

# 3

## Knowing Your Motorcycle

### Topics Covered

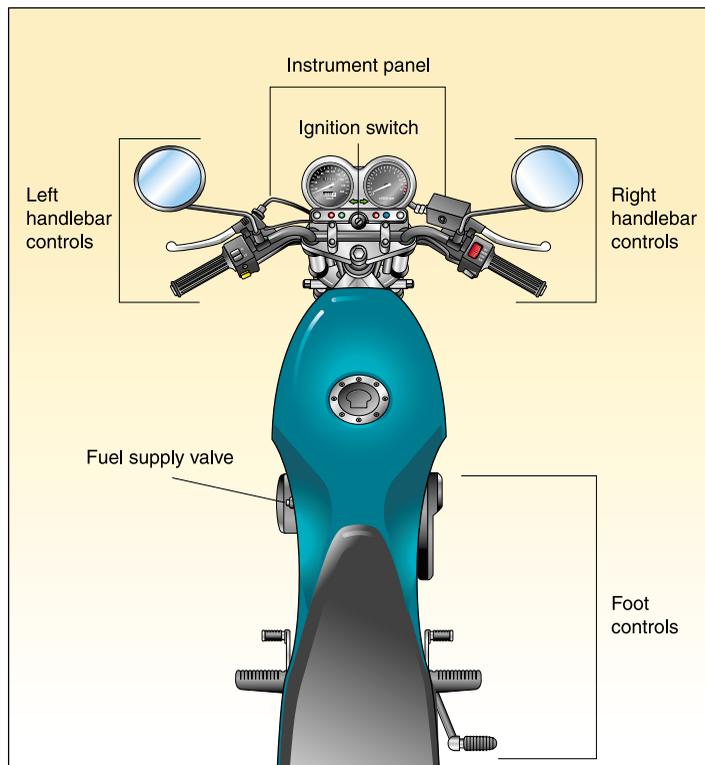
- Getting to Know Your Motorcycle
  - Left handlebar controls
  - Right handlebar controls
  - Instrument panel
  - Mirrors
  - Ignition switch
  - Fuel supply valve
  - Foot controls
  - Stand
- Riding Position
- Motorcycle Pre-Trip Check
- Pre-Trip Planning Check
- Periodic Inspection
- Riding and the Environment

**Chapter 2, You and Your Motorcycle**, presented different options for choosing a suitable motorcycle and safe riding gear. This chapter focusses on how motorcycles work. Read on to find out the basics about motorcycle operation and maintenance.

### Getting to Know Your Motorcycle

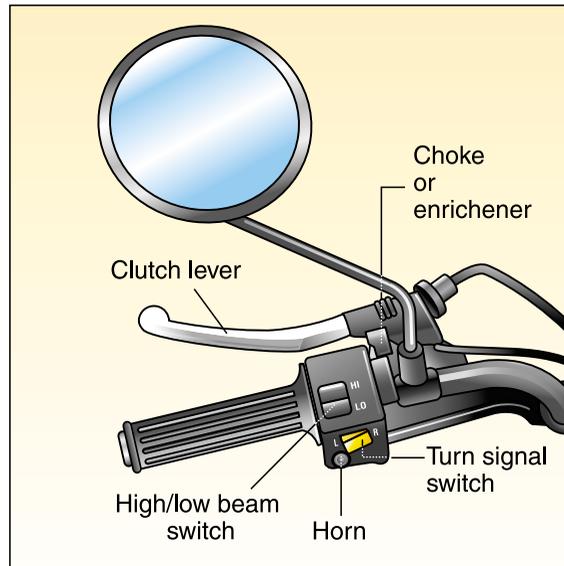
#### *Thinking Like a Rider*

*You are going out with a friend for your first practice session. He asks you to show him a few controls. You point out the throttle and the brake. He asks you to show him a few more things. You look at him with a frown and say, “Come on, when can we start?” He says, “Okay, try pushing the motorcycle around on the driveway.” You get it down off the stand and try to push. It won’t move. (It’s still in gear.) You look at him and say, “How come...?” He replies, “Well, maybe we’d better finish getting to know how everything operates.”*



*You need to be able to operate all your bike’s controls without taking your eyes off the road. Every bike is a little different, so check your owner’s manual for specific information on your bike.*

## Left handlebar controls



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### Clutch lever

This lever operates the clutch. Squeezing the clutch lever toward you with the fingers of your left hand will disengage the clutch and disconnect the engine power from the rear wheel. Releasing the lever will engage the clutch and provide power to the rear wheel. You will use the clutch lever when selecting and changing gears, when putting the motorcycle into neutral and during some slow-speed maneuvers.

### Turn signal switch

Use turn signals to let others know the direction you intend to ride. The turn signal switch operates the left and right turn signals. Use your thumb to operate the button. Some motorcycle models have the left turn signal on the left handlebar and the right turn signal on the right handlebar. Most motorcycle indicators do not cancel automatically. Make sure you cancel the signal after each use.

### High/low beam switch

Most motorcycles come equipped with a headlight that turns on automatically when the engine is running. The high/low beam switch will change the headlight to the high beam or low beam position. You operate it with your left thumb.

### Horn

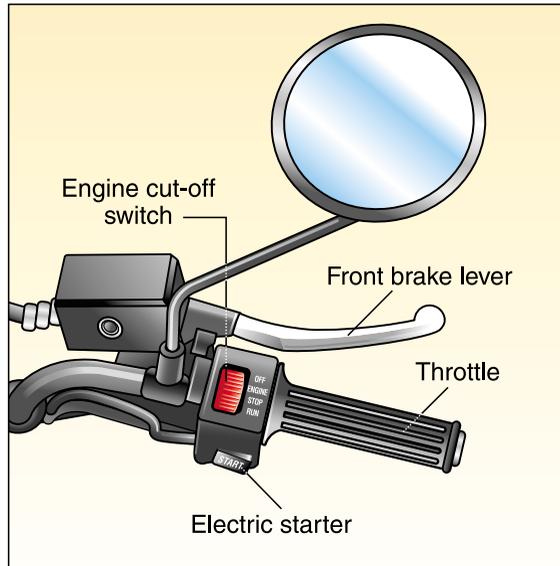
You operate the horn button with your thumb. Your horn is an important way to warn other road users of potential danger.

### Choke or enrichener

Most motorcycles have either a choke or an enrichener to help start a cold engine. Move it to the On position when you start

the engine, and gradually move it to the Off position as the engine warms up. You will find either the choke or enrichener on the left handlebar, near the ignition or below the gas tank. Check your owner's manual for more details about your motorcycle.

### Right handlebar controls



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### Engine cut-off switch

This safety switch stops the engine immediately. You use it to turn off the engine in emergencies, and you must turn it on before starting the engine. Use your thumb to operate the switch.

### Electric starter

Most newer motorcycles have an electric starter instead of a kick-starter. After you turn on the ignition switch, use the electric starter to start the engine. Operate it with your thumb. Make sure the transmission is in neutral before you use the starter.

### Front brake lever

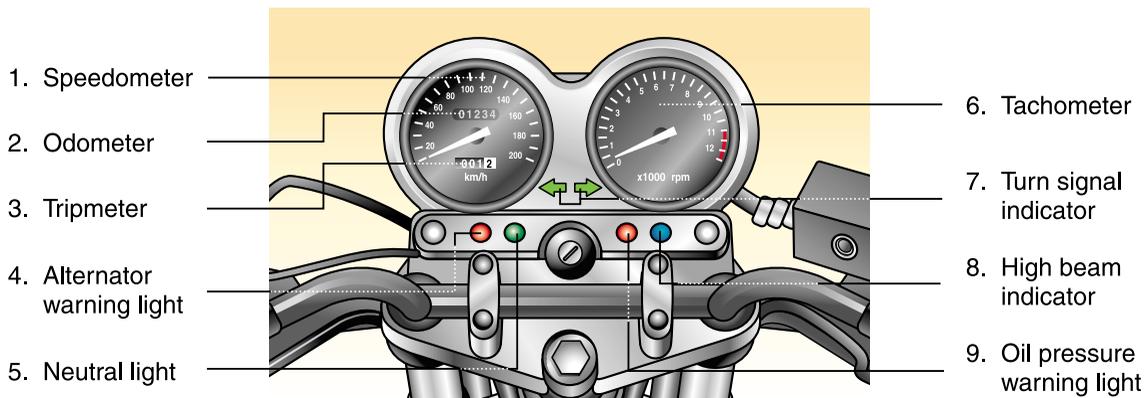
Motorcycles have two brakes. The brake lever on the right handlebar operates the brake on the front wheel. You operate it by squeezing the lever toward the handgrip with the fingers of your right hand. The rear brake is operated using a foot pedal.

### Throttle

The right handlebar grip is also the throttle or accelerator. To increase the engine speed, rotate it toward you (roll on), and to decrease the engine speed, rotate it away from you (roll off). The throttle should always spring back to the idle position when you remove your hand.

# Developing Your RoadSense

## Instrument panel



As you sit in the rider's position, you will see the instrument panel directly in front of you. The panel is a series of gauges and indicator lights that monitor the condition of your motorcycle. Match the numbers in the illustration to the numbers in the chart to find out the function of each item. Some motorcycles may not have all the controls in the illustration, and some may have other controls, such as a fuel gauge or a temperature light.

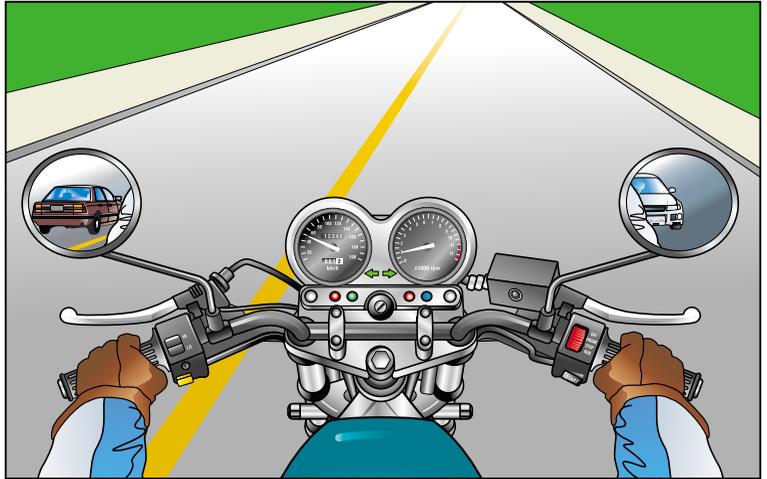
Number	Indicator/Gauge	Function
1	Speedometer	Shows the speed the vehicle is travelling (in either kilometres or miles per hour).
2	Odometer	Displays the number of kilometres/miles that the motorcycle has travelled since manufacture.
3	Tripmeter	Shows the distance travelled since it was reset to zero.
4	Alternator warning light	Shows whether the battery is charging.
5	Neutral light	Usually a green light that tells you the transmission is in neutral.
6	Tachometer	Shows the engine speed in revolutions per minute (r.p.m.).
7	Turn signal indicator	Flashes when either turn signal is active. Signals may not cancel automatically. The lights will remind you to turn off your signal.
8	High beam indicator	Usually a blue light that tells you the high beam headlight is on.
9	Oil pressure warning light	A red light warns of low oil pressure in the engine. If the warning light comes on, take action to solve the problem as soon as possible. Note: The light does not tell you how much oil is in the engine. Use the oil dipstick or sight window to check the engine oil level.  Some motorcycles with two-stroke engines may have a warning light that will warn you when the engine oil level is low.



### Warning

Mirrors often distort the view because of the glass used. Convex mirrors give you a wider view but make it difficult to judge the speed and distance of following traffic. Check to see how accurate the mirrors of your motorcycle are.

## Mirrors



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Adjust the mirrors so that you can see the lane behind you and as much of the other lanes on the road as possible. Each mirror should show the edge of your arm. However, even with good adjustments, your elbows may block the view behind.

## Ignition switch



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Get to know all the possible positions of the ignition switch:

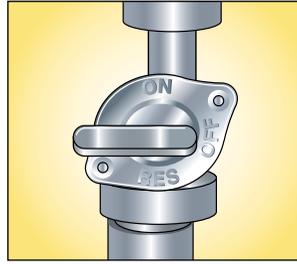
- **Park** – The rear tail light remains on and the engine is off. The key can be removed. Not all ignition switches include this position.
- **On** – All electrical systems are on and the engine will run.
- **Acc.** – Provides power for auxiliary equipment when the motor is off.
- **Off** – The engine will not run. All electrical systems are off, and the key can be removed.
- **Lock** – The steering is locked. This helps prevent theft.

*If a motorcycle has a fuel supply valve, it will have either a Prime position or an Off position. Which one does your bike have?*

## Fuel supply valve



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3 - 7b

These valves control the flow of gasoline to the carburetor. If your motorcycle has a valve, it will be located below the fuel tank. Check your owner's manual for instructions on how to use the valve.

- **On** – Opens the flow of gasoline.
- **Res or Reserve** – Opens the flow of fuel from the reserve part of the fuel tank.
- **Off** – Turns the flow of fuel off. When the motorcycle is parked, always turn the valve to the Off position.
- **Pri or Prime** – Motorcycles with a vacuum valve will have a Prime position on the fuel supply valve. Use it when starting the engine if you've completely run out of gas or if you've drained and refilled the gas tank.

If your motorcycle has a fuel gauge, it may not have a fuel valve.



### RoadSense Tip

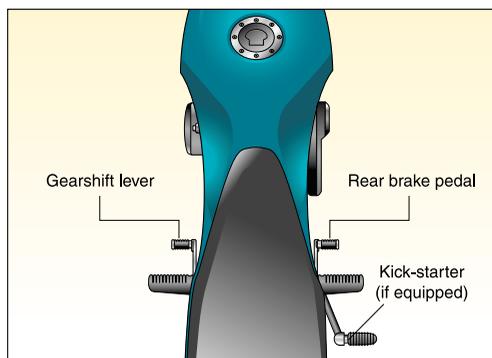
Do you have an anti-lock braking system (ABS)? Check your motorcycle manual, or look for an indicator light. This system will keep the brakes from locking the wheels when you apply excessive pressure.

Anti-lock braking systems may give you more control over the motorcycle on slippery surfaces, but they will not allow you to stop faster or in a shorter distance.

If your ABS indicator light remains on after start-up, take the motorcycle in for repair. The system may be malfunctioning.

## Foot controls

Practise using the foot controls so you can always respond quickly and accurately.



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## Rear brake pedal

On most motorcycles this pedal is located in front of the right footpeg. It activates the brake on the rear wheel. Use this brake by applying pressure with your right foot. Under normal riding conditions, you use both the front and rear brakes at the same time.

Some motorcycles have integrated brakes. When you apply the rear brake firmly, the motorcycle automatically applies the front brake as well. You can, however, apply the front brake independently.

### Gearshift lever

This lever is normally just in front of the left footpeg, and you operate it with your left foot. You always operate this lever along with the clutch lever. Most motorcycles have five or six gears and a neutral position. Squeeze the clutch lever with your left hand, and then select the appropriate gear with your left foot. It takes practice to learn to shift gears smoothly. You will need to learn to coordinate operating the clutch lever with operating the throttle and the gearshift lever.

### Kick-starter (if equipped)

Your motorcycle may have a kick-starter located behind the right footpeg. You need to fold out the lever before you use it and put it back after the engine is running. Check your owner's manual for information on how to safely use the lever.



#### Warning

Never drive off a stand. Always push the motorcycle off the stand before moving. Check that the stand is fully up. If it isn't, it could dig into the road when you are turning.

### Stand

All motorcycles have stands to support them when parked. They have either side or centre stands. Some have both. A centre stand is useful when doing maintenance because it lifts the rear wheel off the ground. When using either the centre or side stand, make sure the surface of the road is firm enough to prevent the stand from sinking. Your motorcycle may have a side-stand switch that automatically shuts off the engine if you put the motorcycle into gear while the side stand is down.

### Riding Posture

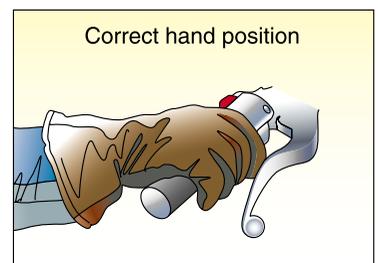
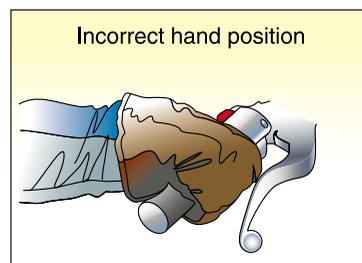
If you have a comfortable posture while riding, you'll be better able to prevent fatigue and control your motorcycle. Use the following list to check your riding posture:

- ❑ **Seating position** – You should be seated far enough forward so that your arms are slightly bent and your back is straight. This allows you to control the handlebars without having to stretch or turn your body.
- ❑ **Hands** – Make sure you can grip the handgrips firmly. You should ride with your wrists flat or slightly dropped to prevent you from accidentally rolling the throttle on.



#### RoadSense Tip

For your comfort and safety, adjust the position of your rear brake pedal and gearshift lever to fit you.



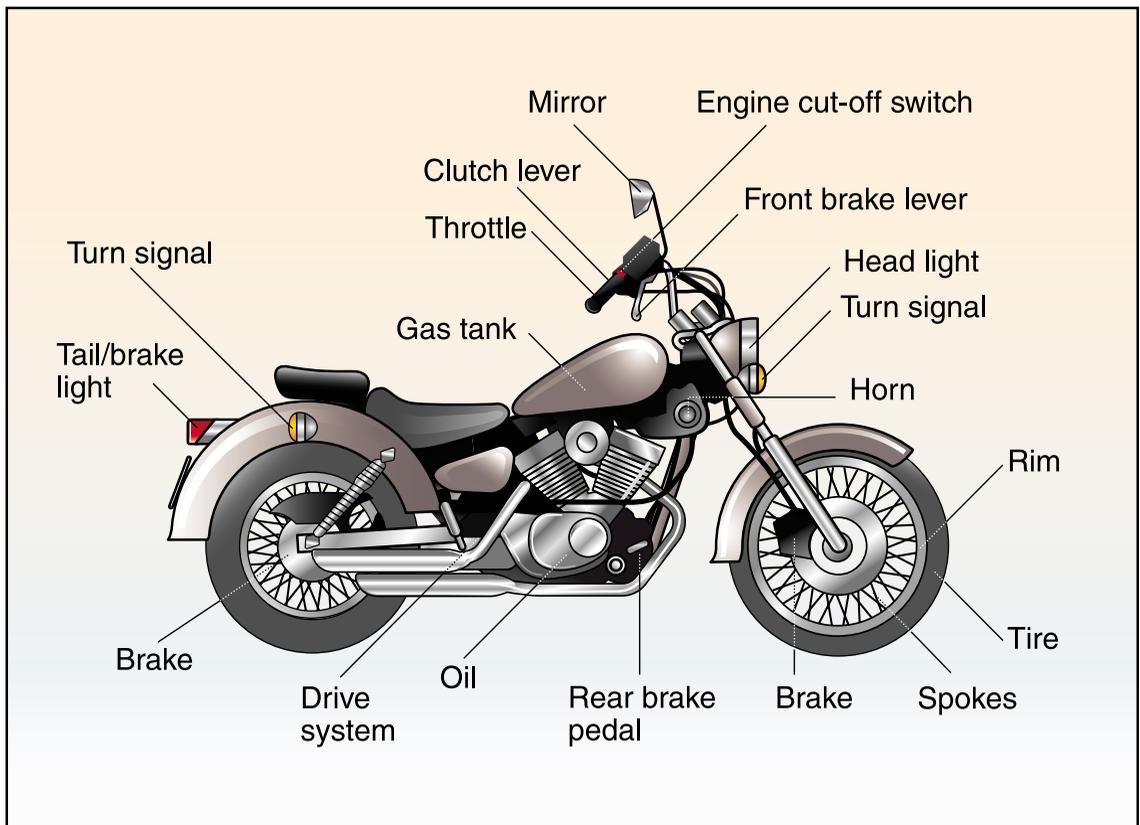
## Developing Your RoadSense

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- ❑ **Knees** – Always keep your knees close to the gas tank. This helps you keep your balance while turning.
- ❑ **Feet** – Place your feet on the footpegs when the motorcycle is moving. They should be angled out slightly, with your heels just behind the footpeg. Your feet are then ready to move quickly onto the rear brake or the gearshift lever.

### Motorcycle Pre-Trip Check

Even if you are in a hurry, you should always check your motorcycle before riding. The pre-trip check doesn't take long and will soon become routine and automatic. Remember, read your owner's manual to learn about the correct functioning of your motorcycle.



Use this illustration as a guide when you do a pre-trip check.

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### Tires

- ❑ **Air pressure** – Check that the air pressure in the tires is correct. Your owner's manual or a sticker on your bike will have information on the correct pressure to use. Check the pressure when the tire is cold and at least once a week if you are riding regularly.



### RoadSense Tip

The two tires of your bike are the only contact you have with the road. Keep them in good condition. Remember, you have no spare tire. You don't want to be stranded.

- ❑ **Tread** – Uneven or worn tread can cause you to lose traction and control over the steering.
- ❑ **Condition** – Inspect the tires for cuts, bulges, damage to the side walls and embedded objects.

### Wheels

- ❑ **Wire spoke wheels** – Check for damaged, missing or broken spokes, as well as for spoke tension.
- ❑ **Mag wheels** – Check for damage or cracks.
- ❑ **Rims** – Check for damage.

### Drive system

- ❑ **Chain** – Check for tension and lubrication.
- ❑ **Belt** – Check the tension and wear.
- ❑ **Shaft** – Check for oil leaks.

### Electrical

- ❑ **Lights** – Check that the tail light works and that both beams of the headlight work.
- ❑ **Brake light** – Check that both controls activate the light.
- ❑ **Turn signals** – Test both signals by turning each one on and off.
- ❑ **Horn** – Try the horn. Is it working? Don't ride unless it is. It could save your life.
- ❑ **Engine cut-off switch** – Check that it works.

### Fluids

- ❑ **Oil** – Check the oil level.
- ❑ **Coolant** – If your motorcycle engine is liquid cooled, check the fluid level. Also check hoses for cracks.
- ❑ **Fuel** – Check that you have enough gasoline.
- ❑ **Leaks** – Check that there are no leaks on the ground under your motorcycle.

### Clutch and throttle

- ❑ **Clutch** – When you squeeze the clutch lever, the cable should move smoothly and feel tight.
- ❑ **Throttle** – It should snap back when you let it go.

### Mirrors

- ❑ **Mirrors** – Make sure both mirrors are clean, adjusted and securely fastened.



### RoadSense Tip

Check your owner's manual for information on adjusting the clutch, throttle and brake cables.

## Brakes

- ❑ **Brakes** – Check both front and rear brakes. Make sure they feel firm and that they stop the motorcycle from moving when you apply them.

## Pre-Trip Planning Check

Just as you check your motorcycle for safety, check your planning before you start:

- ❑ Do you know your route? Use a map if necessary.
- ❑ Have you allowed enough time? Will you have to adjust for heavy traffic?
- ❑ Have you checked the weather forecast? Will it be very hot or very cold? Will you need to wear special gear?
- ❑ What kind of light conditions will you be riding in? Will you need to wear reflective gear?
- ❑ Have you thought about road conditions? Will you need to be especially alert to compensate for hazardous road conditions?
- ❑ Have you thought about your return trip? Is the weather likely to change? Will you need additional clothing or gear?

## Periodic Inspection

Your pre-trip check will help you feel confident that your motorcycle is safe as you set out for your destination, but periodically you will need to check it more thoroughly to ensure good maintenance. How often you do the periodic check and related maintenance will depend on how often you ride. If you ride frequently, give your motorcycle a weekly check-up. Here are some of the things you should check:

- ❑ Brakes
- ❑ Steering
- ❑ Wheels
- ❑ Cables
- ❑ Levers
- ❑ Drive system (chain, shaft or belt)
- ❑ Fasteners
- ❑ Fluid
- ❑ Battery
- ❑ Suspension
- ❑ Bodywork

### Strategies: Tire Tips

Tires are a key piece of safety equipment. Good tires can save your life.

- Avoid sudden starts and stops. These reduce the life of a tire.
- Adjust the tire pressure according to the weight you are carrying. Check your owner's manual for specifications.
- Replace any tires that show bumps, bulges, cuts, knots, cracking or exposed material.
- Use only tires that match the specifications for your motorcycle. Front and back tires must be compatible. Check that tires are installed in the correct direction.
- Replace tires when the wear bar appears, or before.

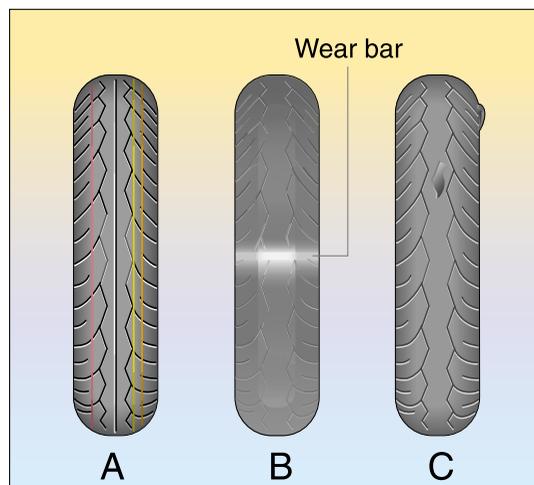
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*Tire A is a new tire. It has a shiny finish that can reduce grip. It may take up to 200 kilometres of riding to wear off this finish, so ride cautiously.*

*Tire B has lost most of its tread and the wear bar is showing. This tire needs to be replaced.*

*Tire C is damaged and should not be ridden under any circumstances.*

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### Riding and the Environment

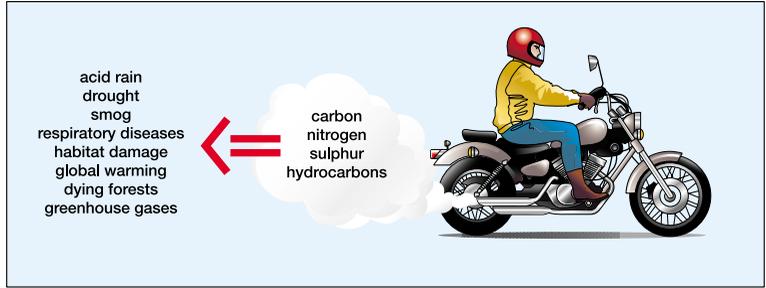
Using a motorcycle instead of a car can be good for the environment. Motorcycles:

- use about half the gasoline that cars with comparable performance use
- use only a quarter of the road space that four-wheeled vehicles use
- use less parking space than cars use
- use fewer resources during their manufacture than cars use

However, motorcycles also contribute to air pollution because they are not built with the same emission controls as cars and are not subject to the same stringent emission standards as cars.

# Developing Your RoadSense

*If you are buying a motorcycle, choose one with up-to-date emission control technology. Older motorcycles produce up to 15 times more emissions per kilometre than the average new car or light-duty truck. New technology, such as fuel injection, and better emission standards, is improving this situation.*



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## RoadSense Tip

Good safe riding habits can reduce your fuel consumption by as much as 30 per cent, save wear and tear on your motorcycle, and reduce emissions. For more smart ways to be fuel-efficient, visit the Natural Resources Canada Office of Energy Efficiency web site at [www.oeenrncan.gc.ca](http://www.oeenrncan.gc.ca) or call 1-800-837-2000.



## RoadSense Tip

Although riders in some parts of B.C. will be able to ride year-round, most riders will put their motorcycles away for the winter season. Check your owner's manual for tips on winter storage.

*Do not pour motor oil, waste gas, transmission fluids or battery acid down drains. Take these fluids to recycling locations.*

## What can you do?

Here are some things you can do to reduce your impact on the environment:

- Combine several errands into one trip.
- For greatest fuel efficiency, ride within the speed limit and at a steady speed.
- Avoid unnecessary braking and quick starts because these use extra fuel.
- Do not leave the engine running while the motorcycle is parked or while you are in non-moving traffic.
- Keep the engine well-tuned to reduce emissions.
- For better fuel efficiency, make sure the tires are correctly inflated.
- Change the oil regularly and use the right grade. Have any oil leaks fixed.
- Keep the air filter clean.
- Have a technician check the pollution control devices on your motorcycle regularly, and keep them in good working order.



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