Council of Ministers Responsible for Transportation and Highway Safety

Memorandum of Understanding Respecting the Harmonization of Permit Conditions for the Movement of Bales Across Manitoba, Saskatchewan, Alberta & in the Peace River Block in British Columbia

Amendment History:

Originally signed:	

Council of Ministers Responsible for Transportation and Highway Safety

Memorandum of Understanding Respecting the Harmonization of Permit Conditions for the Movement of Bales

This Memorandum of Understanding

ENTERED INTO this 18th day of November, A.D. 2002 by and between

The Government of British Columbia herein represented by the Minister of Transportation

and

The Government of Manitoba herein represented by the Minister of Transportation and Government Services

and

The Government of Saskatchewan herein represented by the Minister of Highways and Transportation

and

The Government of Alberta herein represented by the Minister of Transportation

Hereinafter referred to as the Parties

Memorandum of Understanding Respecting the Harmonization of Permit Conditions for the Movement of Bales

Whereas, each province and territory in Canada has exercised its authority to legislate the weights and dimensions of vehicles operating on highways within its boundaries;

Whereas, the Government of Canada has adopted the Motor Vehicle Transport Act, the Motor Vehicle Safety Act, and the Motor Vehicle Tire Safety Act;

Whereas, there is concern about the fact that such legislation affects the efficiency of transportation, and of interprovincial and international transportation in particular;

Whereas, the coordination of legislation on the weights and dimensions of vehicles operating on highways is needed to ensure the protection of the public highway system and highway safety;

Whereas, the provincial governments recognize that they have specific responsibilities for the safety of all users of their respective highway systems;

Whereas, the provincial governments look for economic compromises designed to protect the highway system while increasing productivity in the trucking industry in the region;

Whereas it is desirable to establish standards for vehicle weights and dimensions which ensure the protection of public highway safety; and

Whereas the demand for bales has resulted in a shift from traditional short hauls to long hauls throughout the region;

Therefore, the parties to this Memorandum agree to the following:

Article 1: Purpose

1.1 The parties to the Memorandum of Understanding are intent on reducing the barriers to efficient and cost-effective interjurisdictional transportation of bales by agreeing to standards for vehicle dimensions.

For this purpose, each jurisdiction will allow all vehicles which meet the requirements stipulated in this Memorandum to operate on their provincial highway system at the weights normally allowed on their highways according to the applicable legislation governing vehicle weights and dimensions.

It is recognized that jurisdictions may allow vehicles to operate at dimensions, which are less restrictive than the limits stipulated in this Memorandum of Understanding.

Article 2: Implementation

2.1 The parties recognize that the vehicles identified in this Memorandum are not being considered for overweight permits. For the purposes of this Memorandum, they shall comply with the weights normally allowed in the appropriate regulations in each province.

2.2 The parties undertake to implement this Memorandum of Understanding no later than January 1, 2003.

2.3 The parties will monitor the implementation of this Memorandum through the Western Regional Task Force on Vehicle Weight and Dimension Policy.

Article 3: Basic Principles & Applicability

3.1 This Memorandum shall apply to the following vehicle configurations:

Category 1: Tractor Semi Trailer
Category 2: A, B or C Train Double

3.2 **Permits for overweight vehicles hauling bales are not available.** The axle loads and Gross Vehicle Weight for any vehicle hauling bales shall not exceed the limits stipulated for each axle and vehicle type within the local legislation or policy.

3.3 The axle loading shall not exceed the lesser of the maximum rated capacity of any single component of the axle, suspension or braking system, the rated capacity of the tires, or 10 kg/mm of tire width (with a minimum tire width of 150 mm).

3.4 Each semi trailer shall have only one axle group consisting of either a single axle or a tandem or tridem group that will achieve equalized load sharing between axles in the group. This does not necessarily preclude the use of independently suspended axles provided load equalization can be demonstrated.

3.5 Any trailer modifications, including extensions or outriggers must be designed and constructed to an acceptable standard.

3.6 No vehicle shall carry more bales on an upper tier than are being carried on the lower tier, except for a double drop deck trailer if the top of the bottom tier forms a level platform for the second tier to be loaded over the entire length of the trailer. For this loading arrangement, the lower tier shall be considered to be the first tier loaded over the entire length of the trailer.

3.7 The maximum overall length of any vehicle shall not exceed of 25.0 m.

3.8 All extensions and outriggers should be retracted or folded to be within the maximum overall width of 3.05 m when empty.

3.9 The longitudinal clear space between the load on the lead trailer and the load on the second trailer of an A, B or C-train shall be a minimum of 1.0 m measured parallel to the ground when the trailers are aligned.

3.10 All bales shall be supported such that no more than one third (1/3) of any bale extends beyond the edge of the trailer deck or hayrack.

3.11 In recognition that these vehicles are being used for long haul interprovincial movement, irrespective of its registration classification, the vehicle shall be inspected according to the normal practices for commercial vehicle inspections at a recognized commercial vehicle inspection station.

3.12 All permit vehicles must comply with the conditions identified in Appendices B, C, D and E of this memorandum.

3.13 The dimensions shown in Appendix B are for the loaded vehicle. Additional permits may be required for the empty vehicle if it exceeds the maximum dimensions identified in each province's regulations.

3.14 Although each province agrees to allow access to the vehicles identified in Appendix B, they may impose restrictions to reflect local concerns. Those restrictions are identified in Appendix E.

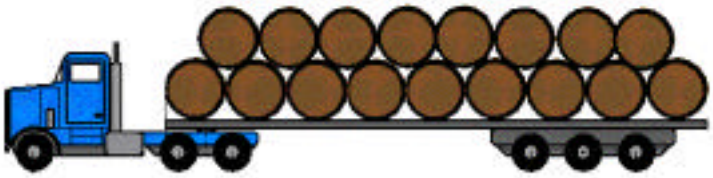
3.15 The conditions identified in this MOU reflect the requirements for transporting bales and are not intended to reflect all vehicle requirements, such as lights or headache racks, which may be included in provincial or federal regulations.

APPENDIX A

COMMON LOADING STYLES FOR ROUND BALES

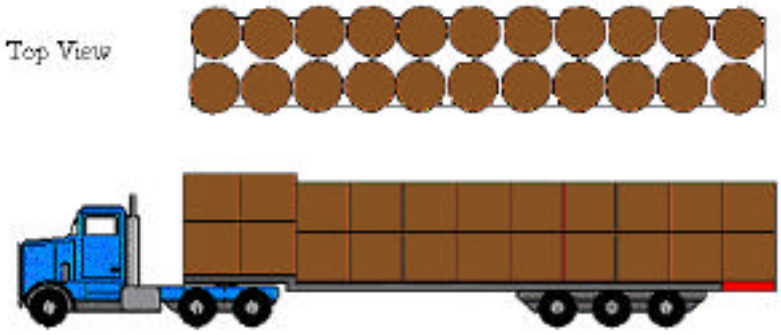
Common Loading Styles for Round Bales:

Crosswise



Pipe Style

Barrel Style

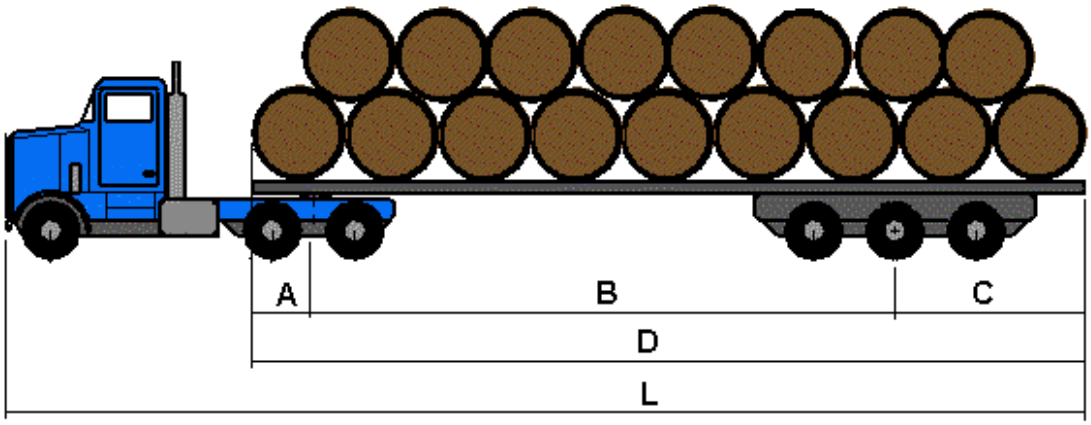


Mushroom Style *(bottom tier loaded barrel style and tip tier loaded pipestyle)*

APPENDIX B

VEHICLE DIMENSIONS AND PERMIT REQUIREMENTS

Category 1: Tractor Semi Trailer – Round Bales Loaded Crosswise

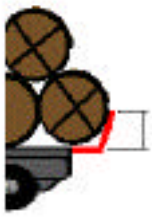


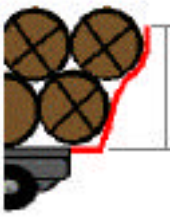
DIMENSION	LIMIT
Overall Length (L)	Maximum 23 m
Overall Width (outside to outside of load or vehicle)	Maximum 3.85 m
Overall Height (ground to top of load)	Maximum 4.8 m
Tractor	
Wheelbase	Maximum 6.2 m
Tandem Axle Spread	Minimum 1.2 m/Maximum 1.85 m
Semi Trailer	
Length (D)	Maximum 16.2 m
Wheelbase (B)	Minimum 6.25 m/Maximum 12.5 m
Front of Load to Kingpin (A)	Maximum 1.5 m
Effective Rear Overhang (C)	Maximum 35% of wheelbase
Tandem Axle Spread	Minimum 1.2 m/Maximum 1.85 m
Tridem Axle Spread	Minimum 2.4 m/Maximum 3.7 m
Track Width	Minimum 2.5 m/Maximum 2.6 m

Category 1: Tractor Semi Trailer – Round Bales Loaded Crosswise

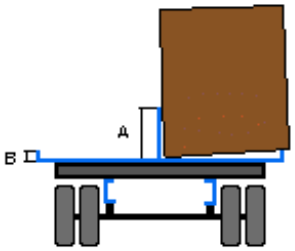
Note: In Alberta, permits are available for this configuration to a maximum load length of 18.4 m and maximum overall length of 25 m if it has front, rear and center bulkheads, and edge rails to support the load. However, the increased lengths can be achieved only with the support racks; the trailer (excluding the racks) must comply with the maximum 16.2 m length.

- Front and rear bulkheads supporting the lower layer of round bales must extend at least 0.6 m above the deck
- Bulkheads supporting the lower and upper layers of round bales must extend at least 2.4 m above the deck. Double high bulkhead may only be used at one end of the trailer because the number of bales on the upper layer cannot exceed the number on the lower layer





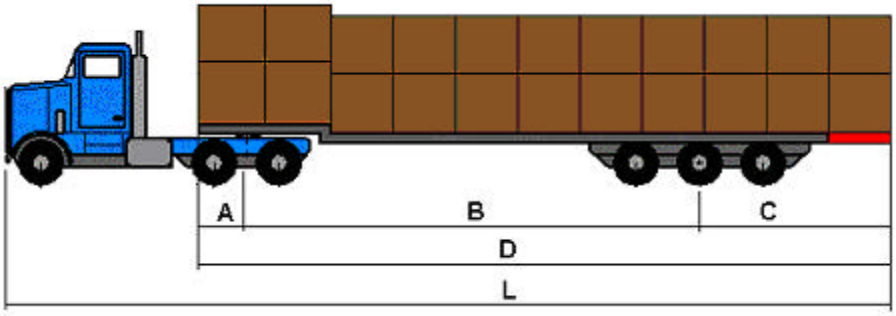
- Center bulkheads (A) consist of a horizontal rail running the length of the trailer and supported at intervals by vertical supports.
- The bulkhead must be at least 0.6 m above the deck of the trailer and ideally should extend into the upper layer of bales.
- It must be made of a minimum 50 mm round or square metal tubing.
- When the bales are loaded, they must make contact with the bulkhead.



- Edge rails (B) must be located as close to the deck or rack as possible.
- The top of the rail must be at least 0.1 m above the top of the deck or rack.
- The rail must be of sufficient strength to support the bales.

Note: In British Columbia, permits are available for this configuration allowing the load length can exceed 16.2 m but the overall vehicle length cannot exceed 23 m. The front and rear bulkheads must extend at least 1.2 m above the deck.

Category 1: Tractor Semi Trailer – Round Bales All Other Loading Styles

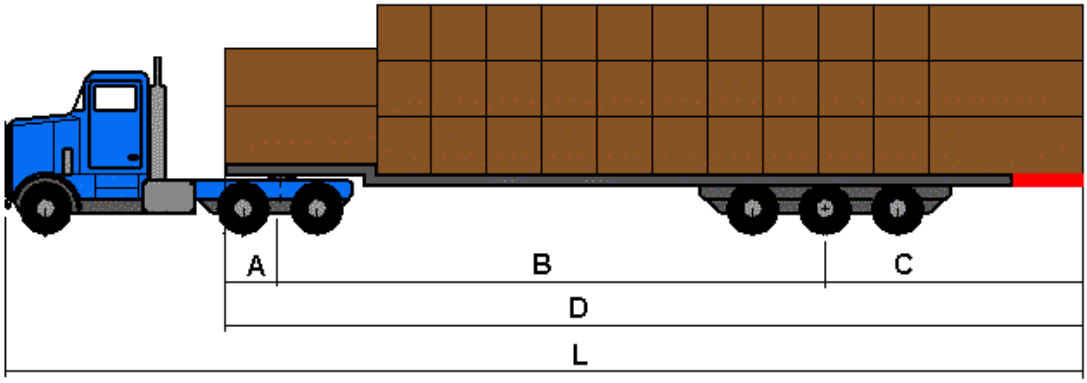


DIMENSION	LIMIT
Overall Length (L)	Maximum 23 m
Overall Width (outside to outside of load)	Maximum 3.85 m
Overall Height (ground to top of load)	Maximum 4.8 m
Tractor	
Wheelbase	Maximum 6.2 m
Tandem Axle Spread	Minimum 1.2 m/Maximum 1.85 m
Semi Trailer	
Length (D)	Maximum 16.2 m
Wheelbase (B)	Minimum 6.25 m/Maximum 12.5 m
Front of Load to Kingpin (A)	Maximum 1.5 m
Effective Rear Overhang (C)	Maximum 35% of wheelbase
Tandem Axle Spread	Minimum 1.2 m/Maximum 1.85 m
Tridem Axle Spread	Minimum 2.4 m/Maximum 3.7 m
Track Width	Minimum 2.5 m/Maximum 2.6 m

Note: Alberta allows this configuration to a maximum load length of 18.4 m and overall length of 25 m. However, the increased lengths can be achieved only with the support racks; the trailer (excluding the racks) must comply with the maximum 16.2 m length.

Note: British Columbia allows extensions to this configuration so it exceeds the maximum load length of 16.2 m, but the overall length cannot exceed 23 m.

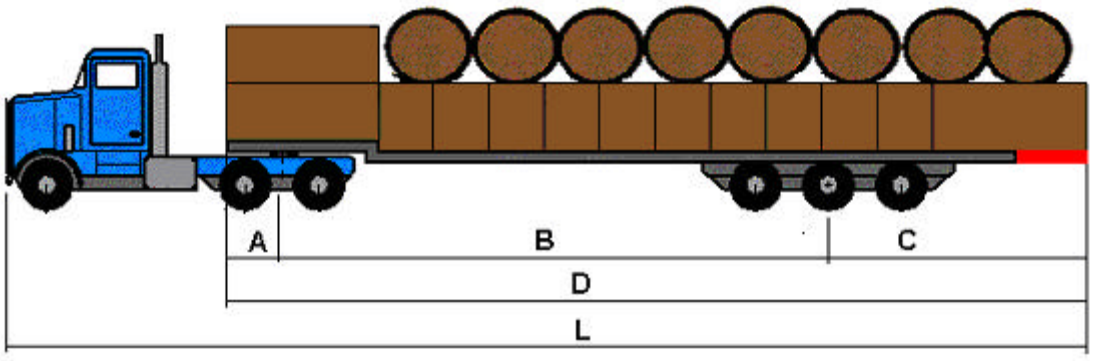
Category 1: Tractor Semi Trailer – Rectangular Bales



DIMENSION	LIMIT
Overall Length (L)	Maximum 23 m
Overall Width (outside to outside of load)	Maximum 3.85 m (MB, SK & AB) Maximum 3.05 m (BC)
Overall Height (ground to top of load)	Maximum 4.8 m
Tractor	
Wheelbase	Maximum 6.2 m
Tandem Axle Spread	Minimum 1.2 m/Maximum 1.85 m
Semi Trailer	
Length (D)	Maximum 16.2 m
Wheelbase (B)	Minimum 6.25 m/Maximum 12.5 m
Front of Load to Kingpin (A)	Maximum 1.5 m
Effective Rear Overhang (C)	Maximum 35% of wheelbase
Tandem Axle Spread	Minimum 1.2 m/Maximum 1.85 m
Tridem Axle Spread	Minimum 2.4 m/Maximum 3.7 m
Track Width	Minimum 2.5 m/Maximum 2.6 m

Note: Alberta allows this configuration to a maximum load length of 18.4 m and overall length of 25 m. However, the increased lengths can be achieved only with the support racks; the trailer (excluding the racks) must comply with the maximum 16.2 m length.

Category 1: Tractor Semi Trailer – Rectangular & Round Bales in Combination

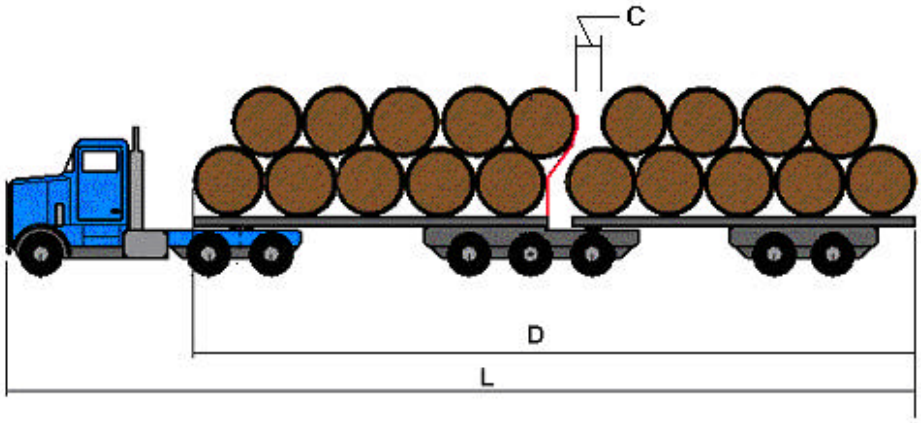


Note: Round and rectangular bales can be loaded in any combination only if the rectangular bales form the base tier and the round bales form the upper tier.

DIMENSION	LIMIT
Overall Length (L)	Maximum 23 m
Overall Width (outside to outside of load)	Maximum 3.85 m (MB, SK & AB) Maximum 3.05 m (BC)
Overall Height (ground to top of load)	Maximum 4.8 m
Tractor	
Wheelbase	Maximum 6.2 m
Tandem Axle Spread	Minimum 1.2 m/Maximum 1.85 m
Semi Trailer	
Length (D)	Maximum 16.2 m
Wheelbase (B)	Minimum 6.25 m/Maximum 12.5 m
Front of Load to Kingpin (A)	Maximum 1.5 m
Effective Rear Overhang (C)	Maximum 35% of wheelbase
Tandem Axle Spread	Minimum 1.2 m/Maximum 1.85 m
Tridem Axle Spread	Minimum 2.4 m/Maximum 3.7 m
Track Width	Minimum 2.5 m/Maximum 2.6 m

Note: Alberta allows this configuration to a maximum load length of 18.4 m and overall length of 25 m. However, the increased lengths can be achieved only with the support racks; the trailer (excluding the racks) must comply with the maximum 16.2 m length.

Category 2: A, B or C-Train Double – Round Bales Loaded Crosswise



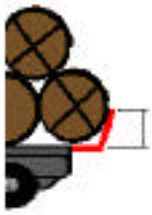
DIMENSION	LIMIT
Overall Length (L)	Maximum 25 m
Overall Width (outside to outside of load or vehicle)	Maximum 3.85 m
Overall Height (ground to top of load)	Maximum 4.8 m
Box Length (D)	Maximum 20.0 m
Tractor	
Wheelbase	Maximum 6.2 m
Tandem Axle Spread	Minimum 1.2 m/Maximum 1.85 m
Lead Semi Trailer	
Wheelbase	Minimum 6.25 m
Front of Load to Kingpin	Maximum 1.5 m
Tandem Axle Spread	Minimum 1.2 m/Maximum 1.85 m
Tridem Axle Spread	Minimum 2.4 m/Maximum 3.1 m
Track Width	Minimum 2.5 m/Maximum 2.6 m
Fifth Wheel Position for the B-train	Maximum 0.3 m behind the centre of the rearmost axle on the semi trailer
Second Semi Trailer	
Wheelbase	Minimum 6.25 m
Tandem Axle Spread	Minimum 1.2 m/Maximum 1.85 m
Tridem Axle Spread	Minimum 2.4 m/Maximum 3.1 m
Track Width	Minimum 2.5 m/Maximum 2.6 m
Sum of Semi Trailer Wheelbases for the B-train	Maximum 17.0 m
Clearance between Trailers (C)	Minimum 1.0 m

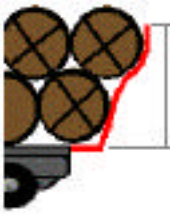
Note: Alberta allows this configuration with a maximum box length of 22.0 m for B-trains meeting the bulkhead requirements.

Category 2: A, B or C-Train Double – Round Bales Loaded Crosswise

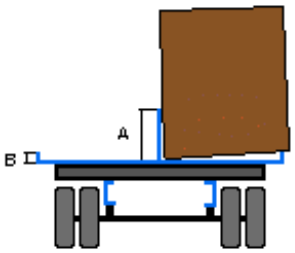
Note: Permits are available for B-trains to a maximum box length of 22 m if it has front and rear bulkheads, center bulkheads and longitudinal edge rails to support the load. Box length permits are not available for A or C-trains.

- Front and rear bulkheads supporting the lower layer of round bales must extend at least 0.6 m above the deck
- Bulkheads supporting the lower and upper layers of round bales must extend at least 2.4 m above the deck. Double high bulkhead may only be used at one end of the trailer because the number of bales on the upper layer cannot exceed the number on the lower layer



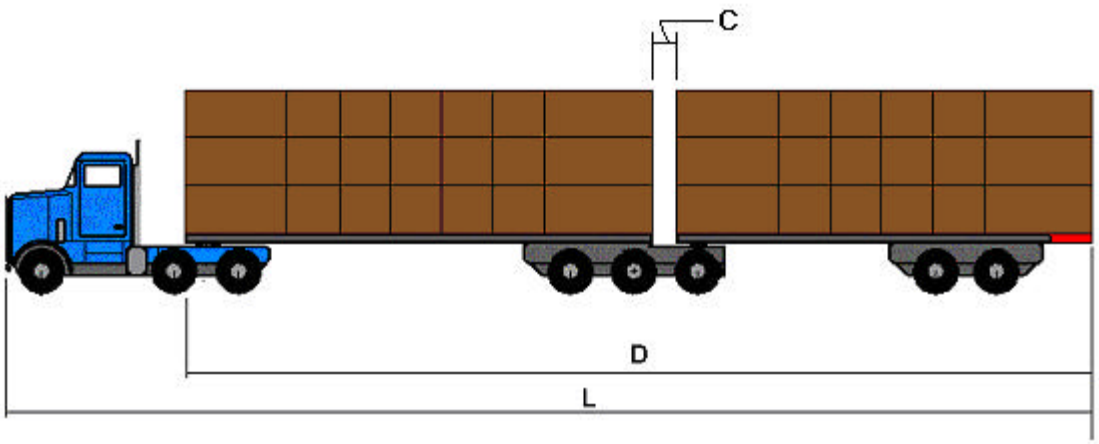


- Center bulkheads consist of a horizontal rail running the length of the trailer and supported at intervals by vertical supports.
- The bulkhead must be at least 0.6 m above the deck of the trailer and ideally should extend into the upper layer of bales.
- It must be made of a minimum 50mm round or square metal tubing.
- When the bales are loaded, they must make contact with the bulkhead.



- Edge rails must be located as close to the deck or rack as possible.
- The top of the rail must be at least 0.1 m above the top of the deck or rack.
- The rail must be of sufficient strength to support the bales.

Category 2: A, B or C-Train Double – Rectangular Bales



DIMENSION	LIMIT
Overall Length (L)	Maximum 25 m
Overall Width (outside to outside of load or vehicle)	Maximum 3.85 m (MB, SK & AB) Maximum 3.05 (BC)
Overall Height (ground to top of load)	Maximum 4.8 m
Box Length (D)	Maximum 20 m
Tractor	
Wheelbase	Maximum 6.2 m
Tandem Axle Spread	Minimum 1.2 m/Maximum 1.85 m
Lead Semi Trailer	
Wheelbase	Minimum 6.25 m
Front of Load to Kingpin	Maximum 1.5 m
Tandem Axle Spread	Minimum 1.2 m/Maximum 1.85 m
Tridem Axle Spread	Minimum 2.4 m/Maximum 3.1 m
Track Width	Minimum 2.5 m/Maximum 2.6 m
Hitch Offset for A & C-train	Maximum 1.85 m
Fifth Wheel Position for the B-train	No more than 0.3 m behind the centre of the rearmost axle on the semi trailer
Second Semi Trailer	
Wheelbase	Minimum 6.25 m
Tandem Axle Spread	Minimum 1.2 m/Maximum 1.85 m
Tridem Axle Spread	Minimum 2.4 m/Maximum 3.1 m
Track Width	Minimum 2.5 m/Maximum 2.6 m
Sum of Semi Trailer Wheelbases for the B-train	Maximum 17.0 m
Clearance between Trailers	Minimum 1.0 m

Note: Alberta allows this configuration with a maximum box length of 22.0 m for B-trains.

APPENDIX C

SIGNAGE AND LIGHTING REQUIREMENTS

Signage and Lighting Requirements:

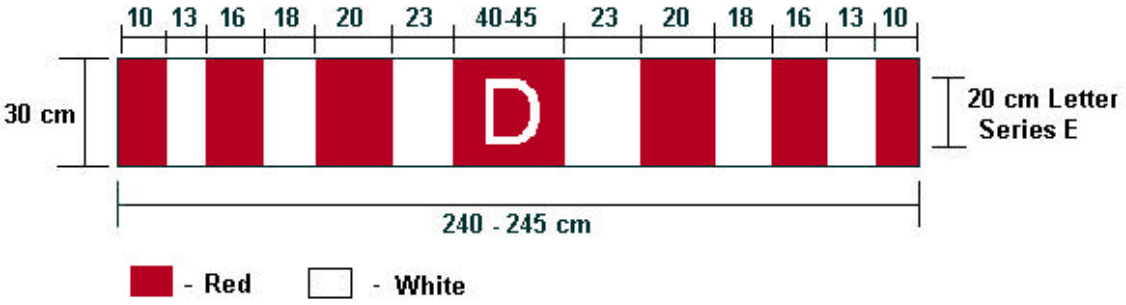
All Vehicles

- During daylight hours, all vehicles must display square flags on the extremities of any loads that extend beyond the trailer. The flags shall be red fluorescent or orange fluorescent.

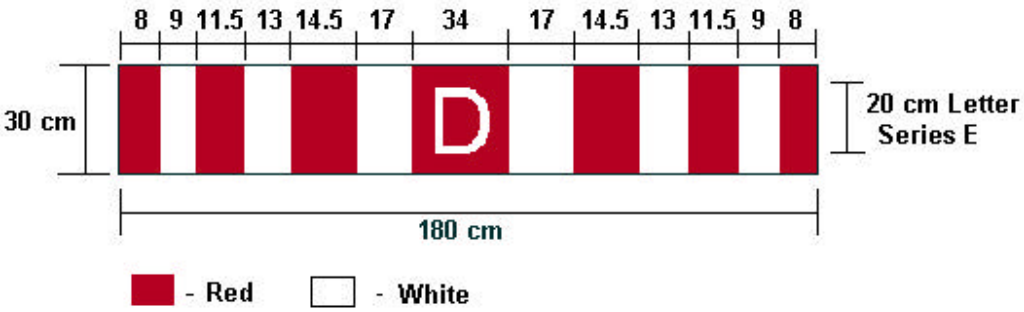
Vehicles or loads exceeding 3.05 m in width shall have the above requirements as well as the following:

- Dimension signs are required on the front and rear of the vehicle. The recognized signs are as follows:

Large Sign **Section Widths (cm)**



Small Sign **Section Widths (cm)**



- A minimum of one flashing or rotating beacon mounted on the cab of the truck capable of emitting an amber light in all directions for a distance of 150 m.
- If the beacon on the cab of the truck is not visible to traffic approaching from the rear, an amber beacon capable of emitting an amber light in all directions for a distance of 150 m shall be mounted on the rear at the middle of the vehicle or load.

APPENDIX D

LOAD SECURITY REQUIREMENTS

Load Security Requirements:

1. General:

Irrespective of the vehicle type, shape of the bales or the loading style, all bales must be adequately restrained against any movement that could result in any bale becoming unstable and falling from the vehicle during transit.

Loads can be built up to more than one tier only if the bales are solidly packed. Bales must be strong enough to support the bales loaded above. A load cannot be transported properly if any bale collapses under the weight of those above.

Bales must be loaded without space between them. Vibration during transit can close the gap, causing the tiedowns to lose their tension, so lose their effectiveness.

All tiedowns must be tensioned as tightly as possible. All tiedowns should be checked at least once within the first 80 km of the trip and at regular intervals thereafter. Periodic inspections should occur every three hours or every 200 km, whichever occurs first. Automatic tensioning devices have been proven to reduce the need for retightening of tiedowns during the regular checks during transit.

2. Round Bales:

Bales should not be loaded in a second tier if there is room on the deck for an additional bale. Bales in the second tier should be loaded consecutively in the well(s) formed by the bales in the tier beneath. Bales should not be loaded more than two tiers.

Round bales loaded crosswise can only be transported if the bottom tier is secured against rolling by headboards or stakes that are either part of the vehicle structure or firmly mounted to the vehicle. If the front and rear of the upper tier of bales load are against headboards or stakes, longitudinal tiedowns are not required, but each transverse row of bales should be secured by a transverse tiedown. If the front and rear of the upper tier is not against a headboard or stakes, at least one longitudinal tiedown should be placed over each longitudinal row of bales.

Round bales loaded pipe style should be loaded continuously loaded, front to rear, without space between the rows. The bales tend to roll across the vehicle, so they can be transported only if the bottom tier is secured to control rolling.

3. Rectangular Bales:

Bales should be loaded so they interlock within tiers. Different loading patterns should be used for consecutive tiers to reduce lengths of the vertical interfaces between bales. A load of bales is most stable if each bale is placed with its largest face down. Bales should not be loaded with the longest dimension placed vertically.

Tiedowns should run over V-boards that capture each bale in the top tier.

At least two longitudinal tiedowns should be used over the top of the load.

The load should be secured with transverse tiedowns. The number of transverse tiedowns should be determined by the length of the load divided by 1.85 m, rounded up to the next whole number. Additional tiedowns may be required if the bales are not interlocked.

APPENDIX E

PROVINCIAL RESTRICTIONS

Provincial Restrictions

Although this Memorandum of Understanding commits each province to allow vehicles that comply with the identified conditions to operate within their jurisdictions, each province may impose minor restrictions that do not exclude the vehicle, but may limit travel. Following is a summary of those restrictions:

British Columbia

- Rectangular bales are permitted only on low bed or drop deck trailers and cannot exceed 3.05 m in width.

- Vehicles or loads exceeding 3.2 m and up to 3.8 m in width require one pilot car for night travel.

Manitoba

- If the empty vehicle exceeds 2.6 m in width, a separate permit is required to transport the empty vehicle.

Saskatchewan

- For vehicles or loads exceeding 3.7 m wide, no travel is permitted
    - From sunset to sunrise on the following day
    - On Sundays or Public Holidays
    - After 3:00 p.m. on any day prior to a Public Holiday
    - After 3:00 p.m. on Friday commencing Friday prior to Canada until Labor Day

- If the empty vehicle exceeds 2.6 m in width, a separate permit is required to transport the empty vehicle.