Attached Equipment Exemption Conditions for a Quad Axle Semi-Trailer

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If a permit has been issued pursuant to Section 62 of the Traffic Safety Act authorizing the movement of logging trucks, any and all of the following conditions shall apply in addition to any other conditions specified on the permit.

The weights and dimensions allowed by this permit apply to a tridem drive log truck with a quad axle semi-trailer as shown in the following picture.

Definitions
“interaxle spacing” means the longitudinal distance separating two axles or axle groups, or a steering axle and an axle group, as calculated from the centres of the two adjacent axles
“track width” means the width of an axle across the outside faces of the tires measured at any point above the lowest point of the rim.
“trailer wheelbase” means the longitudinal distance from the centre of the kingpin on a semi-trailer, the centre of the turntable on a full trailer or the centre of the hitch device on a pony trailer, to the trailer turn centre;
“truck tractor wheelbase” means the longitudinal distance from the centre of the steering axle or twin steer axle group located on a truck tractor to the turn centre of the drive axle group located on the truck tractor;
“turn centre” means the geometric centre of:
(i) the axle group on a truck, truck tractor, semi-trailer or pony trailer, or
(ii) the rear axle group on a full trailer;

Configuration Specifications
1. A tridem drive – quad axle semi-trailer consists of:
   (a) a single steer tridem drive tractor and
   (b) a semi-trailer (hay-rack) that has two axle groups
      i. a single self-steer axle (in front)
      ii. a tridem axle group (in the rear).
2. Both trailer axle groups shall be on air suspensions, which are inter-connected to equalize weight distribution.
3. The single axle and tridem axle group shall be on a common air suspension that balances the axle weights at all times. If the suspensions require different air pressures, a variable regulator valve is required.
4. The single self-steer axle may be in the up position when the trailer is empty or operating on a private road.
5. The axle must be in the down position (deployed) when the trailer is carrying a load and traveling on public roadways, either a provincial highway or a municipal road.
6. The lifting mechanism on the self-steer axle must be capable of:
   (a) lifting the axle off the ground within one half (1/2) revolution of the axle when in reverse
   (b) dropping the axle back onto the ground within ten (10) revolutions when forward movement is resumed.
7. Adjustable valves on the self-steer axle are not to be used.
8. The controls to lift or deploy the self-steering axle may be located on either the tractor or the trailer.
9. An indicator light is to be in the cab of the truck to show when the axle is lifted.
10. The self-steer axle must be capable of turning at least 20 degrees in either direction.
11. To ensure the lift axle is deployed and carrying weight when travel is on public roads (provincial highway and municipal roads); an approved on-board monitoring system must be used to track the status of the lift axle with respect to the location of the truck.

General Conditions of Permit
1. The vehicle must be registered for a minimum Gross Vehicle Weight (GVW) of 63,400 kg.
2. The quad axle semi-trailer cannot be used to transport commodities other than logs.
3. The carrier is limited to delivering wood to:
   (a) Home Mills - mills registered for the quad axle program with Alberta Transportation or
   (b) If under contract to a home mill on the program, to mills designated by the home mill.
4. A validated ‘Standard Log Truck’ or ‘Quad Axle Semi-Trailer’ map showing the destination mills must be used with this permit for the weights and/or dimensions listed to apply.

5. All routes designated as log haul routes on the validated ‘Standard Log Truck’ or ‘Quad Axle Semi-Trailer’ map are RED when operating under this permit.

6. This permit allows for the transport of logs from a forest cut-block, crown land or a salvage location at dimensions and weights exceeding regulated dimensions and weights provided an addendum is used with the coloured map if the route and location are not indicated on the coloured map.

7. Map and permit are only valid if hauling for or on behalf of the mill identified as the owner of the map.

8. A validated ‘Standard Log Truck’ or ‘Quad Axle Semi-Trailer’ map showing the destination mills to which the logs are being transported must be presented at the request of a peace officer for the noted weights / dimensions to apply. Electronic versions of the maps are not acceptable.

9. If a validated ‘Standard Log Truck’ or ‘Quad Axle Semi-Trailer’ map is not used with this permit
   • permit is not valid
   • weights and dimensions apply as regulated under Commercial Vehicle Dimension and Weight Regulation (AR 315/2002).
   • axle must be disabled so it cannot be deployed.

10. The route designated on the validated ‘Standard Log Truck’ or ‘Quad Axle Semi-Trailer’ is defined as the direct travel from cut-block to mill, mill to mill, cut-block to storage site, or storage site to mill:
   • including government roadside pullouts or rest areas and government weigh scale sites, but not including service roads or private facilities unless the private facilities are designated on the route map as wrapper check sites.
   • if any exits are made from the routes as shown on a validated ‘Standard Log Truck’ or ‘Quad Axle Semi-Trailer’ map, then weights and dimensions apply as regulated under Commercial Vehicle Dimension and Weight Regulation (AR 315/2002).

11. A tridem drive equipment exemption permit is required for the noted weights to apply.

12. The vehicle must be equipped with an approved on-board monitoring system.

13. If the monitoring system fails to operate, the vehicle may, after the carrier notifies the nearest Vehicle Inspection Station and Transport Engineering, continue to its destination, but shall not be used again with the lift axle deployed (down) until the monitoring system is working properly.

14. If the lift axle, its suspension, or the lifting mechanism fails to operate as designed, the vehicle shall immediately be taken off the road until such time as the defect is fixed, or it may continue to operate as a tridem axle trailer.
   • axle must be disabled so it cannot be deployed.

15. If the vehicle is not operated as required in item 12 or if as the result of situations identified in items 13 and 14 of the “General Conditions of Permit” the carrier may continue to operate the vehicle as a tridem axle trailer.

16. If this unit is operated as a Tridem Drive - Tridem Semi-Trailer the lift axle MUST BE disabled to prevent the axle from being deployed.

(a) Vehicle must have all required permits to operate as a Tridem Drive –Tridem Semi-Trailer

17. Violations of the self-steer axle when loaded on public roads may result in the permit being suspended or cancelled.

   • A violation is when the lift axle is not deployed when traveling loaded on a public roadway, or when the monitoring device is turned off or not working.
   • A deliberate violation may result in the immediate cancellation of the permit. This would include but is not limited to operating the vehicle for an extended period with the monitoring device turned off or not working

18. If the carrier is suspended from using the lift axle, the carrier may continue to operate the vehicle as a tridem axle trailer as allowed by item 16 of the “General Conditions of Permit”

19. A valid TAC permit is required when operating a tridem axle group that exceeds 17,000 kg or when operating a vehicle with a Gross Vehicle Weight (GVW) exceeding 53,500kg on a local road. Municipal approval must be obtained prior to travel on local roads under the direction, control and management of the municipality

20. This permit does not allow the vehicle to cross bridges at weights exceeding the posted capacity limits.

21. This permit does not allow travel on a road at weights exceeding the posted road ban limits.

22. Empty log trucks must report to a Vehicle Inspection Station or Mobile Inspection Station when lights are on
Dimensions

1. This permit allows increased dimensions unless stated otherwise on the validated map to a maximum:
   (a) Length (1) empty …………… 23.50 metres
       loaded …………… 30.50 metres
   (b) Height (2) vehicle or load ….. 4.80 metres
       picker …………. 5.30 metres
   (c) Width ……………………….. 3.20 metres
   (d) Trailer length ………(3)….. 16.20 metres
   (e) Wheelbase of tractor (4)….. as per tridem drive permit
   (f) Wheelbase of trailer (5)….. 6.25 metres minimum
       …………………(5)….. 12.50 metres maximum
   (g) Interaxle spacing tractor (6) as per tridem drive permit
   (h) Interaxle spacing trailer (7). 5.00 metres from last drive axle to single axle on trailer
       ……………………(8)….. 2.90 metres minimum from single axle to first axle in tridem axle group
       ……………………(8)….. 3.00 metres maximum from single axle to first axle in tridem axle group
   (i) Tridem axle spread ……. (9).... 3.00 metres minimum
       …………………………….. 3.10 metres maximum
   (j) Overhang when loaded ….. as noted below
   (k) Track width trailer axles (12) 2.50 metres minimum
       …………………………… .(12) 3.05 metres maximum

2. Brow logs, bunks and all bunk support systems such as rings and cables are included in the overall width of the vehicle.

3. Brow logs which do not extend more than 10 centimetres beyond each side of the outside of the bunk are excluded when determining equipment requirements. If brow log extends beyond the outside of the bunk by more than 10 centimetres, the vehicle must be equipped as regulated under Section 15 Commercial Vehicle Dimension and Weight Regulation (AR 315/2002).

4. Front Overhang (10)
   • 3.0 metres measured from the kingpin of the trailer to the front of the load

5. Rear Overhang (11)
   • Short logs
     o 3 metres measured from the center of last axle to end of the rear most log
   • Long logs
     o 9.0 metres measured from the centre of the last axle to the end of the forward most log

6. Commercial Vehicle Dimension and Weight Regulation (AR 315/2002) applies to all other dimensions unless an allowance is noted for a specific dimension on the permit or attached condition(s).

Weights on Designated Routes

1. The maximum weight on the single self-steer axle with dual tires shall not exceed 9,100 kg.
2. The maximum weight on the single self-steer axle with super single tires shall not exceed 7,700 kg.
   (a) If operating with super single tires, an equipment exemption permit for super single tires is required.
3. The maximum weight on the tridem trailer axle group shall not exceed 24,000 kg.
4. The maximum weight on the quad axle semi-trailer group (combined weight on the single self-steer axle and the tridem axle group) shall not exceed 33,100 kg.
5. The GVW shall not exceed 63,400 kg.
Bunks

1. Bunk stakes constructed from material other than steel are acceptable provided:
   (a) The bunk stake has been properly designed and constructed to contain the load.
   (b) Proper maintenance / inspection procedures are in place to confirm the structural integrity of the bunk stake and bunk stake connections to the vehicle.

2. This permit covers the movement of empty log bunks point to point in Alberta provided:
   (a) The overall width including bunk support systems such as rings and cables does not exceed 3.2 metres.

3. This permits exempts the empty vehicle from the requirement of displaying a dimensional sign, provided:
   (a) The headache rack lights are on at night.

4. Empty log bunks of a trailer or jeep loaded on the truck shall not exceed a height of 5.1 metres.

Headache Rack Light Position

When operating under this permit, cab height means the uppermost part of the driver compartment not including aerodynamic accessories.

The Vehicle Equipment Regulation AR123/2009 Section 105 states:

"Despite Section 16, a commercial vehicle carrying a load of logs that overhangs the rear of the vehicle by 1.5 metres or more must have
(a) a set of two-way headache rack lights mounted on the power unit at approximately cab height"

Rated Capacity of Equipment

1. The operation of the listed public vehicle is subject to the Occupational Health & Safety Code Part 2 and Part 34 Section 524(3) under the Occupational Health and Safety Act.

2. In the event of a conflict between the general condition of this permit referencing rated capacity, and the requirements of the Occupational Health & Safety Code (including any acceptance granted under the Regulation), the requirements of the Occupational Health and Safety Regulation will take precedence.

Collision Review

1. The Permit Holder must investigate and document the findings of every traffic accident involving a vehicle registered to the Permit Holder for more than 4,500 kilograms or a passenger vehicle originally designed to transport 11 or more persons, including the driver, that resulted in:
   (a) the death of a person;
   (b) an injury requiring treatment by a medical doctor;
   (c) a condition that causes an employee to lose consciousness; or
   (d) damage to all property, including cargo, totaling $2,000 or more.

2. Those collisions found to have occurred while operating under this Permit must be evaluated to determine if the collision was preventable on the part of the Permit Holder and/or their driver(s).
   (a) Each evaluation must use the criteria established by the National Safety Council (www.nsc.org)
   (b) Each evaluation and follow-up action(s) taken must be fully documented and retained by the Permit Holder for at least the current year and the following 4 years.
   (c) Any collision considered non-preventable may be submitted to Alberta Transportation for verification (see www.transportation.alberta.ca/656.htm).
      (j) Verified non-preventable collisions will not be used to help determine the carrier’s risk associated with operation under this permit.

Cancellation of Permit

The Director of Transport Engineering, Alberta Transportation may cancel this permit for failure to comply with any of the provisions or conditions stated on the permit or for general poor regulatory compliance.