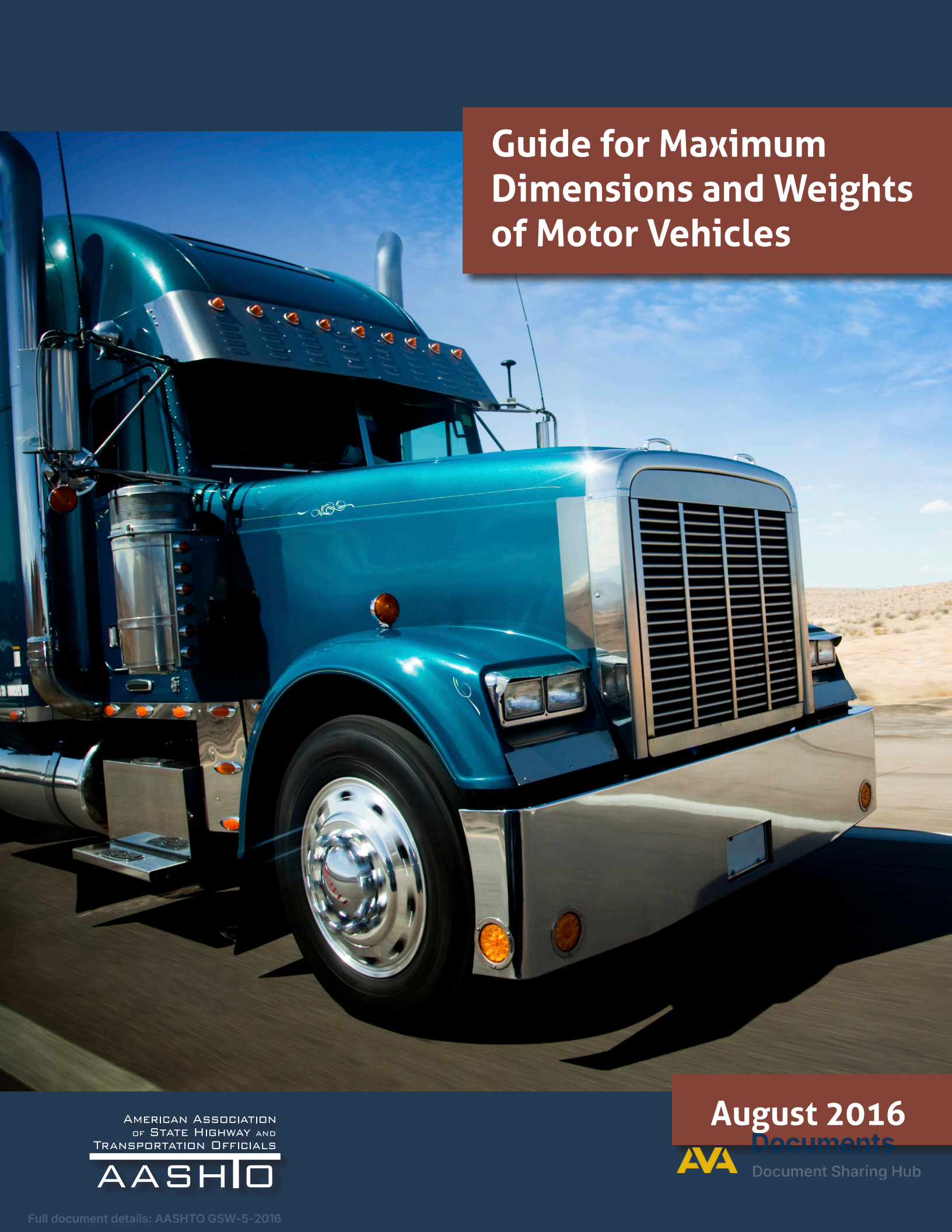




Guide for Maximum Dimensions and Weights of Motor Vehicles

AMERICAN ASSOCIATION
OF STATE HIGHWAY AND
TRANSPORTATION OFFICIALS

AASHTO

Full document details: AASHTO GSW-5-2016

August 2016
Documents



Document Sharing Hub

© 2016 by the American Association of State Highway and Transportation Officials.
All rights reserved. Duplication is a violation of applicable law.

EXECUTIVE COMMITTEE

2015–2016

OFFICERS:

PRESIDENT: Paul Trombino, Iowa

VICE PRESIDENT: David Bernhardt, Maine

SECRETARY-TREASURER: Carlos Braceras, Utah

EXECUTIVE DIRECTOR: Bud Wright, Washington, DC

REGIONAL REPRESENTATIVES:

REGION I: Leslie Richards, Pennsylvania
Pete Rahn, Maryland

REGION II: Paul Mattox, West Virginia
Charles Kilpatrick, Virginia

REGION III: Charles A. Zelle, Minnesota
Randall S. Blankenhorn, Illinois

REGION IV: Brian Ness, Idaho
Carlos Braceras, Utah

IMMEDIATE PAST PRESIDENT: Vacant



Documents

Document Sharing Hub

SUBCOMMITTEE ON HIGHWAY TRANSPORT

2015–2016

Chair: Vacant

Vice Chair: Jeff Honefanger, Ohio

Secretary: Vacant

Liaison: Katelyn Dwyer, Shayne Gill, AASHTO

Voting

Alabama

Randy Braden

Arizona

Lori Knight

Arkansas

Jay Thompson

Lorie Tudor

California

James Anderson

Colorado

Danny Wells

Connecticut

Charles Drda

Delaware

Adam Weiser

District of Columbia

Eulois Cleckley

Florida

Brad Swanson

Robert Lee

Ronnie Martin

Tim Lattner

Georgia

Michael Spurlock

Idaho

Alan Frew

Jeffrey Marker

Mark Bathrick

Reymundo

Rodriguez

Illinois

Geno Koehler

Indiana

Angela Woodard

Donna Luley

Iowa

Phoumine Baccam

Kansas

John Maddox

Kentucky

Brian Beaven

Rick Taylor

Louisiana

Janet McCoy

Tammy Anderson

Maine

Kim King

Rhonda Fletcher

Maryland

David Czorapinski

Tina Sanders

Massachusetts

Laurie Carlson

Michael Lyons

Michigan

Robert Whaley

Minnesota

Ted Coulanos

William Gardner

Mississippi

Joe Marshall

Tommy Thames

Willie Huff

Missouri

Bradley Marion

Debra Bradshaw

Montana

Dan Kiely

Duane Williams

Nebraska

Chelsey Norval

Ryan Huff

Nevada

Eric Glick

Roc Stacey

New Hampshire

Caleb Dobbins

Mark Kirouac

New Jersey

Paul Truban

New Mexico

Jeff Vigil

Paul Sittig

New York State

Thomas Golden

North Carolina

Sebastian

Montagne

Vivian

Speight-Bridges

Oklahoma

Norman Hill

Oregon

Christy Jordan

Gregg Dal Ponte

Pennsylvania

Glenn Rowe

Matthew Hedge

Rhode Island

Dave Morgan

South Carolina

Mechelle Mabry

South Dakota

David Huft

Tennessee

Bob Alwine

Texas

Duwayne Murdock

Utah

Chad Sheppick

Vermont

Glendon Button

Virginia

Wayne Davis

Washington State

Anne Ford

Jim Wright

West Virginia

Douglas Gibson

Wayne Kessinger

Wisconsin

Dan Mulder

Non-Voting

Federal Motor Carrier Safety Administration

John Steinhoff

Surface Deployment and Distribution Com- mand Transportation Engineering Agency

Jason Cowin

as of 8/11/16



Documents

Document Sharing Hub

Table of Contents

Note to Reader	1
Foreword	1
Chapter 1. Definitions.....	3
Chapter 2. Vehicles in Regular Operation	6
2.01 Scope	6
2.02 Notation	6
2.03 Width	6
2.04 Height.....	6
2.05 Length	6
2.06 Tire Weight/Super-Single Tires	8
2.07 Maximum Weights.....	8
Chapter 3. Permit Harmonization Across States	12
Chapter 4. Permit Operations	14
4.01 Eligibility for Permits	14
4.02 Types of Permits	14
4.03 Permit Review, Approval, and Issuance	15
4.04 Information Required on Permits	15
4.05 Days and Hours of Operation	16
4.06 Inclement Weather	17
4.07 Speed Limits	17
4.08 Routing	17
4.09 Grossly Overweight or Oversized.....	17
4.10 Escorts	17
4.11 Warning Flags	18
4.12 Warning Lights	20
4.13 Warning Signs	21
4.14 Permit Amendments.....	23
4.15 Coordinating Permit Operations with Other Government Agencies.....	23
4.16 Permits for Other Government Agencies	23
4.17 Permit Compliance	24
Chapter 5. National Defense	25
5.01 Oversize/Overweight Shipments.....	25
5.02 Highway Movement of Military Tracked Vehicles	26
5.03 Mobilization Movement Control Program (MOBCON)	26
Appendix	28

Note to Reader

The charge of AASHTO's Subcommittee on Highway Transport states that it shall maintain the AASHTO *Guide for Maximum Dimensions and Weights of Motor Vehicles (Guide for Vehicle Weights and Dimensions)*. This 2016 edition replaces the previous edition of the guide, which was published in 2004.

Foreword

The American Association of State Highway and Transportation Officials (AASHTO) has a unique leadership role in developing transportation policy, direction, and information for member states and the nation. In the area of vehicle weights and dimensions, AASHTO has articulated policy and recommendations since 1932. This guide represents part of AASHTO's continuing efforts to provide leadership and guidance in the vital areas of vehicle weights and dimensions.

In developing this updated guide, the AASHTO Subcommittee on Highway Transport (SCOHT) considered advice, information, and input from all states, other AASHTO committees and members, Federal Highway Administration (FHWA), commercial carriers and their representative groups, the Department of Defense (DOD), and other interested parties.

The primary purposes of this guide are to:

- Provide a baseline of common terminology.
- Promote common permitting practices for overdimension/overweight operations.
- Promote improved transportation safety.
- Promote efficiency and productivity for government and industry.
- Provide necessary protection of the public infrastructure investment.
- Promote harmonization in regulation and process wherever possible while providing information and guidance to states, the military, and the private sector.
- Formalize operational procedures with the DOD.

This guide is focused on providing information and guidance for states as they manage their transportation systems and for commercial carriers and others as they utilize highway transport to meet the needs of shippers and the economy. It is recognized that a continued Federal role is necessary to provide a national view, facilitate interstate commerce, and work with states and interested parties to balance the often competing needs of shippers and carriers and other highway users, while protecting the vast public infrastructure investment and promoting improved safety.

This guide includes the efforts of SCOHT regarding the harmonization of permit conditions across jurisdictions. Harmonization is not the same as uniformity. Harmonization establishes baseline restrictive thresholds for various characteristics of an issued permit, but allows and encourages each state to find the appropriate, less restrictive, measures that will serve both the citizens of their state as well as the motor carrier industry. Establishing a harmonized baseline enables interstate carriers the opportunity to standardize their multi-state transport processes, while allowing each state to still innovate and allowing carriers to leverage those innovations when practical and prudent. Chapter 3 of this guide discusses harmonization in greater detail, and the relevant subsections of Chapter 4 contain information about the various harmonized thresholds.

Therefore, it is also the purpose of this guide to promote a continued dialogue for discussing vehicle size and weight issues, permit practices, and provide a focus for improving the safety, regulations, and processes related to these aspects of transportation. And, in recognizing the need for regional variations in vehicle size and weight, SCOHT encourages the development of regional guides such as the *Guide for Uniform Laws and Regulations Governing Truck Size and Weight Among the WASHTO States*. The WASHTO guide can be viewed on-line at:

http://www.washto.org/pdf/WASHTO_Guide_for_Uniform_Laws_and_Regulations_2005.pdf.

It is recommended that this guide be updated at least every five years based upon an evaluation of need by SCOHT.



Chapter 1. Definitions

Please refer to the Appendix for a discussion of metric conversions used in defining weights or dimensions. In this guide, the following words and phrases have the meaning specified:

Axle: The common axis of rotation of one or more wheels whether power-driven or freely rotating, and whether in one or more segments, and regardless of the number of wheels carried thereon.

Axle Group: An assemblage of two or more consecutive axles considered together in determining their combined load effect on a bridge or pavement structure.

Automobile Transporter: Any vehicle combination designed and used specifically for the transport of assembled highway vehicles, including truck camper units.

Bus: A motor vehicle designed primarily for the transportation of persons rather than property and having a passenger-carrying capacity of 15 or more persons, other than a taxicab, constructed and designed for transporting persons for commercial purposes.

Cargo: The items or freight to be moved; including items placed on or in a vehicle, towed by a vehicle, or a vehicle itself.

Connecting Mechanism: An arrangement of parts interconnecting two or more consecutive axles to the frame of a vehicle in such a manner as to equalize the load between axles.

Gross Weight: The weight of a vehicle or combination of vehicles plus the weight of any load thereon.

Height: The total vertical dimension of a vehicle above the ground surface, including any load and load-holding device thereon.

Length: The total longitudinal dimension of a single vehicle, a trailer, or a semitrailer. Length of a trailer or semitrailer is measured from the front of the cargo-carrying unit to its rear, exclusive of all overhang, safety, or energy efficiency devices, including air conditioning units, air compressors, flexible fender extensions, splash and spray suppressant devices, bolsters, mechanical fastening devices, and hydraulic lift gates.

Load: A weight or quantity of anything resting upon something else regarded as its support.

Motor Vehicle: A vehicle that is self-propelled or propelled by electric power obtained from overhead trolley wires, but not operating upon rails.

National Truck Network: Those interstate and other highways that prior to October 1, 1991, were designated as Federal-aid primary routes on which commercial vehicles of the dimensions authorized by the Surface Transportation Assistance Act of 1982 (STAA) are allowed to operate.

Operator: Every person who drives or is in actual physical control of a motor vehicle upon a highway or who is exercising control over or steering a vehicle being towed by a motor vehicle.

Pavement Structure: The combination of subbase, base course, and surface course placed on an earth subgrade to support the traffic load and distribute it to the roadbed.

Quadrum Axle: Any four consecutive axles whose extreme centers are not more than 192 in. (4.88 m) apart and are individually attached to or articulated from, or both, a common attachment to the vehicle including a connecting mechanism designed to equalize the load between axles.

Regular Operation: The movement over highways of vehicles, vehicle combinations, and loads thereon, subject to the recommended limitations contained in this guide governing maximum weights and dimensions for motor vehicles and loads thereon.

Scale Tolerance: An allowable variation in the static weight of an axle load in accordance with, but not exceeding, the precision of the scale involved.

Semitrailer: Every single vehicle without motive power designed for carrying property and so designed in conjunction and used with a motor vehicle that some part of its own weight and that of its own load rests or is carried by another vehicle and having one or more load-carrying axles.

Single Axle: An assembly of two or more wheels whose centers are in one transverse vertical plane or may be included between two parallel transverse planes 40 in. (1.02 m) apart extending across the full width of the vehicle.

Special Permit/Overlegal Permit: A written authorization to move or operate on a highway a vehicle or vehicles with or without a load of size and/or weight exceeding the limits prescribed for vehicles in regular operation.

Special Permit Applicant: An individual, firm, partnership, corporation, or association making application for a special permit to transport a vehicle, vehicles, and/or load which is oversize or overweight and under whose authority and responsibility such vehicle or load is transported.

Steering Axle: The axle or axles of a motor vehicle or combination of vehicles by which the same is guided or steered.

Stinger-Steered Automobile Transporter: The fifth wheel is located on a drop frame behind and below the drive axle of the power unit. In this configuration, vehicles are carried behind or both behind and above the cab of the power unit, as well as on the semitrailer.

Tandem Axle: Any two axles whose centers are more than 40 in. (1.02 m) but not more than 96 in. (2.44 m) apart and are individually attached to or articulated from, or both, a common attachment to the vehicle including a connecting mechanism designed to equalize the load between axles.

Tire, Pneumatic: A tire of rubber or other resilient material that depends upon compressed air for support of a load.

Trailer: Every single vehicle without motive power designed for carrying property wholly on its own structure, drawn by a motor vehicle which carries no part of the weight and load of the trailer on its own wheels and having two or more load carrying axles.

Tridem Axle: Any three consecutive axles whose extreme centers are not more than 144 in. (3.66 m) apart, and are individually attached to or articulated from, or both, a common attachment to the vehicle, including a connecting mechanism designed to equalize the load between axles.

Truck: A single-unit motor vehicle used primarily for the transportation of property.

Truck Tractor: A motor vehicle used primarily for drawing other vehicles and not so constructed as to carry a load other than a part of the weight of the vehicle and load so drawn.

Trunion Axle: An axle configuration with two individual axles mounted in the same transverse plane, with four tires on each axle, connected at a pivot point which allows each individual axle to oscillate in a vertical plane to provide constant and equal weight distribution on each individual axle.

Turning Path: The path of a designated point on a vehicle making a specified turn.

Turning Track Width: The radial distance between the turning paths of the outside of the outer front tire and the outside of the rear tire which is nearest the center of the turn.

Variable Load Suspension Axles: Axles that can be regulated by the driver of the vehicle. These axles are controlled by hydraulic and air suspension systems, mechanically, or by a combination of these methods.

Vehicle: A device in, upon, or by which any person or property may be transported or drawn upon a highway, except devices moved by human power or used exclusively upon stationary rails or tracks.

Vehicle Combination: An assembly of two or more vehicles coupled together for travel upon a highway.

Width: The total outside transverse dimension of a vehicle including any load or loadholding devices thereon, but excluding approved safety devices and tire bulge due to load. The calculated width should not include a safety or energy conservation device the Secretary [of Transportation] decides is necessary for safe and efficient operation of a commercial motor vehicle.

Chapter 2. Vehicles in Regular Operation

2.01 Scope

The provisions of this chapter governing width, height, length, permissible loads, and performance limits should apply to vehicles serving in regular operation, as defined in Chapter 1. Vehicles operated under the terms of special permits are covered in Chapter 4.

2.02 Notation

Figure 1 shows silhouettes of most basic commercial vehicle types in regular operation as designated by axle arrangement code. The first digit indicates the number of axles of the truck or truck-tractor. The letter "S" indicates a semitrailer, and the digit immediately following an "S" indicates the number of axles on the semitrailer. Any digit, other than the first in a combination, when not preceded by an "S," indicates a trailer and the number of its axles. For instance, a 2-S2 combination is a two-axle truck-tractor with a tandem-axle semitrailer. A 3-S1-2 combination is a three-axle truck-tractor with tandem rear axles, a semitrailer with a single axle, and a trailer with two axles.

2.03 Width

No vehicle using completed sections of the National Truck Network should exceed a width of 102 in. (2.60 m), exclusive of approved safety devices and tire bulge due to load.

2.04 Height

No vehicle should exceed a height of 13 ft, 6 in. (4.11 m).

2.05 Length

2.05.1

No single truck should have an overall length in excess of 40 ft (12.19 m).

2.05.2

No single two-axle or three-axle bus should have an overall length in excess of 45 ft (13.72 m).

2.05.3

No single semitrailer should have an overall length in excess of 53 ft (16.15 m).