th..... 8
3rd.....6	12th..... 7
4th5	13th..... 6
5th4	14th..... 5
6th3	15th..... 4
7th2	16th..... 3
8th.....10	17th..... 2
9th..... (check digit)	

(3) Add the resulting products and divide the total by 11.

(4) The numerical remainder is the check digit. If the remainder is 10 the letter “X” shall be used to designate the check digit. The correct numeric remainder, zero through nine (0-9) or the letter “X,” shall appear in VIN position nine (9).

(5) A sample check digit calculation is shown in Table V as follows:

Table V - Calculation of a Check Digit

VIN Positions	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
Sample VIN	1	G	4	A	H	5	9	H		5	G	1	1	8	3	4	1	
Assigned Value	1	7	4	1	8	5	9	8		5	7	1	1	8	3	4	1	(table III)
Weight Factor	8	7	6	5	4	3	2	10	0	9	8	7	6	5	4	3	2	(table IV)
Add Products	8	49	24	5	32	15	18	80	0	45	56	7	6	40	12	12	2	sum= 411
Divide sum by 11. i.e.: $411/11 = 37 \frac{4}{11}$ The numerator is “4,” this is the check digit (9th digit of VIN)																		

(d) The fourth section shall consist of eight characters, which occupy positions ten through seventeen (10-17) of the VIN. The last five (5) characters of this section shall be numeric for passenger cars and for multipurpose passenger vehicles and trucks with a gross vehicle weight rating of 4536 kg (10,000 lb) or less, and the last four (4) characters shall be numeric for all other vehicles.

(1) The first character of the fourth section shall represent the vehicle model year. The year shall be designated as indicated in Table VI as follows:

Table VI - Year Codes for VIN

1998.....	W	2006.....	6
1999.....	X	2007.....	7
2000.....	Y	2008.....	8
2001.....	1	2009.....	9
2002.....	2	2010.....	A
2003.....	3	2011.....	B
2004.....	4	2012.....	C
2005.....	5	2013.....	D

(2) The second character of the fourth section shall represent the plant of manufacture.

(3) The third through the eighth characters of the fourth section shall represent the number sequentially assigned by the manufacturer in the production process if the manufacturer produces 500 or more vehicles of its type annually. If the manufacturer produces less than 500 motor vehicles

of its type annually, the third, fourth and fifth characters of the fourth section, combined with the three characters of the first section, shall uniquely identify the manufacturer, make and type of the motor vehicle and the sixth, seventh, and eighth characters of the fourth section shall represent the number sequentially assigned by the manufacturer in the production process.

§ 565.7 Reporting requirements.

(a) The National Highway Traffic Safety Administration (NHTSA) has contracted with the Society of Automotive Engineers (SAE) to coordinate the assignment of manufacturer identifiers. Manufacturer identifiers will be supplied by SAE at no charge. All requests for assignments of manufacturer identifiers should be forwarded directly to: Society of Automotive Engineers, Attention: WMI Coordinator (see addresses you might need page). Any requests for identifiers submitted to NHTSA will be forwarded to SAE. Manufacturers may request a specific identifier or may request only assignment of an identifier(s). SAE will review requests for specific identifiers to determine that they do not conflict with an identifier already assigned or block of identifiers already reserved. SAE will confirm the assignments in writing to the requester. Once confirmed by SAE, the identifier need not be resubmitted to NHTSA.

(b) Manufacturers of vehicles subject to this part shall submit, either directly or through an agent, the unique identifier for each make and type of vehicle it manufactures at least 60 days before affixing the first VIN using the identifier. Manufacturers whose unique identifier appears in the fourth section of the VIN shall also submit the three characters of the first section that constitutes a part of their identifier.

(c) Manufacturers of vehicles subject to the requirements of this part shall submit to NHTSA the information necessary to decipher the characters contained in its VINs. Amendments to this information shall be submitted to the agency for VINs containing an amended coding. The agency will not routinely provide written approvals of these submissions, but will contact the manufacturer should any corrections to these submissions be necessary.

(d) The information required under paragraph (c) of this section shall be submitted at least 60 days prior to offering for sale the first vehicle identified by a VIN containing that information, or if information concerning vehicle characteristics sufficient to specify the VIN code is unavailable to the manufacturer by that date, then within one week after that information first becomes available. The information shall be addressed to: Administrator, National Highway Traffic Safety Administration, 400 Seventh Street SW, Room 6111, Washington, DC 20590, Attention: VIN Coordinator.

CHECK DIGIT CALCULATIONS WORKSHEET

← ← ← CHECK DIGIT



CHARACTER -

**ACTUAL VIN -
CONVERTED VALUES**

**FROM TABLE III -
MULTIPLIER (x)
PRODUCT-**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
8	7	6	5	4	3	2	10	0	9	8	7	6	5	4	3	2

= sum of products

$$\frac{\text{sum of products}}{\text{divided by 11}} = 33 \text{ plus } 7/11\text{ths}$$

your answer will be a different value than this sample

TABLE III ALPHABETIC TO NUMERIC CONVERSION VALUES

A=1	G=7	N=5	V=5
B=2	H=8	P=7	W=6
C=3	J=1	R=9	X=7
D=4	K=2	S=2	Y=8
E=5	L=3	T=3	Z=9
F=6	M=4	U=4	

IF WHOLE NUMBER AND FRACTION IS: 33 7/11

THE CHECK DIGIT IS "7"

IF A CALCULATOR IS USED THE CHECK DIGIT FOR THE DECIMAL REMAINDER IS:

.09 = 1
 .18 = 2
 .27 = 3
 .36 = 4
 .45 = 5
 .54 = 6
 .63 = 7
 .72 = 8
 .81 = 9
 .90 = X
 .00 = 0

EXAMPLE: SAE assigned a ___ digit World Manufacturing Identifier (WMI) _____ to a trailer manufacturer. (_____ goes in columns 1-3, and _____ goes in columns 12-14). _____ has elected to code body type in column _____. Series/frame in column _____. Length in columns _____. Axles in column _____.

The characters utilized and their placements are determined by the manufacturer, but must include the required attributes for vehicle type (i.e. type trailer, type = school bus, type = motorcycle. etc.) as referred to in 49 CFR 571.4, *Definitions*. VIN information is found in 49 CFR 565, *VIN Identification*.

PART 565.7(c), VIN IDENTIFICATION SUBMISSION

Placement of Information in Manufacturer's Vin

SECTION TITLE	1 ST Section			2 nd Section					3 rd Section	4 th Section								
	World Manufacturing Identifier			Vehicle Descriptor					Check Digit	Model Year	Plant	Sequential Production Number (may include WMI)						
CHARACTER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
TYPE (character)	B	B	B	B	B	B	B	B	B	B	B	B	B	N	N	N	N	
A=Alphabetic N=Numerical B=Alphabetical or Numerical	World Manufacturing Identifier (WMI) assigned by SAE Phone:412-772-8511			Describe Trailer Type, Body Type, Length in Feet, Number of Axles					check digit refer to: 49 CFR 565.4	Model Year W=1998 X=1999 Y=2000 1=2001 2=2002	Location of Plant that affixes VIN	Sequential Production Number						
	Foreign manufactures use WMI assigned by respective standards organization											If manufacture produces less than 500 vehicles in a year; contains second part of WMI assigned by SAE				Sequential Production Number		

SAMPLE PART 565, VIN SUBMISSION

ABC Company
1234 5th Street
Miami, FL 88888-9999

November 24, 1998

Administrator
National Highway Traffic Safety Administration (NSA-32)
400 Seventh Street, SW
Washington, DC 20590
Attn: VIN Coordinator

Subject: VIN Decoding Information for ABC Company

In accordance with § 565.7(c) of 49 CFR Part 565, *Vehicle Identification Number*, ABC Company hereby submits Vehicle Identification Number (VIN) decoding information.

VIN POSITION:	DESCRIPTION:	CODES:
1,2 & 3	WMI	1F9
4	Trailer Type	S = Straight Semi B = Ball Type Pull
5	Body Type	V = Van Body B = Boat Trailer
6 & 7	Length of Trailer (all lengths rounded to nearest foot)	26 = 26 Feet Long 09 = 09 Feet Long
8	Number of Axles	3 = 3 Axles 4 = 4 Axles
9	Check Digit	Calculate - SEE 49 CFR 565.4
10	Model Year	W = 1998 X = 1999
11	Plant Location	P = Portland D = Denver
12, 13 & 14	WMI	6,4,0
15, 16, & 17	Sequential Production Number	001 002

PART 566, MANUFACTURER IDENTIFICATION

§ 566.1 Scope.

This part requires manufacturers of motor vehicles, and of motor vehicle equipment to which a motor vehicle safety standard applies, to submit identifying information and a description of the items they produce.

§ 566.2 Purpose.

The purpose of this part is to facilitate the regulation of manufacturers under the National Traffic and Motor Vehicle Safety Act, and to aid in establishing a code numbering system for all regulated manufacturers.

§ 566.3 Application.

This part applies to all manufacturers of motor vehicles, and to manufacturers of motor vehicle equipment, other than tires, to which a motor vehicle safety standard applies (hereafter referred to as “covered equipment.”)

§ 566.4 Definitions.

All terms defined in the Act and the rules and standards issued under its authority are used as defined therein. Specifically, incomplete vehicle, intermediate manufacturer, and final-stage manufacturer are used as defined in 49 CFR Part 568 - *Vehicles Manufactured in Two or More Stages*.

§ 566.5 Requirements.

Each manufacturer of motor vehicles, and each manufacturer of covered equipment, shall furnish the information specified in paragraphs (a) through (c) of this section to: National Highway Traffic Safety Administration, 400 Seventh Street SW, NSA32, Room 6115, Washington, DC 20590.

- (a) Full individual, partnership, or corporate name of the manufacturer.
- (b) Residence address of the manufacturer and State of incorporation if applicable.
- (c) Description of each type of motor vehicle or of covered equipment manufactured by the manufacturer, including, for motor vehicles, the approximate ranges of gross vehicle weight ratings for each type.
 - (1) Except as noted below, the description may be of general types, such as “trailers” or “brake fluid.”
 - (2) In the case of multipurpose passenger vehicles, trucks, and trailers, the description shall be specific enough also to indicate the types of use for which the vehicles are intended, such as “tank trailer,” “motor home,” or “cargo van.”

(3) In the case of motor vehicles produced in two or more stages, if the manufacturer is an incomplete vehicle manufacturer, the description shall so state and include a description indicating the stage of completion of the vehicle and, where known, the types of use for which the vehicle is intended.

EXAMPLE :“Trailer manufacturer, trailer kit manufacturer, vehicles will have GVWR from 500 lb to 15,000 lb”

§ 566.6 Submittal of information.

Each manufacturer required to submit information under § 566.5 shall submit the information not later than February 1, 1972. After that date, each person who begins to manufacture a type of motor vehicle or covered equipment for which he has not submitted the required information shall submit the information specified in paragraphs (a) through (c) of § 566.5 not later than 30 days after he begins manufacture. Each manufacturer who has submitted required information shall keep his entry current, accurate and complete by submitting revised information not later than 30 days after the relevant changes in his business occur.

SAMPLE PART 566, MANUFACTURER IDENTIFICATION SUBMISSION

49 CFR Part 566, *Manufacturer Identification* to be sent to NHTSA

Any Company, Inc.
123 Any Street
Any Town, USA 55555-5555
(555) 555-5555
fax: (555) 555-5556

Owner of Company: John and Mary Doe

City of Incorporation: Any company is incorporated in any town, USA

Product Manufactured: Any company builds trailers from steels purchase at local supply companies. Some trailers are fitted with electric welding equipment. Trailer kit are produced for assembly by ultimate consumer.

GVWR The gross vehicle weight ratings (GVWR) of our products range from 500 lb tag a long trailers to 15,000 lb equipment trailers.

Signed: _____ **Date** _____

Typed Name

Capacity of Signatory (President, owner)

SAMPLE MANUFACTURER CERTIFICATION LABEL (suitable for U.S. market)

**Label must comply with requirements of
49 CFR 567, Certification**

MANUFACTURED BY: USA TRAILER MANUFACTURERS, INC.	
September 1997	
GVWR	8,164 KG (18,000 LB)
GAWR FRONT	4,354 KG (9,600 LB)
TIRES	11R17.5HC(H)
RIMS	17.5X8.25HC
COLD TIRE INFL SINGLE	827 kPa (120 PSI)
GAWR REAR	4,354 KG (9,600 LB)
TIRES	11R17.5HC(H)
RIMS	17.5X8.25HC
COLD TIRE INFL	827 kPa (120 PSI) SINGLE
THIS VEHICLE CONFORMS TO ALL APPLICABLE US FEDERAL MOTOR VEHICLE SAFETY STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.	
VIN	WMIXXXXXXXXXXXXXXX
TYPE: TRAILER	

- Note 1: Any additional information may follow the word trailer
2: The tire and rim information may be contained on a separate label under the requirements of FMVSS No. 120, *Tire Selection and Rims for Motor Vehicles Other Than Passenger Cars.*

§ 567.4 Requirements for manufacturers of motor vehicles.

(a) Each manufacturer of motor vehicles (except vehicles manufactured in two or more stages) shall affix to each vehicle a label, of the type and in the manner described below, containing the statements specified in paragraph (g) of this section.

(b) The label shall, unless riveted, be permanently affixed in such a manner that it cannot be removed without destroying or defacing it.

(c) Except for trailers and motorcycles, the label shall be affixed to either the hinge pillar, door-latch post, or the door edge that meets the door-latch post, next to the driver's seating position, or if none of these locations is practicable, to the left side of the instrument panel. If that location is also not practicable, the label shall be affixed to the inward-facing surface of the door next to the driver's seating position. If none of the preceding locations is practicable, notification of that fact, together with drawings or photographs showing a suggested alternate location in the same general area, shall be submitted for approval to the Administrator, National Highway Traffic Safety Administration, Washington, DC 20590. The location of the label shall be such that it is easily readable without moving any part of the vehicle except an outer door.

(d) The label for trailers shall be affixed to a location on the forward half of the left side, such that it is easily readable from outside the vehicle without moving any part of the vehicle.

(e) The lettering on the label shall be of a color that contrasts with the background of the label.

(f) The label shall contain the following statements, in the English language, lettered in block capitals and numerals not less than three thirty-seconds of an inch high, in the order shown:

(1) Name of manufacturer: Except as provided in paragraphs (g)(1) (i), (ii), and (iii) of this section, the full corporate or individual name of the actual assembler of the vehicle 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." In the case of imported vehicles, where the label required by this section is affixed by the Registered Importer, the name of the Registered Importer shall also be placed on the label in the manner described in this paragraph, directly below the name of the final assembler.

(i) If a vehicle is assembled by a corporation that is controlled by another corporation that assumes responsibility for conformity with the standards, the name of the controlling corporation may be used.

(ii) If a vehicle is fabricated and delivered in complete but unassembled form, such that it is designed to be assembled without special machinery or tools, the fabricator of the vehicle may affix the label and name itself as the manufacturer for the purposes of this section.

(iii) If a trailer is sold by a person who is not its manufacturer, but who is engaged in the manufacture of trailers and assumes legal responsibility for all duties and liabilities imposed by the Act with respect to that trailer, the name of that person may appear on the label as the manufacturer. In such a case the name shall be preceded by the words "Responsible Manufacturer" or "Resp Mfr."

(2) Month and year of manufacture: This shall be the time during which work was completed at the place of main assembly of the vehicle. It may be spelled out, as "June 1970," or expressed in numerals, as "6/70."

(3) "Gross Vehicle Weight Rating" or "GVWR," followed by the appropriate value in pounds, which shall not be less than the sum of the unloaded vehicle weight, rated cargo load, and 150 pounds times the vehicle's designated seating capacity. However, for school buses the minimum occupant weight allowance shall be 120 pounds.

(4) "Gross Axle Weight Rating" or "GAWR," followed by the appropriate value in pounds for each axle, identified in order from front to rear (e.g., front, first intermediate, second intermediate, rear). The ratings for any consecutive axles having identical gross axle weight ratings when equipped with tires having the same tire size designation may, at the option of the manufacturer, be stated as a single value, with label indicating to which axles the ratings apply.

Examples of Combined Ratings

GAWR: (a) All axles-4080 lb with 7.00-15 LT (D) tires. (b) Front-12,000 lb with 10.00-20(G) tires.

First intermediate to rear-15,000 lb with 12.00-20(H) tires.

(5) The statement: "This vehicle conforms to all applicable Federal motor vehicle safety standards in effect on the date of manufacture shown above." The expression "U.S." or "U.S.A." may be inserted before the word "Federal."

(6) Vehicle identification number.

(7) The type classification of the vehicle as defined in § 571.3 of this chapter (e.g., truck, MPV, bus, trailer).

LABEL MANUFACTURERS (NHTSA does not endorse their product)

Decorated Products
1 Arch Road
Westfield, MA 01085
Phone: (413) 568-0944
Fax: (413) 568-1875

Cadillac Sign & Decal
4646 Poplar Level Road
Louisville, KY 40213-2319
Phone: (502) 964-4444
Fax: (502) 964-5594

Dec-O-Art, Inc.
3914 Lexington Park Drive
Elkhart, IN 46514-1151
Phone: (800) 225-6879
Fax: (800) 295-6534

Meeks Printing Company
222 North Main Street
Sikeston, MO 63801-4212
Phone: (573) 471-8750 or
(800) 455-0911
Fax: (573) 471-7518

PMCS
2525 Honolulu Avenue
Montrose CA 91020-1805
Phone: (818) 957-5647
Fax: (818) 957-5662

TRADE ASSOCIATIONS (known to supply labels)

National Truck Equipment Association
37400 Hills Tech Drive
Farmington Hills, MI 48331-3414
Phone: (248) 489-7090 or 1- 800-441-6832
Fax: (248) 489-8590

STATEMENTS OF ORIGIN

For information concerning Statements of Origin, contact your state Department of Motor Vehicles or the American Association of Motor Vehicle Administrators
Phone: (703) 522-4200 or FAX: (703) 522-1553.

RECORDKEEPING AND CONSUMER INFORMATION

§ 574.7 Information requirements-new tire manufacturers, new tire brand name owners.

- (a) (1) Each new tire manufacturer and each new tire brand name owner (hereinafter referred to in this section and § 574.8 as “tire manufacturer”) or its designee, shall provide tire registration forms to every distributor and dealer of its tires which offers new tires for sale or lease to tire purchasers.
- (2) Each tire registration form provided to independent distributors and dealers pursuant to paragraph (a)(1) of this section shall contain space for recording the information specified in paragraphs (a)(4)(i) through (a)(4)(iii) of this section and shall conform in content and format to Figures 3a and 3b. Each form shall be:
 - (i) Rectangular;
 - (ii) Not less than 0.007 inches thick;
 - (iii) Greater than 3 ½ inches, but not greater than 4 1/4 inches wide; and
 - (iv) Greater than 5 inches, but not greater than 6 inches long.
- (3) Each tire registration form provided to distributors and dealers that are not independent distributors or dealers pursuant to paragraph (a)(1) of this section shall be similar in format and size to Figure 4 and shall contain space for recording the information specified in paragraphs (a)(4)(i) through (a)(4)(iii) of this section.
- (4)
 - (i) Name and address of the tire purchaser.
 - (ii) Tire identification number.
 - (iii) Name and address of the tire seller or other means by which the tire manufacturer can identify the tire seller.

§ 574.8 Information requirements– tire distributors and dealers.

- (a) **INDEPENDENT DISTRIBUTORS AND DEALERS.**
 - (1) Each independent distributor and each independent dealer selling or leasing new tires to tire purchasers or lessors (hereinafter referred to in this section as “tire purchasers”) shall provide each tire purchaser at the time of sale or lease of the tire(s) with a tire registration form.
 - (2) the distributor or dealer may use either the registration forms provided by the tire manufacturers pursuant to § 574.7(a) or registration forms obtained from another source. Forms obtained from other sources shall comply with the requirements specified in § 574.7(a) for forms provided by tire manufacturers to independent distributors and dealers.
 - (3) Before giving the registration form to the tire purchaser, the distributor or dealer shall record in the appropriate spaces provided on that form:
 - (i) The entire tire identification number of the tire(s) sold or leased to the tire purchaser, and
 - (ii) The distributor’s or dealer’s name and address or other means of identification known to the tire manufacturer.

(4) Multiple tire purchases or leases by the same tire purchaser may be recorded on a single registration form.

SAMPLE TIRE REGISTRATION

Figure 3a-Registration form for Independent distributors and dealers- tire identification number side

<h1 style="margin: 0;">IMPORTANT</h1> <p style="margin: 10px 0;">In case of a recall, we can reach you only if we have your name and address. You MUST send in this card to be on our recall list.</p> <p style="text-align: center; margin: 10px 0;">Do it today.</p>	<p style="text-align: right; margin: 0;">Approved through 5-31-85. OMB No. 2127-0050</p> <p style="text-align: center; margin: 10px 0;">A</p> <p style="text-align: center; margin: 10px 0;">SHADED AREAS MUST BE FILLED IN BY SELLER</p> <table border="1" style="margin: 10px auto; border-collapse: collapse;"> <tr> <td colspan="12" style="text-align: center; padding: 2px;">TIRE IDENTIFICATION NUMBERS</td> </tr> <tr> <td style="text-align: center; padding: 2px;">QTY</td> <td style="text-align: center; padding: 2px;">1</td> <td style="text-align: center; padding: 2px;">2</td> <td style="text-align: center; padding: 2px;">3</td> <td style="text-align: center; padding: 2px;">4</td> <td style="text-align: center; padding: 2px;">5</td> <td style="text-align: center; padding: 2px;">6</td> <td style="text-align: center; padding: 2px;">7</td> <td style="text-align: center; padding: 2px;">8</td> <td style="text-align: center; padding: 2px;">9</td> <td style="text-align: center; padding: 2px;">10</td> <td style="text-align: center; padding: 2px;">11</td> </tr> </table> <div style="background-color: #cccccc; padding: 10px; margin-top: 10px;"> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 2px;">CUSTOMER'S NAME (Please Print)</td> <td style="width: 5%;"></td> <td style="width: 5%;"></td> <td style="width: 5%;"></td> <td style="width: 5%;"></td> <td style="width: 5%;"></td> <td style="width: 5%;"></td> <td style="width: 5%;"></td> <td style="width: 5%;"></td> <td style="width: 5%;"></td> <td style="width: 5%;"></td> <td style="width: 5%;"></td> </tr> <tr> <td style="padding: 2px;">CUSTOMER'S ADDRESS</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td style="padding: 2px;">CITY</td> <td style="padding: 2px;">STATE</td> <td colspan="10" style="padding: 2px;">ZIP CODE</td> </tr> <tr> <td colspan="12" style="padding: 2px;">NAME OF DEALER WHICH SOLD TIRE</td> </tr> <tr> <td colspan="12" style="padding: 2px;">DEALER'S ADDRESS</td> </tr> <tr> <td style="padding: 2px;">CITY</td> <td style="padding: 2px;">STATE</td> <td colspan="10" style="padding: 2px;">ZIP CODE</td> </tr> </table> </div>	TIRE IDENTIFICATION NUMBERS												QTY	1	2	3	4	5	6	7	8	9	10	11	CUSTOMER'S NAME (Please Print)												CUSTOMER'S ADDRESS												CITY	STATE	ZIP CODE										NAME OF DEALER WHICH SOLD TIRE												DEALER'S ADDRESS												CITY	STATE	ZIP CODE									
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A---Preprinted tire manufacturer's name- unless the manufacturer's name appears on reverse side of the form

§ 574.9 Requirements for motor vehicle dealers.

(a) Each motor vehicle dealer who sells a used motor vehicle for purposes other than resale, who leases a motor 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.

§ 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 three years from the date of sale of the vehicle to the first purchaser for purposes other than resale.

CONSUMER INFORMATION (49 CFR PART 575)

§ 575.6 Consumer Information Regulations; Requirements.

The following statement must appear in the owner's manual or if there is no owner's manual, on a one-page document. The page on which the statement appears must be listed in the TABLE OF CONTENTS of the owner's manual under "Reporting Safety Defects."

SAMPLE PART 575.6, CONSUMER INFORMATION

ABC Manufacturing, Inc.
Address

Reporting Safety Defects

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 *ABC Manufacturing, Inc.*

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 any individual problems between you, your dealer, or *ABC Manufacturing, Inc.*

To contact NHTSA you may either call the Auto Safety Hotline toll-free at 1-800-424-9393 (366-0123 in Washington, DC area) or write to:

NHTSA
U.S. DEPARTMENT of TRANSPORTATION
400 7th Street SW, (NSA-11)
Washington, DC 20590

You can also obtain other information about motor vehicle safety from the Hotline.

§ 576.1 *Record Retention.*

Each manufacturer of motor vehicles shall retain all records described in §576.6 for a period of five years. Records to be retained by manufacturers under this part include all documentary materials, films, tapes, and other information-storing media that contain information concerning malfunctions that may be related to motor vehicle safety. Such records include, but are not limited to, communications from vehicle users and memoranda of user complaints; reports and other documents, including material generated or communicated by computer, telefax or other electronic means, that are related to work performed under, or claims made under, warranties; service reports or similar documents, including electronic transmissions, from dealers or manufacturer's field personnel; and any lists, compilations, analyses, or discussions of such malfunctions contained in internal or external correspondence of the manufacturer, including communications transmitted electronically.

SAMPLE TIRE LOAD LIMITS FROM TIRE AND RIM ASSOCIATION MANUAL

**RADIAL PLY TIRES FOR USE ON LOW PLATFORM TRAILERS
MOUNTED ON 15° DROP CENTER RIMS
TIRE AND RIM ASSOCIATION STANDARD**

TABLE HC-1

TIRE SIZE DESIGNATION	USAGE	TIRE LOAD LIMITS (lb) AT VARIOUS COLD INFLATION PRESSURES (PSI) (The pressure is minimum for the load)												
			80	85	90	95	100	75	110	115	120	125	130	135
8R17.5HC	DUAL	2360	2460	2550(E)	2640	2730	2820(F)							
	SINGLE	2460	2580	2690	2800	2910(E)	3010	3110	3210(F)					
9R17.5HC	DUAL	2810	2930	3040	3150	3260(F)	3360	3470	3570(G)	3680	3770	3860(H)		
	SINGLE	2930	3080	3200	3340	3470	3590	3720(F)	3830	3960	4070(G)	4200	4300	4400(H)
10R17.5HC	DUAL	3360(E)	3490	3630	3760(F)	3890	4010	4130(G)						
	SINGLE	3500	3660	3830(E)	3980	4140	4290(G)	4430	4570	4710(G)				
11R17.5HC	DUAL	3830	3980(F)	4130	4280	4430(G)	4570	4710	4850(H)					
	SINGLE	3980	4170	4370	4540(F)	4710	4880	5050(G)	5210	5370	5530(H)			

NOTES 1: Letters in parentheses denote Load Range for which Bold Face Loads are Maximum

IMPORTANT-For tire load and inflation requirements at various speeds, see page 2-04. For rim and wheel load information, see 2-05.

ALWAYS USE APPROVED TIRE AND RIM COMBINATIONS FOR DIAMETERS AND CONTOURS. See approved tire and rim combinations shown below.

DIMENSION IN INCHES

GENERAL DATA

TIRE SIZE DESIGNATION	DESIGN RIM WIDTH	DESIGN NEW TIRE		MAXIMUM GROWN TIRE		MINIMUM SIZE FACTOR	MINIMUM DUAL SPACING	*MINIMUM FLAP WIDTH	*TR TUBE VALVE	APPROVED RIM CONTOURS
		SECTION WIDTH	OVERALL DIAMETER (HIGHWAY)	OVERALL WIDTH	OVERALL DIAMETER (HIGHWAY)					
8R17.5HC	6.00	8.00	31.82	8.64	32.49	39.29	9.1	7.3	300	6.00HC
9R17.5HC	6.75	9.00	33.36	9.72	34.09	41.77	10.3	8.0	300	6.75HC
10R17.5HC	7.50	10.00	35.10	10.80	35.90	44.44	11.4	8.0	300	6.75HC,7.50HC
11R17.5HC	8.25	11.00	36.48	11.88	37.34	46.76	12.5	8.3	300	8.25HC

*For special applications where tube and flap are used; tubes and flaps designated for radial use are required.

NOTES: 1: Tube size designation same as tire size designation. Consult Page 8-02 for acceptable alternate valves.

2: Suggested flap size marking shall include rim diameter designation and flap width. Example: 17.5-8.0; 17.5 = Rim diameter designation. 8.0 = Flap width.

3: See Page 2-05 for information on grown tires in service, use of tire chains, minimum size factor and tire width adjustments for alternate rim widths.

4: For tubeless rim valves, see Section 8.

IMPORTANT: For rim and wheel load information, see page 2-05. Courtesy of: Tire and Rim Association, 175 Montrose West Avenue, Suite 150, Copley, OH 44321 (330) 666-8340

EXCERPT FROM FMVSS No.108, *Lamps, Reflective Devices, and Associated Equipment*

TABLE I REQUIRED MOTOR VEHICLE LIGHTING			
Item	Multipurpose passenger vehicles, trucks and buses	Trailers	Applicable SAE standard or recommended practice (See S5 for subreferenced SAE materials)
Tail lamps	2 red	2 red	J585e, September 1977.
Stop lamps	2 red	2 red	J398, May 1985
License plate lamp	1 white	1 white	J587 October 1981.
Reflex reflectors	4 red; 2 amber	4 red; 2 amber	J592f, January 1977
Side marker lamps	2 red; 2 amber	2 red; 2 amber	J592e, July 1972
Backup lamp	1 white	None	J593c, February 1968
Turn signal lamps	2 red or amber; 2 amber	2 red or amber	J1395, April 1985.
Turn signal operating unit	1	None	J589, April 1964
Turn signal flasher	1	None	J590b, October 1965
Vehicular hazard warning signal operating unit	1	None	J910, January 1966
Vehicular hazard warning signal flasher	1	None	J945, February 1966
Identification lamps	3 amber; 3 red	3 red	J592e, July 1972
Clearance lamps	2 amber; 2 red	2 amber; 2 red	J592e, July 1972
Intermediate side marker lamps	2 amber	2 amber	J592e, July 1972
Intermediate side reflex reflectors	2 amber	2 amber	J594f, January 1977
Conspicuity	See S5.7 as it applies to Trailers	See S5.7	See S5.7

S5.7 Conspicuity Systems. Each trailer of 80 or more inches overall width, and with a GVWR over 10,000 lb, manufactured on or after December 1, 1993, except a trailer designed exclusively for living or office use, shall be equipped with either retroreflective sheeting that meets the requirements of S5.7.1, reflex reflectors that meet the requirements of S5.7.2, or a combination of retroreflective sheeting and reflex reflectors that meet the requirement of S5.7.3.

S5.7.1 Retroreflective sheeting. Each trailer to which S5.7 applies that does not conform to S5.7.2 or § 5.7.3 shall be equipped with retroreflective sheeting that conforms to the requirements specified in S5.7.1.1 through § 5.7.1.5.

S5.7.1.1 *Construction.* Retroreflective sheeting shall consist of a smooth, flat, transparent exterior film with retroreflective elements embedded or suspended beneath the film so as to form a non-exposed retroreflective optical system..

S5.7.1.2 *Performance requirements.* Retroreflective sheeting shall meet the requirements of ASTM D 4956-90, Standard Specification for Retroreflective Sheeting for Traffic Control, for Type V Sheeting, except for the photometric requirements, and shall meet the minimum photometric performance requirements specified in Figure 29.

S5.7.1.3 *Sheeting pattern, dimensions, and relative coefficients of retroreflection.*

(a) Retroreflective sheeting shall be applied in a pattern of alternating white and red color segments to the side and rear of each trailer, and in white to the upper rear corners of each trailer, in the locations specified in S5.7.1.4, and illustrated in Figure 30-1 through 30-4 as appropriate.

(b) Except for a segment that is trimmed to clear obstructions, or lengthened to provide red sheeting near red lamps, each white or red segment shall have a length of 300 mm +/- 150 mm.

(c) Neither white nor red sheeting shall represent more than two thirds of the aggregate of any continuous strip marking the width of a trailer, or any continuous or broken strip marking its length.

(d) Retroreflective sheeting shall have a width of 50 mm (Grade DOT-C2), 75 mm (Grade DOT-C3), or 100 mm (Grade DOT-C4).

(e) The coefficients for retro-reflection of each segment of red or white sheeting shall be not less than the minimum values specified in Figure 29 of this standard for grades DOT-C2, DOT-C3, and DOT-C4.

S5.7.1.4 *Location.* (a) Retroreflective sheeting shall be applied to each trailer on the side and rear as specified below, but need not be applied to discontinuous surfaces such as outside ribs, stake post pickets on platform trailers, and external protruding beams, or to items of equipment such as door hinges and lamp bodies.

(b) The edge of white sheeting shall not be located closer than 75 mm to the edge of the luminous lens area of any red or amber lamp that is required by this standard.

(c) The edge of red sheeting shall not be located closer than 75 mm to the edge of the luminous lens area of any amber lamp that is required by this standard.

S5.7.1.4 *Rear.* Retroreflective sheeting shall be applied to the rear of each trailer as follows:

(a) Element 1: A horizontal strip of sheeting in alternating colors across the full width of the trailer as close to the extreme edges as practicable and as close as practicable to 1.25 meters above the road surface.

(b) Element 2: Two pairs of white strips of sheeting, each pair consisting of strips 300 mm long of grade DOT-C2 (50 mm wide), DOT-C3 (75 mm wide), or DOT-C4 (100 mm wide), applied horizontally and vertically to the right and left upper contours of the body, as viewed from the rear as close to the top of the trailer and as far apart as practicable.

(c) Element 3: A strip of sheeting in alternating colors across the full width of the horizontal member of the rear underride protection device.

§5.7.1.4.2 Side. Retroreflective sheeting shall be applied to each side of a trailer as follows:

(a) A horizontal strip of sheeting in alternating colors, originating and terminating as close to the front and rear ends as practicable, and as close as practicable to not less than 375 mm and not more than 1525 mm above the road surface except that, at the location chosen, the strip shall not be obscured in whole or in part by other motor vehicle equipment or trailer cargo. The strip need not be continuous as long as not less than half of the length of the trailer is covered and the spaces are distributed as evenly as practicable.

(b) If necessary to clear rivet heads or other similar obstructions, grade DOT-C2 retroreflective sheeting may be separated into two 25 mm wide strips of the same length and color, separated by a space of not more than 25 mm, and used in place of the retroreflective sheeting that would otherwise be applied.

S5.7.1.5 Certification. The letters DOT-C2, DOT-C3, or DOT-C4, as appropriate, constituting a certification that the retroreflective sheeting conforms to the requirements of S5.7.1.2, shall appear at least once on the exposed surface of each white or red segment of retroreflective sheeting, and at least once every 300 mm on retroreflective sheeting that is white only. The characters shall be not less than 3 mm high, and shall be permanently stamped, etched, molded, or printed in indelible ink.

TABLE II

LOCATION OF REQUIRED EQUIPMENT
Multipurpose Passenger Vehicles, Trucks, Trailers, and
Buses of 80 or More Inches Overall Width (2032 mm)

Item	Multipurpose vehicles, trucks, and buses	Trailers	Height above road surface measured from center of item on vehicle at curb weight
Head lamps	On the front, each headlamp providing the upper beam, at the same height, 1 on each side of the vertical centerline, each headlamp providing the lower beam, at the same height, 1 on each side of the vertical centerline, as far apart as practicable. See also S7.	Not required	Not less than 22 inches (55.9 cm) nor more than 54 inches (137.2 cm)
Tail lamps	On the rear, 1 on each side of the vertical centerline, at the same height, and as far apart as practicable.	On the rear, 1 on each side of the vertical centerline, at the same height, and as far apart as practicable.	Not less than 15 inches, nor more than 72 inches
Stop lamps	Do	Do	Do
License plate lamps	At rear license plate, to illuminate the plate from the top or sides.	At rear license plate, to illuminate the plate from the top or sides.	No requirement
Backup lamp	On the rear	Not required	Do
Turn signal lamps	At or near the front, 1 amber on each side of the vertical centerline, at the same height, and as far apart as practicable.	On the rear, 1 red or amber on each side of the vertical centerline, at the same height, and as far apart as practicable.	Not less than 15 inches, nor more than 83 inches.
Identification lamps	On the front and rear, 3 lamps, amber in front, red in rear, as close as practicable to the top of the vehicle, at the same height, as close as practicable to the vertical centerline, with lamp centers spaced not less than 6 inches or more than 12 inches apart. Alternatively, the front lamps may be located as close as practicable to the top of the cab.	On the rear, 3 lamps as close as practicable to the top of the vehicle at the same height, as close as practicable to the vertical centerline, with lamp centers spaced not less than 6 inches or more than 12 inches apart.	No requirement.
Clearance lamps	On the front and rear, 2 amber lamps on front, 2 red lamps on rear, to indicate, the overall width of the vehicle, one on each side of the vertical centerline, at the same height, and as near the tops as practicable.	On the front and rear, 2 amber lamps on front, 2 red lamps on rear, to indicate, the overall width of the vehicle, one on each side of the vertical centerline, at the same height, and as near the top as practicable.	Do
Intermediate side marker lamps	On each side, 1 amber lamp located at or near the midpoint between the front and rear side marker lamps.	On each side, 1 amber lamp located at or near the midpoint between the front and rear side marker lamps.	Not less than 15 inches.
Intermediate side re-flex reflectors	On each side, 1 amber lamp located at or near the midpoint between the front and rear side reflex reflectors.	On each side, 1 amber lamp located at or near the midpoint between the front and rear side reflex reflectors.	Not less than 15 inches nor more than 60 inches.
Conspicuity	See S5.7	See S5.7	See S5.7
Reflex reflectors	On the rear, 1 red on each side of the vertical centerline, as far apart as practicable, and at the same height.	On the rear, 1 red on each side of the vertical centerline, as far apart as practicable, and at the same height.	Do

TABLE II			
LOCATION OF REQUIRED EQUIPMENT			
Multipurpose Passenger Vehicles, Trucks, Trailers, and Buses of 80 or More Inches Overall Width (2032 mm)			
Item	Multipurpose vehicles, trucks, and buses	Trailers	Height above road surface measured from center of item on vehicle at curb weight
Side marker lamps	Do	Do	Not less than 15 inches, and on the rear of trailers not more than 60 inches.

TABLE III				
REQUIRED MOTOR VEHICLE EQUIPMENT				
All Passenger Cars and Motorcycles, and Multipurpose Passenger Vehicles, Trucks, Trailers, and Buses, of Less Than 80 Inches Overall Width (2032 mm)				
Item	Passenger cars, multipurpose vehicles, trucks and buses	Trailers	Motorcycles	Applicable SAE standard or recommended practice (See S5 for subreferenced SAE materials)
Headlamps	See S7	None	See S7.9	For motorcycles only, J584, April 1964, J585e, January 1960
Tail lamps	2 red	2 red	1 red	J585e, September 1977
Stop lamps	2 red	2 red	1 red	J186a, September 1977
High-mounted stop lamp	1 red	Not required	Not required	J186a, September 1977
License plate lamp	1 white	1 white	1 white	J587, October 1981
Parking lamps	2 amber or white	None	None	J222, December 1970
Reflex reflectors	4 red; 2 amber	4 red; 2 amber	3 red; 2 amber	J594f, January 1977
Intermediate side reflex reflectors	2 amber	2 amber	None	J592e, January 1977
Side marker lamps	2 red; 2 amber	2 red; 2 amber	None	J592e, July 1972
Backup lamp	1 white	None	None	J593c, February 1968
Turn signal lamps	2 red or amber; 2 amber	2 red or amber	2 amber; 2 red or amber	J588, November 1984
Turn signal operating unit	1	None	1	J589, April 1964
Turn signal flasher	1	None	1	J590b, October 1965
Vehicular hazard warning signal operating unit	1	None	None	J910, January 1966
Vehicular hazard warning signal flasher	1	None	None	J945, February 1966.

TABLE IV **LOCATION OF REQUIRED EQUIPMENT**
All Passenger Cars and Motorcycles, and Multipurpose Passenger Vehicles,
Trucks, Trailers and Buses of Less Than 80 Inches Overall Width (2032 mm)

Item	Location on		Height above road surface measured from center of item on vehicle at curb weigh
	Passenger cars, multipurpose passenger vehicles, trucks, trailers, and buses	Motorcycles	
Headlamps	On the front, each headlamp providing the upper beam, at the same height, 1 on each side of the vertical centerline, each headlamp providing the lower beam, at the same height, 1 on each side of the vertical centerline, as far a part as practicable, See also S7.	On the front, on the vertical centerline, except that if two are used they shall be symmetrically disposed about the vertical centerline.	Not less than 22 inches (55.9 cm) nor more than 54 inches (137.2)
Side marker lamps	On each side-1 red as far to the rear as practicable, and 1 amber as far to the front as practicable	Not required	Not less than 15 inches
Tail lamps	On the rear 1 on each side of the vertical centerline, at the same height and as far apart as practicable.	On the rear on the vertical centerline except that if two are used, they shall be symmetrically disposed about the vertical centerline.	Not less than 15 inches, nor more than 72 inches
Stop lamps	On the rear 1 on each side of the vertical centerline, at the same height and as far apart as practicable.	On the rear on the vertical centerline except that if two are used, they shall be symmetrically disposed about the vertical centerline.	Not less than 15 inches nor more than 72 inches
High mounted stop lamp	On the rear on the vertical centerline (See S5.1.1.27, S5.3.1.8, and Table III).	Not required	See S5.3.1.8 for passenger cars. Not less than 34 inches for multipurpose passenger vehicles trucks and buses
License plate lamp	At rear license plate to illuminate the plate from the top or sides.	At rear license plate	No requirement
Parking lamps	On the front 1 on each side of the vertical center line at the same height and as far apart as practicable,	Not required	Not less than 15 inches nor more than 72 inches
Reflex reflectors	On the rear 1 red on each side of the vertical centerline at the same height and as far apart as practicable.	On the rear 1 red on the vertical centerline except that, if two are used on the rear, they shall be symmetrically disposed about the vertical centerline.	Not less than 15 inches, nor more than 60 inches
Backup lamp	On the rear	Not required	No requirement

S5.1.1.15 A trailer that is less than 6 feet in overall length, including the trailer tongue, need not be equipped with front side marker lamps and front side reflex reflectors.