

Safety



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Safety

This chapter provides information to keep you informed and safe. It includes information on the following:

- vehicle safety
- passenger safety
- safe driving tips

Vehicle Safety

Maintaining your vehicle

All motor vehicles registered in Nova Scotia must be inspected every year to make sure they meet safety standards. The same is true for all trailers towed on provincial roads. The standards are outlined in the Motor Vehicle Inspection Regulations. Inspections must be performed at an official inspection station by an authorized inspection mechanic.

The following parts of a motor vehicle must be inspected by the official testing station:

- windshield and glass in windows
- horn
- brakes
- windshield wipers
- steering system
- suspension system
- exhaust system
- fuel system
- lights
- tires and wheels
- mirrors
- body components
- coupling devices and towing
- connections (if so equipped)



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Any police officer, or inspector appointed by the Minister, can inspect your vehicle at any time. If your vehicle is found to be unsafe, it can be ordered off the road until the problem is fixed. In more serious situations, you may be charged for failing to meet the requirements outlined in the Motor Vehicle Act.

For your safety and the safety of your passengers, you should perform regular checks throughout the year so that problems can be identified and corrected early. The annual inspection is not a guarantee that the vehicle will operate satisfactorily for another year. Remember, it is illegal to operate a vehicle in an unfit or dangerous condition.

Regular maintenance checklist

The manual that comes with your vehicle tells you what needs to be done for proper maintenance and how to do it. The recommended maintenance schedule will vary depending on the type of driving you do. Your manual contains information about regular service, such as when to replace or check various parts of your vehicle. If you are unable to perform these checks yourself, have them done by a qualified person.

Tires

Check the tire pressure of each tire, including the spare (preferably when the tires are cold or have remained still for more than four hours). Properly inflated tires last longer and provide better gas mileage, better traction, and safer driving. Rotate tires according to the manufacturer's recommendations.

Tip: Have your brakes examined when each tire is removed and rotated. Also check tires for damage or wear, as unusual wear could indicate a more serious problem. For example, when wheels are out of alignment, tires show unusual wear. Poor alignment could be caused by a serious mechanical problem.

Have a qualified person at a garage or tire shop check your tires for

- tread depth of at least 1.5 millimetres
- bumps, bulges, knots, exposed cords, or deep cuts in the tread or sidewall
- metal fragments projecting through the rubber, if they are steel-belted tires

Replace badly damaged or worn tires as soon as possible. Buy or replace tires according to owner's manual or the tire manufacturer's guide.

To get good traction in winter, install snow or all-season tires on all four wheels. Remember, winter tires will suffer excessive wear if used during the summer. Studded tires are legal in Nova Scotia between October 15 and April 30 only.



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Windshield Check the windshield for cracks or marks that could affect visibility. Make sure windshield wipers work properly. If your wipers leave streaks on the windshield, replace them.

Fluids Check under the hood, when the engine is cool and turned off, to see that the fluid levels are sufficient. This includes oil, radiator coolant, brake fluid, and windshield washer. Also, check all hoses for cracks or leaks and fan belts for wear and tension.

Lights Check that all lights and signals are working properly.

Shocks Check shock absorbers by pushing down hard on each corner of your vehicle and let up. If the corner bounces more than once before resuming its original position, the shock likely needs to be replaced.

Mirrors Check mirrors to ensure they are solidly attached. Look for cracks or chips that might impair visibility. Re-adjust mirrors to your personal driving position to provide the best visibility. Consider potential blind spots and your ability to safely scan when making adjustments.

Interior Check the interior of your vehicle. Your vehicle should be kept clean inside and out. Secure loose objects so that they do not accidentally become lodged under the brake or gas pedals, restricting their operation. Keep seat belts clean to prevent moisture from damaging the mechanism. Check seat belts for any cuts or breaks in the fibres or wear at the anchor points.

Brakes

Check brakes regularly by observing how the vehicle responds when the brakes are applied. If any of the following happen when you apply your brakes, then have your mechanic check them immediately:

- the brake pedal goes down too far
- you hear metal surfaces rubbing together
- the vehicle pulls to the left or right
- stopping occurs slowly

Also test the parking brake to make sure that the vehicle doesn't move when it is stopped or parked on a grade. Make sure the brake releases fully.

Steering

Check the steering for unreasonable play when turning the steering wheel. Most new vehicles use a direct drive system. This means that you only need to turn the steering wheel a little and the vehicle will begin to change direction.

Exhaust

Check the exhaust system by listening for changes in the noises you hear as you drive. A hole in the exhaust system can be very noisy or cause a change in the sound of your vehicle's motor. More importantly, holes cause poisonous gases to leak from the exhaust system. Inspect the floor and trunk area for holes where toxic exhaust fumes may seep into the passenger compartment. This is very important during the winter when windows and vents are generally closed.

Body

Check the body of your vehicle for sharp edges and loose parts. Also check doors and windows to ensure they are working properly.

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Lighting equipment

Lighting equipment standards have been established for each class of vehicle. Headlights must be used during the period beginning half an hour after sunset to half an hour before sunrise. Lights are also required any time when visibility is limited by fog, rain, snow, or other atmospheric conditions and when there is not enough light on the highway to see a person 300 metres ahead. During times when lights are required, it is illegal to use parking lights or daytime running lights instead of headlights.

Headlights must be adjusted to be parallel to the road. None of the main bright portion of the beam may rise higher than one metre at a distance of 20 metres from the vehicle. Headlights should be periodically checked for aim by a mechanic.

Daytime running lights allow a vehicle to be seen more easily and at greater distances by other motorists, pedestrians, and cyclists. Vehicles made before 1990 can be modified to add daytime running lights. If your vehicle is not equipped with daytime running lights, you can improve your vehicle's visibility by using your headlights at all times.

Red brake lights are required on all registered motor vehicles. The brake lights must be plainly visible in normal sunlight from a distance of 100 metres. The rear signal and parking lights can be separate lights or form part of the brake light.

A **white plate light** that illuminates the number plate is also necessary. The number plate must be readable from a distance of 15 metres. This white light is not required on a motor-driven cycle (moped).

Signal lights or turn indicators are required to signal an intention to start from a parked position, to turn at an intersection (whether you are in a marked lane or not), to stop from a moving position, or to change lanes. These lights must give a flashing white or amber (yellow) signal to the front, and a flashing amber or red signal to the rear. On vehicles 2.05 metres or more in overall width, each signal must be plainly visible in normal sunlight from a distance of 150 metres. On vehicles less than 2.05 metres, the signal must be visible for 100 metres. A signal must not project a glaring or dazzling light.

Parking lights or reflectors are required on all vehicles. A white or amber light or reflector must be displayed on the front roadway side of all parked vehicles. Parked vehicles must also display a red light or reflector to the rear during the times when lights are required.

Emergency flashers are used during emergency situations, such as when a vehicle is stalled in a roadway, or when a vehicle travelling uphill cannot maintain the minimum posted speed as directed by signs such as "Use 4-way flashers below 70 km/h."

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Special lights

Only specialty and emergency vehicles may use revolving or flashing lights.

Flashing red: A flashing red light visible from the front may be used only on the following vehicles:

- an ambulance
- a police or fire department vehicle
- a school bus while taking on or unloading passengers
- a vehicle used by the chief or deputy chief of a volunteer fire department

Flashing amber: Flashing amber lights are required on a school bus. They may also be used on a vehicle transporting explosives, on a motor vehicle towing a wide trailer, or on a service vehicle. A service vehicle includes a vehicle engaged in the construction or maintenance of highways, communications, or power systems.

Flashing blue: A flashing blue light can be used only on a police vehicle or a vehicle being used by a conservation officer.

Other vehicle equipment

Ornaments: A motor vehicle must not have any ornaments or decorations, either inside or outside, that obstruct the vision or distract the attention of the driver.

Horn: Every motor vehicle must be equipped with a horn in good working order that can be heard at a distance of 60 metres. Horns should be sounded whenever it is necessary, such as advising another driver of your intention to pass. You must not use your horn unnecessarily.

Adjustable front seat: The front seat in most vehicles can be moved back and forth to adjust to the leg length of each driver. Adjust your seat so that you can reach all the controls and pedals easily and still sit comfortably.

Winter maintenance

Begin with the items on the Check List (pg 103). Although a well-maintained vehicle will usually start in all weather conditions, it is best to shelter your vehicle from direct contact with rain or snow whenever possible. Cold weather can put extra strain on your vehicle, especially on its electrical systems when lights, radio, heaters, and defroster are all working at once. Have your battery checked and the terminals cleaned at least twice during the winter.

Be prepared for a winter emergency. You should carry the following items in your vehicle:

- a shovel
- a bag of sand or kitty litter
- booster cables
- candles and matches
- emergency flares or warning lights
- blankets
- chain for towing
- extra winter windshield washer fluid (refill the container regularly)
- tire chains
- cell phone or change for a pay phone in case of an emergency

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Passenger Safety

Automobile collisions can be traumatic events. Responsible drivers greatly reduce the risk of a collision by obeying traffic regulations. They realize it is their responsibility to drive carefully so as not to cause any harm to themselves or other persons, or damage to property.

Why to use a seat belt or child restraint

Collisions do happen, however, even to the most careful driver. The force of a collision is so great that unrestrained persons may strike each other or the interior of the vehicle, or may be ejected from the vehicle. Severe injuries or death often result. Using a seat belt or child restraint system correctly helps hold all persons in place in the vehicle. This provides them with a far better chance of avoiding serious injury.

Seat belts and child restraints also help prevent injuries during "regular" driving. A driver may have to swerve and stop, or stop suddenly to avoid a collision. Unrestrained persons may strike each other or the vehicle interior.

Fewer than 1 per cent of all injury-producing collisions involve fire or submersion. In these situations, wearing a seat belt greatly increases the chance of remaining conscious in order to escape from the vehicle.

Seat belts, child restraints, and the law

Everyone 16 years of age and older, whether a driver or passenger, riding in a motor vehicle in Nova Scotia is required by law to wear a seat belt if a seating position with a seat belt is available to them.

A driver is responsible for ensuring that all passengers under 16 are wearing a seat belt if a seating position with a seat belt is available to them. Young children must be placed in an approved child restraint system that is appropriate for them:

- Children from birth to 10 kg (22 lb) must ride in a rear-facing infant seat that meets the Canadian Motor Vehicle Safety Standard 213.1. It is secured to the vehicle by the vehicle seat belt.
- Children from 10 kg (22 lb) to 18 kg (40 lb) must ride in a forward-facing child seat that meets the Canadian Motor Vehicle Safety Standard 213. It is secured to the vehicle by the seat belt and by a tether strap. The tether strap is connected from the child car seat to an anchor bolt installed in the metal framework of the vehicle.
- Children who weigh more than 18 kg (40 lb) but are under 145 cm (4'9") tall must ride in a booster seat that meets the Canadian Motor Vehicle Safety Standard 213.2, if they are younger than 9 years of age unless they have reached 145 cm (57") in height. A booster seat is strongly recommended to help position the seat belt correctly across the child's body.



Child Restraint

The wearing of seat belts does not apply to

- a person who is unable to wear a seat belt or use a child restraint because of their size, build, or other physical characteristic
- a person who, in the opinion of a legally qualified medical practitioner, is unable to wear a seat belt or child restraint system for medical reasons
- an on-duty peace officer
- a fireman while in or on a vehicle of a firefighting organization
- a driver operating a taxicab for hire
- a driver operating a public transit bus
- a medical attendant in an ambulance transporting a patient
- a person while engaged in work that entails leaving and entering the vehicle at frequent intervals
- the driver and passengers of a motor vehicle transporting prisoners

Correct use of seat belts and child restraints

- Vehicle seat belts must be maintained in good working order and not altered in any way that reduces their effectiveness.
- The lap portion of a seat belt should be worn as low on the hips as possible, while the shoulder portion should not lie across the face or neck.
- Seat belts must also be worn during pregnancy. The lap portion should be worn under the abdomen and as low over the hips as possible.
- Parents should read and understand the instructions for their child restraint before attempting to install it in the vehicle. Further information may be obtained from the child restraint manufacturer, local safety organizations, or provincial and federal transportation departments.



Seatbelt

Airbags

- Airbags do not replace seat belts. They provide additional protection in severe frontal collisions. (Side and rear airbags are available on some vehicles.)
- A rear-facing child restraint must never be used in a seating position where there is an airbag. There is too much force exerted on the child restraint by the deploying airbag. Children under 12 years of age should not be located in a seating position where there is an airbag.

Carrying passengers

You must take on or let off passengers or goods only at the curb or side of the road. Never allow a person to leave or enter your vehicle while it is moving.

You may carry passengers in trucks in the space intended for cargo only if there are seats securely affixed to the floor or frame of the vehicle. Never carry passengers in a travel trailer or mobile home while it is being towed on a public road. Carry passengers in a truck camper being operated on the highway only if they are in regular passenger seats or seats permanently mounted on the lower part of the body of the truck camper.

Walking on the highway

If you are walking along a highway, walk facing traffic if there is no sidewalk. Use retro-reflective material on your clothing to make yourself visible. After dark, carry a light and wear light-coloured or reflective clothing. In snow conditions, wear some dark clothing.

Thumbing rides—hitchhiking

It is illegal to hitchhike!

Driving position

You can be a better driver and have more confidence on the road by sitting properly. This will give you maximum control of the steering wheel as well as the brake and gas pedals.

- 1 Sit up straight, with the small of your back firmly against the seat back and cushion.

- 2 Adjust your seat, moving it forward or backward until you can place your right foot on the floor between the brake and gas pedal, with a slight bend in your leg. For a manual transmission, make the seat adjustment using the clutch with your left foot. When the clutch is completely depressed, your leg should be slightly bent. You should not have to use excessive force to depress any pedal to the floor. This should be an easy exercise if you are seated properly.



Sit Up Straight

- 3 Your line of vision should be half-way between the top of the steering wheel and the top of the windshield. Adjust the angle of the seat to support your thighs. If you can't adjust the seat, a seat cushion can bring you up a few centimetres. For comfort's sake, leave at least a fist's space between top of your head and the roof of the vehicle.

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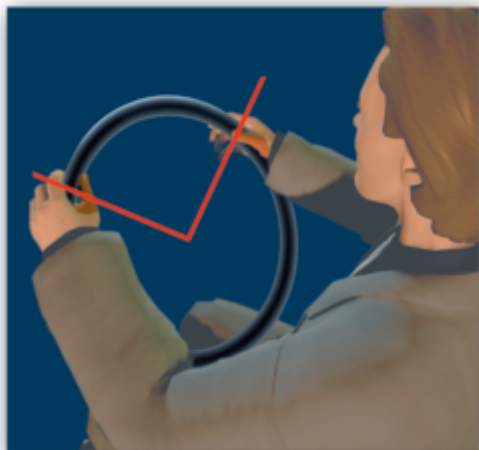
- 4 If the seat back is adjustable, move it so that your arms are slightly bent when you grasp the steering wheel. Position your hands so that your left hand is at the ten o'clock position and your right hand is at the two o'clock position (or nine and three position). If you find that you are too far back in the seat, use a good quality seat-back cushion. You could also ask your mechanic to install a thicker rubber pad over the brake or gas pedals.

- 5 Head restraints are designed to support the back of your head and to minimize whiplash. Many head restraints are set too low to be effective. Adjust your head restraints so that the top edge extends seven centimetres (two to three inches) above your eye level.

Steering

Where you grasp the steering wheel will vary, depending on its size and the width of your shoulders. Your hands should be spaced apart and on the upper part of the steering wheel for best control. Grasping the wheel too tightly will cause tension in your arms, shoulders, and neck.

This can lead to fatigue, so use a relaxed grasp. Once your hands are in this position, do not shuffle them around on the wheel. Keep your grip in the same place and simply turn the steering wheel to steer the vehicle. Grip steering wheel firmly at the "ten-and-two" hand position (note that the "nine-and-three" hand position is also acceptable).



Hand Position

The key to steering is to know at which steering wheel position your front wheels are straight. When you start out, straighten your front wheels and place your hands in the “ten-and-two” or “nine-and-three” position. If you do not shift your grip, every time your hands are straight and level, you know your front wheels are straight.

Use the hand-over-hand method to steer through sharp turns or in emergencies. Start the turn steering to the left or right, then take the bottom hand off the wheel. While continuing to pull down with the top hand, put the free hand at the top of the steering wheel, hand over hand.

Continue turning and moving the bottom hand to the top until you have completed the turn.

When unwinding the wheel after a turn, use the hand-over-hand method to return the front wheels to a straight position. Don’t let the wheel slide through your hands, as you have very little control of the speed at which it comes back or the point at which it stops. This is especially noticeable in front-wheel-drive vehicles, where the wheel does not automatically return all the way.

Safe Driving Tips

- Scan the road ahead constantly. Don't look at any one object for more than a few seconds at a time, and never stare into the distance.
- Use the rearview and sideview mirrors frequently to reduce the chance of your vehicle being hit from the rear.
- Do not block your view through the windshield or windows. Only the official inspection sticker is allowed at the lower driver's corner of the windshield.
- Load your vehicle so that your view of the road will not be blocked.
- Do not divert your attention away from the task of driving. Eating, drinking, smoking, or using a cell phone are examples of activities that cause inattention.
- Keep the rearview mirror free of any hanging objects that may obstruct your vision.

Play it safe:

- Reduce your speed any time you see a situation that might be dangerous.
- Never place your arm, head, or foot outside a moving vehicle, except to make a hand signal. Never allow a passenger to do so.

Starting your car

Check the vehicle owner's manual for starting instructions. Put the parking brake on. If the vehicle has a manual transmission, put it in neutral. In some vehicles with a manual transmission, the clutch must be depressed before the engine will start. For vehicles with an automatic transmission, shift to the "park" position. Start your vehicle.

Accelerating

To drive smoothly, you must learn to vary your foot pressure on the accelerator by small amounts. It is best to accelerate a little and wait for the vehicle to build up speed.

Pressing down on the accelerator too much can cause the drive wheels to spin and the vehicle to skid, particularly on slippery surfaces.

In cars with a manual transmission, you must release the clutch until the friction point is reached. You then gradually increase the pressure on the accelerator while releasing the clutch completely.

Stopping and braking

The best procedure for braking is to begin early, apply light pressure, and ease up on the brake as the vehicle comes to a stop. Gradually increase pressure on the brake pedal to slow more quickly. Threshold braking is a technique applying firm, steady pressure on the brake pedal. Avoid locking up the wheels. If the wheels do lock, ease off the brakes slightly, then reapply pressure to the brake pedal.

Many newer vehicles have an antilock braking system (ABS). This system prevents the brakes from locking. If your vehicle has ABS, press the brake steadily and firmly. Do not pump your brake. Do not release the brake until you have control of the vehicle or it has stopped. A slight vibration and pulsing noise is normal. Your vehicle owner's manual will provide more information about using your ABS properly.

Whenever you have a choice of braking or steering to avoid a collision, generally it is best to use evasive steering rather than braking. Alternatively, combine threshold braking with steering. Steering is preferred to braking at speeds over 40 km/h because you require less distance to steer around an object than to come to a complete stop.

Preventing collisions

Most highway crashes are caused by driver error. The following is a list of the most common causes of highway crashes in Nova Scotia, in order of frequency, and what you can do to help prevent being in an collision.

Collision Causes

Driver inattention

Failure to yield
right of way

Driver distraction

Driver inexperience
or confusion.

Alcohol involved,
driver had been
drinking.

Operating too fast
for conditions.

Solutions

Pay close attention to the task
of driving your vehicle. Collisions
occur in a matter of seconds.
Be ready to react immediately.

Share the road. Practise
consideration for others.

Resist the temptation to become
a spectator.

Follow the rules of the road.
Signal your intention to change
positions. Sound your horn. Check
your blind spots. Make the move
gradually and only when it is safe
to do so.

Don't drink and drive.
Pay attention and watch for
unusual driving behaviour.

Slow down! Adjust your speed
to the driving conditions.

Driving defensively

Defensive driving means being in control. Skilled drivers identify situations that require attention, anticipate what other drivers might do, decide how to deal with the situation, and safely execute a suitable course of action.

Examples: When you see children playing near the street, anticipate that someone might come running out in front of you. When you see the flash of a brake light coming from a parked vehicle, anticipate that the vehicle may move to enter traffic. Observe the speed of a vehicle approaching an intersection and anticipate whether or not the driver will stop.

The essence of defensive driving is to reduce your own driving mistakes and to anticipate the mistakes of others, both drivers and pedestrians, and guard against them.

Avoiding highway hypnosis

Inattention tends to increase when you have been driving for a period of time. Unintentionally you begin to scan less and your eyes become more fixed. The motion of the pavement, the lines, and other vehicles may begin to “hypnotize” you. You may experience momentary lapses of memory. Before highway hypnosis leads to a collision you need to pull over and stop.

Here are a few tips to help prevent highway hypnosis:

- Eat modestly before a long drive. Eating a big meal will reduce your energy level.
- Wear comfortable clothing. Tight or bulky clothing will cause tension in your muscles over time. Tension causes fatigue and reduces your ability to respond quickly.
- Talk with your passengers, but not to the point of distraction.
- Safety scan continually. Looking in every direction for potential problems is your best defence for avoiding dangers and hazards. Be well aware of your blind spots and check them before turning or changing lanes.
- Keep your mind active about driving by taking an interest in all road signs and traffic around you.
- Take a one-to-two-minute walking break every hour to refresh yourself.
- Don't try to drive too far in one day.
- Avoid driving during your normal sleeping hours.
- Keep the temperature in your vehicle cool. If it becomes too warm, you may get drowsy.

Sharing the road

Throughout this manual you will find references to situations where traffic and pedestrians need to share the road.

Everyone's safety depends on courtesy and consideration.

Good communication means that everyone involved understands how each person or driver is going to react.

Safe driving comes from developing good driving skills and learning how to share the road with others.

Alerting Other Drivers to Your Activities

Slow-moving vehicles

You must display a slow-moving-vehicle sign at the rear of a farm tractor, or the load hauled by the tractor, and any other vehicle that cannot maintain a speed over 40 km/h under normal conditions. When you see this sign, reduce your speed.



Slow-moving
Vehicle Sign

Open tailgates

It is illegal to drive a commercial motor vehicle (truck) on a highway with an tailgate open or in a horizontal position, unless it is being used to support all or part of the load being carried in the vehicle.

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Carrying loads

During daylight hours, display a red flag at the rear of a load whenever the load extends more than one metre beyond the rear of the bed or body of a vehicle. The red flag must be at least 300 millimetres in length and width and be clearly visible at all times.

After dark, which is half an hour after sunset to half an hour before sunrise, display an amber or red light that is plainly visible for 60 metres from the rear of the load.

Towing trailers

All trailers must be licensed and inspected for use on the highway. Towing a trailer requires knowledge usually acquired through experience. Go cautiously, keeping safety in mind at all times. It is a good idea to practise parking and backing before heading out onto the highway. Make certain that the two vehicles are connected properly.

- Only commercial vehicles can tow more than one trailer at a time.
- The draw bar or towing connection should not exceed five metres in length or eight metres if transporting poles.
- If the connection consists of a chain, rope, or cable, you must display upon the connection a red flag or other signal cloth (minimum size 300 sq. mm).
- Never carry people in any type of trailer, including travel trailers, while it is being towed on the highway.
- The driver must make sure no one riding a bicycle, coaster, roller skates, skis, toboggan, sled, or toy vehicle holds onto the vehicle while it is being operated.

Moving disabled vehicles

We strongly recommend that you seek professional towing services when moving a disabled vehicle. If you must tow using another vehicle, display warning signals or emergency flashers and make sure the vehicle is attached securely. Someone must sit in the disabled vehicle and use the brakes to keep the tow cable tight. Don't tow vehicles that have power braking and steering if the engine cannot run. If the engine is disabled, braking and steering are difficult, and towing may lead to a collision. Trying to start a disabled vehicle by towing it is dangerous and could damage both vehicles.

Oversized vehicles

You must have a permit to operate an oversized vehicle. An oversized vehicle is a vehicle or combination of vehicles, including any load, that exceeds any of the following measurements:

- 12.5 metres in length for a single vehicle or 25 metres for a combination of vehicles
- 14.65 metres in overall length for a trailer
- 2.6 metres total outside width
- 4.15 metres in height
- a rearview mirror extending more than 20 centimetres on each side beyond the maximum permissible outside vehicle width
- a load-securing device extending more than 10 centimetres on each side beyond the maximum permissible outside vehicle width