

## Summary of Indiana Size and Weight Laws under TITLE 9 Article 20

**Except for Interstate highway travel**, the following vehicles are **exempt** from size and weight requirements:

1. Machinery or equipment used in highway construction or maintenance by the Indiana department of transportation, counties, or municipalities.
2. A highway construction vehicle when engaged in highway construction and **movement is restricted** to areas under construction and **not open** to public is exempt from size and weight.
3. Farm drainage machinery.
4. Implements of **husbandry** when used **during** farming operations or when so constructed can be moved without damage to the highway.
5. **Firefighting** equipment owned **or** operated by a political subdivision or volunteer fire department.
7. And **except** for interstate highways does not limit the width or height of a farm vehicle loaded with a farm product, which would include unprocessed leaf tobacco.
8. **Recovery vehicles** are exempt from size and weight requirements **when moving a disabled** vehicle or combination of vehicles for a distance **not exceeding** 50 miles. However, these vehicles **must meet** requirements of **IC 9-20-9-9 and IC 9-20-9-10**.

With some exceptions, the maximum legal weights, with load, allowed under the law can be summarized as follows.

Maximum possible gross weight:	80,000 pounds
Maximum single axle weight:	20,000 pounds
Maximum tandem axle weight:	34,000 pounds
Maximum tri axle weight:	50,000 pounds
Maximum wheel weight:	800 pounds per inch of tire width measured between the flanges of the rim.

For anything beyond these maximum weights, a permit has to be obtained from the Indiana Department of Revenue and certain requirements have to be met. For further information on permits and other information the Indiana Department of Revenue maintains a website at <http://www.state.in.us/dor> or at (317) 615-7320.

### Vehicle License Plates and Registered Weight

Indiana has a registered weight limit, which is based on the **declared** gross weight (referred to as **registered weight**) for a vehicle when it is registered with the Bureau of Motor Vehicles or International Registration Plan (IRP) and only refers to the amount of registration fee paid according to the amount of weight declared on the registration.

### **Weight limits for vehicles; rules**

In 1975, Indiana adopted the “Bridge Formula” as state law as stipulated in IC 9-20-40-1.

The formula is used to calculate the maximum legal gross weight and axle weights allowed for a vehicle or combination of vehicles.

$$\mathbf{W = 500 \{[(LN) \div (N-1)] + 12N + 36\}}$$

W = the overall gross weight on any group of two or more consecutive axles, to the nearest 500 pounds.

L = the distance between the extreme of any group of two or more consecutive axles. (The measurement is taken at center of the wheel hubs).

N = the number of axles in the group under consideration, except that two consecutive sets of tandem axles may carry a gross load of 34,000 pounds each, providing the first and last axles of the consecutive sets of tandem axles are at least 36 feet apart or more.

# FEDERAL BRIDGE FORMULA

Permissible gross loads for vehicles in regular operation.

Based on weight formula  $W=500\left(\frac{LN}{N-1}+12N+36\right)$

Distance in feet between the extremes of any group of 2 or more consecutive axles

Maximum load in pounds carried on any group of 2 or more axles.

	2 axles	3 axles	4 axles	5 axles	6 axles	7 axles	8 axles	9 axles
4 .....	34,000	.....	.....	.....	.....	.....	.....	.....
5 .....	34,000	.....	.....	.....	.....	.....	.....	.....
6 .....	34,000	.....	.....	.....	.....	.....	.....	.....
7 .....	34,000	.....	.....	.....	.....	.....	.....	.....
8 and less	34,000	34,000	.....	.....	.....	.....	.....	.....
More than 8	38,000	42,000	.....	.....	.....	.....	.....	.....
9 .....	39,000	42,500	.....	.....	.....	.....	.....	.....
10 .....	40,000	43,500	.....	.....	.....	.....	.....	.....
11 .....	.....	44,000	.....	.....	.....	.....	.....	.....
12 .....	.....	45,000	50,000	.....	.....	.....	.....	.....
13 .....	.....	45,500	50,500	.....	.....	.....	.....	.....
14 .....	.....	46,500	51,500	.....	.....	.....	.....	.....
15 .....	.....	47,000	52,000	.....	.....	.....	.....	.....
16 .....	.....	48,000	52,500	58,000	.....	.....	.....	.....
17 .....	.....	48,500	53,500	58,500	.....	.....	.....	.....
18 .....	.....	49,500	54,000	59,000	.....	.....	.....	.....
19 .....	.....	50,000	54,500	60,000	.....	.....	.....	.....
20 .....	.....	51,000	55,500	60,500	66,000	.....	.....	.....
21 .....	.....	51,500	56,000	61,000	66,500	.....	.....	.....
22 .....	.....	52,500	56,500	61,500	67,000	.....	.....	.....
23 .....	.....	53,000	57,500	62,500	68,000	.....	.....	.....
24 .....	.....	54,000	58,000	63,000	68,500	74,000	.....	.....
25 .....	.....	54,500	58,500	63,500	69,000	74,500	.....	.....
26 .....	.....	55,500	59,500	64,000	69,500	75,000	.....	.....
27 .....	.....	56,000	60,000	65,000	70,000	75,500	.....	.....
28 .....	.....	57,000	60,500	65,500	71,000	76,500	82,000	.....
29 .....	.....	57,500	61,500	66,000	71,500	77,000	82,500	.....
30 .....	.....	58,500	62,000	66,500	72,000	77,500	83,000	.....
31 .....	.....	59,000	62,500	67,500	72,500	78,000	83,500	.....
32 .....	.....	60,000	63,500	68,000	73,000	78,500	84,500	90,000
33 .....	.....	.....	64,000	68,500	74,000	79,000	85,000	90,500
34 .....	.....	.....	64,500	69,000	74,500	80,000	85,500	91,000
35 .....	.....	.....	65,500	70,000	75,000	80,500	86,000	91,500
36 .....	.....	Exception	66,000	70,500	75,500	81,000	86,500	92,000
37 .....	.....	Indiana Code	66,500	71,000	76,000	81,500	87,000	93,000
38 .....	.....	9-20-4-1	67,500	71,500	77,000	82,000	87,500	93,500
39 .....	.....	.....	68,000	72,500	77,500	82,500	88,500	94,000
40 .....	.....	.....	68,500	73,000	78,000	83,500	89,000	94,500
41 .....	.....	.....	69,500	73,500	78,500	84,000	89,500	95,000
42 .....	.....	.....	70,000	74,000	79,000	84,500	90,000	95,500
43 .....	.....	.....	70,500	75,000	80,000	85,000	90,500	96,000
44 .....	.....	.....	71,500	75,500	80,500	85,500	91,000	96,500
45 .....	.....	.....	72,000	76,000	81,000	86,000	91,500	97,500
46 .....	.....	.....	72,500	76,500	81,500	87,000	92,500	98,000
47 .....	.....	.....	73,500	77,500	82,000	87,500	93,000	98,500
48 .....	.....	.....	74,000	78,000	83,000	88,000	93,500	99,000
49 .....	.....	.....	74,500	78,500	83,500	88,500	94,000	99,500
50 .....	.....	.....	75,500	79,000	84,000	89,000	94,500	100,000
51 .....	.....	.....	76,000	80,000	84,500	89,500	95,000	100,500
52 .....	.....	.....	76,500	80,500	85,000	90,500	95,500	101,000
53 .....	.....	.....	77,500	81,000	86,000	91,000	96,500	102,000
54 .....	.....	.....	78,000	81,500	86,500	91,500	97,000	102,500
55 .....	.....	.....	78,500	82,500	87,000	92,000	97,500	103,000
56 .....	.....	.....	79,500	83,000	87,500	92,500	98,000	103,500
57 .....	.....	Gross Weight	80,000	83,500	88,000	93,000	98,500	104,000
58 .....	.....	Limit	.....	84,000	89,000	94,000	99,000	104,500
59 .....	.....	Indiana Code	.....	85,000	89,500	94,500	99,500	105,000
60 .....	.....	9-20-4-1	.....	85,500	90,000	95,000	100,500	105,500

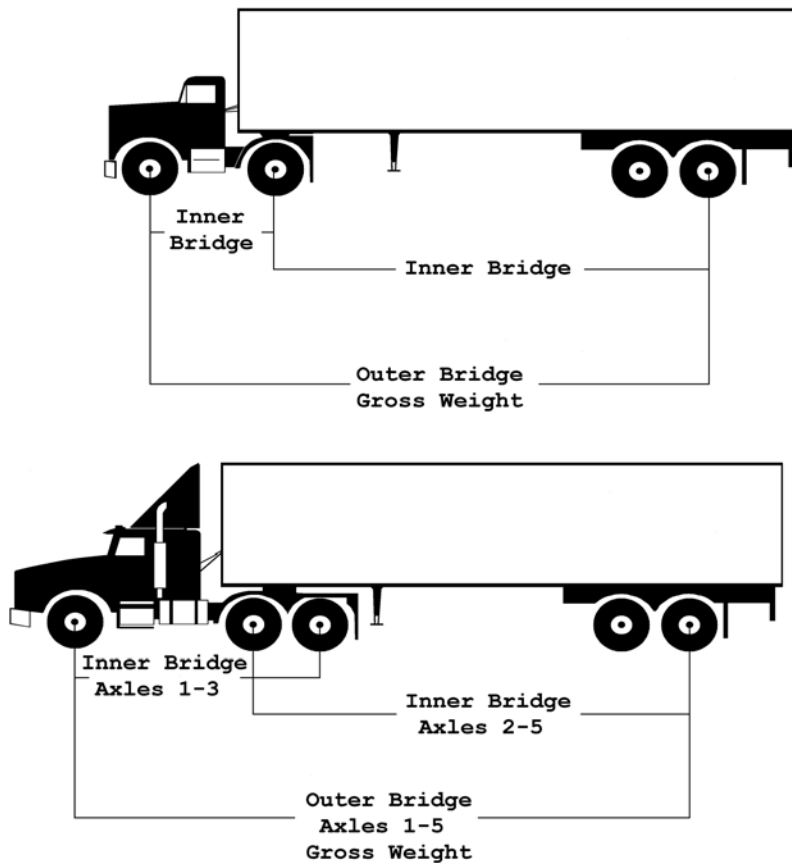
FEET

Two consecutive sets of tandems may carry a gross load of 34,000 lbs each if the overall distance between the first and last axles is 36 feet or more.  
I.C 9-20-4-1

Exception  
Indiana Code  
9-20-4-1

Gross Weight  
Limit  
Indiana Code  
9-20-4-1

## EXAMPLES OF BRIDGE FORMULA MEASUREMENTS



Indiana has a “grandfather law” built into its weight law retaining the weight limits that were in effect on January 4, 1975.

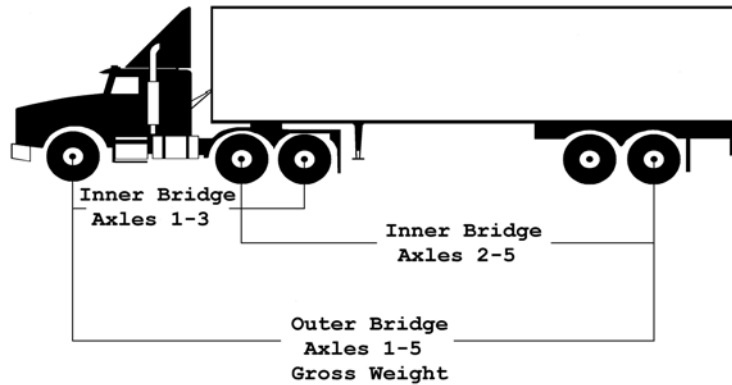
This retention protects vehicles from losing weight capability based upon their configuration when the bridge formula is applied to them.

The maximum gross weight, with load, under this subsection is seventy-three thousand two hundred eighty (73,280) pounds.

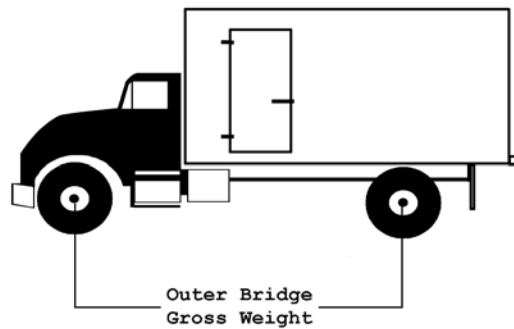
The maximum weight on an individual axle of a tandem axle group is sixteen thousand (16,000) pounds for each axle.

And limited to a maximum wheel weight of eight hundred (800) pounds per inch width of the tire measured between the flanges of the rim, **or** a maximum axle weight of eighteen thousand (18,000) pounds.

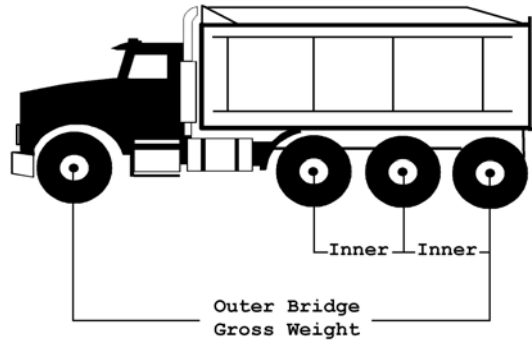
Examples of vehicles where the “grandfather law”, applies are:



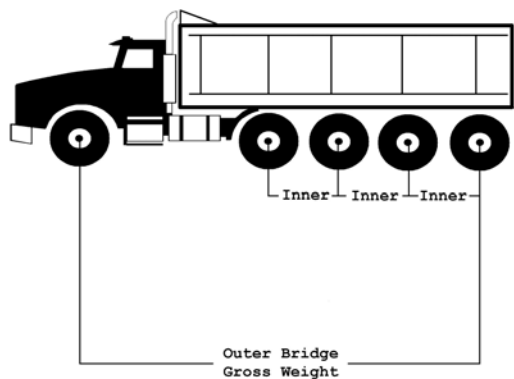
When the outer bridge measurement is less than 40 feet for total gross weight and the tandem axles or inner bridge measurement between axles 2-5 is less than 36 feet, one set of tandems will get at least thirty four thousand (34,000) pounds, but both sets of tandem axles (axles 2-5) would not be able to gross more than sixty four thousand (64,000) pounds when added together as combination axle weight.



In this example, this vehicle would be penalized for allowable gross weight if the bridge formula were applied; the “grandfather law” allows both axles the potential to weigh twenty thousand (20,000) pounds depending on the size of the rims (tires) and effects potential gross weight.



While this vehicle would be penalized for total gross weight if the bridge formula were applied, under the “grandfather law” it has the potential to have a gross weight of no more than seventy thousand (70,000) pounds. The tri-axle assembly itself can weigh fifty thousand (50,000) pounds. This can be broken down to thirty-four thousand (34,000) pounds on the tandem and sixteen thousand (16,000) pounds on the single axle, or thirty-two thousand (32,000) pounds on the tandem axle and eighteen thousand (18,000) pounds on the single axle. Again, size of the rim determines wheel weight and gross weight.



This vehicle is also penalized for gross weight if the bridge formula was applied to it. Depending on wheel and axle configuration it has the potential to gross no more than seventy three thousand two hundred eighty (73,280) pounds under the “grandfather law”. And again rim size determines wheel weight and gross weight.

**Exceptions: farm commodities and the weight law.**

A vehicle or combination of vehicles transporting farm commodities from the place of production to the first point of delivery where the commodities are weighed and title to the commodities are transferred are allowed ten percent additional weight to the maximum gross weight. For example, if a combination vehicle is allowed a gross weight under the Bridge Formula of eighty thousand (80,000) pounds, with this exception of ten percent, the total gross allowed would be eighty-eight thousand (88,000) pounds.

However, this increase in weight is not applicable when the following apply:

1. Weight limits imposed for bridges or sections of highways under IC 9-20-1-4.
2. A vehicle operated on any part of an interstate system.

Axle weights and registered weight is not applicable as long as the two aforementioned instances are not involved, or the vehicle does not exceed the 10 percent tolerance.

Farm commodities include logs, wood chips, bark, sawdust, and bulk milk. In the case of wood chips, bark, and sawdust, the ten percent tolerance is applicable at all times for gross weight and axle weights

### **Exceptions: Refuse vehicles and the weight law**

Special restrictions apply to a garbage truck, truck-trailer combination, or a truck-wagon combination that is either:

1. A municipal waste collection and transportation vehicle:
  - a. **Specially** designed and equipped with a self-compactor or detachable container;
  - b. Used **exclusively** for garbage, refuse, or recycling operations; and
  - c. **Laden** with garbage, refuse, or recyclables; or
2. A disposal plant transporting vehicle certified under IC 15-2.1-16 that is laden with dead animals or animal parts.

**Except** for Interstate highway travel the maximum allowable gross weight shall not exceed:

1. Twenty four thousand (24,000) pounds on a single axle; and
2. Forty two thousand (42,000) pounds on a tandem axle.

This exception does not exempt trucks, laden or unladen, from the limitations on wheel weights imposed by IC 9-20-11-4.

### **THE BASIC LEGAL DIMENSIONS ALLOWED ARE:**

Limitations to height, width and length include vehicle and load.

Generally the maximum width is 8'6" except for width exclusive devices as specified in 23 CFR 658, for example, exterior rear view mirrors.

The following are **exceptions** to the **width** requirement:

1. Machinery or equipment used in utility construction or maintenance if the violation is the result of oversize tires
2. A recreational vehicle with appurtenances making the vehicle wider than allowed
  - a. The appurtenances do not extend more than the factory installed exterior rear view mirrors
  - b. And the mirrors only extend to the distance necessary to afford the required field of view.

There is **no exemption** to the legal **height** of 13'6".

Maximum length of a single vehicle operating under its own power is 40 feet, except for length exclusive devices as set forth in 23 CFR 658.13.

#### Exemptions

1. A recreational vehicle may measure a maximum of 45 feet.
2. A vehicle used by the railroad companies to transport steel rails in connection with a railroad construction, reconstruction or maintenance project may not exceed 40 feet.
3. A bus (9-20-8-2) must meet one of the following length measurements:
  - a. An articulating bus used for public transportation can be a maximum of 65 feet.
  - b. A conventional school bus can measure 38 feet.
  - c. A transit school bus can be 42 feet.
  - d. All other buses, 45 feet.
4. A single vehicle equipped with a permanently installed specialized equipment used for lifting, reaching, pumping or spraying, is allowed an additional 5 feet overhang of the equipment as long as it is not used to haul cargo.

A combination of two vehicles coupled together, **including load**, may not exceed a total length of sixty feet, except for the following:

1. Constructed to transport other vehicle or boats.
2. A combination of two vehicles coupled together being transported in a drive away or tow away service.
3. A pole trailer owned by or operated for a public utility while the pole trailer is being used in connection with the utility services of the public utility.
4. Trailers used in transporting oil field equipment or pipe for the transportation oil or gas.

A combination of three or more vehicles coupled together, **including load**, may not exceed a total length of sixty-five feet.

Any number of vehicles in a combination coupled together:

1. that are especially constructed to transport other vehicles or boats; and
2. by the tow bar, saddle mount, or full mount methods;

may not exceed a total length of seventy-five feet.

The maximum length of a combination of two vehicles coupled that are commonly referred as “stinger-steered” vehicles and are;

1. especially constructed to transport other vehicles or boats; and
2. a stinger-steered vehicle;

is seventy-five feet.

The maximum length of a trailer used in a truck-tractor-semitrailer-semitrailer combination is twenty-eight feet, six inches.

A maximum overall length limit is not imposed on a truck-tractor-semi trailer-semi trailer combination.



The maximum length of a semi trailer, including the load, in a truck-tractor combination is fifty-three feet.

A maximum overall length limit is not imposed on a truck-tractor-semi trailer or truck-tractor semi trailer-trailer combination

The maximum length of a semi trailer **or** trailer operating in a truck-tractor-semi trailer-trailer combination is twenty-eight feet, six inches.

The maximum length of a maxi-cube vehicle combination is sixty-five feet and the maximum length of the separable cargo-carrying unit is thirty-four feet.

Maximum distance between kingpin and rearmost axle of a semi trailer measuring longer than forty-eight feet, six inches, operating on highway that is part of the state highway system is forty-three feet.

Maximum length of truck-trailer or truck-wagon combinations used in refuse operations is limited to sixty-eight feet.

For further information on Title 9 Article 20, and additional information on size and weight requirements the Indiana General Assembly may be referenced at <http://www.in.gov/legislative/ic/code/title9/ar20/>.