

# Changes to Implement of Husbandry Laws – Wisconsin Act 377

## Definition of Implement of Husbandry (IoH) 340.01(24)(a)

(1) A self-propelled or towed vehicle that is manufactured, designed or reconstructed to be used and that is exclusively used in the conduct of agricultural operations. An "implement of husbandry" may include any of the following:

- a. A farm tractor. (Referred to as Category A)
- b. A self-propelled combine; a self-propelled forage harvester; self-propelled fertilizer or pesticide application equipment but not including manure application equipment; towed tillage, planting, and cultivation equipment and its towing power unit; or another self-propelled vehicle that directly engages in harvesting farm products, directly applies fertilizer, spray, or seeds but not manure, or distributes feed to livestock. (Referred to as Category B)
- c. A farm wagon, farm trailer, manure trailer, or trailer adapted to be towed by, or to tow or pull, another implement of husbandry. (Referred to as Category C)

(2) A combination of vehicles in which each vehicle in the vehicle combination is an implement of husbandry as described in subd. 1. or in which an implement of husbandry described in subd. 1. c. is towed by a farm truck, farm truck tractor, or motor truck.

(b) "Implement of husbandry" does not include any of the following:

1. An agricultural commercial motor vehicle.
2. A vehicle that, notwithstanding s. 340.01 (8), is a commercial motor vehicle under 49 CFR 390.5<sup>1</sup>

## Definition of an Agricultural Commercial Motor Vehicle 340.01 (1o)

Agricultural Commercial Motor Vehicle (Ag CMV) means a commercial motor vehicle to which all of the following apply:

- a. Substantially designed or equipped, or materially altered from its original construction, for the purpose of agricultural use
- b. Designed and manufactured primarily for highway use
- c. Manufactured to meet federal motor vehicle safety standard certification label requirements 49 CFR 567, after 1970
- d. Used **exclusively** in the conduct of agricultural operations
- e. Is **directly** engaged in harvesting farm products, **directly** applies fertilizer, spray or seeds to a farm field, or **distributes** feed to livestock

<sup>1</sup> A commercial motor vehicle (CMV) in this definition is based on the federal definition. In this definition a CMV has a gross vehicle weight rating or gross combination weight rating, or gross vehicle weight or gross combination weight, of 10,000 pounds or more, whichever is greater.

## Dimensions

## Implement of Husbandry (IoH) – Defined by Act 377

### Width

No width limitations, however additional lighting and marking requirements for vehicles 15 feet in width or that extend over the center of the road are effective November 1, 2015

Also applies to IoH being operated or transported for delivery, service, repair by dealer or farmer within 75-mile radius of business or farm

### Height

No height limitations

Operator of IoH remains responsible for ensuring safe clearance of any overhead obstructions

### Length

#### Single vehicle

60 feet

No-fee permit may be required over 60 feet

#### 2 vehicle combination

100 feet

No-fee permit may be required over 100 feet

#### 3 vehicle combination

No more than 100 feet with speed restriction of 25 mph or less

OR 70 feet at a speed greater than 25 mph. No-fee permit may be required if exceeding 100 feet in length

See Ag CMV page for information on limits for two IoH units towed by a truck.

All length limits also apply to IoH being operated or transported for delivery, service, repair by dealer or farmer within 75-mile radius of business or farm. Beyond these dimensions, standard commercial (single or annual) permits are required

### Weight

New IoH/Ag CMV Maximum Weight Limits Table applies. This allows for a maximum single axle weight of 23,000 pounds and a gross vehicle weight of 92,000 pounds dependent on number of axles and axle spacing. See IoH/Ag CMV Maximum Weight Limits Table

Category B IoH must be given an approved route

No-fee permit may be required if gross vehicle weight or axle weight is greater than the IoH/Ag CMV Maximum Weight Table

- All operators must abide by seasonal or other special postings
- IoH/Ag CMV weight allowances do not apply on Interstate Highways. See §348.15 (9)(c)2.(d)

#### Exemptions:

- Empty potato harvester is exempt from axle weight limit. Also exempt from Class B postings
- A self-propelled combine, forage harvester, pesticide or fertilizer application equipment (not including manure application equipment), towed tillage, planting and cultivation equipment and its towing power unit; or another self-propelled vehicle that directly engages in harvesting farm products, directly applies fertilizer, towed tillage, planting and cultivation equipment and its towing power unit; or another self-propelled vehicle that directly spray, seeds or fertilizer (but not manure) or distributes feed to livestock – also referred to as a **Category B IoH** - is:
  - exempt from axle weight limits unless local road authority passes ordinance or resolution enforcing 23K axle weight.
  - exempt from gross vehicle weight and axle weight limits when operating between fields and operated on the hwy for a distance of 1/2 mile or less
  - exempt from Class B postings
- IoH traveling for delivery, service, repair by dealer or farmer within 75-mile radius of business or farm is exempt from gross vehicle weight and axle weight limits. Also exempt from Class B postings

### Other Changes

- Limits on hours of operation are eliminated
- Self-propelled IoH, including tractors, over 12 feet in width, must have yellow or amber rotating strobe or beacon light mounted at highest practical point, effective November 1, 2015
- All vehicles exceeding 15-feet in width must have front and rear warning lights on and reflective material visible anytime on highway, unless operating in daylight with an escort vehicle and two orange or red flags marking the outside edges, effective November 1, 2015. Vehicles exceeding 22 feet in width must have an escort vehicle with hazard flashers activated if they are traveling more than 1/2 mile.

For more information see the WisDOT website: <http://www.dot.wisconsin.gov/business/ag/index.htm>

Questions: [AgVehicles@dot.wi.gov](mailto:AgVehicles@dot.wi.gov)

Please contact your local equipment dealer for specific vehicle information.

Revised 7-24-14

## Lighting and Marking Requirements

Lighting and marking of implements of husbandry (IoH) are valuable safety features when operating on public roads. New regulations will take effect November 1, 2015 but may be followed at the present time. Many pieces of farm machinery have already been manufactured with the lighting and marking requirements that are now reflected in the law.



### Definitions:

**Wide implement of husbandry (wide IoH)** is a new definition for IoH with a total width in excess of 15 feet or that partly extends, when operated primarily on the right half of the roadway, over the center of the roadway into any lane intended for travel in the opposite direction. Wide IoH regulations will take effect November 1, 2015 but may be followed at the present time.

**Hours of Darkness** is the period of time from one-half hour after sunset to one-half hour before sunrise and all other times when there is not sufficient natural light to render clearly visible to any person or vehicle upon a highway at a distance of 500 feet.

### Current Marking Requirements

A slow-moving vehicle (SMV) emblem is a required marking on any type of IoH, including animal drawn, that *usually* travels at speeds less than 25 mph. It is to be displayed at all times on the most visible rear area of the vehicle or combination of vehicles. If a SMV emblem on a power unit is visible from rear and in compliance, then the towed units are not required to have an SMV emblem. It is allowable for two or three vehicle combinations to have more than one SMV emblem.

These emblems should be mounted pointing upward perpendicular to route of travel, with the lower edge 2 to 6 feet off the ground, and either centered or as near to the left of center of the equipment as practical. SMV emblems must be bright and clean, and should be replaced if faded.

### Current Lighting Requirements

Lights or lamps in the table below must be activated when operating on the road or parked in the right-of-way during hours of darkness.

<b>Self-propelled IoH including tractors</b>	<ul style="list-style-type: none"><li>• 2 white headlights</li><li>• At least 1 red tail lights If purchased with 2 red tail lights both must be working. Tail lights are to be mounted 20-72 inches off the ground.</li><li>• Work lights are prohibited for use on road or when parked in right-of-way.</li></ul>
<b>Towed IoH</b>	<ul style="list-style-type: none"><li>• 2 red tail lights or 2 red reflectors on the rear. (If manufactured before 1984, these IoHs are allowed to have only 1 lamp or 2 red reflectors on the rear.)</li><li>• Towed IoH that is more than 4 feet wide to the left side of the hitch must have an amber reflector at the widest point on the left side facing forward to warn on-coming traffic.</li></ul>
<b>3-vehicle trains</b>	1 red light or red or amber reflector must be located on each side of every vehicle in the train visible from a minimal distance of 500 feet.
<b>Animal-drawn vehicle</b>	<ul style="list-style-type: none"><li>• 1 white lamp visible from the front</li><li>• 2 red lamps or lanterns visible from the rear marking the width of the vehicle visible for 500 feet and mounted to indicate extreme width of the vehicle.</li></ul>

Operators have the responsibility at all times to warn or signal motorists of their intent to turn. Turn signal lights are acceptable but not required. Hand signals are also acceptable.

## New Wide IoH Lighting and Marking Requirements

In addition to the current requirements for lighting and marking, the following requirements apply based on the width of the IoH:

### Self-propelled IoH including farm tractors in excess of 12 feet:

Must be equipped with a 360-degree yellow or amber rotating strobe or beacon light, mounted at the highest practicable point or 2 flashing amber lights visible to the front and rear and activated at any time when operated on the road or parked in the right-of-way.

**At all times when operating on highway wide IoH in excess of 15 feet or that extend over the center line—must have:**

- At least 2 amber flashing warning lamps, visible from both the front and rear. Must be mounted, as nearly as practicable, to indicate the extreme width but not more than 16 inches from the lateral extremities.
- Red retroreflective material<sup>1</sup>, visible to the rear and mounted within 25 inches of the extreme left and extreme right of the IoH, spaced as evenly as practicable.
- At least 2 strips of yellow retroreflective material<sup>2</sup> visible to the front. On left and right sides of IoH, the outer edge of this material shall be mounted within 16 inches of the extreme left and extreme right of the IoH.
- At least 2 red tail lamps mounted to the rear of the IoH, or as close to the rear as practicable. These lamps are not required to be wired to light when headlamps or other lamps are activated. This provides for the use of battery powered tail lamps.
- Slow-moving vehicle (SMV) emblem is required.

**In addition, IoH wider than 22 feet traveling greater than 1/2 mile, must have an escort vehicle with hazard lights activated, on a highway with:**

- one lane of travel in each direction, the escort vehicle shall operate ahead of the wide IoH
- more than one lane for travel in each direction or on a 3-lane highway, escort vehicle shall operate behind wide IoH

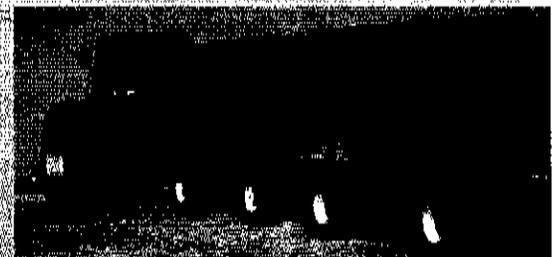
**At times other than hours of darkness<sup>3</sup> a wide IOH, may be operated on highway if all of the following apply:**

- Is accompanied by an escort vehicle operating with hazard lights activated.
- 2 orange or red flags, not less than 12 inches square, are attached to the rear of the wide IoH, or as close to

**Ag Train (3 vehicle combination) operating during hours of darkness are now allowed to use amber lights or reflectors. Ag trains, effective November 1, 2015, will be required to have one of the following on each side of each vehicle in the train:**

- One red or amber light
- One red or amber reflector
- One SMV emblem

The use of a red or orange flag has been rescinded.



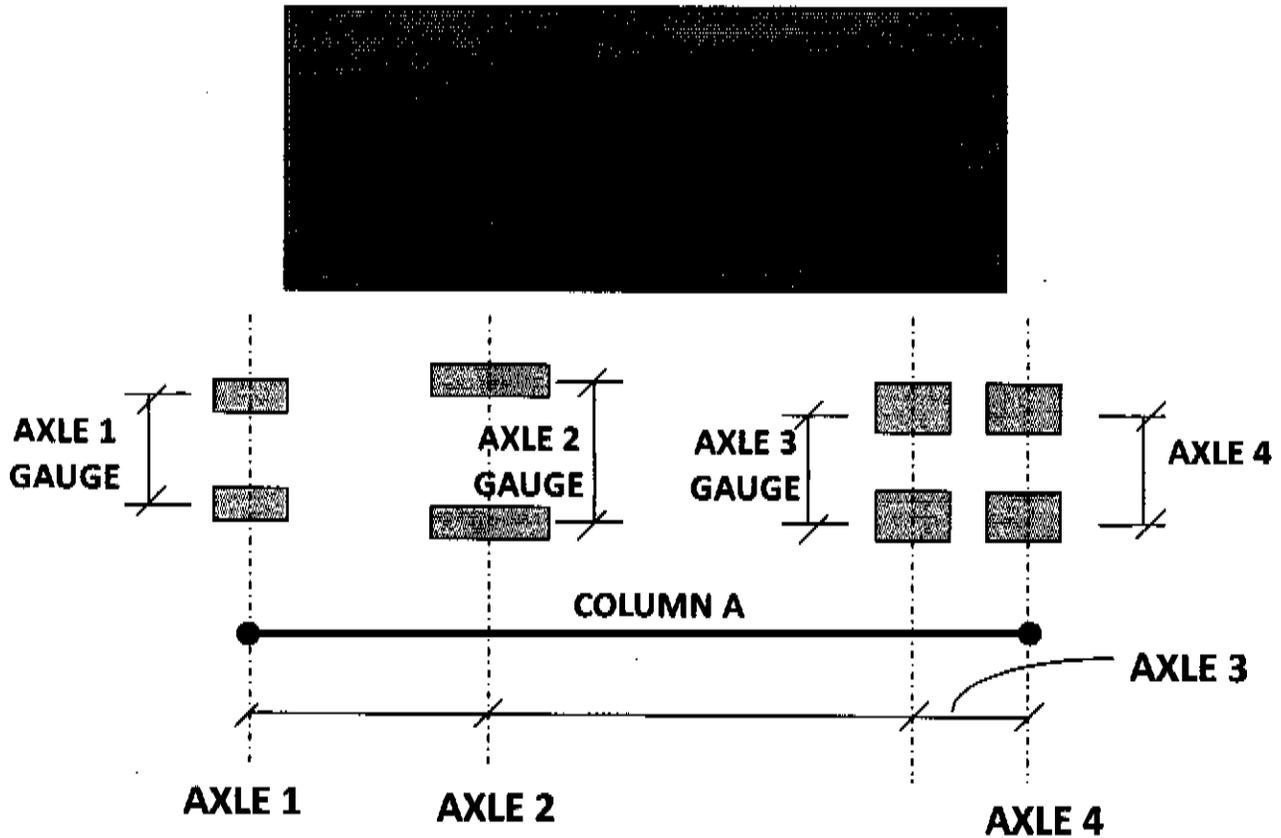
Dimensions	<b>Agricultural Commercial Motor Vehicle (Ag CMV) – Defined by Act 377</b>
<b>Width</b>	<p>Width limit is 10 feet including attachments or accessories</p> <p>Exception: Pesticide sprayers lime and fertilizer spreaders (not including manure) with extending tires, fenders or fender flares may not exceed 12 feet in width.</p>
<b>Height</b>	13 feet 6 inches
<b>Length Single vehicle</b>	<p>45 feet</p> <p>No-fee permit may be required over 45 feet</p>
<b>Length 2 vehicle combination</b>	<p>70 feet for single vehicle and trailer combination</p> <p>75 feet for truck tractor and semi-trailer combination</p> <p>No-Fee Permit may be required for operation beyond these lengths</p>
<b>Length 3 vehicle combination</b>	<p>No more than 100 feet with speed restriction of 25 mph or less <u>OR</u></p> <p>70 feet at a speed greater than 25 mph.</p> <p>Towed loH units in a train, being drawn by a motor truck, truck tractor, or agricultural commercial motor vehicle, must be empty. "Empty" means less than 20% full.</p> <p>No-fee permit may be required if exceeding 100 feet in length.</p> <p><i>Note: loH trailers must be empty 348.08(1)(d)</i></p>
<b>Weight</b>	<p>loH/Ag CMV Maximum Weight Limits table applies. This allows for a maximum single axle weight of 23,000 pounds and a gross vehicle weight of 92,000 pounds dependent on number of axles and axle spacing. See Maximum loH/Ag CMV Weight Limits Table.</p> <p>No-fee permit may be required if gross vehicle weight or axle weight is greater than the loH Weight Table.</p> <p>All operators must abide by seasonal or other special postings.</p> <p>loH Weight Limits do not apply on Interstate Highways. See §348.15 (9)(c)2.(d)</p> <p>Exemptions:</p> <ul style="list-style-type: none"> <li>• Ag CMVs traveling for delivery, service, repair by dealer or farmer within 75-mile radius of business or farm is exempt from gross vehicle weight and axle weight limits. Also exempt from Class B postings.</li> </ul>
<b>Other Changes</b>	<p>Ag CMVs are exempt from registration fees.</p> <p>Ag CMV self-certification is available and should be completed by vehicle owner.</p> <p>The Ag CMV Self-Certification is not required. It is provided as a convenient reference for operators and law enforcement.</p>

For more information see the WisDOT website: <http://www.dot.wisconsin.gov/business/ag/index.htm>

Questions: [AgVehicles@dot.wi.gov](mailto:AgVehicles@dot.wi.gov)

Please contact your local equipment dealer for specific vehicle information.

# Vehicle Measurements



## Measuring: {348.15(5m)}

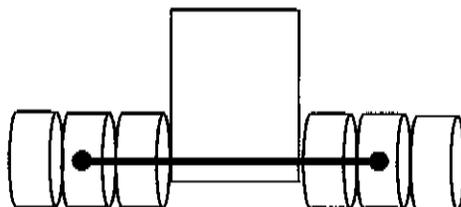
The distance between the foremost and rearmost of a group of axles shall be measured between axle CENTERS to the nearest even foot, and when a fraction is exactly one-half foot, the nearest larger whole number shall be used. Example: 50 feet 5 inches = 50 feet; 50 feet 6 inches = 51 feet

Axles must be at least 42 inches apart to qualify as a separate axle and must bear at least 8% of the GVW.

In 348.15(3)(c) single vehicles with 4, 5, 6 axles are already set 15% over the Federal Bridge Formula (FBF).

## What is axle gauge?

Axle gauge is the width from center of the right tire or group of tires to center of left tire or group of tires. Axle gauge will be used on the No-Fee Permit. A standard vehicle has an axle gauge of 6 feet. On IoH, axle gauge will vary and wider axle gauges distributing weight across a greater distance which is valuable in reviewing bridges on



### Implement of Husbandry/Ag CMV Maximum Weight Limitations Chart

[5348.15(3)(g)]

A - Distance in feet between foremost and rearmost axles of a group*	B - 2 axles of a vehicle or combination of vehicles	C - 3 axles of a vehicle or combination of vehicles	D - 4 axles of a vehicle or combination of vehicles	E - 5 axles of a vehicle or combination of vehicles	F - 6 axles of a vehicle or combination of vehicles	G - 7 Axles of a vehicle or combination of vehicles	H - 8 Axles of a vehicle or combination of vehicles
4	39,500						
5	40,500						
6	41,500						
7	43,000	47,500					
8	44,000	48,500					
9	45,000	49,500					
10	46,000	50,500	56,000				
11		51,000	57,000				
12		52,000	57,500				
13		53,000	58,500				
14		53,500	59,500	65,500			
15		54,500	60,000	66,000			
16		55,500	61,000	67,000			
17		56,500	61,500	67,500	74,000		
18		57,000	62,500	68,500	75,000		
19		58,000	63,000	69,000	75,500		
20		59,000	64,000	70,000	76,000		
21		60,000	64,500	70,500	77,000	83,500	
22		60,500	65,500	71,500	77,500	84,000	
23		61,500	66,000	72,000	78,000	84,500	
24		62,500	67,000	72,500	79,000	85,500	92,000
25		63,000	67,500	73,500	79,500	86,000	
26		64,000	68,500	74,000	80,500	86,500	
27		65,000	69,000	75,000	81,000	87,500	
28		66,000	70,000	75,500	81,500	88,000	
29		66,700	71,000	76,500	82,500	88,500	
30		67,275	71,500	77,000	83,000	89,500	
31		68,425	72,500	77,500	83,500	90,000	
32		69,000	73,000	78,500	84,500	90,500	
33			74,000	79,000	85,000	91,500	
34			74,500	80,000	86,000	92,000	
35			75,500	80,500	86,500		
36			76,000	81,500	87,000		
37			77,000	82,000	88,000		
38			77,500	83,000	88,500		
39			78,000	83,500	89,500		
40			79,000	84,000	90,000		
41			80,000	85,000	90,500		
42			80,500	85,500	91,500		
43			81,500	86,500	92,000		
44			82,500	87,000			
45			83,000	88,000			
46			84,000	88,500			
47			84,500	89,000			
48			85,500	90,000			
49			86,000	90,500			
50			87,000	91,500			
51			87,500	92,000			
52			88,500				
53			89,000				
54			90,000				
55			90,500				
56			91,500				
57			92,000				

\*Measuring: [348.15 (5m)]

The distances between the foremost and rearmost of a group of axles shall be measured between axle CENTERS to the nearest even foot, and when a fraction is exactly one-half foot, the nearest larger whole number shall be used. Example: 50 feet 5 inches = 50 feet; 50 feet 6 inches = 51 feet

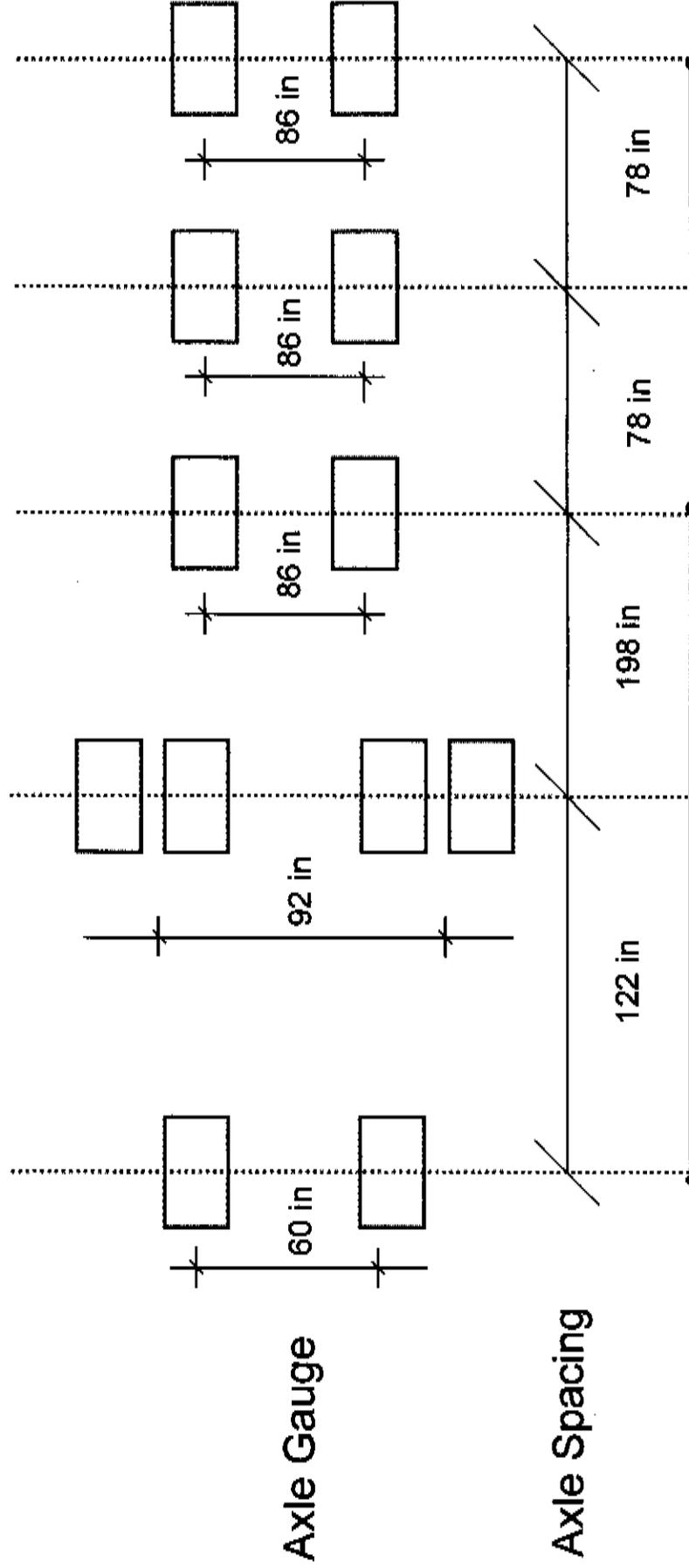
Axles must be at least 42 inches apart to qualify as a separate axle and must bear at least 8% of the GVW.

# Case IH 290 & Jamesway UltraTrac 7400

Total Weight = 51,700

Weight Table = 84,000

Available Load Weight = 32,300



Axle Gauge

Axle Spacing

Axle Weight

**Total front axle to rear axle = 476 in or 39.6 ft**

10,750 lbs

17,050 lbs

7,600 lbs

8,200 lbs

8,100 lbs

## ACT 377 – Local Government Options

Below is a summary of options local governments may take to govern loH and AG CMV operation on their roads. Note:

Category B must be given route – but may include conditions for operation.  
Permits may not be given to exceed limits on posted bridges.

Options	Action	Communication	Permit	Result
<b>A</b> Posting Approach (§349.16)	May increase road postings limiting weight below 23K/92K/Wt Table	No publication required – but roads must be posted	Must respond to permit applications	Could post notice giving commodities/vehicles exemptions (e.g. milk trucks and Category B). §349.16 (3)
<b>B</b> Total Opt Out §348.27 (19)5.a.	No weight or length limit on any jurisdiction road for loH or Ag CMVs	Must pass and post/publish ordinance or resolution. Also posted on DOT website.	No permits necessary	loH or Ag CMVs of any weight or length can run on roads subject to seasonal and special postings
<b>C</b> Partial Opt Out I	Sets weight limit above 23K/92K/Wt Table on all roads under jurisdiction	Must pass and post/publish ordinance or resolution. Also posted on DOT website.	Must respond to permit applications	loH or Ag CMVs can run up to set limits without permit subject to seasonal and special postings
<b>D</b> Partial Opt Out II §348.27 (19)5.c.	Designates roads for over-weight/over-length loH and Ag CMVs	Must pass and post/publish ordinance or resolution. Also posted on DOT website.	Must respond to permit applications	loH or Ag CMVs can run up to set limits on designated roads without permit subject to seasonal and special postings
<b>E</b> Opt In §348.15 (9)(f)2.a. State highways fall into this category	Pass ordinance requiring Category B and all loH/Ag CMVs to follow 23K/92K/Wt Table	Must pass and post/publish ordinance or resolution. Also posted on DOT website.  State Highway operate like this per 348.15 (9)(f)3	Must respond to permit applications	loH and Ag CMVs must apply for permit to exceed 23K/92K/Wt Table
<b>F</b> Abides by Act 377	No special action taken – 23K/92K/Table governs loH and Ag CMVs – except Category B (no axle limit/ 92K GVW)	No publishing required	Must respond to permit applications	loH and Ag CMVs must apply for permit to exceed 23K/92K/Wt Table; Category B must apply for permit to exceed 92K GVW

## Rules of the Road

Changes to the law provided clarity in regards to wide IoH (in excess of 15 feet) with required lighting and marking requirements may:

- Extend over the center of road into the lane intended for travel in opposite direction.
- Extend into passing lane on a 3-lane highway.
- Extend into another lane intended for travel in the same direction, if it does not impede other vehicles from the rear.

### However, operators:

- Must yield the right of way to an oncoming vehicle and yield half the roadway.
- May not drive on the left side of the roadway on a grade or curve or area designated as no passing zone if it creates a hazard to oncoming traffic..
- May not drive so slowly as to impede the normal movement of traffic.

## For Further Information:

Additional information and Frequently Asked Questions (FAQ) are available on the WisDOT website at [www.AgVehicles.DOT.wi.gov](http://www.AgVehicles.DOT.wi.gov)

Your questions may also be emailed to [AgVehicles@dot.wi.gov](mailto:AgVehicles@dot.wi.gov) or you may receive assistance by contacting the State Highway Permit Department at 608-266-7320.

This information was prepared by the Education and Outreach Committee of the IoH Study Group, representing:

- Wisconsin Department of Transportation,
- Wisconsin Department of Agricultural Trade and Consumer Protection,
- University of Wisconsin Extension/Madison,
- Wisconsin Farm Bureau Federation,
- Wisconsin Towns Association,
- Wisconsin Independent Business Agri-Business Coalition,
- Professional Nutrient Applicators Association of Wisconsin and
- Wisconsin Custom Operators.

Information is provided as guidance. For legal reference see Wisconsin Act 377 available at [www.wisconsin.gov](http://www.wisconsin.gov).

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