



## Section 04: Weight Limitations

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### Weight Limitations

Minnesota uses a number of different types of weighing equipment. These include portable scales, certified privately-owned scales, and official weigh stations along state trunk highways and interstates.

**10-Ton Routes:** All paved routes in Minnesota are 10-ton routes unless posted with a sign indicating a lesser axle weight limit.

Limits are:

- Any single or dual wheel - 10,000 pounds
- Any single axle - 20,000 pounds
- Any tandem axle group - 34,000 pounds
- Any vehicle combination with five or more properly spaced axles - 80,000 pounds

**9-Ton Routes:** All unpaved routes in Minnesota are 9-ton routes unless posted with a sign indicating a lesser axle weight limit.

Limits are:

- Any single or dual wheel - 9,000 pounds
- Any single axle - 18,000 pounds
- Any tandem axle group - 34,000 pounds
- Any vehicle combination with five or more properly spaced axles - 80,000 pounds

**Note:** (1) Tandem axles means a group of axles that measures more than 40" and not more than 96" from the center of the first axle to the center of the last axle of the group. (2) All axle groups must be in compliance with the Gross Weight Schedule (Minn. Stat. § 169.824). Gross weights in excess of 80,000 pounds require an overweight special transportation permit.

## Posted Axle Weight Limits:

Posted Axle Limit	9 Ton	8 Ton	7 Ton	6 Ton	5 Ton	4 Ton
Single Axle	18,000	16,000	14,000	12,000	10,000	8,000
Two axles, spaced within 8'0" or less	34,000	30,222	26,444	22,667	18,889	15,111
Three axles, spaced within 9'0" or less	43,000	38,222	33,444	28,667	23,889	19,111
Four axles, spaced within 14'0" or less	51,500	45,778	40,056	34,333	28,611	22,889

**Bridge Restrictions:** Bridges with rated capacities less than the maximum legal limit have gross weight restrictions posted. You must observe these restrictions.

**Seasonal Load Restrictions:** Between the dates set by the Commissioner of Transportation, the weight on any single axle shall not exceed five tons on an unpaved street or highway or ten tons on a paved street or highway. If an unpaved street or highway is restricted to more than or less than five tons per axle or a paved street is restricted to less than ten tons, signs must be posted.

**Tire Load:** No tire may exceed 600 pounds per inch of tire width on the foremost and rearmost steer axle, or more than 500 pounds per inch of tire width on non-steer axles.

**Tire Width:** Tire width is the manufacturer's tire width shown on the tire. In no instance may the manufacturer's recommended tire load-carrying limit be exceeded.

**Variable Load Axles:** A vehicle equipped with a variable load axle must have the pressure control preset and the means for adjusting pressure either secured or out of the driver's reach, so that the axle may not be varied by the driver while transporting a load.

Per Minn. Stat. § 169.828, there are two exceptions to this restriction on accessibility of variable load axle control. It does not apply to:

- Farm trucks registered for 57,000 pounds or less prior to July 1, 1981
- Rear-loading refuse compactors

## Gross Weight Table

Distance in feet between centers of foremost and rearmost axles of a group.

The gross weights shown without parentheses are allowed on unpaved streets and highways, unless posted to a lesser weight under Minn. Stat. § 169.87 subd. 1. The gross weights shown in this table, whether within or without parentheses, are allowed on paved streets and highways, unless posted to a lesser weight under Minn. Stat. § 169.87 subd. 1. Gross weights over 80,000 pounds require an overweight permit under this chapter, unless otherwise allowed under Minn. Stat. § 169.826.

Distance	2 axles	3 axles	4 axles	5 axles	6 axles	7 axles	8 axles
4	34,000						
5	34,000						
6	34,000						
7	34,000	34,000					
8	34,000	34,000					
8+	34,000 (38,000)	42,000					
9	35,000  (39,000)	43,000					
10	36,000  (40,000)	43,500	49,000				
11	36,000	44,500	49,500				
12		45,000	50,000				
13		46,000	51,000				
14		46,500	51,500	57,000			
15		47,500	52,000	57,500			
16		48,000	53,000	58,000			
17		49,000	53,500	59,000			
18		49,500	54,000	59,500			
19		50,500	55,000	60,000			
20		51,000	55,500	60,500	66,000	72,000	
21		52,000	56,000	61,500	67,000	72,500	
22		52,500	57,000	62,000	67,500	73,000	
23		53,500	57,500	62,500	68,000	73,500	
24		54,000	58,000	63,000	68,500	74,000	
25		(55,000)	59,000	64,000	69,000	75,000	
26		(55,500)	59,500	64,500	70,000	75,500	
27		(56,500)	60,000	65,000	70,500	76,000	
28		(57,000)	61,000	65,500	71,000	76,500	82,000
29		(58,000)	61,500	66,500	71,500	77,000	82,500
30		(58,500)	62,000	67,000	72,000	77,500	83,000
31		(59,500)	63,000	67,500	73,000	78,500	83,500
32		(60,000)	63,500	68,000	73,500	79,000	84,500

\*8+ refers to any distance greater than eight feet but less than nine feet.

Distance	2 axles	3 axles	4 axles	5 axles	6 axles	7 axles	8 axles
33			64,000	69,000	74,000	79,500	85,000
34	Two consecutive tandems may carry a gross weight of 34,000 pounds each, and a total of 68,000 pounds together, when the centers of the first and last axle of the group are spaced 36 feet or more. "Tandem axles" in Minnesota means two consecutive axles whose centers are spaced more than 40 inches and not more than 96 inches apart (Minn. Stat. § 169.822 subd. 5).		65,000	69,500	74,500	80,000	85,500
35			65,500	70,000	75,000	(80,500)	(86,000)
36			66,000	70,500	76,000	(81,000)	(86,500)
37			67,000	71,500	76,500	(81,500)	(87,000)
38			67,500	72,000	77,000	(82,000)	(87,500)
39			68,000	72,500	77,500	(82,500)	(88,500)
40			69,000	73,000	78,000	(83,500)	(89,000)
41			69,500	74,000	79,000	(84,000)	(89,500)
42			70,000	74,500	79,500	(84,500)	(90,000)
43			71,000	75,000	80,000	(85,000)	(90,500)
44			71,500	75,500	(80,500)	(85,500)	(91,000)
45			72,000	76,500	(81,000)	(86,500)	(91,500)
46			72,500	77,000	(81,500)	(87,000)	(92,500)
47			(73,500)	77,500	(82,000)	(87,500)	(93,000)
48			(74,000)	78,000	(83,000)	(88,000)	(93,500)
49			(74,500)	79,000	(83,500)	(88,500)	(94,000)
50			(75,500)	79,500	(84,000)	(89,000)	(94,500)
51		(76,000)	80,000	(84,500)	(89,500)	(95,000)	
52		(76,500)	(80,500)	(85,000)	(90,500)	(95,500)	
53		(77,500)	(81,000)	(86,000)	(91,000)	(96,500)	
54		(78,000)	(81,500)	(86,500)	(91,500)	(97,000)	
55		(78,500)	(82,500)	(87,000)	(92,000)	(97,500)	
56		(79,500)	(83,000)	(87,500)	(92,500)	(98,000)	
57		(80,000)	(83,500)	(88,000)	(93,000)	(98,500)	
58			(84,000)	(89,000)	(94,000)	(99,000)	
59			(85,000)	(89,500)	(94,500)	(99,500)	
60			(85,500)	(90,000)	(95,000)	(100,500)	
61					(95,500)	(101,000)	
62					(96,000)	(101,500)	
63					(96,500)	(102,000)	
64					(97,000)	(102,500)	
65						(103,000)	
66						(103,500)	
67						(104,500)	
67						(105,000)	
69						(105,500)	
70						(106,000)	
71						(106,500)	
72						(107,000)	
73						(107,500)	
74						(108,000)	

As an additional resource, you can use the Truck Weight Calculator, which provides a convenient way to determine the maximum legal weight that any set of axles on a vehicle/vehicle combination may carry on Minnesota highways. The allowable weight on a vehicle/vehicle combination may increase by either adding additional axles or by increasing the distance between axles. The formula for the calculator is a weight-to-length ration. This formula was enacted by Congress and the State to limit the weight-to-length of a vehicle crossing a bridge. The calculator is available at <http://dotsc.ugpti.ndsu.nodak.edu/TWC>.

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