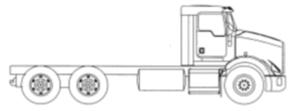
# **NON TAC Tractors and Trailers**

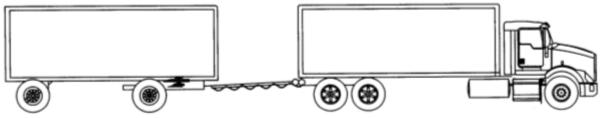
# Items 1-15

1. Truck-Tractor or Single Vehicle

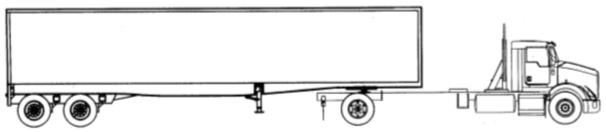


Maximum O.A.L. 12.5 metres (Section 7.13(2))

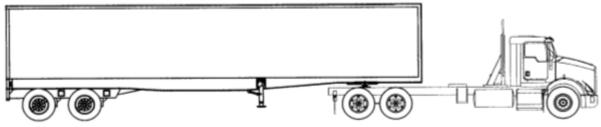
2. 5 Axle, 2 Vehicle Combination Consisting of Truck and Trailer with Converter Dolly. Two Articulation Points



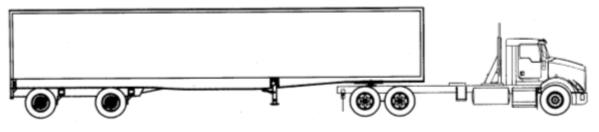
- Maximum O.A.L 23 metres
- Maximum O.A.L of trailer 12.5 m (very often a 6 axle combination with tandem rear axles on trailer) (Section 7.13-(3)(b))
- 3. 4 Axle, 2 Vehicle Combination Consisting of Single Drive-Axle Truck-Tractor and Semi-Trailer. One Articulation Point



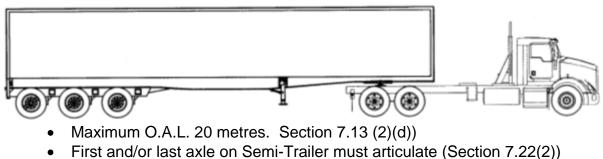
 Maximum O.A.L. 20 metres Section 7.13-(2)(d)) Licence G.V.W. 38 000 kilograms as only single axle drive (Section 7.33(b)) 4. 5 Axle, 2 Vehicle Combination Consisting of Tandem-Drive Axle Truck-Tractor and Semi-Trailer. One Articulation Point



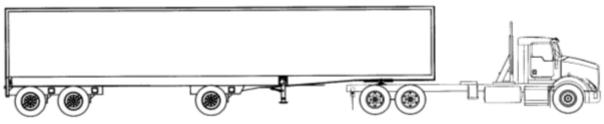
- Maxiumum O.A.L. 20 metres (Section 7.13-(2)(d))
- 5. 5 Axle, 2 Vehicle Combination Consisting of Truck Tractor and Semi-Trailer with Wide Spread Axles. One Articulation Point.



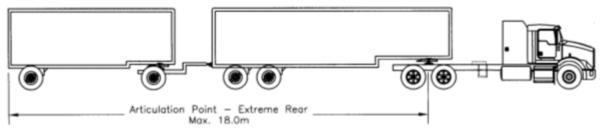
- Maximum O.A.L. 20 metres (Section 7.13-(2)(d))
- Either Semi-Trailer Axle Must Articulate (Section 7.22(2)) when axle spread exceeds 1.85 m
- 6. 6 Axle, 2 Vehicle Combination Consisting of Truck-Tractor and Tri-Axle Semi-Trailer. One Articulation Point



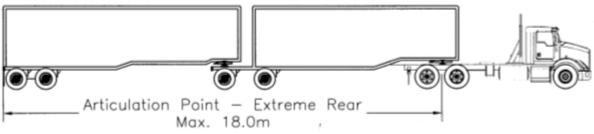
7. 6 Axle, 2 Vehicle Combination Consisting of Truck-Tractor and 3 Axle Semi-Trailer. One Articulation Point



- Maximum semi-trailer length 14 m
- Maximum O.A.L. 20 metres (Section 7.13-(2)(d))
- First axle on semi-trailer must articulate (Section 7.22(2))
- 8. Truck-Tractor, Semi-Trailer and Trailer; Commonly referred to as an "A" Train Three Articulation Points

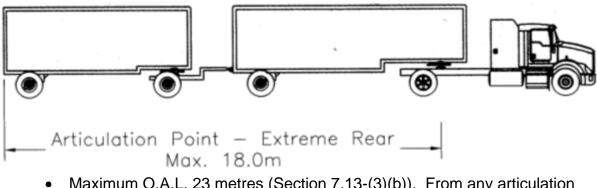


- Maximum O.A.L. 23 metres (Section 7.13(3)(b)). From any articulation point to the extreme rear not to exceed 18.0 metres – Overlength permit not available. (Section 7.15-(2)(b))
- 9. 7 Axle, 3 Vehicle Combination Consisting of Truck-Tractor and 2 Semi-Trailers Commonly Referred to as a "B" Train. Two Articulation Points



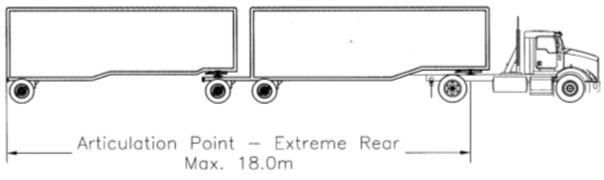
 Maximum O.A.L. 23 metres (Section 7.13(3)(b)). From any articulation point to extreme rear not to exceed 18.0 metres (Section 7.15(2)(b)). Overlength permit not available. Licensed G.V.W. not to exceed 38 000 kilograms. (Section 7.33(b))

10. Single Axle Drive Truck-Tractor Semi-Trailer and Trailer, "A" Train. Three Articulation Points

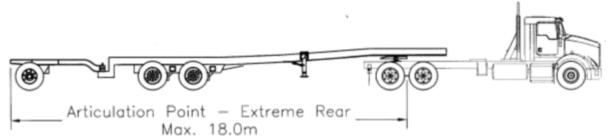


- Maximum O.A.L. 23 metres (Section 7.13-(3)(b)). From any articulation point to extreme rear of vehicle combination not to exceed 18.0 metres. (Section 7.15-(2)(b)). Overlength permit not available. Licenced G.V.W. not to exceed 38 000 Kilograms. (Section 7.33(b))
- 11. Single Axle Drive Truck-Tractor and 2 Semi-Trailer; "B" Train Two Articulation Points

Same requirements as Figure (10)



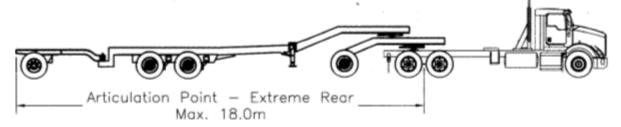
12.6 Axle, 3 Vehicle Combination Consisting of Truck-Tractor Semi-Trailer and Booster Trailer Two Articulation Points



Overlength permit not required provided combination does not exceed 23 metres and first articulation point to extreme rear does not exceed 18.0 metres. Overlength permitted only when additional axle is required for weight purposes

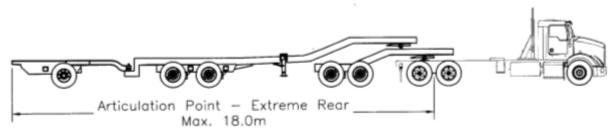
13.7 Axle, 3 Vehicle Combination Consisting of Truck-Tractor, Jeep, Semi-Trailer and Single Axle Booster Trailer. Three Articulation Points.

Same requirements as Figure #12



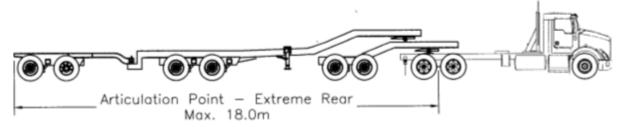
14.8 Axle, 3 Vehicle Combination Consisting of Truck-Tractor, Jeep, Semi-Trailer and Single Axle Booster Trailer. Three Articulation Points

Same requirements as Figure #12



15.9 Axle, 3 Vehicle Combination Consisting of Truck-Tractor, Tandem Jeep, Semi-Trailer and Tandem Rear Booster Trailer. Three Articulation Points

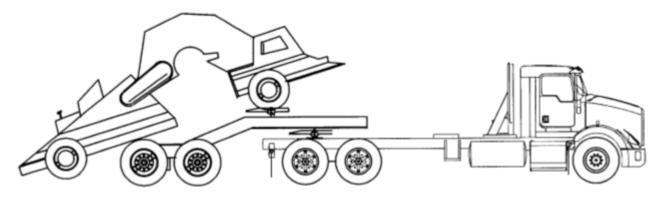
Same requirements as Figure #12



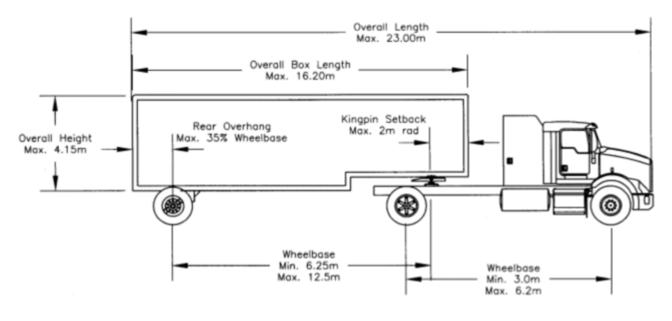
# Items 16-29

16. 6 Axle, 3 Vehicle Combination Consisting of Truck-Tractor, Jeep and Trailer. (Scraper)

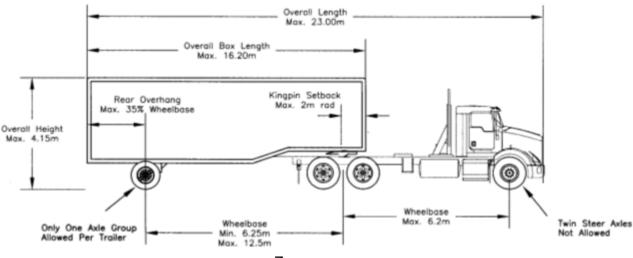
Trailing axle of scraper shall be included in the allowable GVW provided O.A.L. does not exceed 23 metres and kingpin to rear distance does not exceed 18.0 metres. Trailing Axle of scraper must be equipped with brakes and lights operable from the truck-tractor cab. Jeep to be licensed as a commercial trailer and scraper to have "X" plate or temporary operation permit. Trailing axle of scraper not to exceed 14 000kg. <u>Bulletin 41 (10)</u>



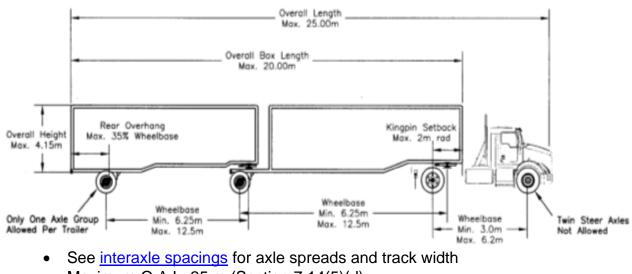
17. 3 Axle, 2 Vehicle Combination consisting of a single drive axle truck tractor and single axle semi trailer



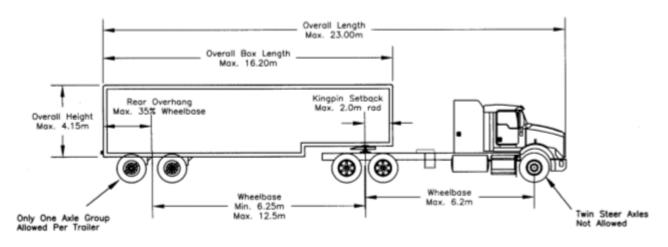
- See interaxle spacings for axle spreads and track width
- Max O.A.L. 23 m (Section 7.14-(5)(c))
- Truck tractor wheelbase maximum 6.2 (Section 7.14-(5)(a))
- Maximum semi-trailer length 16.2 m (Section 7.14-(2)(a))
- Minimum semi-trailer wheelbase 6.25 m (Section 7.14(2)(b))
- Maximum semi-trailer wheelbase 12.5 m (Section 7.14-(2)(b))
- Maximum kingpin setback 2m (Section 7.16-(2))
- Maximum effective rear overhang 35% of WB (Section 7.18-(2))
- Maximum G.V.W. 23 700 kg (Section 7.32)
- 18. 4 Axle, 2 Vehicle combination consisting of tandem drive axle truck tractor and single axle semi-trailer



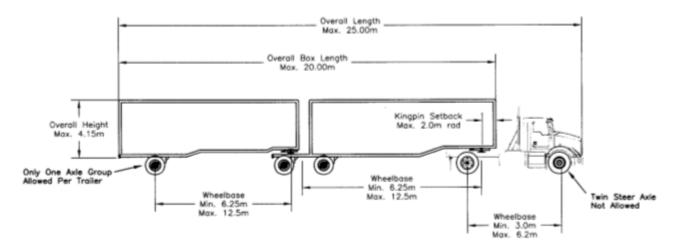
- See interaxle spacings for axle spreads and track width
- See Figure #17 for sizes Maximum G.V.W. 31 600 kg (Section 7.32)
- 19. 4 axle B train consisting of single drive axle truck tractor and 2 single axle semitrailers



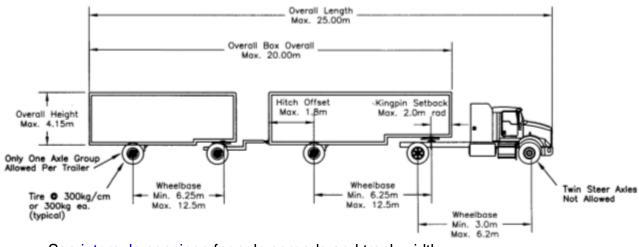
- Maximum O.A.L. 25 m (Section 7.14(5)(d))
- Maximum box length 20 m (Section 7.14-(4)(a))
- See figure 17 for other sizes
- Make G.V.W. 32 800 kg (Section 7.32)
- 20. 5 axle 2 vehicle combination consisting of a tandem drive axle truck tractor and tandem axle trailer.



- See interaxle spacings for axle spreads and track width
- See figure 17 for sizes
- Maximum G.V.W. 39 500 kg (Section 7.32)
- 21. 5 axle B train consisting of a single drive axle truck tractor, tandem axle lead trailer and single axle rear trailer

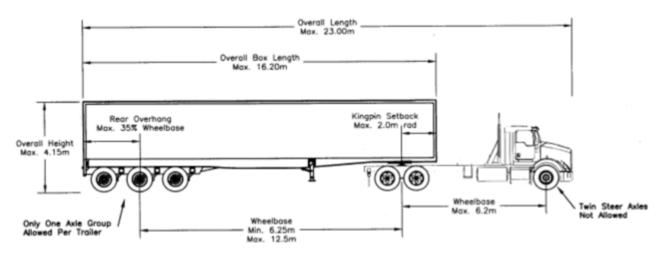


- See interaxle spacings for axle spreads and track width
- See figures 17 and 19 for sizes
- Maximum G.V.W. 38 000 kg (Section 7.33(b))
- 22. 5 axle A or C train consisting of a single drive axle truck tractor single axle lead semi-trailer and full trailer

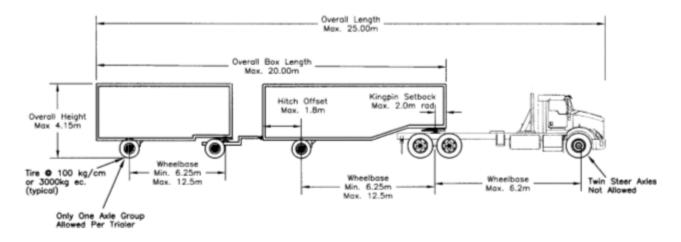


- See interaxle spacings for axle spreads and track width
- Maximum O.A.L. 25 m (Section 7.14(5)(d))
- Maximum trailer box length 20.0 m (Section 7.14(3)(a))
- Minimum trailer wheelbase 6.25 m (Section 7.14(3)(b))

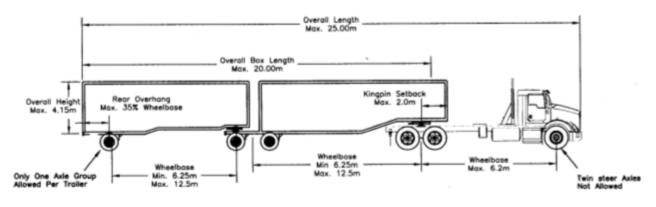
- Maximum hitch offset 1.8 m (Section 7.20(2))
- Maximum full trailer weight cannot exceed the combined weight of the tractor drive axle plus the weight of the lead trailer axle.
- Maximum G.V.W. 38 000 kg (Section 7.33(b))
- Unless a C Train is equipped with a "C Converter Dolly" as described in Appendix D CTAR, the C Train box length is limited to 18.5 m.
- 23. 6 axle 2 vehicle combination consisting of a tandem drive axle truck tractor and tridem axle semi-trailer



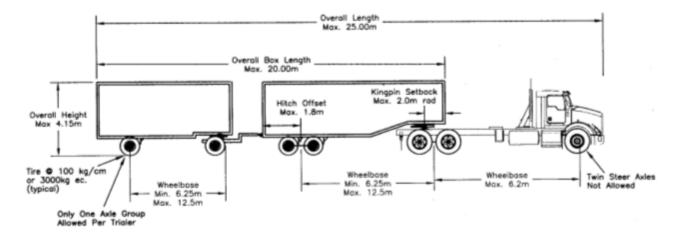
- See interaxle spacings for axle spreads and track width
- See Figure 17 for sizes
- Minimum tridem axle spread 2.4 m
- Maximum tridem spread 3.7 m
- Maximum G.V.W. 46 500 kg.
- 24. 6 axle A or C train consisting of a tandem drive axle truck tractor and single axle trailers.



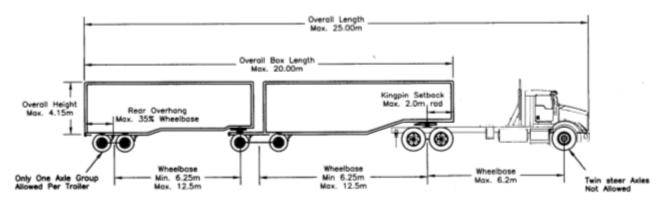
- See interaxle spacings for axle spreads and track width
- See Figure 22 for sizes and rear trailer weight cannot exceed the combined weight of the tractor drive axles plus the weight of the lead trailer axle.
- Maximum G.V.W. 49 800 kg (Section 7.32)
- Unless a C Train is equipped with a "C Converter Dolly" as described in Appendix D CTAR, the C Train box length is limited to 18.5 m.
- 25. 6 axle B train consisting of a tandem drive axle truck tractor and tandem axle lead semi-trailer



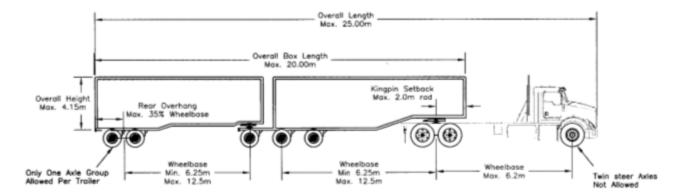
- See interaxle spacings for axle spreads and track width
- See figures 17 and 19 for sizes
- Maximum G.V.W. 48 600 kg (Section 7.32)
- 26. 7 axle A or C train consisting of a tandem drive axle truck tractor and tandem axle lead semi-trailer



- See interaxle spacings for axle spreads and track width
- See figure 22 for sizes and rear trailer weight cannot exceed the combined weight of the tractor drive axles plus the weight of the lead trailer axles.
- Maximum G.V.W. 53 500 kg (Section 7.28(2)(b))
- Unless a C Train is equipped with a "C Converter Dolly" as described in Appendix D CTAR, the C Train box length is limited to 18.5 m
- 27. 7 axle B train consisting of a tandem drive axle truck tractor and tandem axle semi- trailers.

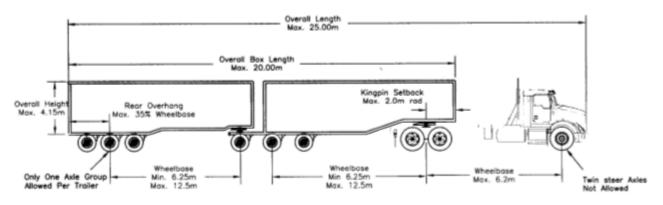


- See interaxle spacings for axle spreads and track width
- See figures 17 and 19 for sizes
- Maximum 56 500 kg (Section 7.32)
- 28. 8 axle B train consisting of a tandem drive axle truck tractor tridem lead semitrailer and tandem rear trailer



- See interaxle spacings for axle spreads and track width
- See figures 17 and 19 for sizes
- See figure 23 for tridem requirement
- Maximum G.V.W 63 500 kg (Section 7.26)

29. 9 axle B train consisting of a tandem drive axle truck tractor tridem axle lead semi-trailer and tridem axle rear semi-trailer



- See interaxle spacings for axle spreads and track width
- See figures 17 and 19 for sizes
- See figures 23 for tridem requirements
- Maximum G.V.W. 63 500 kg (Section 7.26)

# **TAC Vehicles**

# INTERAXLE SPACING (MIN. DISTANCES)

	Single	Tandem	Tridem
Single	3 m	3 m	3 m
Tandem	3 m	5 m	5.5 m
Tridem	3 m	5.5 m	6 m

# **AXLE SPREAD**

Single (can include 2 axles)	Up to Max. 1.0 m	
Tandem	Min 1.0 m – Max 1.85 m	
Tridem	Min. 2.4 – Max. 3.7 m	

(Measuring kingpin straight setback 2.0 metre radius

2.6 m wide box = 1.52 m

2.4 m wide box = 1.60 m

# TRACK WIDTH

Semi-trailers and full trailers manufactured after December 31, 1993, must have a track width (outside of tire to outside of tire) of not less than 2.5 m nor more than 2.6 m. This does not apply to container chassis trailers used exclusively in the transportation of shipping containers.

# TAC/NON-TAC

Note: Non-TAC vehicles can be considered by policy to be TAC if they meet all TAC regulations.

# LEGAL WEIGHTS FOR BRITISH COLUMBIA LOGGING TRUCK COMBINATIONS

(NOT INCLUDING ADDITIONAL ALLOWANCE DESCRIBED WITHIN CTAR DIVISION 7.06 WHICH APPLIES TO COMBINATIONS OF VEHICLES DESCRIBED BELOW WHEN HAULING LOGS)

- A Logging truck and pole trailer combinations (not including tridem drive tractor/pole trailer combinations outlined in Appendix G, CTAR).
  - (i) Steering axle/single axle up to 9 100 kg provided the following limits are not exceeded.
    - (a) Tire size 110 kg per cm of tire width (CTAR 7.29)
    - (b) Gross axle weight manufacturer's ratings (MVAR 19.11)
  - (ii) Tandem axle 17 000 kg (1.2 1.85 m spread) 16 500 kg (1.0 to 1.2 m spread)
  - (iii) Tridem axle 24 000 kg
  - (iv) Other axle groups up to 8 metre distance between centres (according to Table 1 CTAR 7.31)
- B Non TAC Combinations (non-tridem axle semi-trailers manufactured on or prior to August 31, 1988)
  - Steering axle/single axle up to 9 100 kg provided the limits noted in A(i)(a) and (b) are not exceeded
  - (ii) Steering axle of B train combination up to 6 000 kg provided the limits noted in A(i)(a) and (b) are not exceeded

- (iii) Tandem axle 17 000 kg (1.2 1.85 m spread) 16 500 kg (1.0 to 1.2 m spread)
- (iv) Other axle groups up to 8 metre distance between centres (according to Table 1 CTAR 7.31)
- C TAC Combinations (all tridem axle semi-trailers and semi-trailers manufactured after August 31, 1988)
  - (i) Steering axle up to 5 500 kg or self-loading truck tractor/single axle up to 9 100 kg provided the following limits are not exceeded:
    - (a) Tire size 100 kg per cm of tire width (CTAR 7.30)
    - (b) Manufacturer's rated capacity of the tire (CTAR 7.30)
    - (c) Gross axle weight manufacturer's ratings (MVAR 19.11)
  - (ii) Tandem axle 17 000 kg
  - (iii) Tandem axle 24 000 kg

Note:

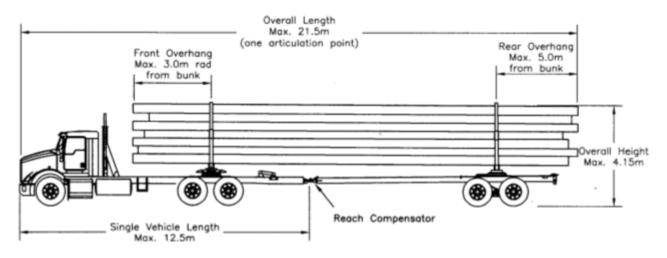
- Maximum 3 000 kg/tire applies to all axles except steering axle (CTAR 7.30)
- no axle unit (single, tandem, tridem) may exceed the axle, suspension or brake manufacturer's rating of that component (CTAR 7.32(3)(A)(i)
- any two adjacent axles of a tridem axle group are not to exceed
- 17 000 kg or any axle of a tandem or tridem axle group is not to exceed 9 100 kg (CTAR 7.32(4.1).
- D Licensing

Logging truck operators are to licence their vehicles for the maximum legal allowable weight. The legislated logging truck weight allowances are free excess weight tolerances and this weight is not applied to vehicle licensing, but rather is granted above the licensed gross vehicle weight, to an overall maximum weight of 63 500 kg.

# Items 30-46

# LOGGING TRUCK AND POLE TRAILER COMBINATIONS

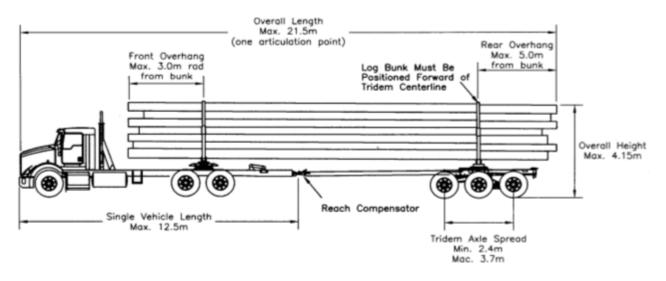
# 30. Logging Truck and Tandem Axle Pole Trailer

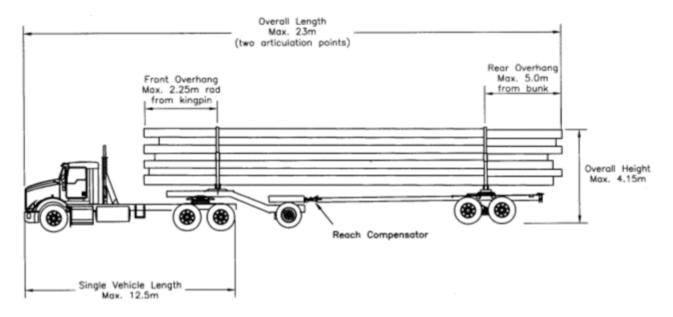


#### TRACK WIDTH

Pole trailers manufactured after December 31, 1993, must have a track width (outside of tire to outside of tire) of not less than 2.5 m nor more than 2.6 m

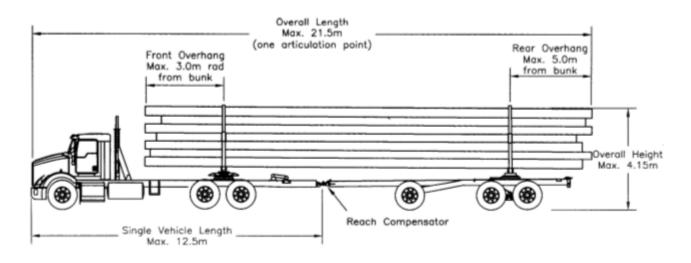
# 31. Logging Truck and Tridem Axle Pole Trailer



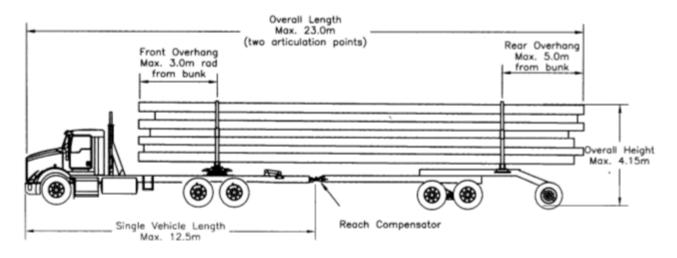


# 32. Logging Truck, Single Axle Jeep and Tandem Axle Pole Trailer

# 33. Logging Truck and Triaxle Trailer (includes Sjostrum trailer)

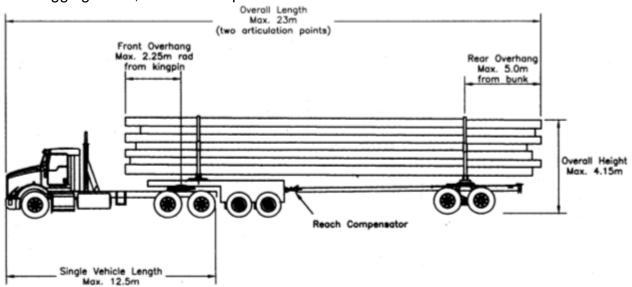


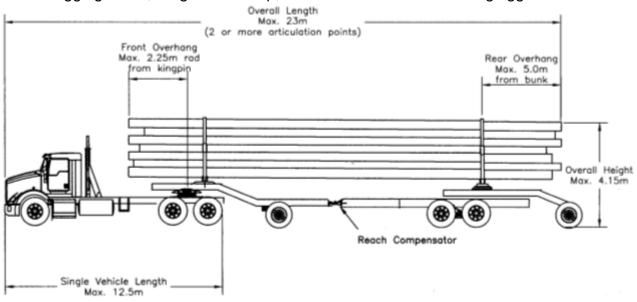
Note: If the triaxle trailer includes a turntable which articulates at the first axle then the overall length is maximum 23.0 m



# 34. Logging Truck, Tandem Pole Trailer and Doglogger

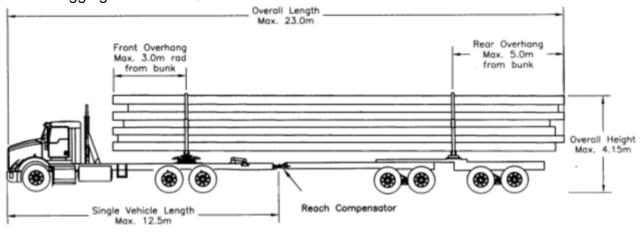
35. Logging Truck, Tandem Jeep and Tandem Pole Trailer



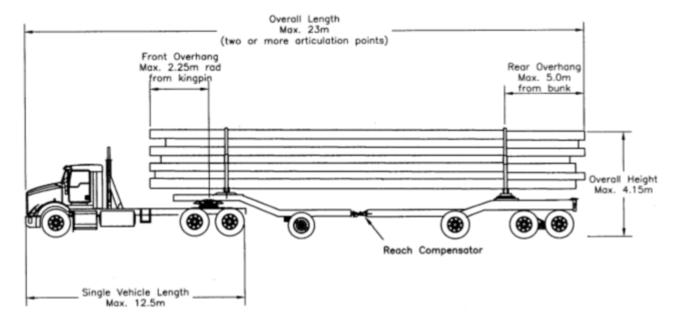


36. Logging Truck, Single Axle Jeep, Tandem Pole Trailer and Doglogger

37. Logging Truck and Quadaxle Pole Trailer



NOTE: This combination is also used to haul short logs by adding bunks to the log truck and the trailer.



# 38. Logging Truck, Single Axle Jeep and Triaxle Trailer

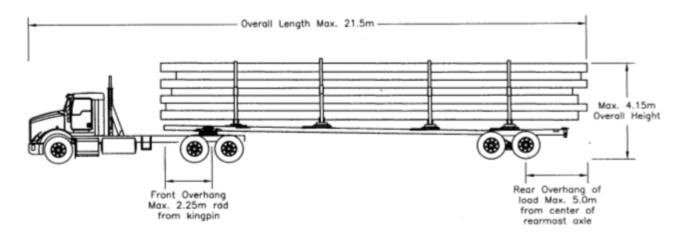
# Non-TAC Truck Tractor and Semi-Trailer Combinations Hauling Logs

(For Weights See here)

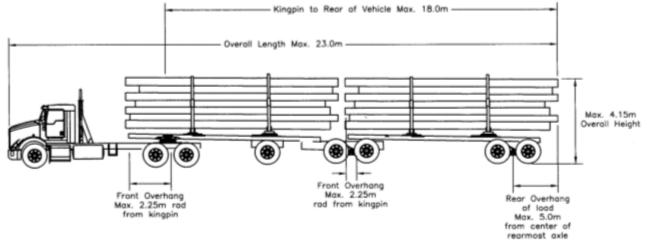
(For example: Non-tridem axle semi-trailer(s) manufactured on or prior to

August 31, 1988 and/or long wheelbase truck tractors > 6.2 m)

39. Truck Tractor and Semi-trailer



40. Non-TAC B Train



TAC Truck Tractor and Semi-trailer Combinations Hauling Logs

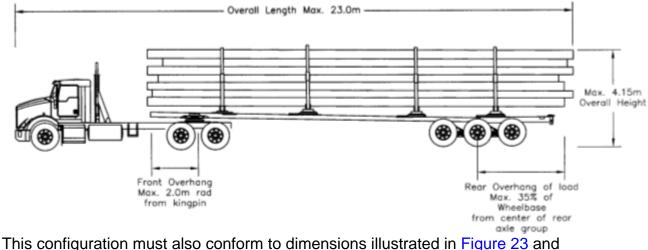
(For Weights See here)

(For example: Tridem axle semi-trailer or semi-trailers manufactured after

August 31, 1988 or semi-trailers manufactured on or before

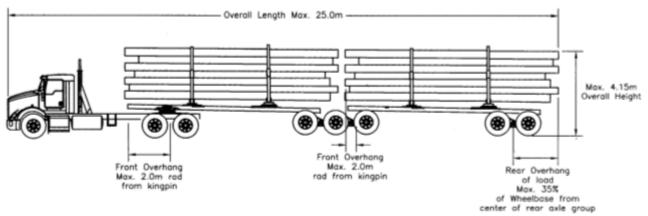
August 31, 1988 which comply with TAC regulations)

41. Truck Tractor and Semi-trailer



dimensions described earlier.

#### 42. TAC B-Train



This configuration must also conform to dimensions illustrated in <u>Figure 28</u> and <u>dimensions</u> described earlier.

# **MISCELLANEOUS VEHICLE COMBINATIONS**

43. PICK-UP TRUCK AND TRAILER (GOOSENECK 5<sup>TH</sup> WHEEL, PINTLE HITCH, BALL HITCH ETC.)

These two vehicle combinations are regulated as non-TAC vehicles according to the Commercial Transport Act Regulations CTAR 7.13(2)(b). Trailers longer than 12.5 m (41') are not allowed by regulation in combination with a pick-up truck and there are no special permits granted (Note: heavy duty straight trucks described

in Appendix B CTAR also are not allowed by regulation to haul trailers longer than 12.5 metres). As a non-TAC trailer three axles may be used provided the overall axle spacing 1-3 does not exceed 185 cm (6'). Legal overall length for non-TAC vehicles is 20 m (65'6") according to CTAR 7.13(2)(d). If the power unit has a net weight (unloaded tare weight) exceeding 4 000 kg, and meets the definition of a truck tractor, then these trailers can be hauled as fifth wheel semi-trailers and TAC truck tractor/semi-trailer rules apply, eg. 16.2 m long semi-trailers and 23 m overall length.

44. MOTORHOME AND TOWED VEHICLES (MOTOR VEHICLES, BOAT TRAILERS, ETC.)

These two vehicle combinations are regulated under Division 19.02 of the Motor Vehicle Act Regulations (MVAR) and according to MVAR 19.02(1), the same rules apply for these two vehicle combinations as in (43) above. Axle weight limits as defined in the Commercial Transport Act Regulations, Division 7 do not apply to motorhomes. Provisions of the Commercial Transport Act Regulations (CTAR) referring to weights are not adopted within the Motor Vehicle Act Regulations in Division 19.02(1) MVAR.

#### 45. THREE VEHICLE RECREATIONAL COMBINATIONS

According to a 1989 technical study on the dynamic behaviour of recreational doubles conducted by the University of Michigan, Transportation Research Institute (UMTRI), dynamic stability of the recreational doubles is very sensitive to overall combination vehicle length (not recommended to exceed 59 ft.), the amount of rear overhang of the first trailer, and speed. Observations indicate that in slow speed manoeuvres, they are difficult to turn, exhibit poor tracking, and extremely difficult to back up.

Stakeholders such as the BC Automobile Associate and the BC Trucking Association agree that these combinations possess known vehicle dynamic deficiencies and appear to create an incremental road safety risk.

To minimize the safety risk on our highways, ICBC does not permit the operation of these recreational combinations. The three-vehicle combination consisting of a <sup>3</sup>/<sub>4</sub> ton truck, a fifth wheel trailer plus another trailer (i.e. boat or utility trailer) towed behind the fifth wheel trailer is not a legal combination on British Columbia highways. The explanation is as follows:

- 1. Under the Commercial Transport Act a "commercial vehicle" includes a motor vehicle having permanently attached to it a truck or delivery body. The <sup>3</sup>/<sub>4</sub> ton truck is a commercial vehicle.
- 2. Within the Commercial Transport Act Regulations, Division 7.31(2) c) does not allow the operation of a three-vehicle combination of vehicles unless the gross vehicle weight exceeds 11 000 kg. These lighter 3 vehicle combinations normally do not exceed 11 000 kg and are not permitted to operate on British Columbia highways.
- 3. Also, within the Commercial Transport Act Regulations, Division 7.13(2)(f) does not allow the operation of a three-vehicle combination consisting of a truck and two trailers. The three-vehicle combination consisting of a passenger vehicle and two trailers is also not a legal combination on British Columbia highways in unorganized territory or on an arterial highway in a municipality. Division 19.02(3)(a) and Division 19.01(2) of the Motor Vehicle Act Regulations refers. The three-vehicle combination of a truck tractor, fifth wheel recreational trailer plus another trailer towed behind the fifth wheel trailer is also not legal even if the gross vehicle weight exceeds 11 000 kg. This combination is not recognized under the Commercial Transport Act Regulations and even if the trailers were licensed with commercial plates, this combination including a semi-trailer and pony trailer would be disallowed under CTAR 7.14(5)(g).

All of the above three-vehicle combinations are illegal and no special permits are available for their operation on British Columbia highways.

# 46. STRAIGHT TRUCK AND RECREATIONAL TRAILER

A straight truck which complies with the requirements of Appendix A of the Commercial Transport Act Regulations (CTAR) may be combined with a recreational trailer (with a GVWR of less than 10 000 kg) and this combination is treated as a commercial vehicle combination of a TAC Straight Truck with a non-TAC Pony Trailer (Appendix F1 CTAR). Therefore, a legal overall length of 23 metres is allowed. This applies for all hitches (e.g. pintle, ball or fifth wheel).