# NORTH DAKOTA WEIGHT LIMITATIONS CHART NORTH DAKOTA HIGHWAY PATROL

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.

V = 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.

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

Distance in feet between the extremes of any groups of 2 or			Maximum Load in	Pounds Carried on a	ny Group of 2 or More	Consecutive Axles		
more consecutive axles	2 Axles	3 Axles	4 Axles	5 Axles	6 Axles	7 Axles	8 Axles	9 Axles
4 5	34,000 34,000							
6	34,000							
7	34,000	34,000						
8	38,000	42,000						
9 10	39,000 40,000*	43,000 43,500						
11	10,000	44,500						
12		45,000	50,000					
13		46,000	50,500	E7 000				
14 15		46,500 47,500	51,500 52,000	57,000 57,500				
16		48,000	52,500	58,000				
17		49,000	53,500	58,500				
18 19		49,500 50,500	54,000 54,500	59,500 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 24		53,500 54,000	57,500 58,000	62,500 63,000	68,000 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 28		56,500 57,000	60,000 60,500	65,000 65,500	70,000 71,000	76,000 76,500	82,000	
28 29		57,000 58,000	61,500	66,000	71,000 71,500	76,500	82,500 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 33		60,000*	63,500 64,000	68,000 68,500	73,000 74,000	78,500 79,500	84,500 85,000	90,000 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 tand		66,000	70,500	75,500	81,000	86,500	92,500
37 38	gross load of 34,000 pounds overall distance between the		66,500 67,500	71,000 72,000	76,000 77,000	81,500 82,000	87,000 87,500	93,000 93,500
39	such consecutive sets of tand		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 43			70,000 70,500	74,500 75,000	79,000 80,000	84,500 85,000	90,000 90,500	95,500 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 47			72,500 73,500	77,000 77,500	81,500 82,000	87,000 87,500	92,500 93,000	98,000 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 52			76,000 76,500	80,000 80,500	84,500 85,000	90,000 90,500	95,000 95,500	100,500 101,500
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	0	L. O	78,500	82,500	87,000	92,000	97,500	103,000
56 57	Gross weight limit on intersta on county and other local hig		79,500 80,000*	83,000 83,500	87,500 88,000	92,500 93,500	98,000 98,500	103,500 104,000
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 61				85,500	90,000	95,000	100,500	105,500*
62				86,000 87,000	90,500 91,000	95,500 96,000	101,000 101,500	
63				87,500	92,000	97,000	102,000	
64				88,000	92,500	97,500	102,500	
65 66				88,500 89,500	93,000 93,500	98,000 98,500	103,000 103,500	
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 71				92,000 92,500	96,000 96,500	101,000 101,500		
72				93,000	97,000	102,000		
73				93,000 93,500	98,000	102,500		
74 75				94,500	98,500	103,000		
75 76				95,000 95,500	99,000 99,500	104,000 104,500		
77				96,000	100,000	105,000		
78				97,000	101,000	105,500*		
79 80				97,500	101,500			
80 81				98,000 98,500	102,000 102,500			
82				99,500	103 000			
83				100,000*	104,000 104,500			
84 85					104,500 105,000	*Maximum Gr	oss Weight	
85 86					105,000			
••					,			

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.

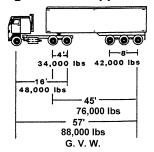
The weight per inch width of tire shall not exceed 550 pounds. Metric tire sizes are converted to inches by dividing millimeters by 25.4. The width of tire for solid tires shall be the rim width. For pneumatic tires the width of tire shall be the manufacturer's width. The weight in pounds on any one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

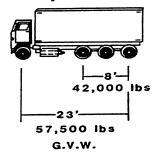
The weight on the steering axle shall be determined by the manufacturer's axle rating and shall not exceed 20,000 pounds when travel is on the interstate system or on Defense Highways. When travel is on Defense Highways, the load shall be for the US Department of Defense.

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	
7:50	8,250	16,500	16,500	33,000	24,750	_
8:00	8,800	17,600	17,600	34,000	26,400	<u>a</u>
8:25	9,075	18,150	18,150	34,000	27,225	Formula
9:00	9,900	19,800	19,800	34,000	29,700	Η̈́
10:00	11,000	20,000	22,000	34,000	33,000	Weight
11:00	12,100	20,000	24,200	34,000		We
12:00	13,200	20,000	26,400	34,000	> <u>a</u> <	by
13:00	14,300	20,000	28,600	34,000	d b mu	
14:00	15,400	20,000	30,800	34,000	ine -or	ji.
15:00	16,500	20,000	33,000	34,000	E H	ern
16:50	18,150	20,000	34,000	34,000	Determined by Weight Formula	Determined
17:50	19,250	20,000	34,000	34,000	□≥	_
18:00	19,800	20,000	34,000	34,000	11.1	

**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.

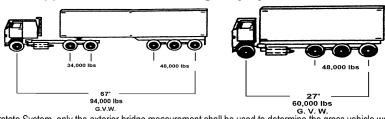
### Examples of Bridge Formula Application on the Interstate System





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 Metri	ic 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

= Radial

22.5 = Rim diameter (inches)