QUAD AXLE TRAINING Guide

Government of Alberta

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Every effort has been made to ensure the information in this guide is accurate at the time of preparation. However this material is intended to serve only as a guide and cannot replace first-hand information such as specific legislation or permit conditions.

Corrections, comments and suggestions can be submitted to Alberta Transportation at any time by contacting:

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Expectations:

Prior to driving a quad axle semi-trailer each driver must be trained and understand the requirements and the responsibilities related to operating this type of vehicle.

DRIVER TRAINING

Once training is complete the driver will know:

1. How to operate the lift axle
   - → How the lift axle is deployed or lifted?
   - → When the lift axle IS or IS NOT working?
   - → When the lift axle should be deployed (down)?
2. How is the monitoring system operated?
   - → When the monitoring system IS or IS NOT working.
   - → When the monitoring system is ON or OFF.
3. Permit conditions
   - → What the general permit conditions are.
   - → What the dimensional restrictions are.
   - → What the weight limitations are.
4. Driver responsibilities.
5. What is a monitoring violation?
6. Consequences of violating the permit conditions.

Part 1

How to operate the lift axle

Carriers **MUST** ensure the driver knows how to operate the lift axle by training their drivers in all functions of the axle. Including the answers to the questions in this guide in your training will ensure your driver is qualified to operate a quad axle semi-trailer.

How Is the lift axle deployed?

√ The driver **MUST** be instructed so that he/she knows what actions will cause the axle to lift off the ground or drop back onto the ground

- □ The axle will lift off the ground when backing up within one half revolution of the axle when in reverse.
- □ The axle will drop onto the ground within ten revolutions when forward movement is resumed.
- □ Is there a method of manually lifting or dropping the axle?

→ if so then this **MUST** be taught to the driver.

How does a driver know if the lift axle IS or IS NOT working?

√ The driver **MUST** be instructed so that he knows how to tell when the lift axle IS or IS NOT working.

- □ Does the driver know what to look for when determining whether the lift axle is working or whether it is not working?

When should the lift axle be deployed (down)?

√ The lift axle **MUST** be down when traveling loaded on public roadways. A definition for "Public Roadway" has been included as part of the permit condition.

PART 2

HOW TO OPERATE THE MONITORING SYSTEM

Carriers **MUST** ensure the driver knows how to operate the monitoring system by training their drivers in all functions of the monitoring system. Including the answers to the questions below in your training will ensure your driver is qualified to operate a quad axle semi-trailer.

HOW DOES A DRIVER KNOW IF THE MONITORING SYSTEM IS OR IS NOT WORKING?

√ The driver **MUST** be instructed so that he knows how to tell when the monitoring system IS or IS NOT working.

- □ Does the driver know what to look for when determining whether the monitoring system is working or whether it is not working?

HOW DOES A DRIVER KNOW IF THE MONITORING SYSTEM IS TURNED ON OR OFF?

√ The driver **MUST** be instructed so that he knows how to tell when the monitoring system is turned ON or OFF.

- □ Does a driver know what to look for when determining whether the monitoring system is turned ON or OFF?
- □ Is there a method of turning the monitoring system on or off?

→ If so, then this **MUST** be taught to the driver.

PART 3

PERMIT CONDITIONS

The carrier **MUST** ensure the driver is familiar with the conditions of the quad axle semi-trailer permit. Some conditions are specific to the operation of the quad axle semi-trailer while others are the same for all logging trucks.

WHAT ARE THE GENERAL PERMIT CONDITIONS FOR THE OPERATION OF A QUAD AXLE SEMI-TRAILER?

√ The driver **MUST** be instructed so that he / she knows the general conditions of the permit. Listed below are some of the general conditions that form part of the permit.

- □ The configuration is limited to transporting raw forest products.
- □ The tractor **MUST** have a tridem drive exemption permit.
- □ Require a log haul map for a 'Tridem Drive Tractor - Quad Axle Semi-Trailer'.
- □ The driver **MUST** take and pass a training course for the Operation of Quad Axle Logging Trucks.
- □ Limited to delivering wood to "Home Mills" or a mill under contract and designated by a "Home Mill".

→ "Home Mills" are mills that are registered for the quad axle program with Transport Engineering, Alberta Transportation.

→ Any mill that is a home mill or a designated mill will be identified on the log haul map.

- □ The self-steer axle may be in the up position when the trailer is empty or when operating on private roads.
- □ The self-steer axle **MUST** be in the down position (deployed) when loaded and traveling on a public roadway.
- □ The lift axle **MUST** be deployed prior to entering the public roadway.

→ Public roadway is defined in the permit condition.

WHAT ARE THE DIMENSIONAL RESTRICTIONS OF OPERATING A QUAD AXLE SEMI-TRAILER?

√ The carrier **MUST** instruct the driver so that he / she know the maximum height, width, length, and overhang restrictions.

□ Maximum overall length (loaded)	30.5 metres
□ Maximum overall length (empty)	23.5 metres
□ Maximum width of trailer	3.2 metres
□ Maximum loaded height	4.8 metres
□ Maximum rear overhang	9.0 metres
□ Maximum front overhang	3.0 metres

(measured from the kingpin of the trailer to front of the load)

→ The maximum rear overhang from the center of last axle to end of logs is 9.0 metres, unless stated otherwise on the log haul map.

→ The bunks and all bunk support systems such as rings and cables are included in the maximum width stated above.

WHAT ARE THE WEIGHT LIMITATIONS OF OPERATING A QUAD AXLE SEMI-TRAILER?

√ The carrier **MUST** instruct the driver so that he / she knows the maximum weight allowances.

□ maximum weight – steering axle	7,300 kg
□ maximum weight - tridem drive	23,000 kg
□ maximum weight - single axle - duals	9,100 kg
□ maximum weight - single axle - super single tires	7,700 kg
□ maximum weight - tridem trailer	24,000 kg
□ maximum weight - quad axle	33,100 kg

(combined weight on single axle and tridem trailer)

□ maximum gross vehicle weight (GVW)	63,400 kg

→ Weights may change so the driver should always check the weights listed in the attached conditions of the permit or on the log haul map or addendum.

WHAT ARE THE WEIGHT LIMITATIONS OF OPERATING A QUAD AXLE SEMI-TRAILER WHEN WINTER WEIGHTS ARE IN EFFECT?

	GREEN	BLUE	RED
□ maximum weight – steering axle	7,300 kg	7,300 kg	7,300 kg
□ maximum weight - tridem drive	27,000 kg	25,000 kg	23,000 kg
□ maximum weight - single axle - duals	10,200 kg	9,100 kg	9,100 kg
□ maximum weight - tridem trailer	27,000 kg	25,000 kg	24,000 kg
□ maximum weight - quad axle (combined weight on single axle and tridem trailer)	34,000 kg	33,100 kg	33,100 kg
□ maximum gross vehicle weight (GVW)	68,000 kg	65,000 kg	63,400 kg

→ Weights may change so the driver should always check the weights listed in the attached conditions of the permit or on the log haul map or addendum.

Weight has been limited due to the design and interaxle spacing on this unit. Most bridges in the province cannot accommodate weights exceeding 68,000 kg GVW or a combination weight of 34,000 kg on the trailer for this configuration.

This configuration is restricted on some roads due to the weight limitations of bridges or because of limitations placed on a road by a local jurisdiction. As per the Commercial Dimension and Weight Regulation AR315/2002, permission must be obtained from a local jurisdiction to exceed 17,000 kg on a tridem axle or exceed 53,500 kg GVW when traveling on a local road.

PART 4
DRIVER RESPONSIBILITIES

ARE THERE MORE RESPONSIBILITIES WHEN DRIVING A QUAD AXLE SEMI-TRAILER?

There are some requirements that a driver or carrier must complete if the lift axle, suspension, lifting mechanism or monitoring system fails to work. These actions are in addition to any requirements as set out in the *Traffic Safety Act* and Regulations.

√ The carrier **MUST** instruct the driver so that he / she knows what action is required if the lift axle does not deploy, properly.

- □ The driver **MUST** reduce the weights on the trailer prior to pulling on to a public roadway.

→ Weight **MUST** be reduced to 24,000 kg on the tridem trailer axle

→ Logs **MUST** not be left on the side of the road or in the ditches if logs have to be removed from the trailer to reduce the weight.

√ The carrier **MUST** instruct the driver so that he / she knows what action is required if the monitoring system fails to operate.

- □ Driver **MUST** pull over to the nearest safe pull out.
- □ Carrier **MUST** contact Transport Engineering, Alberta Transportation and the nearest Vehicle Inspection Station (VIS) (scale) for instruction

→ If employer is unavailable then driver **MUST** contact Transport Engineering and nearest VIS for instruction

→ Vehicle **CANNOT** travel to destination without approval from either of the above listed agencies.

→ Vehicle **CANNOT** be used again until monitoring system is working properly.

Part 5

Monitoring Violations

What is a monitoring violation?

- √ Carriers must instruct the driver on monitoring violations.
- √ A monitoring violation is when:
  - □ the lift axle is not deployed when traveling loaded on a public roadway, or
  - □ the monitoring system is turned off or
  - □ the monitoring system is not working properly

PART 6

WHAT ARE THE CONSEQUENCES OF A MONITORING VIOLATION?

√ The carrier must instruct the driver of the consequences of a monitoring violation.

√ For each set of 3 monitoring violations in a sliding 60 day window, the following actions will be taken:

□ 1st monitoring violation – 3 violations in a 60 day window

→ Permit suspended for 3 calendar days

□ 2nd monitoring violation – 6 violations in a 60 day window

→ Permit suspended for 7 calendar days

□ 3rd monitoring violation – 9 violations in a 60 day window

→ Carrier's record will be reviewed and further escalating suspensions and possible cancellation of the permit may occur.

MONITORING VIOLATIONS ARE IN ADDITION TO ANY OTHER VIOLATIONS THAT A CARRIER / DRIVER MAY INCUR UNDER THE *TRAFFIC SAFETY ACT* AND REGULATIONS

ALL OTHER VIOLATIONS OR PENALTIES ARE PER THE *TRAFFIC SAFETY ACT* AND REGULATIONS