

WEIGHTS AND DIMENSIONS COMPLIANCE GUIDE

July 2003

**This brochure should be used as a guide only.
Please refer to Manitoba Regulation 575/88 as amended
from time to time for specific details on controls
of weights and dimensions.**

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Manitoba 
Transportation and
Government Services

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GLOSSARY OF TERMS

"A" where it refers to a class of highway, means a Class A highway that is any highway under jurisdiction of The City of Winnipeg and any highway that is designated as such

- ✦ (a) by order of the Lieutenant Governor in Council, in the case of a provincial trunk highway, a provincial road, or a highway in unorganized territory, or
- (b) by by-law of the council of the municipality that is the traffic authority in respect thereof.

"A1" where it refers to a class of highway, means a Class A1 highway that is a provincial trunk highway, unless otherwise classified by order of the Lieutenant Governor in Council and any highway that is designated as such

- ✦ (a) by order of the Lieutenant Governor in Council, in the case of a provincial road, or a highway in unorganized territory, or
- (b) by by-law of the council of The City of Winnipeg, or the municipality that is the traffic authority in respect thereof.

"A-dolly" means a trailer converter dolly that is towed from a single hitch located on the centre line of the towing vehicle;

"A-train" means a combination of vehicles composed of a truck tractor, a semi-trailer and either

- (a) an A-dolly and a semi-trailer, or
- (b) a full trailer;

"Act" means the Highway Traffic Act;

"articulation point" means

- (a) the vertical axis of the kingpin in a fifth wheel coupler and kingpin assembly,
 - (b) the vertical axis through the centre of a lunette eye in a pintle hook and lunette eye assembly, or
 - (c) the vertical axis through the centre of rotation of a turntable or other similar device
- that allows the vehicles in a combination of vehicles to rotate in the horizontal plane relative to one another;

"axle group" means a tandem or tridem axle;

"axle spread" means the longitudinal distance between the extreme axle centres of the axle unit

"axle unit" means (a) a single axle,
(b) a tandem axle, or
(c) a tridem axle;

"B" where it refers to a class of highway, means a Class B highway that is any highway in a municipality other than The City of Winnipeg, that is not a provincial trunk highway or a provincial road, and any highway in unorganized territory and any highway that is designated as such

- ✦ (a) by order of the Lieutenant Governor in Council, in the case of a provincial trunk highway or a provincial road, or
- (b) by by-law of the council of a municipality that is the traffic authority in respect thereof to repeal a by-law made before the 21st day of November 1966 that then classified its highways as class B which, subject to subsection (11) are now deemed to be class C.

"B1" where it refers to a class of highway, means a Class B1 highway that is a provincial road, unless otherwise classified by the Lieutenant Governor in Council, and any highway that is designated as such

- ✦ (a) by order of the Lieutenant Governor in Council, in the case of a provincial trunk highway, or a highway in unorganized territory,
or
- (b) by by-law of the council of The City of Winnipeg, or the municipality that is the traffic authority in respect thereof.

"B-train" means a combination of vehicles composed of a truck tractor and a semi-trailer, followed by another semi-trailer attached to a fifth wheel coupler mounted on the rear of the first semi-trailer;

"box length" means

- (a) with respect to truck in combination with a pony trailer or full trailer, the distance measured from the front of the cargo carrying unit of the truck, excluding any auxiliary equipment attached to the front of the cargo carrying unit of the truck that is not designed for the transportation of goods, to the rear of the pony trailer or full trailer or any load carried on the trailer, whichever is the greater distance from the front of the cargo carrying unit of the truck, or
- (a.1) with respect to a semi-trailer, the distance measured from the front of the semi-trailer, excluding any auxiliary equipment attached to the front of the semi-trailer that is not designed for the transportation of goods, to the rear of the semi-trailer or any load carried by it, whichever is the greater distance from the front of the semi-trailer, or
- (b) with respect to a combination of vehicles other than in clause (a), the distance measured from the front of the lead trailer, excluding any auxiliary equipment attached to the front of the lead trailer that is not designed for the transportation of goods, to the rear of the last trailer, or any load carried on the last trailer, whichever is the greater distance from the front of the lead trailer;

"C" where it refers to a class of highway, means a Class C highway subject to subsection (11), any highway in a municipality that is classified as a class B highway by a bylaw before the 21st day of November, 1966 and any highway that is designated as such

- ✦ (a) by order of the Lieutenant Governor in Council, in the case of a provincial trunk highway, a provincial road, or a highway in unorganized territory, or
- (b) by by-law of the council of a municipality that is the traffic authority in respect thereof, except for The City of Winnipeg.

"C-dolly" means a trailer converter dolly equipped with

- (a) a self steering axle, and
- (b) a rigid double pintle hitch assembly located on a horizontal transverse plane;

"C-train" means a combination of vehicles composed of a truck tractor and a semi-trailer, followed by another semi-trailer attached to the first semi-trailer by the means of a C-dolly;

"down loading formula" means a formula to reduce the allowable weight on a combination of adjacent axle units on non RTAC vehicles by reducing the combined gross axle weight by 330 kilograms per each 0.1 metre (or part thereof) by which the interaxle spacing is less than the minimum spacing prescribed in Manitoba Regulation 575/88;

"drawbar" means a structural part of a full trailer, pony trailer or trailer converter dolly that includes a device for the purpose of coupling with a hitching device or fifth wheel coupler;

"drawbar length" means

- (a) with respect to a truck in combination with a pony trailer, the longitudinal distance measured from the hitching device of the towing vehicle to the front of the cargo carrying portion of the pony trailer, or
- (b) with respect to a truck in combination with a full trailer, the longitudinal distance measured from the hitching device of the towing vehicle to the geometric centre of the front axle unit of the full trailer, or
- (c) with respect to an A-train or a C-train, the longitudinal distance measured from the centre of the hitching device on the lead semi-trailer to the centre in the hole of the fifth wheel coupler of a trailer converter dolly;

"drive axle" means an axle that is or may be connected to the power source of a motor vehicle and transmits tractive power to the wheels;

"effective rear overhang" means the longitudinal distance from the turn centre to the rearmost point including load on the truck, trailer or semi-trailer;

"end dump bulk trailer" means a semi-trailer truck so constructed that the semi-trailer box may be elevated to provide for the dumping of a load through the rear of the trailer;

"fifth wheel coupler" means a coupling device securely attached to the chassis of a vehicle and which will accept a semi-trailer kingpin inserted through the device and will lock the kingpin in position to allow rotation in a horizontal plane through the coupling device;

"full trailer" means a vehicle without motive power that is designed to be towed by another vehicle and is so designed that the whole of its weight and load is carried on its own axles and includes a combination consisting of a semi-trailer and a trailer converter dolly;

"gross axle weight" means the gross weight carried by an axle unit and transmitted to the road by the wheels of that axle;

"gross vehicle weight" or **"GVW"** means the total weight of a vehicle or combination of vehicles, including its load, transmitted to the road by its axles;

"hitch offset" means the longitudinal distance from the turn centre to the articulation point of the hitching device or fifth wheel coupler used to tow the following vehicle;

"interaxle spacing" means the longitudinal distance separating two axle units as determined from the centres of each of the axles that is the closest to the other axle unit;

"kingpin setback" means the horizontal distance from the vertical axis through the centre of the kingpin to any point on the semi-trailer ahead of the kingpin including any load, but excluding any auxiliary equipment attached to the front of the semi-trailer that is not designed for the transport of goods;

"lift axle" means an axle controlled by a device designed for raising or lowering a single axle unit or for varying the load on an axle unit, and

- (a) with respect to a non RTAC vehicle manufactured after December 31, 1988, the control device can not be operated from the operator's compartment, and
- (b) with respect to an RTAC vehicle, the tires on the lift axle can not be in contact with the ground;

"load-covering device" means a device or equipment designed or used to cover a vehicle's load

"load securement device" means

- (a) a tie down, binder, lock chain, cable, belt, rope, winch, cinch, hook or covering, or
- (b) a door handle, door lock, door hinge or bunk cable guide required or permitted by the Act and the Regulations;

"pony trailer" means a vehicle without motive power that is equipped with a rigid drawbar and is designed to be towed by another vehicle and is so designed to carry all or substantially all of its gross vehicle weight on its axles;

"provincial road" or **"PR"** means a highway that is a provincial road within the meaning of the Highways and Transportation Department Act;

"provincial trunk highway" or **"PTH"** means a highway that is a provincial trunk highway within the meaning of the Highways and Transportation Department Act;

"RTAC route" means a highway designated as an RTAC route in Schedule B of Manitoba Regulation 575/88;

"RTAC vehicle" means (a) a truck,
(b) a truck and pony trailer,
(c) a truck and full trailer,
(d) a truck tractor and semi-trailer,
(e) an A-train,
(f) a B-train, or
(g) a C-train

which conforms to the criteria set out in sections 9, 13, 14, 15, 16, 18, 19, 20, 21, 23, 25, 28, and 30 of Manitoba Regulation 575/88 but does not include a pony trailer where the gross vehicle weight of the pony trailer as rated by the manufacturer is less than 10,000 kg;

"self-steering axle" means an axle on which the wheels turn left and right on one or more essentially vertical axes but their turning is not controlled by means of the steering wheel in the operator's compartment;

"semi-trailer" means a vehicle without motive power, designed so that a substantial part of its weight and load rests on and is carried by the truck tractor, another semi-trailer or a trailer converter dolly to which it is attached by a fifth wheel coupler;

"single axle" means one axle or two consecutive axles having an axle spread of less than 1.0 m;

"steering axle" means an axle on which the wheels turn left and right on one or more essentially vertical axes and their turning is controlled by and in direct proportion to, the rotation of the steering wheel in the operator's compartment;

"tandem axle" means two or more equally spaced consecutive axles having an axle spread of not less than 1.0 m nor more than 1.85 m that are designed to automatically distribute the load so that the gross axle weight on each single axle does not exceed the maximum prescribed for a single axle under Manitoba Regulation 575/88;

"track width" means the overall width of an axle across the outside edges of the tires;

"trailer converter dolly" means a vehicle without motive power that has

- (a) one or more axles,
 - (b) the lower half of a fifth wheel coupler, and
 - (c) a drawbar assembly,
- and is designed to be used to convert a semi-trailer to a full trailer;

"trailer length" means

- (a) with respect to a pony trailer, the longitudinal distance measured from the articulation point of the hitching device to the rear of the pony trailer or any load carried on the trailer, whichever is the greater distance from the front of the pony trailer, or
- (b) with respect to a full trailer, the longitudinal distance measured from the front of the trailer, excluding any auxiliary equipment attached to the front of the full trailer to the rear of the full trailer or any load carried on the trailer whichever is the greater distance from the front of the full trailer, or
- (c) with respect to a semi-trailer, the longitudinal distance measured from the front of the semi-trailer, excluding any auxiliary equipment attached to the front of the semi-trailer that is not designed for the transportation of goods, to the rear of the semi-trailer or any load carried on it, whichever is the greater distance from the front of the semi-trailer;

"trailer wheelbase" means the longitudinal distance from the centre of

- (a) the kingpin of a semi-trailer, or
 - (b) the turntable of a full trailer, or
 - (c) the hitching device on a pony trailer
- to the turn centre of the trailer;

"tridem axle" means three equally spaced consecutive axles, having an axle spread of not less than 2.4 m nor more than 3.7m and which are designed to automatically distribute the load so that the gross axle weight on each single axle does not exceed the maximum prescribed for a single axle under Manitoba Regulation 575/88 and so that the gross axle weight on any two adjacent single axles does not exceed the maximum prescribed for a tandem axle under Manitoba Regulation 575/88;

"truck tractor" means a motor vehicle having a net weight of more than 4000 kg equipped with the lower half of a fifth wheel coupler designed to be used to pull a semi-trailer by coupling to the kingpin attached to the semi-trailer;

"truck tractor wheelbase" means the longitudinal distance from the centre of the front steering axle to the geometric centre of the drive axle unit;

"turn centre" means the geometric centre of

- (a) the axle group on a semi-trailer or pony trailer, or
- (b) the rear axle group on a truck, truck tractor or full trailer;

"width of tire" means, with respect to rubber tires, the width of the tire as customarily measured and rated by manufacturers of motor vehicles and tires and, with respect to metal tires or solid rubber tires, the transverse width of the outer circumference of the metal tire or solid rubber tire.

RTAC TRUCK

PARAMETERS

Overall Length
 Overall Width
 Overall Height
 Box Length
 Wheelbase
 Effective Rear Overhang

LIMITS

Maximum 12.5 m
 Maximum 2.6 m
 Maximum 4.15 m
 Not Controlled
 Not controlled
 Maximum 4.0 m

INTERAXLE SPACINGS

Steering Axle to Drive Axle Minimum 3.0 m

AXLE WEIGHTS

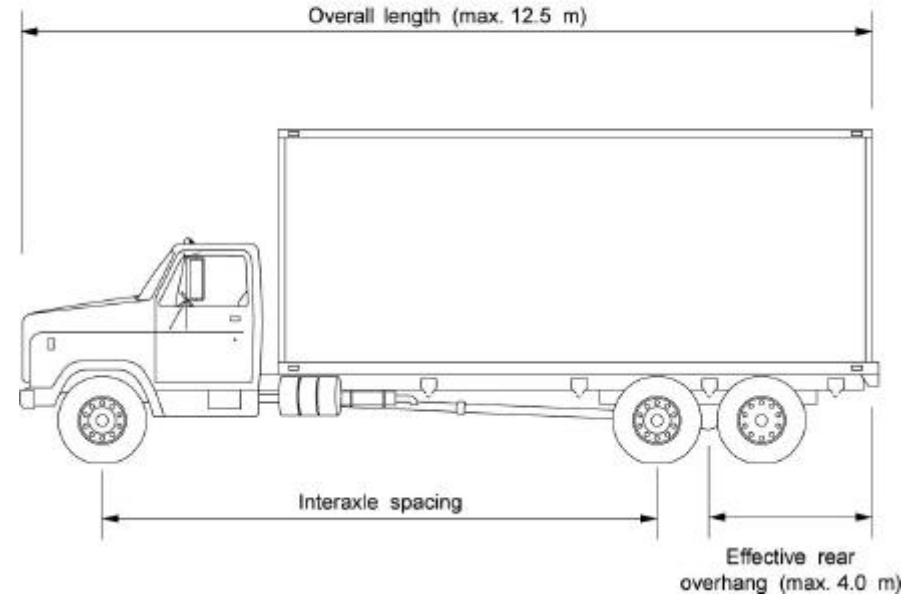
	RTAC	A1	B1
Steering Axle	7300 kg	7300 kg	7300 kg
Single Axle	9100 kg	9100 kg	8200 kg
Tandem Axle	17000 kg	16000 kg	14500 kg

MAXIMUM GROSS COMBINATION WEIGHTS

AXLES

	RTAC	A1	B1
2 AXLES	16400 kg	16400 kg	15500 kg
3 AXLES	24300 kg	23300 kg	21800 kg

RTAC STRAIGHT TRUCK



Note: The use of a tridem axle on a truck is prohibited.

RTAC TRUCK & PONY TRAILER

PARAMETERS

Overall Length	Maximum 23.0 m
Overall Width	Maximum 2.6 m
Overall Height	Maximum 4.15 m
Box Length	Maximum 20.0 m

TRUCK

Length	Maximum 12.5 m
Wheelbase	Not controlled
Hitch Offset:	Maximum 1.8 m

PONY TRAILER*

Length	Maximum 12.5 m
Wheelbase	Minimum 6.25 m
Track Width	Minimum 2.5 m/Maximum 2.6 m
Effective Rear Overhang	Maximum 4.0 m

INTERAXLE SPACINGS

Steering Axle to Drive Axle	Minimum 3.0 m
Single Axle to Single, Tandem or Tridem Axle	Minimum 3.0 m**
Tandem Axle to Tandem Axle	Minimum 5.0 m
Tandem Axle to Tridem Axle	Minimum 5.5 m

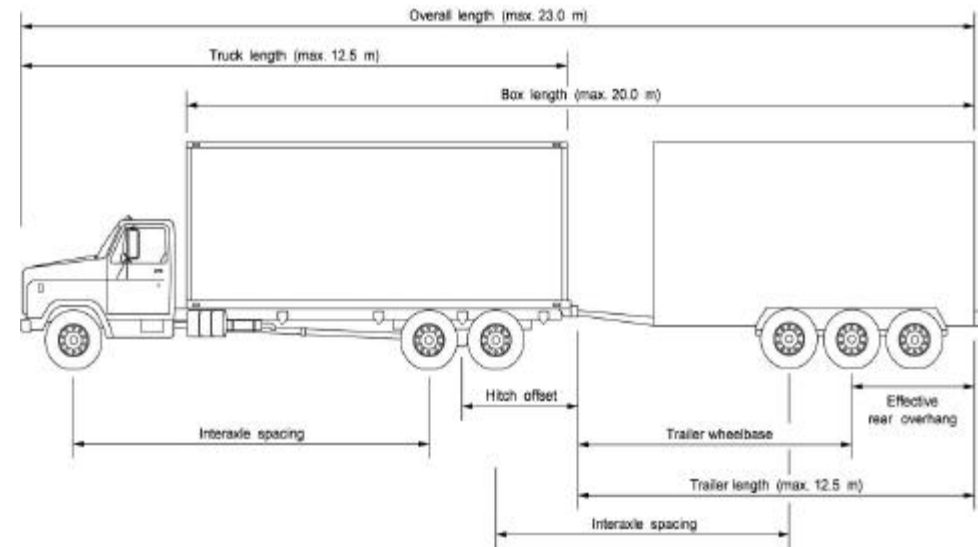
AXLE WEIGHTS

	<u>RTAC</u>	<u>A1</u>	<u>B1</u>
Steering Axle	7300 kg	7300 kg	7300 kg
Single Axle	9100 kg	9100 kg	8200 kg
Tandem Axle	17000 kg	16000 kg	14500 kg
TRIDEM AXLE (Trailer):			
Axle Spread 2.4 m – 2.5 m	21000 kg	21000 kg	20000 kg

MAXIMUM GROSS COMBINATION WEIGHTS

<u>AXLES</u>	<u>RTAC</u>	<u>A1</u>	<u>B1</u>
3 AXLES	25500 kg	25500 kg	23700 kg
4 AXLES	33400 kg	32400 kg	30000 kg
5 AXLE	41300 kg	39300 kg	36300 kg
6 AXLES	45300 kg	44300 kg	41800 kg

RTAC TRUCK & PONY TRAILER



* Pony trailers with Gross Vehicle Weight Rating of less than 10,000 kg. do not qualify as RTAC units

** This minimum applies to the interaxle spacing between adjacent axle units of a truck in combination with a pony trailer.

RTAC TRUCK & FULL TRAILER

PARAMETERS

Overall Length	Maximum 23.0 m
Overall Width	Maximum 2.6 m
Overall Height	Maximum 4.15 m
Box Length	Maximum 20.0 m

TRUCK

Length	Maximum 12.5 m
Wheelbase	Not Controlled
Hitch Offset:	Maximum 1.8 m

FULL TRAILER *

Length	Maximum 12.5 m
Wheelbase	Minimum 6.25 m
Track Width	Minimum 2.5 m /Maximum 2.6 m**

CONVERTER DOLLY***

The use of a C Dolly is not permitted on this combination.

INTERAXLE SPACINGS

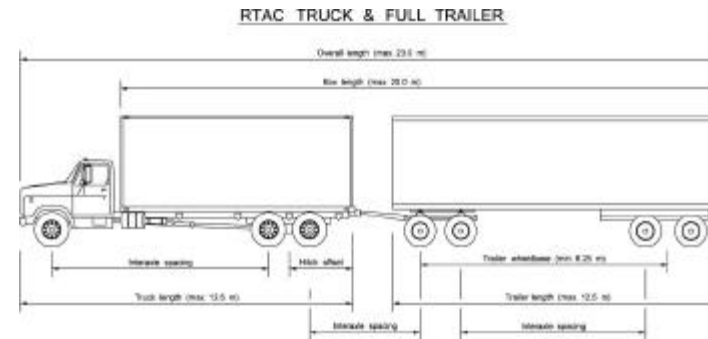
Steering Axle to Drive Axle	Minimum 3.0 m
Single Axle to Single or Tandem Axle	Minimum 3.0 m****
Tandem Axle to Tandem Axle	Minimum 5.0 m
Tandem Axle to Tridem Axle	Minimum 5.5 m

AXLE WEIGHTS

	<u>RTAC</u>	<u>A1</u>	<u>B1</u>
Steering Axle	7300 kg	7300 kg	7300 kg
Single Axle	9100 kg	9100 kg	8200 kg
Tandem Axle	17000 kg	16000 kg	14500 kg
TRIDEM AXLE (Trailer)			
Axle Spread 2.4 m – less than 3.0 m	21000 kg	21000 kg	20000 kg
Axle Spread 3.0 m – less than 3.6 m	23000 kg	23000 kg	20000 kg
Axle Spread 3.6 m – 3.7 m	24000 kg	20000 kg	

SUM OF AXLE WEIGHTS ON FULL TRAILER

4 axle Truck & Trailer Combination	17000 kg	17000 kg	16400 kg
6 axle Truck & Trailer Combination	24000 kg	24000 kg	22700 kg
7 axle Truck & Trailer Combination	31000 kg	31000 kg	29000 kg
8 axle Truck & Trailer Combination	----- not fully controlled -----		



MAXIMUM GROSS COMBINATION WEIGHTS

<u>AXLES</u>	<u>RTAC</u>	<u>A1</u>	<u>B1</u>
4 AXLES	33400 kg	33400 kg	31900 kg
5 AXLES	41300 kg	40300 kg	38200 kg
6 AXLES	48300 kg	47300 kg	44500 kg
7 AXLES	55300 kg	54300 kg	47630 kg
8 AXLES	62500 kg	56500 kg	47630 kg

- * A maximum of 2 axle units in contact with the ground on the full trailer.
- ** Full trailers manufactured prior to July 1, 1988 that have not had their running gear totally replaced may have a track width of less than 2.5 m.
- *** The use of a trailer converter dolly equipped with a tridem axle unit is not permitted.
- **** This minimum applies to the interaxle spacing between adjacent axle units of a truck in combination with a full trailer.

RTAC TRUCK TRACTOR & SEMI-TRAILER

PARAMETERS

Overall Length	Maximum 23.0 m
Overall Width	Maximum 2.6 m
Overall Height	Maximum 4.15 m
Box Length	Maximum 16.2 m

TRACTOR

Wheelbase	Maximum 6.2 m
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SEMI-TRAILER

Wheelbase	Minimum 6.25 m/Maximum 12.5 m*
Kingpin Setback	Maximum 2.0 m radius
Effective Rear Overhang	Maximum 35% of wheelbase
Track Width	Minimum 2.5 m/Maximum 2.6m**

INTERAXLE SPACINGS:

Steering Axle to Drive Axle	Minimum 3.0 m
Tandem Axle to Tandem Axle	Minimum 5.0 m
Tandem Axle to Tridem Axle	Minimum 5.5 m

AXLE WEIGHTS

	RTAC	A1	B1
Steering Axle	5500 kg	5500 kg	5500 kg
Single Axle ***	9100 kg	9100 kg	8200 kg
Tandem Axle	17000 kg	16000 kg	14500 kg

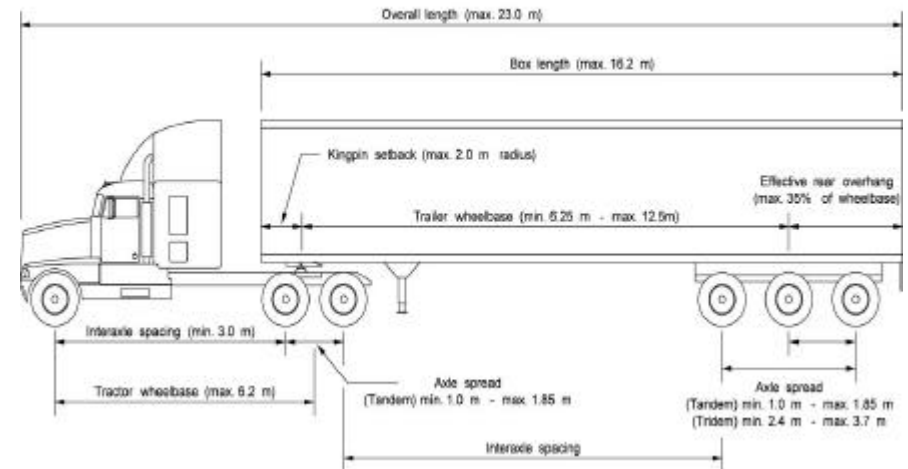
TRIDEM AXLE:

Axle Spread 2.4 m - less than 3.0 m	21000 kg	21000 kg	20000 kg
Axle Spread 3.0 m - less than 3.6 m	23000 kg	23000 kg	20000 kg
Axle Spread 3.6 m - 3.7 m	24000 kg	23000 kg	20000 kg

MAXIMUM GROSS COMBINATION WEIGHTS

AXLES	RTAC	A1	B1
3 AXLES	23700 kg	23700 kg	21900 kg
4 AXLES	31600 kg	30600 kg	28200 kg
5 AXLES	39500 kg	37500 kg	34500 kg
6 AXLES	46500 kg	44500 kg	40000 kg

RTAC TRACTOR SEMI TRAILER



- * In the case of a truck-tractor coupled to a semi-trailer which is equipped with a single axle, the wheelbase of the semi-trailer is not controlled.
- ** Semi-trailers manufactured prior to July 1, 1988 that have not had their running gear totally replaced may have a track width of less than 2.5 m.
- *** Semi-trailers equipped with two single axle units with an interaxle spacing of between 1.86 m and 3.05 m can not exceed the maximum allowable gross axle weight for a single axle unit.

RTAC A-TRAIN

PARAMETERS

Overall Length
 Overall Width
 Overall Height ❀
 Box Length

LIMITS

Maximum 25.0 m
 Maximum 2.6 m
 Maximum 4.15 m
 Maximum 20.0 m

TRACTOR

Wheelbase
 Interaxle Spacing

Maximum 6.2 m
 Minimum 3.0 m

LEAD SEMI-TRAILER **

Wheelbase
 Kingpin Setback
 Hitch Offset
 Track Width
 Effective Rear Overhang

Minimum 6.25 m
 Maximum 2.0 m radius
 Maximum 1.8 m
 Minimum 2.5 m/Maximum 2.6m*
 Maximum 35% of trailer wheelbase

FULL TRAILER

Wheelbase
 Track Width

Minimum 6.25 m
 Minimum 2.5 m/Maximum 2.6m*

INTERAXLE SPACINGS

Steering Axle to Drive Axle
 Single Axle to Single, Tandem or Tridem Axle
 Tandem Axle to Tandem Axle
 Tandem Axle to Tridem Axle

Minimum 3.0 m
 Minimum 3.0 m***
 Minimum 5.0 m
 Minimum 5.5 m

AXLE WEIGHTS

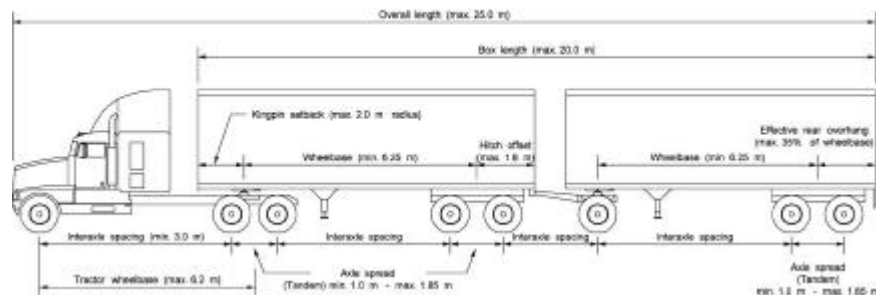
Steering Axle
 Single Axle **
 Tandem Axle
 TRIDEM AXLE:
 Axle Spread 2.4 m to less than 3.0 m
 Axle Spread 3.0 m to less than 3.6 m
 Axle Spread 3.6 m to 3.7 m
 SUM AXLE WEIGHTS FULL TRAILER

	RTAC	A1	B1
Steering Axle	5500 kg	5500 kg	5500 kg
Single Axle **	9100 kg	9100 kg	8200 kg
Tandem Axle	17000 kg	16000 kg	14500 kg
TRIDEM AXLE:			
Axle Spread 2.4 m to less than 3.0 m	21000 kg	21000 kg	20000 kg
Axle Spread 3.0 m to less than 3.6 m	23000 kg	23000 kg	20000 kg
Axle Spread 3.6 m to 3.7 m	24000 kg	23000 kg	20000 kg
SUM AXLE WEIGHTS FULL TRAILER		restricted ****	

MAXIMUM GROSS COMBINATION WEIGHTS

AXLES	RTAC	A1	B1
5 AXLES	39700 kg	39700 kg	37900 kg
6 AXLES	47600 kg	46600 kg	44200 kg
7 AXLES	53500 kg	53500 kg	47630 kg
8, 9 & 10 AXLES	53500 kg	53500 kg	47630 kg

RTAC A TRAIN DOUBLE



* Semi-trailers and full trailers manufactured prior to July 1, 1988 that have not had their running gear totally replaced may have a track width of less than 2.5 m.

** Lead semi-trailers equipped with two single axle units with an interaxle spacing of between 1.86 m and 3.05 m can not exceed the maximum allowable gross axle weight for a single axle unit.

*** This minimum applies to the interaxle spacing between the axle unit on a semi-trailer and the adjacent axle unit on a trailer converter dolly. Spacing less than 3.0 m are allowed, provided: - the sum of the weights of a single axle semi-trailer and the converter dolly does not exceed the maximum allowable gross axle weight of a tandem axle unit; - the sum of the weights of a tandem axle semi-trailer and the converter dolly does not exceed the maximum allowable gross axle weight of a tridem axle unit with an axle spread of 3.0 m to less than 3.6 m

**** The sum of the gross axle weights of all axle units (maximum of 2 in contact with the ground) on the full trailer can not exceed the sum of the gross axle weights of the drive axle unit and the axle unit(s) of the lead semi-trailer.

Note: The use of a trailer converter dolly equipped with a tandem or Tridem axle is not permitted.

Note: A-trains with trailer equipment manufactured prior to July 1, 1988 are allowed a maximum allowable gross vehicle weight of 56,500 kg.

RTAC B-TRAIN

PARAMETERS

Overall Length	Maximum 25.0 m
Overall Width	Maximum 2.6 m
Overall Height	Maximum 4.15 m
Box Length	Maximum 20.0 m

TRACTOR

Wheelbase	Maximum 6.2 m
Interaxle Spacing	Minimum 3.0 m

LEAD SEMI-TRAILER*, **

Wheelbase	Minimum 6.25 m/Maximum 12.5 m
Kingpin Setback	Maximum 2.0 m radius
Track Width	Minimum 2.5 m/Maximum 2.6 m**
Effective Rear Overhang	Maximum 35% of trailer wheelbase

SECOND SEMI-TRAILER **

Wheelbase	Minimum 6.25 m/Maximum 12.5 m
Track Width	Minimum 2.5 m/Maximum 2.6 m***

SUM OF SEMI-TRAILER WHEELBASES Maximum 17.0 m

INTERAXLE SPACINGS

Steering Axle to Drive Axle	Minimum 3.0 m
Tandem Axle to Tandem Axle	Minimum 5.0 m
Tandem Axle to Tridem Axle	Minimum 5.5 m

AXLE WEIGHTS

	RTAC	A1	B1
Steering Axle	5500 kg	5500 kg	5500 kg
Single Axle**	9100 kg	9100 kg	8200 kg
Tandem Axle	17000 kg	16000 kg	14500 kg
TRIDEM AXLE:			
Axle Spread 2.4 m to less than 3.0 m	21000 kg	21000 kg	20000 kg
Axle Spread 3.0 m to 3.1 m	23000 kg	23000 kg	20000 kg

MAXIMUM GROSS COMBINATION WEIGHTS

AXLES

7 Axle	56500 kg	53500 kg	47630 kg
8 Axle	62500 kg	56500 kg	47630 kg

LIMITS

Maximum 25.0 m
Maximum 2.6 m
Maximum 4.15 m
Maximum 20.0 m

Maximum 6.2 m
Minimum 3.0 m

Minimum 6.25 m/Maximum 12.5 m
Maximum 2.0 m radius
Minimum 2.5 m/Maximum 2.6 m**
Maximum 35% of trailer wheelbase

Minimum 6.25 m/Maximum 12.5 m
Minimum 2.5 m/Maximum 2.6 m***

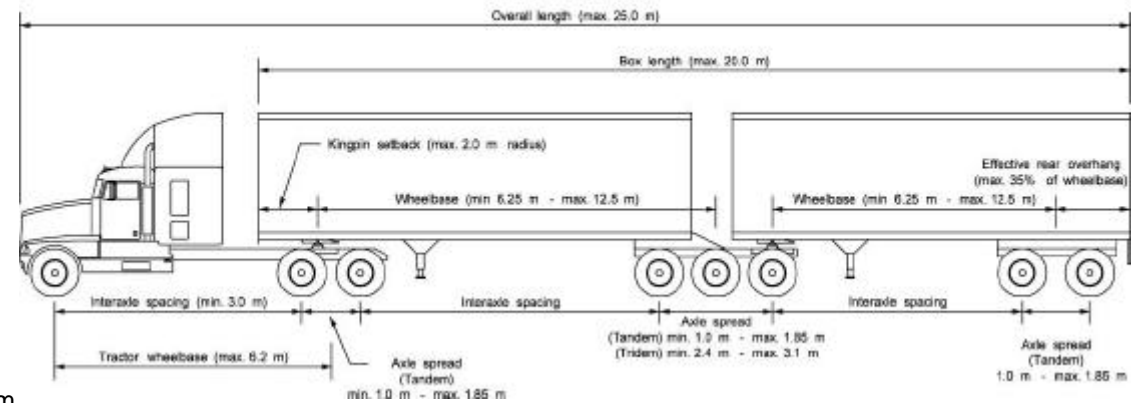
Maximum 17.0 m

Minimum 3.0 m
Minimum 5.0 m
Minimum 5.5 m

	RTAC	A1	B1
Steering Axle	5500 kg	5500 kg	5500 kg
Single Axle**	9100 kg	9100 kg	8200 kg
Tandem Axle	17000 kg	16000 kg	14500 kg

21000 kg	21000 kg	20000 kg
23000 kg	23000 kg	20000 kg

RTAC B TRAIN DOUBLE



NOTE: SUM OF SEMITRAILER WHEELBASES IS LIMITED TO A MAXIMUM OF 17.0 m

* The fifth wheel position on the lead semi-trailer must not be located more than 0.3 metres behind the centre of the lead semi-trailer's rear axle.

** Semi-trailers equipped with two single axle units in contact with the ground and with an interaxle spacing of between 1.86 m and 3.05 m can not exceed the maximum allowable gross axle weight for a single axle unit

*** Equipment manufactured prior to July 1, 1988 that have not had their running gear totally replaced may have a track width of less than 2.5 m.

RTAC C-TRAIN

PARAMETERS

Overall Length
Overall Width
Overall Height
Box Length

LIMITS

Maximum 25.0 m
Maximum 2.6 m
Maximum 4.15 m
Maximum 20.0 m

TRACTOR

Wheelbase

Maximum 6.2 m

LEAD SEMI -TRAILER***

Wheelbase
Hitch Offset
Track Width
Effective Rear Overhang
Kingpin Setback

Minimum 6.25 m
Maximum 1.8 m
Minimum 2.5 m/Maximum 2.6 m*
Maximum 35% of trailer wheelbase
Maximum 2.0 m radius

FULL TRAILER

Wheelbase
Track Width
Drawbar Length

Minimum 6.25 m
Minimum 2.5 m/Maximum 2.6*
Maximum 2.4 m

INTERAXLE SPACINGS

Steering Axle to Drive Axle
Single Axle to Single, Tandem or Tridem Axle
Tandem Axle to Tandem Axle
Tandem Axle to Tridem Axle

Minimum 3.0 m
Minimum 3.0 m**
Minimum 5.0 m
Minimum 5.5 m

AXLE WEIGHTS

Steering Axle
Single Axle ***
Tandem Axle
TRIDEM AXLE
Axle Spread 2.4 m – less than 3.0 m
Axle Spread 3.0 m – less than 3.6 m
Axle Spread 3.6 m – 3.7 m
Sum of Lead Trailer & C-Dolly
Sum of Full Trailer

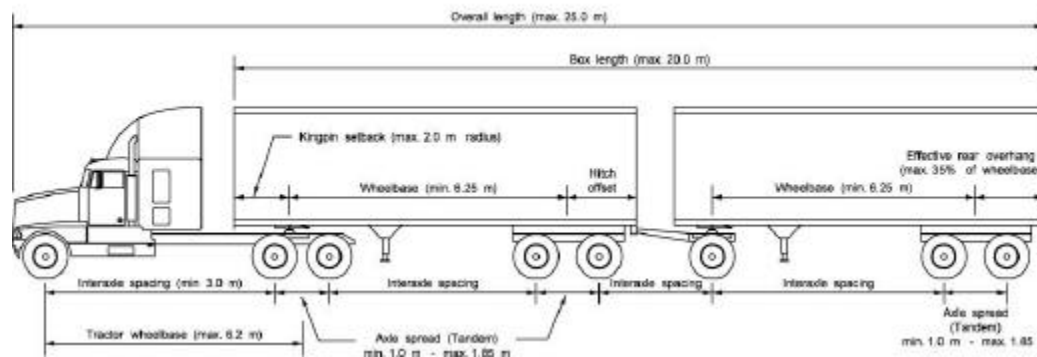
RTAC	A1	B1
5500 kg	5500 kg	5500 kg
9100 kg	9100 kg	8200 kg
17000 kg	16000 kg	14500 kg
21000 kg	21000 kg	20000 kg
23000 kg	23000 kg	20000 kg
24000 kg	23000 kg	20000 kg
23000 kg	23000 kg	22700 kg
	various see ****	

MAXIMUM GROSS COMBINATION WEIGHTS

AXLES
6 AXLES
7, 8, 9 & 10 AXLES [see Notes (2) & (3)]

RTAC	A1	B1
49800 kg	48800 kg	47630 kg
53500 kg	53500 kg	47630 kg

RTAC C TRAIN DOUBLE



* Semi-trailers and Full Trailers manufactured prior to July 1, 1988 that have not had their running gear totally replaced may have a track width of less than 2.5 m.

** This minimum applies to the interaxle spacing between the axle unit on a semi-trailer and the adjacent axle unit on a trailer converter dolly. Spacing less than 3.0m can be allowed, provided: - the sum of the weights on a single axle semi-trailer and converter dolly does not exceed the maximum allowable gross axle weight of a tandem axle unit; - the sum of the weights of a tandem axle semi-trailer and converter dolly does not exceed the maximum allowable gross axle weight of a tridem axle unit with an axle spread of 3.0 m to less than 3.6 m.

*** The lead semi-trailer, if equipped with two single axle units in contact with the ground and with an interaxle spacing of between 1.86 m and 3.05 m, can not exceed the maximum allowable gross axle weight for a single axle unit.

**** The sum of the gross axle weights of all axle units (maximum of 2 in contact with ground) on the full trailer (C-dolly and second semi-trailer) can not exceed the sum of the gross axle weights of the drive axle unit and the axle unit of the lead semi-trailer.

Notes:

- (1) The use of a trailer converter dolly equipped with a tandem or tridem axle is not permitted.
- (2) C-Trains with trailer equipment manufactured prior to July 1, 1988 are allowed a maximum allowable gross vehicle weight of 56,500 kg.
- (3) Notwithstanding section 28, subsections (2), (3), (6), (7), (9) and (10) of Manitoba Regulation 575/88, where a C-train with a C-dolly: - satisfies testing requirements determined by the National Research Council (Canada); - displays, in a conspicuous place on both sides of the C-dolly, a label from the manufacturer certifying satisfaction of those requirements, the gross vehicle weight shall not exceed 60,500 kg on an RTAC Route.

NON-RTAC TRUCK

PARAMETERS

Overall Length
 Overall Width
 Overall Height
 Box Length
 Wheelbase
 Effective Rear Overhang

LIMITS

Maximum 12.5 m
 Maximum 2.6 m
 Maximum 4.15 m
 Not Controlled
 Not Controlled
 Not Controlled

INTERAXLE SPACINGS

Steering Axle to Drive Axle

Minimum 3.0 m

AXLE WEIGHTS

Steering Axle
 Single Axle
 Axle Group

<u>RTAC</u>	<u>A1</u>	<u>B1</u>
7300 kg	7300 kg	7300 kg
9100 kg	9100 kg	8200 kg
16000 kg	16000 kg	14500 kg

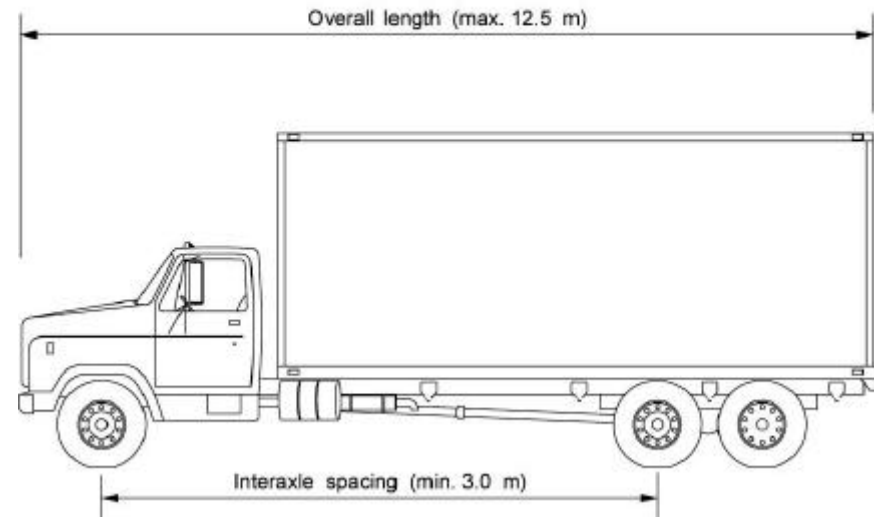
MAXIMUM GROSS COMBINATION WEIGHTS

AXLES

2 AXLES
 3 AXLES

<u>RTAC</u>	<u>A1</u>	<u>B1</u>
16400 kg	16400 kg	15500 kg
23300 kg	23300 kg	21800 kg

NON-RTAC STRAIGHT TRUCK



Note: The use of a tridem axle on a truck is prohibited.

NON-RTAC TRUCK & PONY TRAILER

PARAMETERS

Overall Length
 Overall Width
 Overall Height
 Box Length

LIMITS

Maximum 21.5 m
 Maximum 2.6 m
 Maximum 4.15 m
 Not Controlled

TRUCK

Length
 Wheelbase

Maximum 12.5 m
 Not controlled

PONY TRAILER

Length
 Wheelbase
 Drawbar Length

Maximum 12.5 m
 Not controlled
 Maximum 4.0 m

INTERAXLE SPACINGS

Steering Axle to Drive Axle
 Single Axle to Single Axle
 Single Axle to Axle Group
 Axle Group to Axle Group

Minimum 3.0 m
 Minimum 3.5 m
 Minimum 3.5 m
 Minimum 5.0 m

AXLE WEIGHTS

Steering Axle
 Single Axle
 Axle Group

<u>RTAC</u>	<u>A1</u>	<u>B1</u>
7300 kg	7300 kg	7300 kg
9100 kg	9100 kg	8200 kg
16000 kg	16000 kg	14500 kg

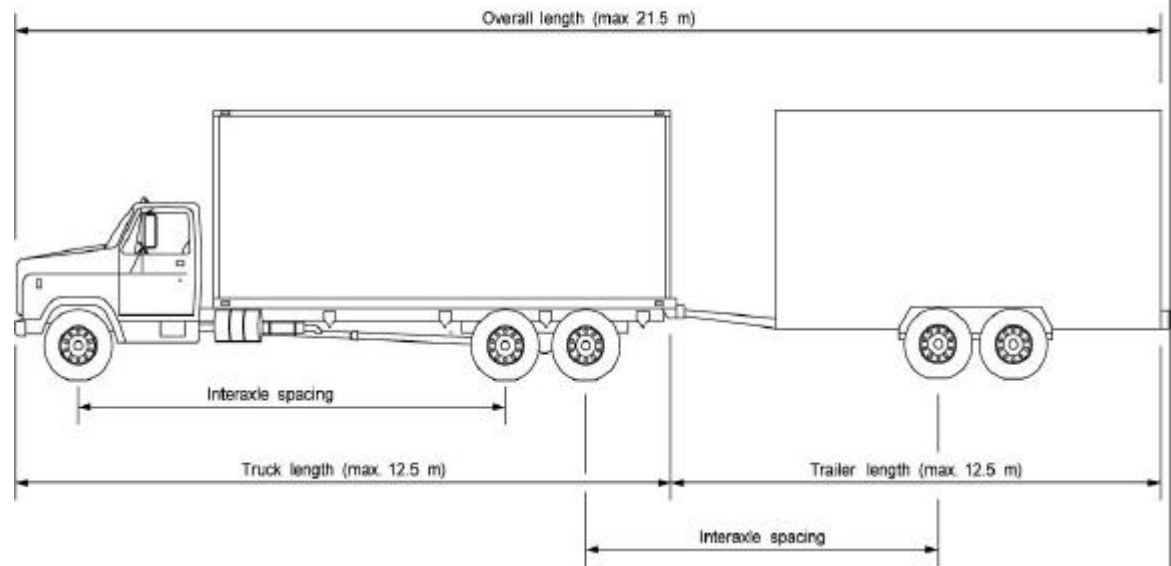
MAXIMUM GROSS COMBINATION WEIGHTS

AXLES

3 AXLES
 4 AXLES
 5 & 6 AXLES

<u>RTAC</u>	<u>A1</u>	<u>B1</u>
25500 kg	25500 kg	23700 kg
32400 kg	32400 kg	30000 kg
39300 kg	39300 kg	36300 kg

NON-RTAC TRUCK & PONY TRAILER



NON-RTAC TRUCK & FULL TRAILER

PARAMETERS

Overall Length
 Overall Width
 Overall Height
 Box Length

LIMITS

Maximum 23.0 m
 Maximum 2.6 m
 Maximum 4.15 m
 Not Controlled

TRUCK

Length
 Wheelbase

Maximum 12.5 m
 Not Controlled

FULL TRAILER*

Length
 Wheelbase
 Drawbar length

Maximum 12.5m
 Not controlled
 Maximum 4.0 m

CONVERTER DOLLY

The use of a C Dolly is not permitted on this combination.

INTERAXLE SPACING

Steering Axle to Drive Axle
 Single Axle to Single or Axle Group
 Axle Group to Axle Group

Minimum 3.0 m
 Minimum 3.5 m
 Minimum 5.0 m / 4.0 m*
 (*end dump bulk trailers only)

AXLE WEIGHTS

Steering Axle
 Single Axle
 Axle Group

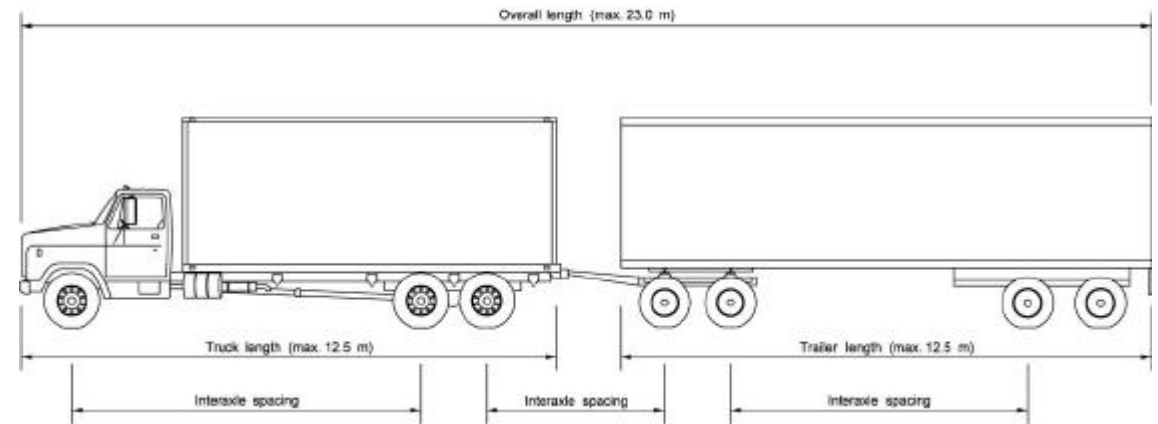
<u>RTAC</u>	<u>A1</u>	<u>B1</u>
7300 kg	7300 kg	7300 kg
9100 kg	9100 kg	8200 kg
16000 kg	16000 kg	14500 kg

MAXIMUM GROSS COMBINATION WEIGHTS

AXLES
 4 AXLES
 5 AXLES
 6 AXLES
 7 or 8 AXLES

<u>RTAC</u>	<u>A1</u>	<u>B1</u>
34600 kg	34600 kg	31900 kg
41500 kg	41500 kg	38200 kg
48400 kg	48400 kg	44500 kg
55300 kg	55300 kg	47630 kg

NON-RTAC TRUCK & FULL TRAILER



* This configuration allows a maximum of 2 axle units in contact with the ground on the full trailer.

NON-RTAC TRUCK TRACTOR & SEMI TRAILER

PARAMETERS

Overall Length
 Overall Width
 Overall Height
 Box Length

LIMITS

Maximum 20.0 m
 Maximum 2.6 m
 Maximum 4.15 m
 Not Controlled

TRACTOR

Wheelbase

Not controlled

SEMI -TRAILER*

Length
 Wheelbase

Not controlled
 Not controlled

INTERAXLE SPACINGS

Steering Axle to Drive Axle
 Single to Single or Axle Group
 Axle Group to Axle Group

Minimum 3.0 m
 Minimum 3.5 m
 Minimum 5.0 m/4.0 m*
 (*end dump bulk trailers only,

AXLE WEIGHTS

Steering Axle
 Single Axle *
 Axle Group

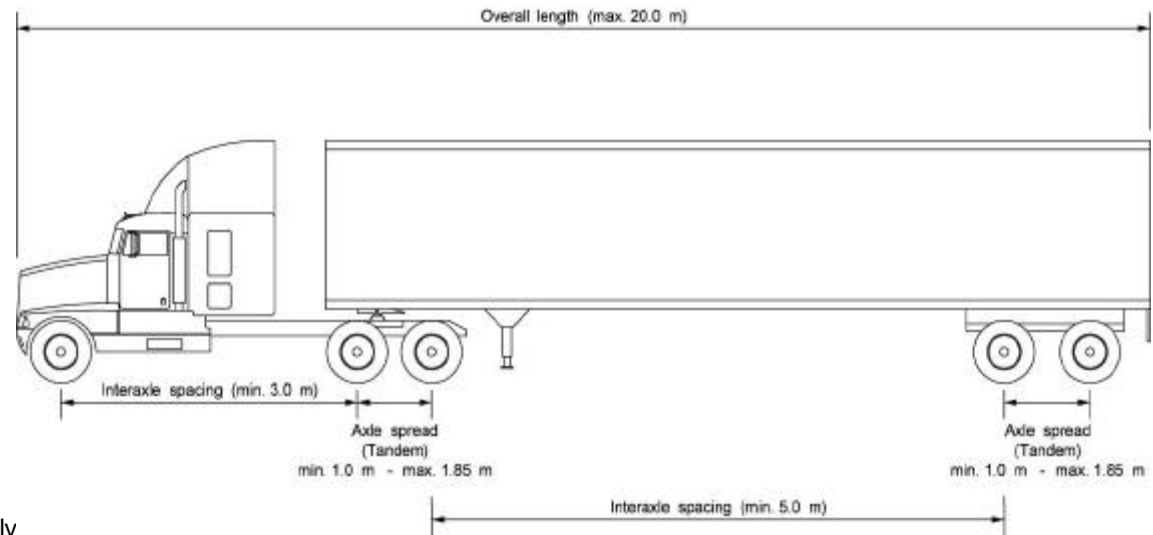
<u>RTAC</u>	<u>A1</u>	<u>B1</u>
5500 kg	5500 kg	5500 kg
9100 kg	9100 kg	8200 kg
16000 kg	16000 kg	14500 kg

MAXIMUM GROSS COMBINATION WEIGHTS

AXLES
 3 AXLES
 4 AXLES
 5 & 6 AXLES

<u>RTAC</u>	<u>A1</u>	<u>B1</u>
23700 kg	23700 kg	21900 kg
30600 kg	30600 kg	28200 kg
37500 kg	37500 kg	34500 kg

NON-RTAC TRACTOR SEMI TRAILER



* Semi-trailers equipped with two single axle units with an interaxle spacing of between 1.86 m and 3.05 m can not exceed the maximum allowable gross axle weight for a single axle unit.

Note: Where a truck tractor, in combination with an end dump bulk semi-trailer which was manufactured prior to April 1, 1982, is driven or operated on an RTAC route or a Class A1 or Class B1 Highway and does not exceed the maximum prescribed GVW for that type of vehicle on that class of highway, it shall be deemed to meet the minimum "Interaxle Spacings" and the down-loading factor calculation shall not apply.

NON-RTAC A-TRAIN

PARAMETERS

Overall Length
 Overall Width
 Overall Height

LIMITS

Maximum 23.0 m
 Maximum 2.6 m
 Maximum 4.15 m

TRACTOR

Wheelbase

Not controlled

LEAD SEMI-TRAILER *

Wheelbase

Not controlled

FULL TRAILER **

Wheelbase
 Dolly Drawbar Length

Not controlled
 Maximum 4.0 m

Interaxle Spacings

Steering Axle to Drive Axle
 Single to Single or Axle Group
 Axle Group to Axle Group

Minimum 3.0 m
 Minimum 3.5 m
 Minimum 5.0 m/4.0 m*
 (*end dump bulk trailers only)

AXLE WEIGHTS

Steering Axle
 Single Axle *
 Axle Group

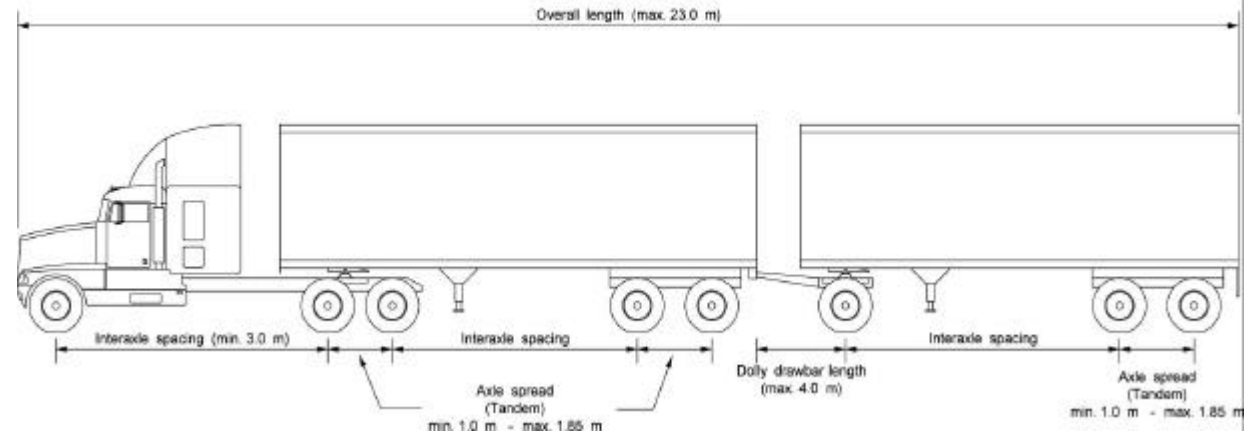
	<u>RTAC</u>	<u>A1</u>	<u>B1</u>
Steering Axle	5500 kg	5500 kg	5500 kg
Single Axle *	9100 kg	9100 kg	8200 kg
Axle Group	16000 kg	16000 kg	14500 kg

MAXIMUM GROSS COMBINATION WEIGHTS

AXLES
 5 AXLES
 6 AXLES
 7 AXLES
 8, 9 or 10 AXLES

	<u>RTAC</u>	<u>A1</u>	<u>B1</u>
5 AXLES	41900 kg	41900 kg	38300 kg
6 AXLES	48800 kg	48800 kg	44600 kg
7 AXLES	53500 kg	53500 kg	47630 kg
8, 9 or 10 AXLES	53500 kg	53500 kg	47630 kg

NON-RTAC A TRAIN DOUBLE



* Lead semi-trailers equipped with two single axle units with an interaxle spacing of between 1.86 m and 3.05 m can not exceed the maximum allowable gross axle weight for a single axle unit.

** This configuration allows the full trailer (dolly and second semi-trailer) a maximum of 2 axle units in contact with the ground.

Notes:

- 1) A-trains with trailer equipment manufactured prior to July 1, 1988 are permitted a maximum allowable gross vehicle weight of 56,500 kg on an RTAC route or Class A1 highway and a maximum allowable gross vehicle weight of 47,630 kg on a Class B1 highway.
- 2) A-trains with trailer equipment manufactured prior to April 1, 1982 that do not meet the minimum interaxle spacing and are operated on an RTAC route or Class A1 highway are permitted a maximum GVW of 50,000 kg and when operated on a Class B1 highway are permitted a maximum GVW of 47,630 kg. The downloading factor calculation shall not apply.

NON-RTAC B - TRAIN

PARAMETERS

Overall Length
 Overall Width
 Overall Height
 Box Length

TRACTOR

Wheelbase

LEAD SEMI-TRAILER *

Wheelbase
 Kingpin Setback

SECOND SEMI-TRAILER *

Wheelbase

INTERAXLE SPACINGS

Steering Axle to Drive Axle
 Single to Single or Axle Group
 Axle Group to Axle Group

AXLE WEIGHTS

Steering Axle
 Single Axle *
 Axle Group

LIMITS

Maximum 23 .0 m
 Maximum 2.6 m
 Maximum 4.15 m
 Not Controlled

Not Controlled

Not controlled
 Not Controlled

Not Controlled

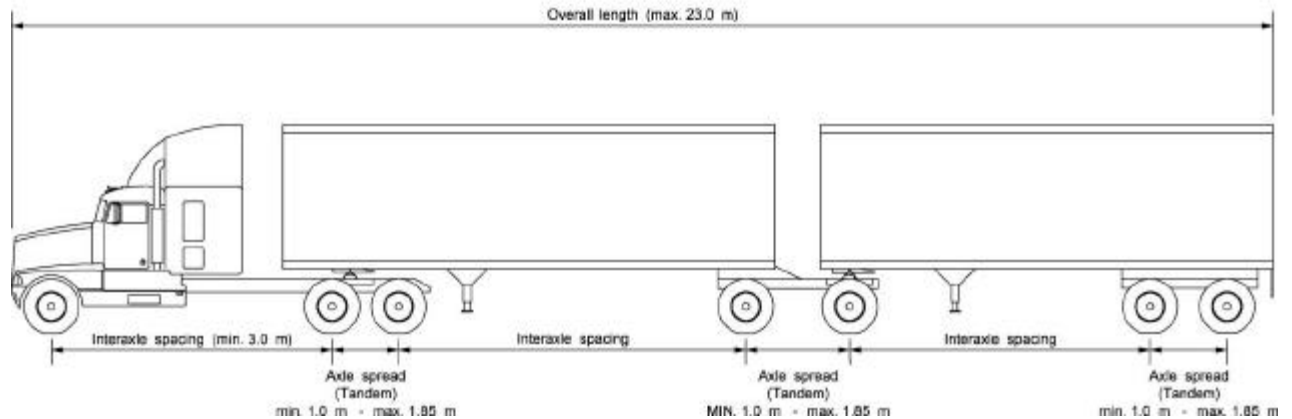
Minimum 3.0 m
 Minimum 3.5 m
 Minimum 5.0 m/4.0 m*
 (*End dump bulk trailers only)

	RTAC	A1	B1
Steering Axle	5500 kg	5500 kg	5500 kg
Single Axle *	9100 kg	9100 kg	8200 kg
Axle Group	16000 kg	16000 kg	14500 kg

MAXIMUM GROSS COMBINATION WEIGHTS

AXLES	RTAC	A1	B1
4 AXLES	32800 kg	32800 kg	30100 kg
5 AXLES	39700 kg	39700 kg	36400 kg
6 AXLES	46600 kg	46600 kg	42700 kg
7, 8 or 9 AXLES	53500 kg	53500 kg	47630 kg

NON-RTAC B TRAIN DOUBLE



* Semi-trailers equipped with two single axle units in contact with the ground and with an interaxle spacing of between 1.86 m and 3.05 m can not exceed the maximum allowable gross axle weight for a single axle unit.

Note: B-trains with trailer equipment manufactured prior to April 1, 1982 that do not meet the minimum interaxle spacing and are operated on an RTAC route or Class A1 highway are permitted a maximum GVW of 50,000 kg and when operated on a Class B1 highway are permitted a maximum GVW of 47,630 kg. The downloading factor calculation shall not apply.

NON-RTAC C - TRAIN

PARAMETERS

Overall Length
Overall Width
Overall Height

TRACTOR

Wheelbase

LEAD SEMI-TRAILER

Wheelbase

FULL TRAILER

Wheelbase
Dolly Drawbar Length

INTERAXLE SPACINGS

Steering Axle to Drive Axle
Single to Single or Axle Group
Axle Group to Axle Group

AXLE WEIGHTS

Steering Axle
Single Axle *
Axle Group

LIMITS

Maximum 23.0 m
Maximum 2.6 m
Maximum 4.15 m

Not Controlled

Not Controlled

Not Controlled
Maximum 4.0 m

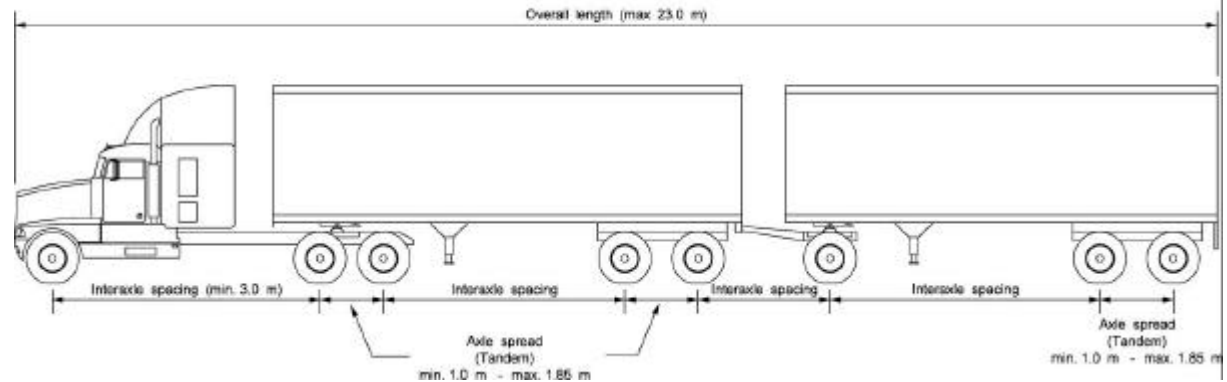
Minimum 3.0 m
Minimum 3.5 m
Minimum 5.0 m

	RTAC	A1	B1
Steering Axle	5500 kg	5500 kg	5500 kg
Single Axle *	9100 kg	9100 kg	8200 kg
Axle Group	16000 kg	16000 kg	14500 kg

MAXIMUM GROSS COMBINATION WEIGHTS

AXLES	RTAC	A1	B1
5 AXLES	41900 kg	41900 kg	38300 kg
6 AXLES	48800 kg	48800 kg	44600 kg
7 AXLES	53500 kg	53500 kg	47630 kg
8, 9 or 10 AXLES	53500 kg	53500 kg	47630 kg

NON-RTAC C TRAIN DOUBLE



* Lead semi-trailers equipped with two single axle units with an interaxle spacing of between 1.86 m and 3.05 m can not exceed the maximum allowable gross axle weight for a single axle unit.

** This configuration allows the full trailer (dolly and second semi-trailer) a maximum of 2 axle units in contact with the ground.

Notes:

- 1) The use of a C-dolly is mandatory in this configuration
- 2) C-trains with trailer equipment manufactured prior to July 1, 1988 are permitted a maximum allowable gross vehicle weight of 56,500 kg on an RTAC route or Class A1 highway and a maximum allowable gross vehicle weight of 47,630 kg on a Class B1 highway.
- 3) C-trains with trailer equipment manufactured prior to April 1, 1982 that do not meet the minimum interaxle spacing and are operated on an RTAC route or Class A1 highway are permitted a maximum GVW of 50,000 kg and when operated on a Class B1 highway are permitted a maximum GVW of 47,630 kg. The downloading factor calculation shall not apply.