

Chapter 20

Legal Weight Limitations, Axle and Tire Loads

MAXIMUM WEIGHT LIMITATIONS FOR VEHICLES

The maximum gross and axle weight limitations are as follows and may not be operated in excess of:

WHEEL, AXLE, GROSS	WEIGHT LIMITATION
Single Wheel	10,500 Pounds
Single Axle	20,000 Pounds
Tandem Axle	34,000 Pounds
Tridem Axle	Must comply with bridge formula
Gross Vehicle Weight	80,000 Pounds

An overweight permit must be obtained to authorize any exception to the maximum weight limitations listed above.

A highway authority may prohibit the operation of any vehicle or impose restrictions on the weight of a vehicle upon any highway under its jurisdiction. [UCA 72-7-408](#)

Exception: *Passenger buses may carry 24,000 lbs. on each axle provided they do not exceed manufacturer tire load ratings. This section exempts them from the 34,000 lb. tandem and bridge limitations.*

[Title 23: 658.17\(k\)](#) *Any over the road bus, or any vehicle which is regularly and exclusively used as an intrastate public agency transit passenger bus, is excluded from the axle weight limits in paragraphs (c) through (e) of this section until Oct. 1, 2009. Any State that has enforced, in the period beginning Oct. 6, 1992, and ending Nov. 30, 2005, a single axle weight limitation of 20,000 pounds or greater but less than 24,000 pounds may not enforce a single axle weight limit on these vehicles of less than 24,000 pounds.*

TIRE WIDTH

In circumstances where weight limitations are based on tire width, the manufacturer's size, as indicated on the sidewall will be used to determine maximum tire width for divisible loads only. This provision does not apply to non-divisible loads.

- The maximum allowable load for nonpermitted/legal vehicles, no tire shall exceed 600 pounds per inch of tire width as indicated on the sidewall.
- Permitted divisible configurations equipped with tires 11 inches wide or greater will be allowed 500 pounds per inch of tire width.
- Permitted divisible configurations equipped with tires less than 11 inches wide shall not exceed 450 pounds per inch of tire width.

Example: Tire sidewall reads: 265 R 22 265 is the metric width, to convert, multiply 265 by .04 which gives you 10.6. Your tire would be 10.6 inches wide.

SINGLE TIRE CONFIGURATION

The use of narrow single tires, that are less than 14 inches wide, on any combination vehicle requiring an overweight or oversize permit shall not be allowed on single axles, except for steering axles, including self steering VLS, or retractable axles, or wide base tires, that are 14 inches or greater.

All axles having a weight in excess of 10,000 pounds shall be equipped with four tires per axles, or wide base single tires.

In circumstances where weight limitations are based on tire width, the manufacturer's size, as indicated on the sidewall will be used to determine maximum tire width:

- for non-permitted or legal vehicles, no tire shall exceed 600 pounds per inch of tire width as indicated on the sidewall;
- tire loading on vehicles requiring an oversize or overweight permit shall not exceed 500 pounds per inch of tire width for tires 11 inches wide or greater;
- tires less than 11 inches wide shall not exceed 450 pounds per inch of tire width; and
- except as provided in R909-2-6, single axle loading shall not exceed 20,000 pounds, and tandem axle loading shall not exceed 34,000 pounds.

Except for steering axles, self steering VLS and retractable axles, or wide based tires, that are 14 inches wide or greater as indicated by the manufacturer's sidewall rating, all axles weighing more than 10,000 pounds shall have at least four tires per axle.

Dual or super single tires, that are 14 inches or greater, are required on all trailer axles.

(Refer to R909-2-6 Tire Load Provision for Single Tires)

Exemption: 14 inch wide single tire requirement does not apply to steering axles, or self-steering VLS retractable axles.

TIRE LOAD PROVISIONS

Except for steering axles, including self steering VLS, or retractable axles, or wide base tires, that are 14 inches or greater, the use of narrow single tires, that are less than 14 inches wide, on any combination vehicle requiring an overweight or oversize permit shall not be allowed on single axles.

All axles having a weight in excess of 10,000 pounds shall be equipped with four tires per axles, or wide base single tires.

In circumstances where weight limitations are based on tire width, the manufacturer's size, as indicated on the sidewall will be used to determine maximum tire width:

- for non-permitted or legal vehicles, no tire shall exceed 600 pounds per inch of tire width as indicated on the sidewall;
- Permitted divisible configurations equipped with tires 11 inches wide or greater will be allowed 500 pounds per inch of tire width.
- tires less than 11 inches wide shall not exceed 450 pounds per inch of tire width; and
- except as provided in R909-2-6, single axle loading shall not exceed 20,000 pounds, and tandem axle loading shall not exceed 34,000 pounds.

Except for steering axles, self steering VLS and retractable axles, or wide based tires, that are 14 inches wide or greater as indicated by the manufacturer's sidewall rating, all axles weighing more than 10,000 pounds shall have at least four tires per axle.

For example: A tridem axle group that is designed for equalized weight distribution, equipped with single tires less than 14 inches in width, will be allowed 30,000 pounds. A tandem axle group that is designed for equalized weight distribution, equipped with single tires less than 14 inches in width will be allowed 20,000 pounds. All axles in the group must be duals or super singles to be allowed maximum weight.

Dual or super single tires, that are 14 inches or greater, are required on all trailer axles. A permitted vehicle can have a single tire, less than 14 inches, but only gets 10,000 pounds per axle.

(Refer to R909-2-6 Tire Load Provision for Single Tires)

Exemption: 14 inch wide single tire requirement does not apply to steering axles, or self-steering VLS retractable axles.

VARIABLE LOAD AXLES

Vehicles with variable load axles are limited as follows:

- no more than three fixed axles shall be allowed in any group;
- retractable or variable load suspension axles installed after January 1990 shall be self steering on power units or when augmenting a tridem group on trailers;

Non-divisible loads may be exempt from these restrictions upon written approval from the division

- no axle in a group with a retractable or VLS axle shall exceed legal or bridge formula weight requirements, or the manufacturer's tire rating; and
- Controls for raising or lowering retractable or VLS axles may be located in the cab of the power unit. The pressure regulator valve shall be positioned outside of the cab and be inaccessible from the driver's compartment.

(Refer to R909-2-7 Variable Load Axles.)

Auxiliary Power Unit:

Any vehicle that utilizes an auxiliary power unit (APU) or idle reduction technology unit may be allowed up to an additional 400 lbs. total in gross, axle, tandem or bridge formula weight limits.

To be eligible for this exception the operator of the vehicle must be able to prove:

- The weight of the APU by written certification, and
- Be able to show by demonstration or certification that the idle reduction technology is fully functional at all times

Certification of the weight of the APU must be available to law enforcement officers if the vehicle is found in violation of applicable weight laws.

The additional weight allowed for the APU cannot exceed 400 lbs. or the weight certified, whichever is less.

(Refer to 23 CFR 658.17 Weight)