

Module 4

# VEHICLE INSPECTION

*Defensive Driving Course – Basic Level*

## Module Objectives

By the end of this module you should;

- Be able to identify safety checks before entering the vehicle and before driving.
- Be able to identify safety features that reduce driving risks.

## PRE-TRIP INSPECTION

### Important

Safety and equipment checks are equally important when you're about to drive a car. The best time to find out about a problem or potential problem is before your car is moving.

## What should you check before entering your car?

You don't need to be a mechanic to inspect your car; you can check many items quickly and easily before driving. Make checks at least once a week and before long drives. You should inspect the car and the area around it before you enter your car. If you need to step into the roadway, check carefully for approaching traffic.

## Surrounding area

- Look for children playing nearby.
- Children under six years of age can be killed while playing in the family driveway.
- Look for an animal that may be hiding under, walking or sleeping near the car.
- Look for objects in the area of the car and on the roadway that may damage the tires like broken bottles, scrap metals etc.
- Check under the car for fresh stains that could be indications of fluid leaks.

## Wheel

- Check for under inflated tires and for tire wear or damage
- Note which way your front wheels are turned. This is the direction in which your car will go as soon as it begins moving.

## Car body

- Check for damaged or missing parts and that all lights and windows are clean and undamaged.

## Under the Bonnet

- At least once a week or when you stop for gas, check the levels of the engine. Oil, radiator coolant, and battery, brake, transmission, and windshield- washer fluids.
- Check the battery connection, are the cables tight?
- Are the terminals free from corrosion?

A quick way to remember the items, which need checking, is to think;

### 'POWER'

<b>P</b>	Petrol
<b>O</b>	Oil
<b>W</b>	Water
<b>E</b>	Electrics (Light)
<b>R</b>	Rubber (Tire and Wiper)

*Check list*

Petrol	Cap, Lines, Gauge, Type
Oil	Engine, Transmission, Power steering, Braking / Clutch,
Water	Radiator, Battery, Washer bottles :Headlights, Tail-lights, Brake-lights,
Electric	Indicators, Hazard lights, Horn, Interior, lights, Wires, Harness
Rubber	Belts, Hoses, Wiper blades, Mud flaps, Tires (Spare tire)

- Use a regular sequence (e.g. clockwise around engine compartment, starting at the radiator, clockwise around car exterior, then under the car).
- Take on the responsibility for checking hire cars or company pool cars yourself. Do not assume someone else has done it.

**REMEMBER:**

**NEVER leave an engine running unattended, especially with children or pets in the vehicle.**

## **Before Turning the Ignition Key**

### **Loose Items:**

- Loose items should be secured in the boot.
- Animal seat belts are a necessity as are cargo barriers in wagons, vans and 4WDs.
- In a collision or roll-over items such as street directories, steering locks, umbrellas or hard hats can become dangerous missiles.
- No items should be under the driver's seat for it may roll underneath the brake pedal and jam it when you want to apply (emergency) brake.

### **Handbrakes:**

- Essentially used for parking.
- **ALWAYS** apply it when parked.
- Remember swing or press knob before pulling handbrake firmly (but do not wrench it) and release knob or swing back before releasing, so the weight of the vehicle rests on the brake then select "park" in an automatic, or your preferred gear in a manual.

### **Glass & Lights:**

- Windscreen, windows, mirrors and exterior lights must be cleaned regularly.
- The inside of the windscreen should be cleaned to remove 'vinyl film'.
- One of the first things to prepare before you even turn the key is a proper seating position. This is often overlooked, or improperly imitated, resulting in poorer car control and premature fatigue.

## Seating position

There are three main aspects to setting the correct seating position.

### First, sitting in the seat itself,

- The driver's back should be flat against the back of the seat with the buttocks squarely tucked into the corner created at the intersection of the seat back and bottom. The underside of the legs should be in contact with the seat bottom. The purpose of this position is to provide as much surface contact between the driver's body and the seat.

### Second, is the arm position

- When the driver is tightly strapped into the seat as described above, the arms when fully extended should allow the wrists to rest at the top of the steering wheel. This allows the arms to be slightly bent at the elbow when fully extended for a turn. The purpose of this position is to prevent the arms from being overextended as this will cause them to tire quickly, and will cause the driver to lose sensitivity to the vibrations in the steering wheel.

### Third, is the leg position

- The leg should still be bent at the knee. This is to prevent overextension as described for the arms. Additionally, given that most hobbyists are driving their streetcars, be sure that the knees are not against the under dash or steering column. In fact, there should be several inches' room to prevent injury in event of a collision. The right leg in particular will need enough knee room to allow the ball of the foot to be on the brake pedal, and the heel to be on the accelerator for Heel-toe downshifting.
- If you are quite tall, it may be difficult to do this without having to move your seat quite far forward so that your legs are cramped.
- If this is the case, you'll have to use your best judgment to find a happy medium.
- At the very least, however, you do want to make sure you can comfortably grip the top of the steering wheel with both hands.
- You may want to use the tilt adjustment on your steering column to increase your comfort but do be cautious about tilting the wheel too low. If that happens, your hands will hit your legs in a wide radius turn.

## The Visibility and Protective system of your car

- Some safety features reduce driving risk by aiding visibility. Others reduce or control risk by protecting the driver and passengers from injury. Still others guard the car against theft.

## What devices Aid visibility?

### Lights

- Using your headlight helps other road users to see you both at night and during the day. Headlights help you to see better at night, in dim light, and in bad weather. Tail lights and side-marker lights better enable drivers and other highway users to see your car. Headlights can be switched to either low or more intense high beams. Most of the time you'll be using the low beams.

### Windshield wipers and washer

- Cars normally have two, three or variable-speed front windshield wipers. Some cars also have a rear-window wiper. A variable-speed wiper allows the driver to set the wipers to move at a very slow or very rapid rate. This feature is useful when just an occasional wipe is needed to keep the window clear, as during a light drizzle or during heavy rain when a faster rate is needed.
- The windshield washer squirts water or a cleaning solution onto the windshield.
- The liquid is stored in a container under the hood.

### Sun visor

- Sun visors can be moved up and down and turned to the side to prevent the sun from shining into the driver's eyes. However, be careful not to let the visors interfere with your view of the roadway or traffic to the side.

### Rear view and side-view mirrors

- Your car's rearview and side view mirrors provide vision to the rear and sides of the roadway. Even when correctly adjusted, however, *they cannot eliminate all blind spots areas* of the road that you cannot see in the mirrors. For this reason, you should never rely exclusively on your mirrors when backing or changing lanes, instead use your head and look over both shoulders to scan the road fully.
- For night driving, many rearview mirrors can be adjusted to reduce the glare from head lights of cars behind you.

## Module Summary

- Pre-checks should always be done before driving.
- Visibility aid devices can help control risks and protect drivers and passengers.