Due to frequent changes in federal and state regulations, the Michigan Center for Truck Safety cannot ensure the accuracy of the material contained in the Guidebook beyond the date of publication. For current information, contact the Center at 800-682-4682. This document is not intended for legal purposes.

## Michigan Weight and Axle Load Limits

Inderstanding the axle and weight load limits can be very confusing. To better help you, the following is a simple guide for maximum axle load limits that is not intended for legal purposes. You are responsible for familiarity with the complete weight laws found in the Michigan Vehicle Code, Section 257.722. Should you have questions about weight limits, please call our hotline at (800) 682-4682.

NOTE: No motor vehicle shall be operated with tires that carry a weight greater than that marked on the side-wall of the tire. FMCSR 393.75

#### **General Information**

Maximum load limits may depend on the following:

- What type of highway you are operating on (See page 23 for highway types)
- The number of axles and the distance (spacing) between the axles or axle assemblies on which the vehicle or combination of vehicles is operated (spacing is the distance between axles, measured from the center of one axle to the center of another axle)
- The gross vehicle weight of the vehicle or combination of vehicles
- Tire width (as published by the manufacturer).
   Depending on the conditions above, your vehicle may be subject to the maximums found under the bridge formula or the normal loading standards.

# Bridge Gross Weight Formula General Information

The bridge formula applies to vehicles operating on interstate highways and specially designated highways which:

- Do not exceed 80,000 pounds gross weight
- Do not exceed the maximum allowed under the formula.

See page 32.

It is your responsibility to be aware of frost law restrictions along with county and city weight limits, as they may vary from the chart below (provided by MDOT in the truck operators map).

NORMA	AL LOADING MA	XIMUM GENERAI	INFORM	ATION
Spacings Between Axles	Normal Loadings When Seasonal Load Limitations Are Not In Force (Speed Limit 55 MPH)		FROST LAW Seasonal Load Limitations (Speed Limit 35 MPH	
	Vehicles Exceeding 80,000 lbs. Gross Weight	Vehicles 80,000 lbs. or Less Gross Weight	Rigid	Flexible
9 feet or over	18,000 lbs	20,000 lbs.	13,500 lbs.	11,700 lbs.
More than 3 ½ feet but, less than 9 feet * normal loading	13,000 lbs.	13,000 lbs	9,750 lbs	8,450 lbs.
When part of a tandem axle assembly * on designated routes only	*16,000 lbs	34,000 lbs. on tandem	12,000 lbs.	10,400 lbs.
When less than 3 ½ feet	9,000 lbs	9,000 lbs.	6,750 lbs.	5,850 lbs.
Maximum load on any wheel shall not exceed: (lbs. per inch of tire width)	700 lbs	700 lbs	525 lbs	450 lbs.

\*On any legal combination of vehicles with more than 5 axles, only one (1) tandem axle assembly shall be permitted at the gross weight of 16,000 lbs. per axle and no other tandem axle assembly in such combination of vehicles shall exceed a gross weight of 13,000 lbs. per axle. On a 5 axle tandem tandem combination both tandems are allowed 16,000 lbs per axle.

#### **Frost Law Restrictions**

When spring weight restrictions are in effect on frost-restricted routes, both county roads and State trunklines may have restrictions imposed. State trunkline highways typically carry M, I or US designations. Axle loadings are reduced by 25 percent on rigid-based roads and 35 percent on flexible-based roads. Most restricted state highways and county roads reduce axle loading by 35 percent.

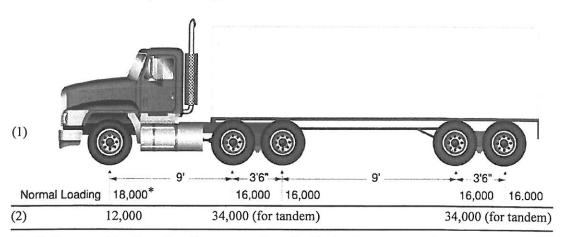
The MDOT truck map designates routes as "All Season Routes" or as "Seasonal" routes with weight restrictions, and may be obtained from the MDOT site: <a href="www.michigan.gov/truckers">www.michigan.gov/truckers</a>. Speed limits on frost restricted routes are reduced to 35 mph for every vehicle with a gross weight of 10,000 pounds or more.

State frost law information, 800-787-8960 or 517-373-6256 www.micountyroads.org

#### County and City Weight Limits

Allowable axle weights on local roadways must be consistent with state law, but final weight determinations are the responsibility of the local jurisdictions. The limitation of 700 lbs. per inch of tire width still applies. "Access" to/from state or federal highways on local roadways cannot be assumed. Local jurisdictions also apply width and length limitations to their roadways and retain the authority to issue or deny special permits. You should contact the appropriate jurisdiction for specific information prior to movements upon local roadways.

Although these are legal weights, it is an equipment violation to exceed the manufacturer's displayed load rating on any tire.



**Example (1)** On a combination of truck-tractor and semitrailer having not more than 5 axles, 2 consecutive tandem axle assemblies shall be permitted on the designated highways at a gross permissible weight of 16,000 pounds per axle, if there is no other axle within 9 feet of any axle of the assembly. (This configuration is allowable on interstates and designated highways in Michigan.) If an additional axle were to be added between the two tandems, only one of the tandems (drives or trailer) would be allowed 16,000 pounds per axle. The other tandem would be limited to 13,000 pounds per axle.

\*Steering axle weights can be a maximum of 18,000 lbs. (11,700 frost restriction) if equipped with high pressure pneumatic or balloon tires.

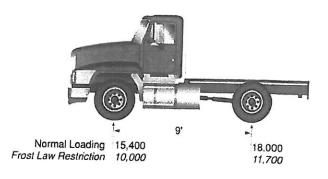
**Example (2)** is the bridge formula for interstate highways when the gross vehicle weight is 80,000 pounds or less and the distance between the center of the two tandem assemblies is 36 feet or more. State and local authorities may allow these weights on highways or sections of highways under their jurisdictions.

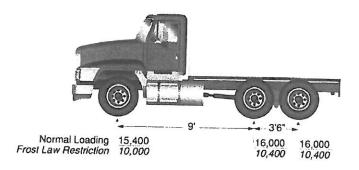
When determining your allowable axle weight shown on pages 27-31, under Michigan law you must also be in compliance with federal regulations which prohibit you from exceeding your tire ratings. Although Michigan law allows for these weights, your tire rating may restrict you to a lower weight.

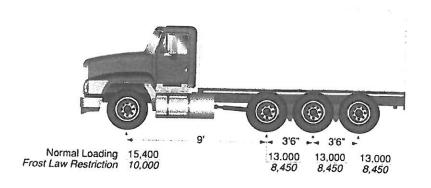
Examples of normal load maximums; frost law restrictions shown are at the 35 percent reduction.

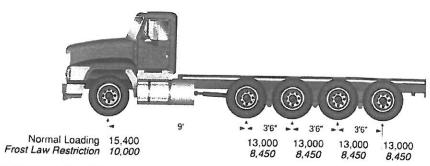
Steering axle weights shown here are based on 11:00 series tires.

Steering axle weights can be a maximum of 18,000 lbs. (11,700 frost restriction) if equipped with high pressure pneumatic or balloon tires.







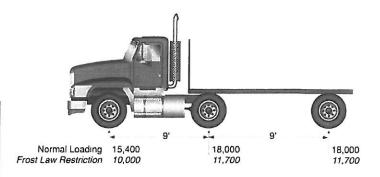


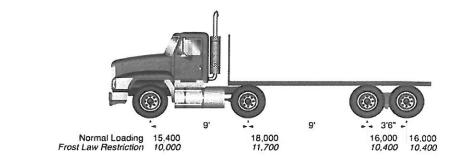
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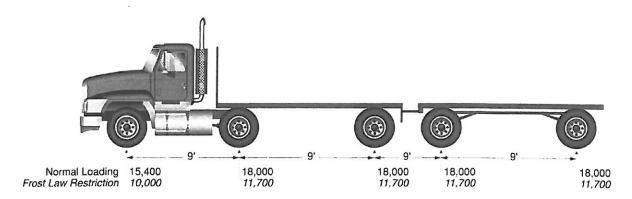
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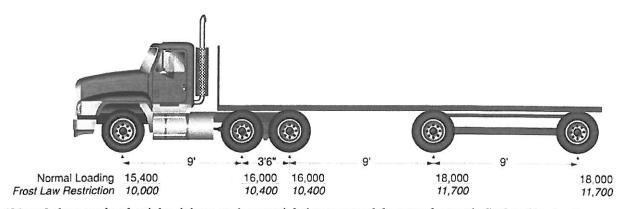
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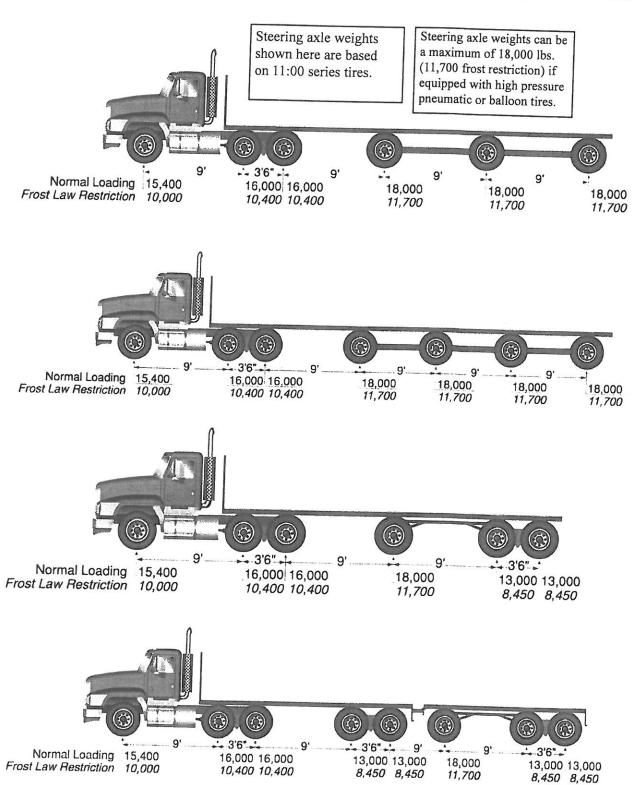






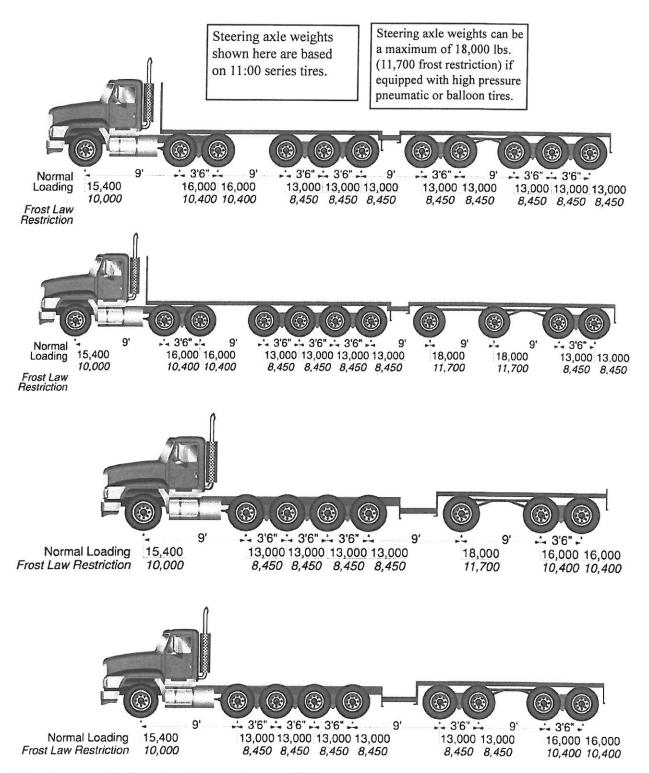
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Examples of normal load maximums; frost law restrictions shown are at the 35 percent reduction.



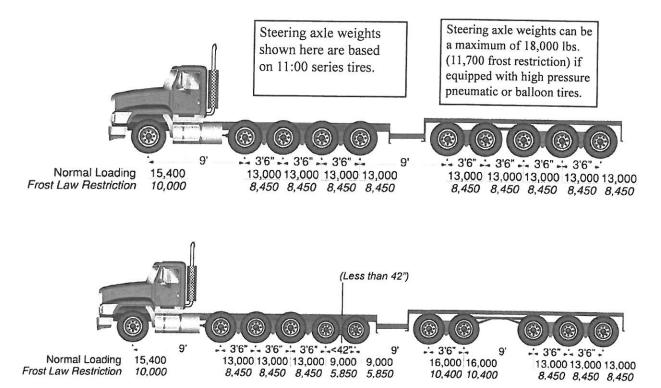
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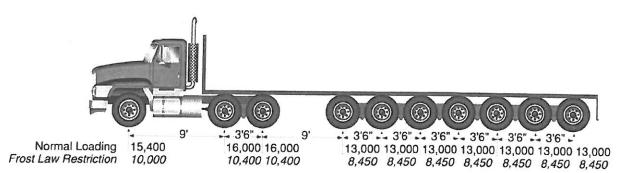
Examples of normal load maximums; frost law restrictions shown are at the 35 percent reduction.

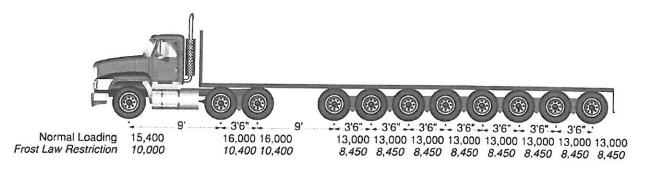


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