

# CLASS 1 APPRENTICE TRAINING



Commission scolaire  
de la Rivière-du-Nord

## CHAPTER 9 METHODS OF COUPLING, UNCOUPLING, AND DRIVING A DOUBLE TRAILER

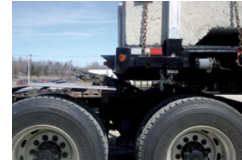


# THE METHODS OF COUPLING AND UNCOUPLING A TRACTOR AND A SEMI-TRAILER"

## Coupling a tractor and a semi-trailer both equipped with air suspension"

Every time you couple a semi-trailer, you should make it a habit to follow the same steps and proceed in the same manner. This way, you will save time and be able to hit the road safely.

- Inspection of the tractor's fifth wheel
- Positioning the tractor in front of the semi-trailer
- Coupling the semi-trailer
- Checking the coupling and final procedure



# THE METHODS OF COUPLING AND UNCOUPLING A TRACTOR AND A SEMI-TRAILER

## Uncoupling a semi-trailer equipped with air suspension

First of all, you must ensure that the location where you want to perform the uncoupling is appropriate. It's preferable to choose a spot where the ground is sufficiently firm and level to support the weight of the semi-trailer.

- Park the tractor and semi-trailer in the appropriate position for uncoupling
- Uncouple the tractor from the semi-trailer



# THE PHYSICAL FACTORS THAT INFLUENCE DRIVING

## The distribution of the load in the vehicle

In a double trailer configuration, the position of the semi-trailers based on their **weight also plays an important role. The heaviest and longest semi-trailer should be the one attached to the tractor.** If the semi-trailers are not placed in this order, you risk losing control of the second semi-trailer when performing braking maneuvers.

# THE PHYSICAL FACTORS THAT INFLUENCE DRIVING"

## The length of double trailer combinations

Due to their length, double trailer combinations offer lower performance than shorter vehicles when the driver performs evasive maneuvers or overtaking. Moreover, the effect of crosswinds tends to increase this difficulty, particularly in curves. You must therefore be very attentive to these phenomena in order to anticipate, if necessary, the reactions of your vehicle. This way, you will be able to act in time to avoid losing control of the double trailer combination

# THE PHYSICAL FACTORS THAT INFLUENCE DRIVING

## The number of articulation points of vehicles

Every driver of a double trailer combination must take into account numerous factors that influence the space necessary to perform certain maneuvers safely, particularly when turning. You must consider, for example:

- The number and position of axles;
- The length of the tractor and each semi-trailer;
- The number of articulation points of the vehicles.

**The more articulation points the vehicle combination has, the more likely the second semi-trailer is to make back-and-forth movements**

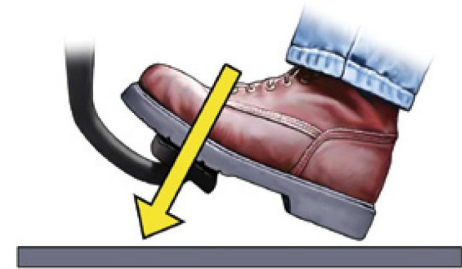
# DRIVING DOUBLE TRAILER COMBINATIONS

The first rule you must respect at all times is to adopt a safe and defensive driving style. **This will allow you to anticipate and avoid dangerous situations before they occur.** Any delay in correcting a situation where there is a safety risk can lead to an accident.



# The specific aspects of braking

In theory, the braking capacity of a double trailer combination is superior to that of a tractor-semitrailer. This increased braking capacity of the double trailer combination can be largely explained by the greater number of wheels and the multiplication of braking systems. **However, in practice, the more axles and articulation points a road vehicle combination has, the more difficult it is for its driver to brake in a balanced manner.** That is, to stop the tractor and semi-trailers at the same time and with the same power.

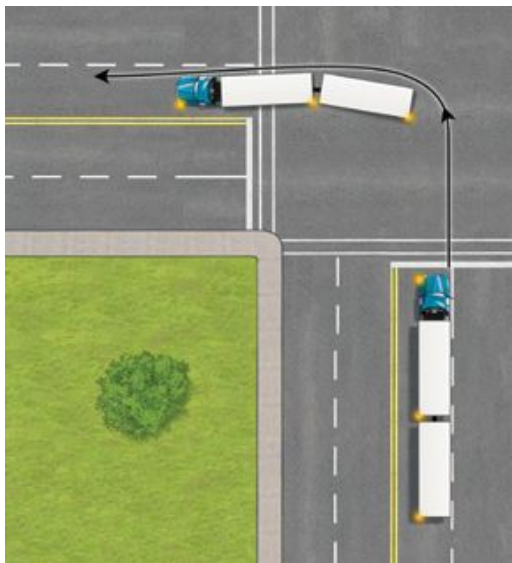


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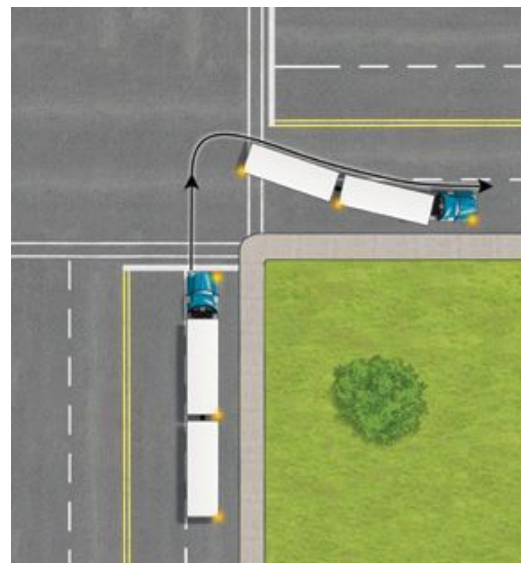


# DRIVING DOUBLE TRAILER COMBINATIONS

## Left Turns



## Right Turn



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# DRIVING DOUBLE TRAILER COMBINATIONS

## Evasive maneuvers or overtaking

You also have an important role to play in reducing the risk of an accident. In particular, you must:

- Look ahead;
- Reduce your speed;
- Change lanes as soon as an emergency situation arises;
- Avoid turning the steering wheel more than necessary, as the more the wheel is turned, the higher the risks of tipping over and of trailer swing (or 'jackknifing');
- Avoid making sudden movements with the steering wheel when you want to avoid an obstacle.

# THE RISKS OF SKIDDING, ROLLING OVER, AND JACKKNIFING

Skids usually occur on dry pavement when the vehicle's center of gravity is very high. Rollovers, on the other hand, most often happen in curves or during strong winds. As for jackknifing, in the majority of cases, it is the result of sudden braking on wet or snowy roads when the vehicle's center of gravity is relatively low. The best way to prevent these accidents is to quickly recognize the situations that can cause them and to reduce the vehicle's speed.