

(60'), for combination units not exceeding one hundred fifty feet (150'), and truck-trailer combination units not exceeding seventy-five feet (75'). Steering mechanisms may be required on rear axles of combination units;

(C) Overheight permits for all movements will be limited to a nonreducible combination of vehicle and load height not exceeding the vertical clearance of the structures on the most feasible direct route between origin and destination. Arrangements for the raising or removal of overhead lines will be the responsibility of the permittee. It is also the responsibility of the permittee to check all structures and overhead wires for clearances before movement;

(D) The movement of noncommercial buildings exceeding routine special permit dimension limitations will be determined on an individual basis dependent on building size, roadway and structure width and clearances, traffic volumes, and other applicable factors. Permits for movement of such buildings shall be issued by the district offices (see section (16));

(E) Movement of farm products (hay) up to, but not exceeding, fourteen feet (14') in width will be allowed by permit. These movements must comply with all existing Missouri oversize and overweight permit regulations except reference to reducible loads in subsection (1)(B) shall not apply. The hauling unit must be properly insured and licensed; and

(F) Night movement for hauling overwidth ten feet, six inches (10'6") and hay fourteen feet (14') in width will be allowed by single trip permit. Height and length must be legal. This movement will require a front and a rear escort on all two- (2-) lane and multi-lane undivided state highways. A rear escort is required on interstate and other dual lane divided state highways. Oversize load signs are required and shall be lighted or reflectorized. Clearance lights in lieu of flags shall be mounted at extreme ends or load projections when moving after daylight hours and/or when visibility is less than five hundred feet (500'). Continuous, uninterrupted two- (2-) way communication is required between the power unit and all escort vehicles. Movement is restricted for urban and tourist areas as outlined in subsections (9)(D) and (9)(E). Movement is restricted for holiday periods as outlined in subsection (1)(I).

(11) Regulations for Routine Overweight Permits. The following regulations apply to permit moves to transport nonreducible and nondivisible loads. See section (15) for super heavy and large load movement:

(A) Overweight permits may specify maximum and minimum speeds and method of vehicle operation to reduce hazards or control impact factors and load distribution on pavements and bridges. Overweight loads legal height and length, and not exceeding ten feet, six inches (10'6") wide or the gross weight limit as listed in subsection (11)(D) will be granted day

and night movement except travel during holiday and holiday weekend periods as listed in section (1) and except for movement in tourist areas listed in subsection (9)(D). All movements authorized under overweight permits will be over specified routes on the state highway system only;

(B) Axles included in booster axle, tandem axle, triple axle, or quadrum axle groups on all hauling units shall be equipped with dual wheels or equivalent tread width. When configuring trailers for hauling units with seven (7) or more axles, conventional axles or booster axles may be used for the addition of the single axle, tandem axle, or triple axle groups that may be placed at the end of the trailer. Definitions—

1. The term “axle” shall mean a common axis of rotation of one (1) or more wheels whether power-driven or freely rotating, and regardless of the number of wheels carried thereon;

2. The term “axle group” shall mean an assembly of two (2) or more consecutive axles considered together in determining their combined load effect on pavement or structures. Axle groups must have a common equalization system, which will equalize the load between or among axles in both static and dynamic conditions. Any combination of mechanically equalized axles with either air suspension or any other suspension system used to form axle groups is not allowed;

3. The term “spread axles” shall mean two (2) axles, which are more than ninety-six inches (96”) apart and are considered single axles;

4. The term “tandem axle” shall mean a group of two (2) or more axles arranged one (1) behind another, where the distance between the extreme centers is more than forty inches (40”) and not more than ninety-six inches (96”) apart;

5. The term “triple axle or tridem” shall mean a group of three (3) axles, which are fully equalized automatically or mechanically and the distance between the centers of the extreme is more than ninety-six inches (96”) and not more than one hundred forty-four inches (144”);

6. The term “quadrum axle” shall mean a group of four (4) axles, which are fully equalized automatically or mechanically, and the distance between the centers of the extreme is not more than one hundred ninety-two inches (192”);

7. The term “lift axle” shall mean any axle designed with the capabilities of manipulation or adjustment of the weight on it or the axle group by use of manual valve(s). Under no circumstances will “lift axles” be recognized in weight computations. An additional axle may be added to an existing axle group provided:

- A. All axles have a common equalization system; and
- B. All equalization is accomplished with automatic valves; and

8. The term “booster axle” shall mean an extension of a hauling unit, which when attached to the trailer adds a single axle, tandem, or triple axle group. To be acceptable, a booster axle must connect to the vehicle frame in such a manner as to equalize the load between axles;

(C) The allowable combination configurations for overweight special permits are as follows:

5-Axle Configurations

Single-Tandem-Tandem (1-2-2)

Single-Tandem-Spread (1-2-2)

Minimum distance between the centers of the first and last axles is fifty-one feet (51’).

Maximum gross weight allowed on a 5-axle configuration is one hundred four thousand (104,000) pounds.

6-Axle Configurations

Single-Tandem-Triple (1-2-3)

Single-Triple-Tandem (1-3-2)

Single-Tandem-Tandem-Single (1-2-2-1) (Alternative Configuration)

Minimum distance between the centers of the first and last axle is sixty-five feet (65’) for the alternative configuration and fifty-one feet (51’) for all other configurations.

Maximum gross weight allowed on a 6-axle configuration is one hundred twenty thousand (120,000) pounds.

For the alternative configuration, the minimum distance between the tandem axle groups shall be twenty-five feet (25’), and the minimum distance between the tandem axle group and single booster axle shall be fourteen feet (14’).

Lengths from forty-three feet (43’) up to fifty-one feet (51’) will be allowed for the (1-2-3) and (1-3-2) configurations provided that the maximum gross weight on these configurations does not exceed one hundred twelve thousand (112,000) pounds. When the configuration length is less than fifty-one feet (51’), the maximum gross weight on any tandem axle grouping shall be forty thousand (40,000) pounds and the maximum gross weight on any tridem axle grouping shall be sixty thousand (60,000) pounds.

7-Axle Configurations

Single-Triple-Triple (1-3-3) (Routine Configuration)

Single-Tandem-Quad (1-2-4) (Alternative Configuration)

Single-Tandem-Triple-Single (1-2-3-1)

Single-Triple-Tandem-Single (1-3-2-1)

Single-Tandem-Tandem-Tandem (1-2-2-2)

Minimum distance between the centers of the first and last axles is fifty-five feet (55') for the routine configuration, seventy-five feet (75') for the alternative configuration, and sixty-nine feet (69') for all other configurations.

The following axle group spacing limitation will apply to all of the configurations as shown above, but will not apply to the steering axle. A minimum distance of fourteen feet (14') shall be required between centers of adjacent axles on consecutive tandem, triple, and quad axle groupings and on single axles used in combination with these groupings.

Maximum gross weight allowed on a 7-axle configuration is one hundred thirty thousand (130,000) pounds for the alternative configuration, one hundred thirty-two thousand (132,000) pounds for the routine configuration, one hundred thirty-eight thousand (138,000) pounds for the 1-2-3-1 and 1-3-2-1 configurations, and one hundred fifty thousand (150,000) pounds for the 1-2-2-2 configuration.

8-Axle Configurations

- Single-Triple-Quad (1-3-4) (Routine Configuration)
- Single-Tandem-Tandem-Triple (1-2-2-3)
- Single-Triple-Triple-Single (1-3-3-1)
- Single-Triple-Triple-Single (1-3-3-1) (Alternative Configuration)
- Single-Triple-Tandem-Tandem (1-3-2-2)
- Single-Tandem-Triple-Tandem (1-2-3-2)

Minimum distance between the centers of the first and last axle is sixty-one feet (61') for the routine configuration and seventy-five feet (75') for all other configurations.

The following axle group spacing limitation will apply to all of the configurations as shown above, but will not apply to the steering axle. A minimum distance of fourteen feet (14') shall be required between centers of adjacent axles on consecutive tandem, triple, and quad axle groupings and on single axles used in combination with these groupings, except that a distance ranging from ten to thirteen feet, eleven inches (10'-13'11") shall be required between centers of the last adjacent triple-single axle grouping for the alternative configuration.

Maximum gross weight allowed on an 8-axle configuration is one hundred forty-four thousand (144,000) pounds for the routine and alternative configurations and one hundred sixty thousand (160,000) pounds for all other configurations. For the alternative configuration, the maximum allowable weight will be twelve thousand (12,000) pounds for the last single axle.

9-Axle Configurations

- Single-Triple-Tandem-Triple (1-3-2-3) (Routine Configuration)
- Single-Quad-Quad (1-4-4) (Alternative Configuration)
- Single-Double-Double-Quad (1-2-2-4) (Alternative Configuration 2)
- Single-Tandem-Triple-Triple (1-2-3-3)
- Single-Triple-Quad-Single (1-3-4-1)
- Single-Triple-Triple-Tandem (1-3-3-2)
- Single-Tandem-Tandem-Tandem-Tandem (1-2-2-2-2)
- Single-Tandem-Tandem-Triple-Single (1-2-2-3-1)

Minimum distance between the centers of the first and last axle is eighty-five feet (85') for the alternative configuration 2 and seventy-five feet (75') for all other configurations. The following axle group spacing limitation will apply to all of the configurations as shown above except for the alternative configuration and alternative configuration 2, but will not apply to the steering axle. A minimum of fourteen feet (14') shall be required between centers of adjacent axles on consecutive tandem, triple, and quad axle groupings and on single axles used in combination with these groupings. When the alternative configuration is used, a minimum distance of thirty feet (30') shall be required between centers of adjacent axles on the consecutive quad axle groupings. When the alternative configuration 2 is used, a minimum distance of thirty feet (30') shall be required between centers of adjacent axles on consecutive tandem and quad axle groupings.

Maximum gross weight allowed on a 9-axle configuration is one hundred fifty-six thousand (156,000) pounds for the alternative configuration and one hundred sixty thousand (160,000) pounds for all other configurations.

10-Axle Configurations

- Single-Triple-Triple-Triple (1-3-3-3) (Routine Configuration)
- Single-Tandem-Tandem-Tandem-Triple (1-2-2-2-3)
- Single-Triple-Tandem-Tandem-Tandem (1-3-2-2-2)
- Single-Tandem-Triple-Tandem-Tandem (1-2-3-2-2)
- Single-Tandem-Tandem-Triple-Tandem (1-2-2-3-2)
- Single-Tandem-Triple-Quad (1-2-3-4)

The minimum distance between the centers of the first and last axle is eighty-five feet (85') for all configurations.

The following axle group spacing limitation will apply to all of the configurations as shown above except for the routine configuration, but will not apply to the steering axle.

A minimum of fourteen feet (14') shall be required between centers of adjacent axles on consecutive tandem axle groupings; consecutive tandem and triple axle groupings; and consecutive triple axle groupings. A

minimum distance of twenty feet (20') shall be required between centers of adjacent axles on consecutive triple and quad axle groupings. When the routine configuration is used, a minimum distance of twenty feet (20') shall be required between centers of adjacent axles on the consecutive triple axle groupings.

When possible, the distribution of the loading to the various axle groupings should be done in a manner to equalize the loadings to all of the axles on the entire configuration. When full equalization between the axles on the configuration is not possible, the gross weight variation between the individual axles (excluding the steering axle) on the entire configuration shall not be more than twenty-five percent (25%).

The maximum gross weight allowed on a 10-axle configuration is one hundred sixty thousand (160,000) pounds.

11-Axle Configurations

Single-Tandem-Tandem-Triple-Triple (1-2-2-3-3)

Single-Tandem-Triple-Tandem-Triple (1-2-3-2-3)

Single-Triple-Tandem-Tandem-Triple (1-3-2-2-3)

Single-Triple-Triple-Tandem-Tandem (1-3-3-2-2)

Single-Triple-Tandem-Triple-Tandem (1-3-2-3-2)

Single-Tandem-Triple-Triple-Tandem (1-2-3-3-2)

Single-Triple-Triple-Quad (1-3-3-4)

The minimum distance between the centers of the first and last axle is eighty-five feet (85') for all configurations.

The following axle group spacing limitation will apply to all of the configurations as shown above, but will not apply to the steering axle. A minimum distance of fourteen feet (14') shall be required between centers of adjacent axles on consecutive tandem axle groupings; consecutive tandem and triple axle groupings; and consecutive triple axle groupings. A minimum distance of twenty feet (20') shall be required between centers of adjacent axles on consecutive triple and quad axle groupings.

When possible, the distribution of the loading to the various axle groupings should be done in a manner to equalize the loadings to all of the axles on the entire configuration.

When full equalization between the axles on the configuration is not possible, the gross weight variation between the individual axles (excluding the steering axle) on the entire configuration shall not be more than twenty-five percent (25%).

The maximum gross weight allowed on an 11-axle configuration is one hundred sixty thousand (160,000) pounds.

12-Axle Configurations

- Single-Tandem-Triple-Triple-Triple (1-2-3-3-3)
- Single-Triple-Tandem-Triple-Triple (1-3-2-3-3)
- Single-Triple-Triple-Tandem-Triple (1-3-3-2-3)
- Single-Triple-Triple-Triple-Tandem (1-3-3-3-2)
- Single-Triple-Quad-Quad (1-3-4-4)

The minimum distance between the centers of the first and last axle is eighty-five feet (85') for all configurations.

The following axle group spacing limitation will apply to all of the configurations as shown above, but will not apply to the steering axle. A minimum distance of fourteen feet (14') shall be required between centers of adjacent axles on consecutive tandem and triple axle groupings; and consecutive triple axle groupings. A minimum distance of twenty feet (20') shall be required between centers of adjacent axles on consecutive triple and quad axle groupings. A minimum distance of thirty feet (30') shall be required between centers of adjacent axles on the consecutive quad axle groupings.

When possible, the distribution of the loading to the various axle groupings should be done in a manner to equalize the loadings to all of the axles on the configuration.

When full equalization between the axles on the configuration is not possible, the gross weight variation between the individual axles (excluding the steering axle) on the entire configuration shall not be more than twenty-five percent (25%).

The maximum gross weight allowed on a 12-axle configuration is one hundred sixty thousand (160,000) pounds;

(D) The maximum allowable axle weights for permits are as follows:

1. Single axle—twenty thousand (20,000) pounds;
2. Tandem axle group—forty-six thousand (46,000) pounds, but not more than twenty-four thousand (24,000) pounds, for any axle of a multi-axle group;
3. Triple axle group—sixty thousand (60,000) pounds, but not more than twenty-one thousand (21,000) pounds, for any axle of a multi-axle group; and
4. Quadrum axle group—seventy-two thousand (72,000) pounds, but not more than nineteen thousand (19,000) pounds, for any axle of a quadrum axle group;

(E) Tractor trailer configurations with a maximum gross weight of one hundred sixty thousand (160,000) pounds or less that do not meet the length and weight restrictions outlined in subsections (11)(C) and (11)(D) may be considered for issuance as a routine overweight permit as long as they meet the length and weight criteria listed below and pass a bridge analysis for the structures located on the routes that the configuration will be traveling on.

The maximum allowable weight on a single axle that is not part of a group is twenty-two thousand four hundred (22,400) pounds.

The maximum allowable weight on a tandem axle group is forty-six thousand (46,000) pounds.

Within a tandem axle grouping, the maximum single axle weight is twenty-four thousand (24,000) pounds.

The maximum allowable weight on a triple axle group is sixty thousand (60,000) pounds.

Within triple and quadrum axle groupings, the maximum single axle weight is twenty-one thousand (21,000) pounds. The maximum allowable weight on a quadrum axle group is eighty thousand (80,000) pounds.

The minimum distance between the centers of the first and last axle of a 5-axle configuration is fifty feet (50').

The minimum distance between the centers of the first and last axle of a 6-axle configuration is fifty-five feet (55').

The minimum distance between the centers of the first and last axle of a 7-axle configuration is sixty feet (60').

The minimum distance between the centers of the first and last axle of an 8-axle configuration is sixty-five feet (65').

The minimum distance between the centers of the first and last axle of a 9-axle configuration is seventy feet (70').

The minimum distance between the centers of the first and last axle of a 10-axle, 11-axle, and 12-axle configuration is eighty feet (80').

(F) When it is necessary to move specialized equipment, such as mobile cranes, rock crushers, drilling equipment, or other equipment which cannot be reasonably reduced in weight to comply with legal weights, consideration shall be given for a special permit for these moves. The applicant must first give assurance that the unit has been reasonably reduced in weight and dimension (exclusive of attachments that are an intricate part necessary for the operation of the machine and/or machine adjustments necessary for weight distribution). After the weight has been reduced to a reasonable minimum, a special permit may be issued for weights not to exceed twenty thousand (20,000) pounds or legal weight

on a single axle, forty thousand (40,000) pounds on a tandem axle, sixty thousand (60,000) pounds on a triple axle group, or sixty thousand (60,000) pounds on a quadrum axle group. Axle and axle groups are defined in subsection (11)(B); and

(G) The maximum allowable gross weight in pounds for specialized equipment shall be determined by the number of axles and the distance between the external axles as indicated in the following chart:

Gross Weight Table

Specialized Equipment 2, 3, 4, 5, 6 Axles

Ft.	Legal Wt. 2 Axle	Permit Max. 2 Axle	Legal Wt. 3 Axle	Permit Max. 3 Axle	Legal Wt. 4 Axle	Permit Max. 4 Axle	Legal Wt. 5 Axle	Permit Max. 5 Axle	Legal Wt. 6 Axle	Permit Max. 6 Axle
4	34,000	40,000								
8	34,000	40,000	34,000	42,500						
9	39,000	40,000	42,500	53,125						
10	40,000	40,000	43,500	54,375						
11			44,000	55,000						
12			45,000	56,250	50,000	62,500				
13			45,500	56,875	50,500	63,125				
14			46,500	58,125	51,500	64,375				
15			47,000	58,750	52,000	65,000				
16			48,000	60,000	52,500	65,625	58,000	72,500		
17			48,500		53,500	66,875	58,500	73,125		
18			49,500		54,000	67,500	59,000	73,750		
19			50,000		54,500	68,125	60,000	75,000		
20			51,000		55,500	69,375	60,500	75,625	66,000	85,260
21			51,500		56,000	70,000	61,000	76,250	66,500	86,840
22			52,500		56,500	70,625	61,500	76,875	67,000	88,420
23			53,000		57,500	71,875	62,500	78,125	68,000	90,000
24			54,000		58,000	72,500	63,000	78,750	68,500	91,500
25			54,500		58,500	73,125	63,500	79,375	69,000	93,160
26			55,500		59,500	74,375	64,000	80,000	69,500	94,740
27			56,000		60,000	75,000	65,000	81,250	70,000	96,320
28			57,000		60,500	75,625	65,500	81,875	71,000	97,900
29			57,500		61,500	76,875	66,000	82,500	71,500	99,480

Ft.	Legal	Permit	Legal	Permit	Legal	Permit	Legal	Permit	Legal	Permit
	Wt.	Max.	Wt.	Max.	Wt.	Max.	Wt.	Max.	Wt.	Max.
	2 Axle	2 Axle	3 Axle	3 Axle	4 Axle	4 Axle	5 Axle	5 Axle	6 Axle	6 Axle
30			58,500		62,000	77,500	66,500	83,125	72,000	101,050
31			59,000		62,500	78,125	67,500	84,375	72,500	102,630
32			60,000		63,500	79,375	68,000	85,000	73,000	104,210
33					64,000	80,000	68,500	85,625	74,000	105,790
34					64,500		69,000	86,250	74,500	107,370
35					65,500		70,000	87,500	75,000	108,950
36					66,000		70,500	88,125	75,500	110,530
37					66,500		71,000	88,750	76,000	112,110
38					67,500		72,000	90,000	77,000	113,680
39					68,000		72,500	90,625	77,500	115,260
40					68,500		73,000	91,250	78,000	116,890
41					69,500		73,500	91,875	78,500	118,420
42					70,000		74,000	92,500	79,000	120,000
43					70,500		75,000	93,750	80,000	
44					71,500		75,500	94,375		
45					72,000		76,000	95,000		
46					72,500		76,500	95,625		
47					73,500		77,500	96,875		
48					74,000		78,000	97,500		
49					74,500		78,500	98,125		
50					75,500		79,000	98,750		
51					76,000		80,000	100,000		
52					76,500					
53					77,500					
54					78,000					

Ft.	Legal Wt. 2 Axle	Permit Max. 2 Axle	Legal Wt. 3 Axle	Permit Max. 3 Axle	Legal Wt. 4 Axle	Permit Max. 4 Axle	Legal Wt. 5 Axle	Permit Max. 5 Axle	Legal Wt. 6 Axle	Permit Max. 6 Axle
55					78,500					
56					79,500					
57					80,000					

Gross Weight Table

Specialized Equipment with 7, 8, 9 Axles

Ft.	Legal Wt. 7 Axle	Permit Max. 7 Axle	Legal Wt. 8 Axle	Permit Max. 8 Axle	Legal Wt. 9 Axle	Permit Max. 9 Axle
24	74,000	92,800				
25	74,500	94,400				
26	75,000	96,000				
27	75,500	97,600				
28	76,500	99,200				
29	77,000	100,800				
30	77,500	102,400				
31	78,000	104,000				
32	78,500	105,000				
33	79,000	107,200				
34	80,000	108,800		108,800		
35		110,400		110,400		
36		112,000		112,000		
37		113,600		113,600		
38		115,200		115,200		

Ft.	Legal Wt. 7 Axle	Permit Max. 7 Axle	Legal Wt. 8 Axle	Permit Max. 8 Axle	Legal Wt. 9 Axle	Permit Max. 9 Axle
39		116,800		116,800		
40		118,400		118,400		
41		120,000		120,000		
42		121,600		121,600		
43		123,200		123,200		123,200
44		124,800		124,800		124,800
45		126,400		126,400		126,400
46		128,000		128,000		128,000
47		129,600		129,600		129,600
48		131,200		131,200		131,200
49		132,800		132,800		132,800
50		134,400		134,400		134,400
51		135,520		136,000		136,000
52		136,640		137,600		137,600
53		137,760		139,200		139,200
54		138,880		140,800		140,800
55		140,000		142,400		142,400
56				144,000		144,000
57				144,800		144,800
58				145,600		145,600
59				146,400		146,400
60				147,200		147,200
61				148,000		148,000
62				148,800		148,800
63				149,600		149,600
64				150,000		150,000
65				151,200		151,200
66				152,000		152,000

If the specialized equipment exceeds the:

1. Allowable weight on an axle or axle group;
 2. Gross weight for the number of axles; or
 3. Does not meet the required axle spacings for the number of axles;
- the permit request will be considered according to the rules of section (15).

