NORTH DAKOTA WEIGHT LIMITATIONS CHART

NORTH DAKOTA HIGHWAY PATROL

11/2013

Computed to nearest foot by the weight formula in Section 39-12-05 and Section 39-12-05.3 of the North Dakota Century Code.

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

W = Maximum weight in pounds on any group of two or more axles.
L = Distance in feet between extremes of any group of two or more consecutive axles.
N = Number of axles in group under consideration.

Distance in feet between the extremes of any groups of 2 or more consecutive axles	Maximum Load in Pounds Carried on any Group of 2 or More Consecutive 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	34,000						
8	38,000	42,000						
9	39,000	43,000						
10	40,000*	43,500						
11		44,500						
12		45,000	50,000					
13		46,000	50,500					
14		46,500	51,500	57,000				
15		47,500	52,000	57,500				
16		48,000	52,500	58,000				
17		49,000	53,500	58,500				
18		49,500	54,000	59,500				
19		50,500	54,500	60,000				
20		51,000	55,500	60,500	66,000			
21		52,000	56,000	61,000	66,500			
22		52,500	56,500	62,000	67,000			
23		53,500	57,500	62,500	68,000			
24		54,000	58,000	63,000	68,500	74,000		
25		55,000	58,500	63,500	69,000	74,500		
26		55,500	59,500	64,500	69,500	75,000		
27		56,500	60,000	65,000	70,000	76,000		
28		57,000	60,500	65,500	71,000	76,500	82,000	
29		58,000	61,500	66,000	71,500	77,000	82,500	
30		58,500	62,000	67,000	72,000	77,500	83,000	
31		59,500	62,500	67,500	72,500	78,000	84,000	
32		60,000*	63,500	68,000	73,000	78,500	84,500	90,000
33			64,000	68,500	74,000	79,500	85,000	90,500
34			64,500	69,500	74,500	80,000	85,500	91,000
35			65,500	70,000	75,000	80,500	86,000	91,500
36	Two consecutive sets of tandem axles may carry a		66,000	70,500	75,500	81,000	86,500	92,500
37	gross load of 34,000 pounds each provided the		66,500	71,000	76,000	81,500	87,000	93,000
38	overall distance between the first and last axles of		67,500	72,000	77,000	82,000	87,500	93,500
39	such consecutive sets of tandem axles is 36 feet or		68,000	72,500	77,500	83,000	88,500	94,000
40	more.		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	74,500	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	97,000
45			72,000	76,000	81,000	86,500	91,500	97,500
46			72,500	77,000	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	79,500	84,000	89,000	94,500	100,000
51			76,000	80,000	84,500	90,000	95,000	100,500
52			76,500	80,500	85,000	90,500	95,500	101,500
53			77,500	81,000	86,000	91,000	96,500	102,000
54			78,000	82,000	86,500	91,500	97,000	102,500
55			78,500	82,500	87,000	92,000	97,500	103,000
56	Gross weight limit on interstate. Gross weight limit		79,500	83,000	87,500	92,500	98,000	103,500
57	on county and other local highways unless		80,000*	83,500	88,000	93,500	98,500	104,000
58	designated for more.			84,500	89,000	94,000	99,000	104,500
59				85,000	89,500	94,500	99,500	105,000
60				85,500	90,000	95,000	100,500	105,500*
61				86,000	90,500	95,500	101,000	
62				87,000	91,000	96,000	101,500	
63				87,500	92,000	97,000	102,000	
64				88,000	92,500	97,500	102,500	
65				88,500	93,000	98,000	103,000	
66				89,500	93,500	98,500	103,500	
67				90,000	94,000	99,000	104,500	
68				90,500	95,000	99,500	105,000	
69				91,000	95,500	100,500	105,500*	
70				92,000	96,000	101,000		
71				92,500	96,500	101,500		
72				93,000	97,000	102,000		
73				93,500	98,000	102,500		
74				94,500	98,500	103,000		
75				95,000	99,000	104,000		
76				95,500	99,500	104,500		
77				96,000	100,000	105,000		
78				97,000	101,000	105,500*		
79				97,500	101,500			
80				98,000	102,000			
81				98,500	102,500			
82				99,500	103,000			
83				100,000*	104,000			
84					104,500	*Maximum Gross Weight		
85					105,000			
86					105,500*			

Note: On highways other than the Interstate System, only the exterior bridge measurement shall be used to determine the gross vehicle weight of a vehicle or combination of vehicles.

NORTH DAKOTA AXLE WEIGHT LIMITATIONS 11/2013

No single axle shall carry a gross weight in excess of 20,000 pounds. Axles spaced 40 inches or less apart are considered one axle. Axles spaced eight (8) feet apart or over are considered as individual axles. The gross weight of two individual axles may be restricted by the weight formula except that on highways other than the interstate, two axles spaced eight (8) feet apart or more may have a combined gross weight not to exceed 40,000 pounds. Spacing between axles shall be measured from axle center to axle center.

Axles spaced over 40 inches apart and less than eight (8) feet apart shall not carry a gross weight in excess of 19,000 pounds per axle. The gross weight on a tandem axle shall not exceed 34,000 pounds. The gross weight of three or more axles in a grouping is determined by the measurement between the extreme axle centers except that on highways other than the interstate, groupings of three or more axles may have a gross weight not to exceed 48,000 pounds.

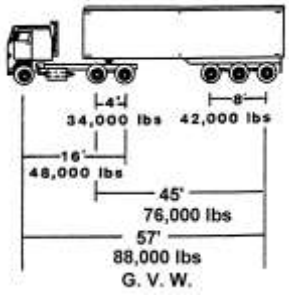
The weight per inch width of tire shall not exceed 550 pounds. Metric tire sizes are converted to inches by dividing millimeters by 25.4. The width of tire for solid tires shall be the rim width. For pneumatic tires the width of tire shall be the manufacturer's width. The weight in pounds on any one wheel shall not exceed one-half the allowable axle weight. Dual tires are considered one (1) wheel.

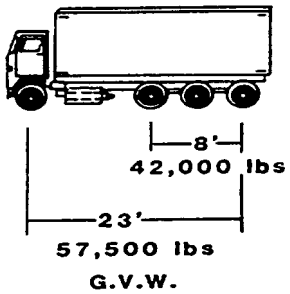
The weight on the steering axle shall be determined by the manufacturer's axle rating and shall not exceed 20,000 pounds when travel is on the interstate system or on Defense Highways. When travel is on Defense Highways, the load shall be for the US Department of Defense.

Tire Width	Single Axle (2 Tires)	Single Axle (4 Tires)	Tandem Axle (4 Tires)	Tandem Axle (8 Tires)	Triple Axle (6 Tires)	Triple Axle (12 Tires)
7:00	7,700	15,400	15,400	30,800	23,100	Determined by Weight Formula
7:50	8,250	16,500	16,500	33,000	24,750	
8:00	8,800	17,600	17,600	34,000	26,400	
8:25	9,075	18,150	18,150	34,000	27,225	
9:00	9,900	19,800	19,800	34,000	29,700	
10:00	11,000	20,000	22,000	34,000	33,000	
11:00	12,100	20,000	24,200	34,000	Determined by Weight Formula	
12:00	13,200	20,000	26,400	34,000		
13:00	14,300	20,000	28,600	34,000		
14:00	15,400	20,000	30,800	34,000		
15:00	16,500	20,000	33,000	34,000		
16:50	18,150	20,000	34,000	34,000		
17:50	19,250	20,000	34,000	34,000		
18:00	19,800	20,000	34,000	34,000		

NOTE: Axle weights may be reduced during the spring breakup season or on otherwise posted highways.
Axle weights may be reduced by Bridge Load Limitations Map.

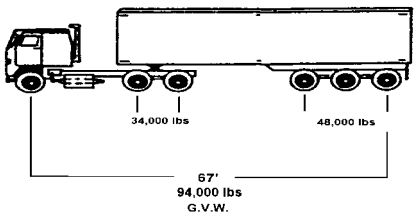
Examples of Bridge Formula Application on the Interstate System

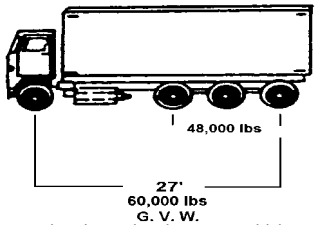




Note: On the Interstate System, the interior and exterior bridge measurement shall be used to determine the gross vehicle weight of a vehicle or combination of vehicles. Maximum legal gross vehicle weight on the interstate system is 80,000 pounds without a permit.

Examples of Bridge Formula Application on the State Highway System





Note: On highways other than the Interstate System, only the exterior bridge measurement shall be used to determine the gross vehicle weight of a vehicle or combination of vehicles. Groupings of three or more axles may have a gross weight not to exceed 48,000 pounds.
See Highway Patrol for additional information on 4-axle straight trucks.

Examples of Metric Tire Conversion

Metric Tire Size	Tire Width in Inches	Metric Tire Size	Tire Width in Inches
245/75R22.5	9.6 inches	315/75R22.5	12.4 inches
255/70R22.5	10.0 inches	385/65R22.5	15.1 inches
265/75R22.5	10.4 inches	425/65R22.5	16.7 inches
275/80R22.5	10.8 inches	445/65R22.5	17.5 inches
285/75R24.5	11.2 inches	455/65R22.5	17.9 inches
295/75R22.5	11.6 inches	465/65R22.5	18.3 inches

Tire Size and Dimensional Definitions

13/80R20
13 = Tire width (inches)
80 = Ratio of tire width to tire height
R = Radial
20 = Rim diameter (inches)

295/75R22.5
295 = Tire width (millimeters)
75 = Ratio of tire width to tire height
R = Radial
22.5 = Rim diameter (inches)

10% Chart	Legal Weight	10% Weights
Tire Sizes	Single Axle 2 Tires	Single Axle 2 Tires
10:00 / 255	11000	12100
11:00 /280	12100	13310
12:00 / 305	13200	14520
245 / 9.6	10560	11616
265 /10.4	11440	12584
275 / 10.8	11880	13068
285 / 11.2	12320	13552
295 / 11.6	12760	14036
315 /12.4	13640	15004
385 /15.1	16610	18271
425 / 16.7	18370	20207
445 / 17.5	19250	21175
455 /17.9	19690	21659
465 / 18.3	20000	22000

10:00 Tires Or Larger	10% Weights
Single Axle 4 Tires	Single Axle 4 Tires
20000	22000
8:00 Tires or Larger	
Tandem Axle 8 Tires	Tandem Axle 8 Tires
34000	37400
Tridem Axle 12 Tires	Tridem Axle 12 Tires
48000	52800
Quad Axle 16 Tires	Quad Axle 16 Tires
48000	52800

10% Weight Increases Are Not Allowed On The Interstate

North Dakota Department of Transportation Spring Load Restriction Classifications

Class	Single Axle	Tandem Axle	3 Axles or More	Gross Vehicle Weight
Restricted by Legal Weights	20,000 lbs.	34,000 lbs. – not to exceed 17,000 lbs. per axle	17,000 lbs./axle. On divisible loads the gross weight of the axle grouping may not exceed 48,000 lbs.	Not to exceed 105,500 lbs.
8-Ton	Not to exceed 16,000 lbs.	Not to exceed 16,000 lbs. per axle	14,000 lbs./axle. On divisible loads the gross weight of the axle grouping may not exceed 42,000 lbs.	Not to exceed 105,500 lbs.
7-Ton	Not to exceed 14,000 lbs.	Not to exceed 14,000 lbs. per axle	12,000 lbs./axle. On divisible loads the gross weight of the axle grouping may not exceed 36,000 lbs.	Not to exceed 105,500 lbs.
6-Ton	Not to exceed 12,000 lbs.	Not to exceed 12,000 lbs. per axle	10,000 lbs./axle. On divisible loads the gross weight of the axle grouping may not exceed 30,000 lbs.	Not to exceed 80,000 lbs.
5-Ton	Not to exceed 10,000 lbs.	Not to exceed 10,000 lbs. per axle	10,000 lbs./axle. On divisible loads the gross weight of the axle grouping may not exceed 30,000 lbs.	Not to exceed 80,000 lbs.