

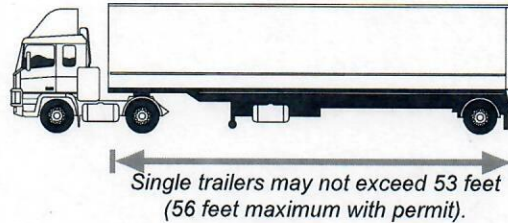
With harvest season of various commodities in full-swing, the Washington State Patrol Commercial Vehicle Division would like to provide a review on size, weight, and load. The following excerpts are taken out of the Commercial Vehicle Guidebook provided in conjunction with Washington State Department of Transportation and the Washington State Patrol.

The complete Commercial Vehicle Guidebook can be found at:

<http://www.wsdot.wa.gov/NR/rdonlyres/EE2D33C7-E6A0-4C58-9BD9-AE05C003B327/0/VehicleGuide.pdf>

If your group would like to schedule a presentation please contact Ms. Naomi Gilbert at (360) 596-3808.

**Only trailer and load constitute regulated length** unless the tractor also carries freight. Single trailers may not exceed 53 feet (56 feet maximum with permit). The legal length of combination vehicles may vary. For example, truck and trailer combinations may not exceed 75 feet. Two trailing units (doubles) may not exceed 61 feet (68 feet maximum with permit).



### Legal Weights

Gross vehicle weight (GVW) for a vehicle or a vehicle combination is determined by an overlapping set of three criteria: tire size, axle weight, and the weight table ([Appendix 3](#)). The lesser of any one of the criteria will govern the weight of any axle or axle group. For help in determining the legal gross vehicle weight, call the Commercial Vehicle Services Office at 360-704-6340.

Legal Weight Maximums	
Gross Vehicle Weight	105,500 pounds
Single Axle	20,000 pounds
Tandem Axle	34,000 pounds
Two Tire Axle	500 pounds per inch width,* except**
Steer Axle	600 pounds per inch width

\*As marked by the manufacturer on the sidewall. Metric conversion to inches: divide metric size by 25.4 (i.e., 285 ÷ 25.4 = 11.22 inches).

\*\*Fixed steer axles, driver operated, equipped with single tires are limited to 600 pounds per inch width. Other than the steer axle, axles carrying more than 10,000 pounds and equipped with single tires are limited to 500 pounds per inch width. For other exceptions, refer to [RCW 46.44.042 Maximum Gross Weights – Axle and Tire Factors](#).

## Appendix 2

## Tire Conversion Charts

### Non-Metric Tire Conversion Charts

Legal Tire Weights: 500/600 pounds per inch of tire width

\*Steer axle tires remain at 600 pounds per inch of tire width.

Tire Size	Single Tire Capacity		Two Tire Capacity		Four Tire Capacity	
8:25	4125	4950	8250	9900	16500	19800
9:00	4500	5400	9000	10800	18000	21600
10:00	5000	6000	10000	12000	20000	24000
11:00	5500	6600	11000	13200	22000	26400
12:00	6000	7200	12000	14400	24000	28800
13:00	6500	7800	13000	15600	26000	31200
14:00	7000	8400	14000	16800	28000	33600
15:00	7500	9000	15000	18000	30000	36000
16:00	8000	9600	16000	19200	32000	38400
18:00	9000	10800	18000	21600	36000	43200

Converting Inches to Decimals	
1"	0.08
2"	0.16
3"	0.25
4"	0.33
5"	0.41
6"	0.5
7"	0.58
8"	0.66
9"	0.75
10"	0.83
11"	0.91

Caution: Actual vehicle carrying capacity is determined by the tire size as well as axle spacings and Gross Vehicle Weight. See [Appendix 3, Axle Weight Table](#), for additional information.

### Metric Tire Conversion Chart

Legal Tire Weights Metric Dimensions: .03937 x the metric tire size x 500/600\*

Tire Size	Single Tire Axles		Tire Size	Single Tire Axles	
	500 lbs	600 lbs		500 lbs	600 lbs
135	5311	<b>6372</b>	225	8860	<b>10632</b>
145	5710	<b>6852</b>	235	9250	<b>11100</b>
155	6100	<b>7320</b>	240	9450	<b>11340</b>
165	6500	<b>7800</b>	245	9650	<b>11580</b>
175	6890	<b>8268</b>	255	10040	<b>12048</b>
180	7090	<b>8508</b>	275	10830	12996
185	7280	<b>8736</b>	280	11020	<b>13224</b>
190	7480	<b>8976</b>	285	11220	<b>13464</b>
195	7680	<b>9216</b>	295	11610	<b>13932</b>
200	7870	<b>9440</b>	315	12400	<b>14880</b>
205	8070	<b>9684</b>	365	14370	<b>17244</b>
215	8460	<b>10152</b>	385	15150	<b>18180</b>
220	8660	<b>10392</b>	425	16730	20076

Conversion Factor: Multiply millimeters by .03937 or divide millimeters by 25.4. Round off to hundredths of an inch.

Maximum load in pounds carried  
on any group of 2 or more  
consecutive axles

Distance in feet  
between the  
extremes of any  
group of 2 or  
more  
consecutive

	2	3	4	5	6	7	8	9
axles	axles	axles	axles	axles	axles	axles	axles	axles
4	34,000							
5	34,000							
6	34,000							
7	34,000							
8 & less	34,000	34,000						
more than 8	38,000	42,000						
9	39,000	42,500						
10	40,000	43,500						
11		44,000	<u>49,000</u>					
12		45,000	50,000					
13		45,500	50,500					
14		46,500	51,500	<u>56,500</u>				
15		47,000	52,000	<u>57,000</u>				
16		48,000	52,500	58,000				
17		48,500	53,500	58,500				
18		49,500	54,000	59,000	<u>64,500</u>			
19		50,000	54,500	60,000	<u>65,000</u>			
20		51,000	55,500	60,500	66,000			
21		51,500	56,000	61,000	66,500	<u>72,000</u>		
22		52,500	56,500	61,500	67,000	<u>72,500</u>		
23		53,000	57,500	62,500	68,000	<u>73,000</u>		
24		54,000	58,000	63,000	68,500	74,000		
25		54,500	58,500	63,500	69,000	74,500	<u>80,000</u>	
26		55,500	59,500	64,000	69,500	75,000	<u>80,500</u>	
27		56,000	60,000	65,000	70,000	75,500	<u>81,000</u>	

1	28	57,000	60,500	65,500	71,000	76,500	82,000	<u>87,500</u>
2	29	57,500	61,500	66,000	71,500	77,000	82,500	<u>88,000</u>
3	30	58,500	62,000	66,500	72,000	77,500	83,000	<u>88,500</u>
4	31	59,000	62,500	67,500	72,500	78,000	83,500	<u>89,000</u>
5	32	60,000	63,500	68,000	73,000	78,500	84,500	90,000
6	33		64,000	68,500	74,000	79,000	85,000	90,500
7	34		64,500	69,000	74,500	80,000	85,500	91,000
8	35		65,500	70,000	75,000	80,500	86,000	91,500
9	36		66,000	70,500	75,500	81,000	86,500	92,000
10	37		66,500	71,000	76,000	81,500	87,000	93,000
11	38		67,500	71,500	77,000	82,000	87,500	93,500
12	39		68,000	72,500	77,500	82,500	88,500	94,000
13	40		68,500	73,000	78,000	83,500	89,000	94,500
14	41		69,500	73,500	78,500	84,000	89,500	95,000
15	42		70,000	74,000	79,000	84,500	90,000	95,500
16	43		70,500	75,000	80,000	85,000	90,500	96,000
17	44		71,500	75,500	80,500	85,500	91,000	96,500
18	45		72,000	76,000	81,000	86,000	91,500	97,500
19	46		72,500	76,500	81,500	87,000	92,500	98,000
20	47		73,500	77,500	82,000	87,500	93,000	98,500
21	48		74,000	78,000	83,000	88,000	93,500	99,000
22	49		74,500	78,500	83,500	88,500	94,000	99,500
23	50		75,500	79,000	84,000	89,000	94,500	100,000
24	51		76,000	80,000	84,500	89,500	95,000	100,500
25	52		76,500	80,500	85,000	90,500	95,500	101,000
26	53		77,500	81,000	86,000	91,000	96,500	102,000
27	54		78,000	81,500	86,500	91,500	97,000	102,500
28	55		78,500	82,500	87,000	92,000	97,500	103,000
29	56		79,500	83,000	87,500	92,500	98,000	103,500
30	57		80,000	83,500	88,000	93,000	98,500	104,000
31	58			84,000	89,000	94,000	99,000	104,500
32	59			85,000	89,500	94,500	99,500	105,500
33	60			85,500	90,000	95,000	100,500	105,500
34	61			86,000	90,500	95,500	101,000	105,500
35	62			86,500	91,000	96,000	101,500	105,500
36	63			87,500	92,000	96,500	102,000	105,500

1	64	88,000	92,500	97,500	102,500	105,500
2	65	88,500	93,000	98,000	103,000	105,500
3	66	89,000	93,500	98,500	103,500	105,500
4	67	90,000	94,000	99,000	104,500	105,500
5	68	90,500	95,000	99,500	105,000	105,500
6	69	91,000	95,500	100,000	105,500	105,500
7	70	91,500	96,000	101,000	105,500	105,500
8	71	92,500	96,500	101,500	105,500	105,500
9	72	93,000	97,000	102,000	105,500	105,500
10	73	93,500	98,000	102,500	105,500	105,500
11	74	94,000	98,500	103,000	105,500	105,500
12	75	95,000	99,000	103,500	105,500	105,500
13	76	95,500	99,500	104,500	105,500	105,500
14	77	96,000	100,000	105,000	105,500	105,500
15	78	96,500	101,000	105,500	105,500	105,500
16	79	97,500	101,500	105,500	105,500	105,500
17	80	98,000	102,000	105,500	105,500	105,500
18	81	98,500	102,500	105,500	105,500	105,500
19	82	99,000	103,000	105,500	105,500	105,500
20	83	100,000	104,000	105,500	105,500	105,500
21	84		104,500	105,500	105,500	105,500
22	85		105,000	105,500	105,500	105,500
23	86 or more		105,500	105,500	105,500	105,500

24 When inches are involved: Under six inches take lower, six inches or  
25 over take higher. The maximum load on any axle in any group of axles  
26 shall not exceed the single axle or tandem axle allowance as set  
27 forth in the table above.

28 The maximum axle and gross weights specified in this section are  
29 subject to the braking requirements set up for the service brakes  
30 upon any motor vehicle or combination of vehicles as provided by law.

31 Loads of not more than eighty thousand pounds which may be  
32 legally hauled in the state bordering this state which also has a  
33 sales tax, are legal in this state when moving to a port district  
34 within four miles of the bordering state except on the interstate  
35 system. This provision does not allow the operation of a vehicle  
36 combination consisting of a truck tractor and three trailers.

1       Notwithstanding anything contained herein, a vehicle or  
2 combination of vehicles in operation on January 4, 1975, may operate  
3 upon the public highways of this state, including the interstate  
4 system within the meaning of section 127 of Title 23, United States  
5 Code, with an overall gross weight upon a group of two consecutive  
6 sets of dual axles which was lawful in this state under the laws,  
7 regulations, and procedures in effect in this state on January 4,  
8 1975.

Passed by the House February 16, 2016.

Passed by the Senate March 2, 2016.

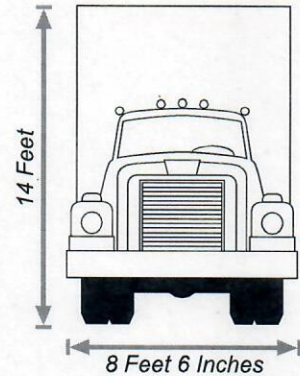
Approved by the Governor March 25, 2016.

Filed in Office of Secretary of State March 25, 2016.

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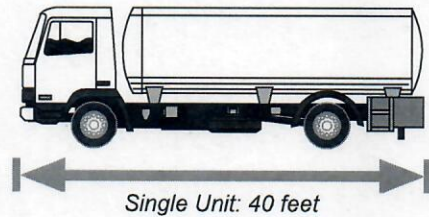
**Legal Dimensions**

Legal maximum **width** of a vehicle or load is 8 feet 6 inches. Vehicles/loads wider than this need permits. Overwidth vehicles/loads are subject to route curfews. Vehicle loads over 16 feet wide must submit a request to the CVS Office for approval to move.

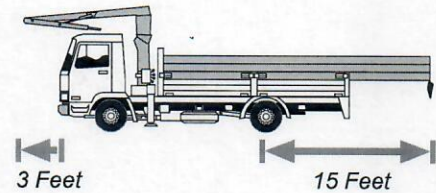


Legal maximum **height** is 14 feet. Vehicles or loads higher than this need a permit. Vehicles/non-divisible loads higher than 14 feet 6 inches must be accompanied by a front escort, with a height pole on all Washington highways (WAC 468-38-100(h)). Loads over 16 feet high must submit a request to the CVS Office for approval to move.

The legal **length** of a single unit, i.e., dump truck, box van, concrete pumper, is 40 feet. There are permits for front and rear overhang on these units; however, there are limitations to the amount of overhang a vehicle can have and still be able to travel during commuter and curfew hours.

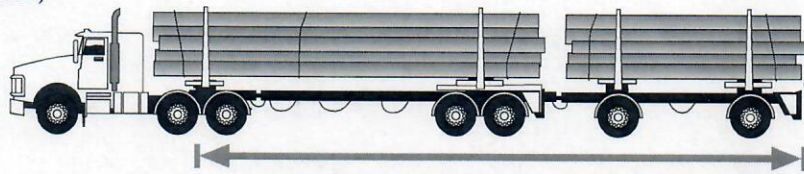


**Legal Overhangs** – Front overhang is 3 feet from the front of the normal bumper line. Rear overhang is 15 feet measured from the center of the last axle.



**A log truck and stinger-steered pole trailer** is limited to 75 feet in overall length, with or without load.

**The log truck, pole-trailer, trailer** combination, when loaded with two distinct loads of logs (as shown), will be treated like a set of doubles for measurement purposes.



Logging Trucks: Limited to 61 feet without permit (68 feet with permit).

Measurement will begin at the front of the first bunk and extend to the end of the second trailer or load, whichever is greater. Operation without permit is limited to 61 feet, and 68 feet with permit.

## Farm Permit Requirements – Farmers/Implement Dealers

A farm implement 16 feet wide or less does not require a permit when traveling on the highway system. A farm implement permit can be issued from over 16 feet wide, but less than 20 feet wide for one year.

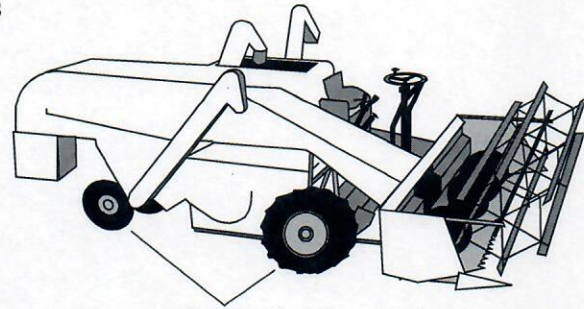
A quarterly or annual permit to move farm implements may be purchased by a farmer or by a person engaged in the business of selling or maintaining farm implements to move within a designated area, generally three to four counties. The permit is required to be physically present at the time of movement.

An original or faxed permit will allow the person or company identified on the permit to draw, drive, or haul any farm implement on state highways.

For farm implements over 16 feet wide, less than 16 feet in height, and less than 20 feet wide, a letter must be submitted for approval to the following address. The counties must be specified.

Commercial Vehicle Services  
7345 Linderson Way SW  
PO Box 47367  
Olympia, WA 98504-7367

Email: [cvspermits@wsdot.wa.gov](mailto:cvspermits@wsdot.wa.gov)  
Fax: 360-704-6391



Pneumatic tires or hard rubber tracks.

## Safety Requirements for Moving Farm Implements

### Oversize Signs

If the farm implement exceeds 10 feet wide, it must display “OVERSIZE LOAD” sign(s) visible to both oncoming and overtaking traffic. Signs must comply with the requirements of [WAC 468-38-155](#). If the implement is both preceded and followed by escort vehicles, a sign will not be required on the implement itself.

### Curfew/Commuter Hours

Movement of a farm implement in excess of 10 feet wide must also comply with any published curfew or commuter hour restrictions.

### Red Flags

If the farm implement, moving during daylight hours, exceeds 10 feet wide, the vehicle configuration must display clean, bright red flags at least 18 inches square, so as to wave freely at all four corners, or extremities, of the overwidth implement and at the extreme ends of all protrusions, projections, or overhangs.

## Warning Lights

Lamps and other lighting must be in compliance with [RCW 46.37.160](#) (hazard warning lights and reflectors on farm equipment). The slow moving vehicle emblem is for equipment moving at a speed of 25 miles per hour or less.

## Convoys

Farm implement convoys shall maintain at least 500 feet between vehicles to allow the traveling public room to pass safely. If five or more vehicles become lined up behind an implement, escorted or unescorted, the driver/operator of the transported implement, and escorts, if any, shall pull off the road at the first point wide enough to allow traffic to pass safely. Convoying of farm implements is permitted with properly equipped escort vehicles.

## Escort Vehicles

In general, the use of escort vehicles must comply with [WAC 468-38-100](#) (Pilot/Escort Vehicle and Operator Requirements).

## Road Posting

Posting signs along a route may be used in lieu of escort vehicles if the route to be traveled is less than 2 miles.

## Farm Permit Fees

Farmers in the course of farming activities, for any three-month period	\$10.00
Farmers in the course of farming activities, for a period not to exceed one year	\$25.00
Persons engaged in the business of the sale, repair, or maintenance of such farm implements, for any three-month period	\$25.00
Persons engaged in the business of the sale, repair, or maintenance of such farm implements, for a period not to exceed one year	\$100.00

## Procedures for the Movement of Overlegal Vehicles/Loads in Emergency Conditions

### Purpose

The following procedures are provided in order for state, and other jurisdictions, to safely secure the equipment necessary to mitigate the proclaimed emergency. Failure to comply with these procedures may result in compounding the emergency by damaging or eliminating available accesses.

### Criteria

- Emergent conditions where life or property is in immediate danger, including, but not limited to, oil spills, train derailment, power outages, or storm damage.
- All size and weight criteria, found in [RCW 46.44](#) and [WAC 468-38](#), for the permitted transport of overlegal vehicles/loads must be met.

## Permits for Overdimensional Loads

Permits will only be issued to transport loads that are non-divisible. *If the load or any part of the load can be reasonably reduced, it must be reduced.*

### Height

High loads must be carefully planned with an escort vehicle operator who is certified for Washington and is familiar with the area to be covered. Overheight loads often require detours on city streets and county roads, requiring their approval (see counties and cities list on page 4-25).

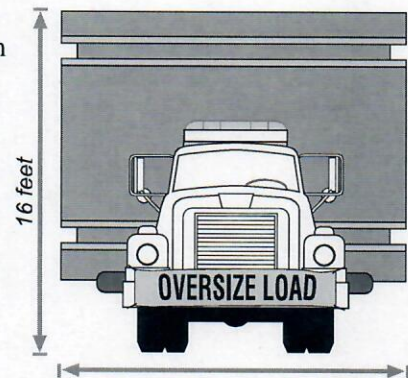
**Loads over 16 feet high (superload) must be fully explained in a Request for Approval application to the Commercial Vehicle Services Office.** The application process may require the inclusion of the need for the move, the route, the traffic control plan for the move, use of escort vehicles, and the dimensions of the combination and load.

A vehicle, or vehicle combination, hauling empty apple bins, or ranchers hauling hay from their own fields for use with their own livestock, may be issued a permit, for vehicle and load, not to exceed 15 feet high, measured from a level road surface.

### Width

The route for overwidth loads must also be discussed with an escort vehicle operator familiar with the area. Overwidth loads may require detours.

Loads over 16 feet wide (superload) **must be fully explained in a Request for Approval application to the Commercial Vehicle Services Office.** The application process may require the inclusion of the need for the move, the route, traffic control plan, escort vehicles, and the dimensions.



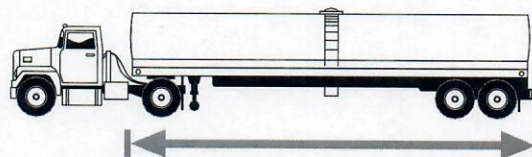
Loads over 16 feet must be fully explained in a superload request to the Commercial Vehicle Services Office.

### Length – Divisible Loads

Measurement for a single trailer will be from the front of the trailer, or load, to the rear of the trailer, or load, whichever provides the greater distance up to 56 feet. Measurement for double trailers will be from the front of the first trailer, or load, to the end of the second trailer or load, whichever provides the greatest distance up to 68 feet. Measurements shall not include nonload carry devices designed for the safe and efficient operations of the semi-trailer or trailer; for example: external refrigeration unit, resilient bumper, and aerodynamic shells.

The following are exempt from some restrictions:

- Single trailer permits.
- Double trailers permits.
- 61-foot non-divisible loads with legal overhangs.
- Vehicles with a front overhang not more than 4 feet beyond the 3-foot legal front overhang.
- Single Fixed Load Permit (must not exceed 45 feet overall length).



Measurement for a single trailer is up to 56 feet.



Measurement for a double trailer is up to 68 feet.