

## **DEFENSIVE DRIVING (TECHNIQUES, ROAD COURTESY AND SAFETY)**

**Defensive driving** is often defined as preventing crashes before they occur, it is the demonstration of an attitude, awareness and driving skills such as:

- Stay alert and keep eyes moving so that you can keep track of what is happening at all times;
- Look for trouble spots developing around you;
- Have a plan of action if the other driver does the wrong thing; and
- Know that the law requires drivers to protect each other from their own mistakes.

A Defensive Driver must:

- Be able to keep a safe driving record.
- Have a positive attitude on road safety.
- Be physically and mentally fit to drive.
- Have received proper training before driving.

### **Factors that Affect Driving**

#### **Attitude**

A defensive driver must develop and demonstrate an attitude that:

- Shows concern for other road users;
- Recognizes that other road users will make mistakes;
- Knows no journey is so urgent that a safe speed can be maintained;
- Driving is a skill which requires the application of good techniques; and
- Believes that safe driving requires an alert mind at all times.

#### **Behavior**

An ideal defensive driver:

- Always clean a seatbelts;
- Keeps within the advisory speed limit;
- Constantly scans the road for potential hazard;
- Signals his intentions at all times and
- Shows courtesy at all times.

The factors affecting the behavior of the driver are the following alcohol, drugs, and fatigue.

### **Right Mental Attitude**

A defensive driver always maintain a safe caution of distance in front and behind his vehicles by: a) observing the four-second rule b) adopting a positive and skilled mental approach.

Search – the road seen ahead, around and rear of the vehicles.

Identity – the potential and immediate hazard on the road.

Predict – the actions of other road users.

Decide – what to do to avoid an unsafe situation.

### **Keys to Effective Defensive Driving**

#### **Concentration**

- Standard of vision, hearing and health all have a bearing on the amount of concentration.
- The driver must adjust the speed of his vehicle on the degree of concentration he is able to apply.

#### **Driving Plans and Decisions**

- Driving plans should be made on the correct assessment of the changing scene both ahead or to the rear of the vehicle.
- Driving plans should enable the driver to make decisions in a methodical manner.
- Plans and decisions are combination of what can be seen, what cannot be seen circumstances which are expected to rise, allowances for the mistakes of other road users.

#### **View from the Vehicle**

- The driver must aim to have the best possible view of the area around the vehicle
- Windows and windshield must be clean.
- Washers and wipers should be functioning.
- Mirrors are properly adjusted at the start of the journey.

### **Visions affected by speed**

- The driver must adjust the length and the depth of his vision according to the speed trail.
- Focus further ahead as his speed increases.
- Road and traffic conditions will govern speed.

### **Visions affected by fatigue**

- Continuous driving for long periods will cause fatigue which will result in eye strain.
- Recognition and assessment of dangerous situations will become late and inaccurate.
- Making it essential to have period of rest.

### **Weather Conditions**

- Fog, rain, fading daylight or bright sunshine will reduce visibility so speed must be kept low.

### **Road Surface**

A good driver is one that looks ahead and recognizes any change in the road surface.

Keep a steady speed on open roads. Slow down smoothly. Press the gas pedal lightly. Starting up slowly give other drivers and people walking a chance to see what you are doing. They can then judge how to react. When you have reached the speed you want, glance at the speedometer.

## **DRIVING TECHNIQUES AND SAFETY**

### Keys to Safe Driving

1. Good vision, look with your eyes but see with your mind.
2. Obeying traffic rules and regulations.
3. Proper care of your car.
4. Be courteous to other road users.
5. Proper signaling. Failure to signal is dangerous and inconsiderate.
6. Physical fitness. Let someone else take the wheel if you are not physically and mentally alert.

## **Proper Use of Brakes**

A good driver uses his brakes. An experienced driver is able to make without using his brakes a great deal and yet be perfectly safe, as compared to the less experienced one who keeps on banging at his brakes every now and then. Skidding is caused by sudden hard and violent braking as the weight of the vehicle is thrown forward and downward thereby subjecting the front suspension to a force greatly in excess of what is normal. Steering therefore becomes unwieldy and because the weight at the back is suddenly transferred to the front, road holding by the rear tires is greatly reduced – hence sliding and skidding. A good driver should therefore be able to anticipate stops by intelligently reading the road and be able to apply progressive light braking and have control of the vehicle at all times, smoothly stopping before any potential hazard with ease.

## **Steering**

In order to be able to have control of the car, the driver must be sitting in the correct comfortable position in relation to his size.

- When turning, hand in the direction you are going should pull down; the other hand allowing the wheel to pass through it, if necessary, the other hand can help by pushing the wheel upward.
- When transferring from one lane to another, or when pulling in after overtaking, the turn should be gradual and never a sudden swerve which may result in skidding.
- A firm, not a tight, grip on the wheel is all that is needed. Never grip tightly on a greasy road.
- Do not move the wheel to and from while driving; a firm straight steer is better.
- Both elbows should be free from obstruction. Never rest the left elbow on the window frame while driving.
- Never drive off without first having made sure that the seat, mirror, doors windows, etc., are properly adjusted.

## **Gear Changing**

Avoid over-revving in lower gears- a direct cause of over-heating, engine wear and high fuel consumption. Do not put unnecessary load on your engine by not changing to lower gear when necessary. Change gear before a potential hazard.

## **Stopping**

A driver should have the ability to judge how much time and space you need to stop your vehicle. The amount of time it takes for you to see when to stop until you step on the brakes is called REACTION TIME.

A driver of a motor vehicle, is considered stopped when passengers and cargoes were loaded and unloaded for about ten (10) minutes or more.

There is no simple way on how long will it take one stop at a certain speed. Signs, signals and traffic rules tell us to stop.

### **Right of Way Rules are:**

#### 1. First Time Vehicle Rule

At all intersections without “stop” or “yield” signs, slow down and prepare to stop. Yield to vehicles already in the intersection or about to enter it.

#### 2. Same Time Vehicle Rule

At all intersections without “stop” or “yield” signs (or with stops in all directions). Yield to the vehicle on your right if it has reached the intersection of same time as your vehicle.

#### 3. Stop Signs

Stop at any limit line or crosswalk. Yield to all approaching vehicles on the through street, go only when it is safe for you to cross. Approaching vehicles should slow down and allow you to get across safely.

#### 4. Left Turn

Signal left turn and yield to approaching traffic until it is completely safe to finish the turn.

#### 5. Rotonda

Vehicles around the rotunda have the right-of-way over vehicles which are just about to enter.

When entering a highway from a driveway, yield the right-of-way to traffic on the highway. Never insist on taking the right-of-way if other drivers are not following the rules, let them have the right-of-way even if it belongs to you to prevent possible accidents, however, do not always insist on other going ahead of you, slowing and stopping may delay the flow of traffic.

### **Give the Right-of-Way to Emergency Vehicles**

One should yield the right-of-way to police cars, fire trucks, ambulances and other emergency vehicles which are sounding a siren or bell or flashing a red light by pulling to the edge of the roadway and stopping. In the event traffic is so congested as to prevent you from safely doing so, slow down and leave a clear path for the emergency vehicles.

### **Passing**

The law places the responsibility on the driver of the passing car, if the driver makes mistakes in passing he is held liable.

### **Three Important to Remember in Passing**

1. It is illegal to speed up when being passed. Continue at the same speed, or reduce your speed.
2. Help other drivers to pass safely. Move to the right side of your lane to give the other driver more room and a better view ahead.
3. Show the passing driver the same courtesy that you would expect from other drivers.

### **When not to pass – Especially on Roads Marked by Signs**

1. At no-passing zone marked by signs or by solid yellow lanes or double-solid yellow lines which indicate no passing.
2. On blind-curves where you would not be able to see oncoming cars, always stay in your own lane on any curve, out of the way of oncoming traffic.
3. On going up a hill, passing is not allowed from 700 to 1,000 feet from the top of a hill.
4. At intersections or railroad crossing-where other vehicles or pedestrians may suddenly appear or unless such intersections is controlled by traffic signal.
5. Near a bridge or underpass hat may cut- off a road shoulder. You or the car passed might need to use the shoulder road in case emergency arises.

### **Where Passing is not Safe**

1. When there is a long time of cars ahead.
2. When you intend to turn or stop very soon.
3. When an incoming car is too close.
4. When the car ahead is going at or near the speed limit. Speed limit is still applied when passing.
5. When sight distance ahead is limited.
6. When the maneuver would have to be completed in a no-passing zone such as hill, curve or intersection.

### **Passing on the right is permitted only**

- When overtaking another vehicle making or about to make a left turn or signaling intent to make a left turn.
- On streets and highways marked for multi-lanes; and
- On one-way traffic streets.

### **Curves**

To make it around a tight curve, keep the turning of the front wheels in line with the sharpness of the curve. When turning right, keep your front wheel close to the center line. This prevents the rear wheels from dropping off the pavement. Curving left keep your front wheels close to the right edge to prevent the rear wheels from drifting into the other lane.

Avoid braking in a curve because this can cause you to skid out of control. Slow down before you get into the curve. Accelerate after you have passed the midpoint of the turn.

## **ROAD SAFETY**

### A. Vehicle

A vehicle should be properly equipped and must always be in good condition for safe driving. No one can legally drive a vehicle that may be a hazard to any person and property just like its operator, it needs regular clean-up and check-up.

#### 1. Underneath Parts

Check tie rod. Low tire pressure may cause the wear and tear pressure. Always equip vehicle with spare tires. Tires with worn out thread will slide more easily on wet pavements and may blow-out without warning.

#### 2. Outside Parts

Have clean rearview mirrors to see at least 200 ft. behind. Windows must be clean and free of obstruction. Check vehicle lights if they are all working such as tail lights, turn signals, stop lights, license plate lights and parking lights. Check wipers if they operate properly to clear the windshield. Check mufflers to prevent excessive noise and smoke.

#### 3. Inside Parts

Engine tune-up. As part of the tune-up, spark plugs, distributor points, condenser and air cleaner must be replaced, carburetor must be cleaned periodically.

Battery. It must be kept in good condition. Add distilled water if the level is low.

Safety devices. Check devices such as fuses and circuit breakers.

Radiator. Check radiator fluid level before starting the engine.

Brakes Foot. Brakes and parking brakes must be firm enough to stop.

Others. Check the temperature gauge and hose connections, brake fluid and master cylinder.

Be sure to check the type of gasoline/oil suited to your vehicle.



4. Check horn if it can be heard from a distance. A defective steering wheel, clutch, pedals and shift gears need serious attention. Turn the ignition if lights and gauges register. The car's gauge warns the driver if something is going wrong.

Finding a competent and dependable mechanic is important to a driver for proper maintenance and prevention of car problems before they become critical. It is the responsibility of the driver to keep his car in good running condition.

## B. The Driver's Physical Condition

It is enough to have a vehicle in good running condition to ensure safety in driving. As a driver you must be physically, emotionally and mentally fit to operate your vehicle on the road. This is vital to safe driving.

### 1. Vision

A driver must see quickly, clearly and accurately. Seeing too late makes decisions come too late. Decisions made while driving are based on what the driver see. If eyes do not see properly, it can be corrected by using corrective lenses.

### 2. Smell

By smelling, you can tell the presence of gas that may be coming out of your car. Symptoms of carbon monoxide poisoning may result to drowsiness, headaches, nausea or mental dullness that impair your driving ability. Check your engine and exhaust system if they are in top condition.

### 3. Hearing

A driver who has impaired hearing may not hear important sound like police vehicles, sirens of fire engines and horns of other drivers who wish to pass. The use of hearing aids overcome this defect.

### 4. Touch

Proper coordination of hand and feet helps in controlling the vehicle while in motion. Sensitivity to the important parts of the car such as brakes, steering system, accelerator, lights and signals through your sense of touch enable you to determine any incoming failure that may surprise you and the other driver to an emergency.

## 5. Emotions

Emotions affect driving performance. Failure to control emotions may lead to driving errors.

Anger – it impairs the performance of smooth braking and accelerating due to changes in some body functions such as increase heartbeats.

Anxiety – it may lead to panic decisions.

Excitement – stress and sometimes happiness changes the functions of the body and mind that prevents wise decision necessary for safe driving.

Fatigue – is the most common that lower driver's fitness. Fatigue may come from lack of sleep, excessive physical exercise or from mental or emotional stress. Fatigue dulls the mind and slows down nerve and muscular responses. As a good driver, you must learn to cope with all these emotions, to perform the driving task safely and effectively.

## **TIPS IN DRIVING**

### **Night Driving**

Adjusting your driving to the weather and time. Do not try to drive the same speed at night that you do by day you should slow down. You see less at night and so do other drivers. Be sure that you can see clearly in your head lights. Be extra alert to pedestrians, bicycles and motorcycles..

### **Things to Remember when Driving at Night**

1. It is best to turn your headlight on at sunset. Do not blind other drivers with your headlights. Use your high beams only in open country when other cars are not near.
2. Dim your lights by switching the low beams as a vehicle comes toward you. If you are following another vehicle, switch to low beams when you get closer.
3. Night driving is difficult. Try to slow your speed while driving.
4. Give enough room and space to vehicles ahead of you.
5. Drive as far as possible if a vehicle with one light comes toward you.

6. When driving a brightly lit place, drive slowly until your eyes adjust to darkness. Avoid looking directly into the glare of incoming headlights. Watch the right edges of your lane, noting the position of the incoming vehicle out of the corner of your eye.
7. Do not wear sunglasses when driving at night.
8. When in the act of overtaking or passing at night, switch to high beam then back to low, warning the driver you wish to pass.

On long drives, keep awake and alert. Do not drive if you are tired or sleepy. Stopping often, fresh air and singing or conversation can help avoid drowsiness. If you get too sleepy, park at the shoulder of the road and take a few minutes nap.

### **Driving in the Rain**

Rain affects your vehicles stability. Rain acts as lubricant, making road surfaces slippery. Heavy downpour bring floods, cause heavy traffic and creates puddles on the road that requires proper controlling and maneuvering of motor vehicles. It makes windshields, headlights, mirrors and taillights blurred and dirty.

### **Things to do while Driving in the Rain**

1. Turn your headlights when visibility is very poor.
2. Slow down at first sign of rain or drizzle on the roadway. This is when many road pavements are most slippery because oil and dust have not been washed away.
3. Driving on flooded roads could lose your brakes. If this happen, test your brakes thoroughly to dry them out (do this if the engine has not drowned and once beyond the flooded stretch).
4. Avoid instant stopping, turning and starting the engine.
5. Increase your "following" distance and allow extra space.
6. Clean your windshield, washers, and check wiper blades if they are working.

## **SAVINGS TIPS ON GASOLINE USAGE**

1. Do not race your engine once started. Wait until the engine has warmed up. Warming up the engine by driving gives you better gasoline economy.
2. Avoid jack-rabbit starts, take-off and sudden stops. Gradual acceleration saves gas and car wear and tear.
3. Keep proper air pressure in tires. Incorrect tire pressure reduces gasoline mileage, wears out tires faster and makes vehicle handling difficult.
4. Shift to high gear as soon as you can and stay there as long as you can. Low-gear speed consumes much more fuel than high gear speed.
5. Preferably use smaller cars. Smaller engines usually give better economy.
6. Plan your trips. Avoid congested routes and cover as many errands as possible in a single trip.
7. Avoid parking in the sun. Gas evaporates rapidly when exposed to hot weather.
8. Use car pools and other public transport vehicles.
9. Eliminate unneeded cargoes and fuel consuming loads.
10. Do not fill your gas tank to the brim. Allow for expansion to avoid wastage.

## **DRIVING AND ALCOHOL**

Driving is not safe when drunk. It is said that "If you drink, do not drive". Driving a motor vehicle requires concentration. Driver's found driving under the influence of alcohol is punishable by law.

## **ROAD COURTESY**

### **A. Other Motorists**

1. Give proper signals to other motorists. It is very vital to signal your intention of stopping, passing, turning, left or right, or slowing down to warn other drivers.
2. In parking, wait for vacant spaces and give consideration to those who came first. Park orderly to give enough space to those incoming vehicles who would also be parking.

3. Extend assistance to other drivers who happen to have vehicle trouble along the road.
4. Give way to vehicles who would like to overtake your path, although you know that you have the right-of-way.
5. Give proper courtesy to motorcyclists, bicyclists and other road users.
6. Check your distance with other vehicles. Avoid tail-gaiting.

## **B. Passengers**

Driver's should be courteous and considerate to their passengers.

1. Be careful while driving. Follow strictly traffic signs and signals to avoid delay once apprehended.
2. Do not slam your brakes or press your pedals too hard. Your passenger might not be able to hold themselves and may smash inside your vehicle.
3. Be sure your passengers have stepped-out of your vehicle safely before starting to move.
4. To taxi drivers, be honest to your passengers. Do not drive with fast meters and always give them their exact change.
5. Do not smoke while driving.
6. To public utility or for hire drivers, avoid trip cutting.

### **The Role of Passengers**

1. Passengers should never do anything to interfere with the driver and as much as possible do not distract him while he is driving.
2. In looking for a street name or address, the passenger must assist the driver and do the searching.
3. The passenger must handle the paying or change in approaching a toll booth.
4. Passengers should discourage the driver from reckless behavior.
5. If the driver's decision is impaired by anger, alcohol or by any other reason, the passenger may decide to risk a friendship or may refuse to ride the car he is driving.

## **C. PEDESTRIANS**

Drivers have special obligations to pedestrians.

1. Children. They often forget the dangers of traffic when playing on sidewalks. They run into the street without thinking. Be alert.
2. Older People. They may not see or hear very well and may not move of the way quickly, so give them time to cross.
3. Handicapped People. Visually handicapped people crossing the roads with white cane are pedestrians. The same are for persons confined in wheel chairs while crossing the streets. They should be given the greatest possible caution and attention. When you see handicapped people crossing the road, do not honk your horns.