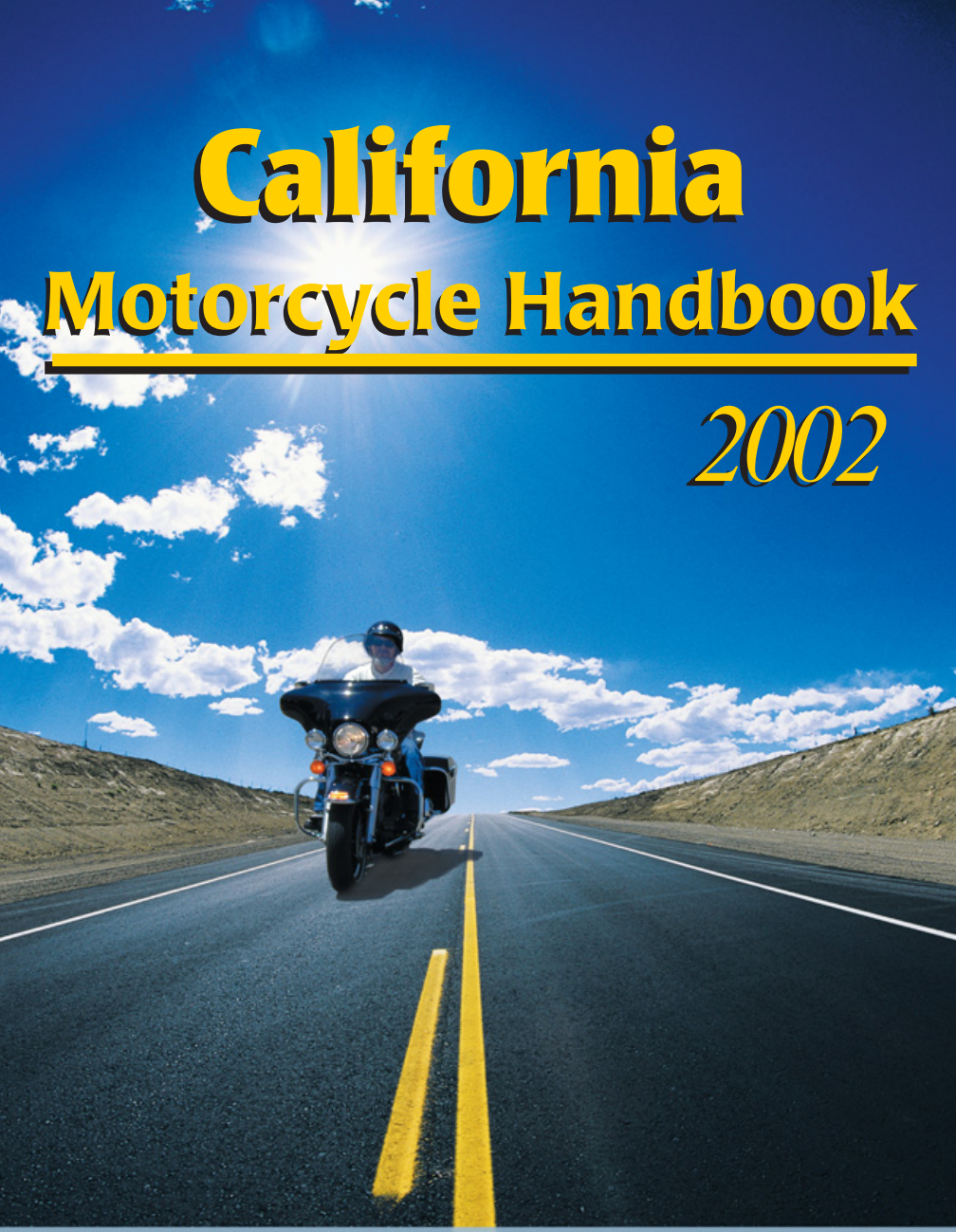
California Motorcycle Handbook

2002



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STATE OF CALIFORNIA
DMV
DEPARTMENT OF MOTOR VEHICLES

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INTRODUCTION

This booklet supplements the information contained in the *California Driver Handbook* concerning traffic laws, safe driving rules, and driver licenses. Study the *California Driver Handbook* as well as this supplement.

This supplement provides information for both novice and experienced drivers of two-wheel vehicles. Portions of this booklet which deal with safe driving practices (rather than traffic laws) were developed initially by the National Public Services Research Institute in cooperation with the Motorcycle Safety Foundation (MSF).

The Motorcycle Safety Foundation, California Highway Patrol (CHP), California Motorcyclist Safety Program, various motorcyclist enthusiast groups, and the Department of Motor Vehicles (DMV) all agree that improved licensing, along with quality motorcycle rider education and increased public awareness, has the potential to reduce the number and severity of motorcycle accidents.

When using this handbook, please remember that it is only a summary of the laws and regulations. DMV, law enforcement, and courts follow the full and exact language of the law contained in the *California Vehicle Code*. If there is a conflict, this handbook cannot be relied upon as law.

LICENSE REQUIREMENTS

California issues two different classes of license for two-wheel vehicle operation. The license classes are based on the following:

- Class M1—You may operate any two-wheel motorcycle or motor-driven cycle and all vehicles listed under Class M2.

- Class M2—You may operate any motorized bicycle, or moped, or any bicycle with an attached motor.

- Class C —You may operate a motorcycle with a sidecar attached or a three-wheel motorcycle.

See page 5 for information regarding motorized bicycles.

The Class M1 or M2 license may be obtained at any DMV office which provides driver license services. Motorcycle law tests and skill tests are required.

NOTE: The permit and license requirements in this supplement pertain to two-wheel vehicles. Refer to the *California Driver Handbook* for Class C driver license requirements.

DMV INFORMATION

DMV field offices have business hours and days of service suited to their local area. Many offices are open for full service from 8:00 AM to 5:00 PM Monday through Friday (except holidays). A few offices offer only driver license or vehicle registration service. Check the State Government section of your local phone book.

Visit DMV's website: www.dmv.ca.gov

Here are some services available on DMV's website. More are being added and may save you an in-person visit:

- Field Office—locator, hours, directions, phone numbers
- Ordering personalized plates
- Driver license and identification card information
- Forms—for downloading
- Publications—handbooks, brochures, sample tests, studies
- Links to other state and federal agencies
- And much more

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PERMIT REQUIREMENTS FOR MINORS

If you intend to use public roads while learning to drive, you must get an instruction permit. You must:

- Be 15 1/2 years of age and bring proof you have finished both driver education and driver training. (DL 387, DL 388, DL 388A, OL 237, or OL 238)
- Submit a completed DMV application form (DL 44).
- Have your parents' * signatures on the application form.
- Present an acceptable birth date/ legal presence document. (Refer to the *California Driver Handbook.*)
- Provide your true full name.
- Provide your social security number.
- Pay the required $12 application fee ($15 if you have a five-year license and are adding an M1 or M2). This fee is good for 12 months and allows you to take the appropriate law test(s) and skills test three times, if needed, within the 12-month period. This fee pays for both the instruction permit and driver license, if you qualify for both within that time period. The fee must be paid when you apply for any new or change of class permit or license. **It will not be returned**. If the application expires, you must start again. This means resubmitting documents, paying the application fee, and taking the required tests.
- Pass an eye exam. By law, any person with a best corrected vision of 20/200 or worse in the better eye cannot use a bioptic telescopic or similar lens to qualify for a driver license.
- Have your picture taken.
- Give a thumb print.
- Pass a special test(s) on traffic laws and signs for the class of license you now have unless you have taken the test(s) within the prior twelve months.
- Pass an additional law test of motorcycle driving rules.
- Have your permit for a minimum of six months before you apply for a license.
- The Class M permit does not allow you to carry passengers and you must ride during daylight hours only and not on the freeway.

LICENSE REQUIREMENTS FOR MINORS

When you are ready for your Class M1 or M2 license, you must pass a skill test given at any DMV office which provides driver license service. Persons under 21 years of age must satisfactorily complete a CHP-approved motorcycle rider training course and submit a Certificate of Completion of Motorcycle Training (DL 389). This certificate is in addition to the certificate(s) of driver education and driver training that are also required by law for minors. However, the skill

* The term parents means both custodial parents unless only one parent has custody, or all legal guardians unless only one legal guardian has custody.

test will be waived for *any* person presenting a DL 389. Fixed and mobile motorcycle training sites are located throughout California. The telephone number for locating the nearest training site is 1-800-CCRIDER.

To obtain a Class M license you must:

- Complete the requirements listed above.
- Be at least 16 years old.
- Present a DL 389; or, if you are applying for a Class M license only, you must pass a road test also.

PERMIT REQUIREMENTS FOR ADULTS

If you intend to use public roads while learning to drive, you must get an instruction permit. You must:

- Be 18 years of age, or older.
- Fill out the regular DMV application form (DL 44).
- Present an acceptable birth date/legal presence document. (Refer to the *California Driver Handbook*.)
- Provide your true full name.
- Provide your social security number.
- Pay the required $12 application fee ($15 if you have a five-year license and are adding an M1 or M2). This fee is good for 12 months and allows you to take the appropriate law test(s) and skills test three times, if needed, within the 12-month period. This fee pays for both the instruction permit and driver license, if you qualify for both within that time period. The fee must be paid when you apply for any new or change of class permit or license. It will not be returned. If the application expires, you must start again. This means resubmitting documents, paying the application fee, and taking the required tests.
- Pass an eye exam. By law, any person with a best corrected vision of 20/200 or worse in the better eye cannot use a bioptic telescopic or similar lens to qualify for a driver license.
- Have your picture taken.
- Give a thumb print.
- Pass a test(s) on traffic laws and signs for the class(es) of license you now have unless you have taken the test(s) within the prior twelve months.
- Pass an additional law test of motorcycle driving rules.

NOTE: The permit does not allow you to carry passengers and you must ride during daylight hours only and not on the freeway.

LICENSE REQUIREMENTS FOR ADULTS

To obtain a Class M license you must:

- Complete the requirements listed above.
- If you are under 21 years of age, you must satisfactorily complete a CHP approved motorcycle rider training course and present the Certificate of Completion of

Motorcycle Training (DL 389). However, the skill test will be waived for *any* person presenting a DL 389. Fixed and mobile motorcycle training sites are located throughout California. The telephone number for locating the nearest training site is 1-800-CCRIDER.

- Pass a DMV skill test or present a DL 389; or, if you are applying for a Class M license only, you must pass a road test also.

THE SKILL TEST

Before starting the skill test, you will be asked to identify and explain the use of the starter, choke, clutch, throttle, gear shift, and brakes.

Depending on the DMV facility where you are tested, the skill test, if required, may include:

- Starting the machine and shifting up and down.
- Riding within the limits of a curve or circle.
- Making sharp turns.
- Judging the speed of your turns.
- Maneuvering around objects.
- Braking smoothly.

MOTORIZED BICYCLES

Vehicle Code (VC) §406(a) defines a motorized bicycle, commonly called a moped, as a two- or three-wheeled vehicle which can be temporarily propelled by pedals or by an electric motor. An automatic transmission connects the wheels to an engine which produces less than 2 gross brake horsepower. It has a top speed of 30 miles per hour on level ground.

A motorized bicycle is also defined (VC §406[b]) as a device which has fully operative pedals for human propulsion and has an electric motor with an output of not more than 1,000 watts and cannot be driven at a speed of more than 20 mph on level ground. The motorized bicycle cannot go faster than 20 mph even if assisted by human power. These vehicles must operate so the electric motor is disengaged when the brakes are applied or when the starter switch or mechanism is released.

Persons who operate a motorized bicycle **which meets the definition of VC §406(b):**

- Must wear a properly fitted and fastened bicycle helmet.
- Are exempt from the motor vehicle financial responsibility, driver license, and moped plate requirements. (VC §12804.9)
- Must be 16 years of age or older.

A motorized bicycle may not be driven on a freeway, bicycle path or trail, equestrian trail, or hiking or recreation trail unless the path or trail is on, or next to, a roadway or permission to use the trail or roadway is granted by local ordinance. A motorized bicycle may be driven in a bicycle lane on a roadway at a reasonable speed and with special care for bicyclists using the lane.

TWO-WHEEL VEHICLE OPERATION

The basic rules of the road contained in the *Vehicle Code* apply to all two-wheel vehicles which include motorcycles, motor-driven cycles, mopeds, or bicycles with a motor attached.

A motorcycle is any motor vehicle:

- Having a seat or saddle for the use of the rider, designed to travel on not more than three wheels in contact with the ground, and weighing less than 1,500 pounds. *A farm tractor is not a motorcycle.* **Exception**: A motor vehicle that has four wheels in contact with the ground and two of the wheels are a functional part of a sidecar and weighs less than 1,500 pounds is considered a motorcycle.
- That is electrically powered with a maximum speed of 45 miles per hour and weighing less than 2,500 pounds.

A motor-driven cycle is a motorcycle with an engine size less than 150 cc, and every bicycle with a motor attached. You may not operate a motor-driven cycle on a freeway which has been posted with signs to prohibit such operation.

Minibikes, tote-goats, trail bikes, and similar vehicles may fall within the definition of motorcycle, motor-driven cycle, or motorized bicycle. If such vehicles are operated upon the highway they must meet applicable equipment, registration, licensing, and operation requirements, if required.

PREPARING TO RIDE

Your chances of getting to where you want to go, all in one piece, are affected by things done before starting out. A safe rider wears a helmet and also makes it a point to:

- Wear the proper clothing.
- Use eye and face protection.
- Check the motorcycle's equipment.
- Test the motorcycle's operation.

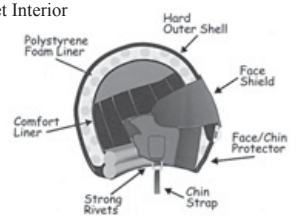
HELMETS

All motorcycle riders and passengers, regardless of age, are required to wear a helmet when operating a two-wheel vehicle on a public street, highway, or freeway. Studies show that, with few exceptions, head and neck injuries are reduced by the proper wearing of an approved helmet. There are two primary types of helmets: three-quarter and full face. Whichever style you choose, be sure the helmet:

- Meets U. S. Department of Transportation (DOT) and state standards. Helmets with labels from the American National Standards Institute (ANSI) or the

Unsafe Helmet Interior

Safe Helmet Interior



Snell Memorial Foundation give an added assurance of quality.
- Fits snugly all the way around.
- Is made of a reflective material or has reflective tape on the back and sides.
- Is free of defects such as cracks, loose padding, frayed straps, or exposed metal.
- Has a thick inner liner (usually about one inch thick).
- Has a sturdy chin strap with solid rivets.
- Is securely fastened. Studies of motorcycle crashes show that a loose helmet is only slightly better than not wearing a helmet at all.

CLOTHING

Clothing can help protect you against injury.

Jacket and pants should cover your arms and legs completely. Wear a jacket even in warm weather. Leather offers the most protection, but heavy denim usually does an adequate job at a reasonable price. Vinyl and other sturdy synthetic materials also can give you a lot of protection. Your clothes should fit snugly enough to keep from flapping, and yet let you move freely. Be careful of pant cuffs that can catch on exposed parts of the motorcycle.

Boots or shoes should be sturdy, and high enough to protect the ankles. Soles should be made of hard, durable materials. Heels should be short so they do not catch on rough road surfaces. Do not wear shoes with rings or laces that may catch on the controls.

Gloves are also important. They protect your hands and give you a better hold on the handgrips and controls. Your gloves should be made of leather or heavy cloth. Some gloves are made to keep wind or rain from going up your sleeves.

In cold or wet weather, your clothes should keep you warm and dry as well as protect you against injury. You can't control a motorcycle if you are numb with cold. Riding for long periods in cold weather can cause severe chill and fatigue. A winter jacket should resist wind and fit snugly at the neck, wrists, and waist. Rain suits should be of good quality and designed for riding. Those that are not designed for motorcycle use may tear apart or balloon up at high speeds.

EYE AND FACE PROTECTION

Your eyes need protection from wind, dust, dirt, rain, insects, and the small pebbles and debris thrown up from vehicles ahead of you. A plastic face shield is best because it protects your whole face.

Eyeglasses are not made to protect riders. They might blow off when your head is turned. If you wear glasses, also use a face shield.

To be effective, eye or face protection must:
- Be free of scratches.
- Be made of shatterproof material.
- Give a clear view to either side.
- Fasten securely so that it cannot be blown off.
- Allow air to pass through so it won't fog.

- Allow enough room for eyeglasses or sunglasses, if needed.

Do not wear tinted eye protection at night or any other time when there is little available light.

CHECK THE MOTORCYCLE

A motorcycle needs more frequent attention than a car. Before getting on your motorcycle, make the following checks:

- Tires—Air pressure.
- Fluids—Oil and fluid levels. At a minimum, check hydraulic fluids and coolants weekly. Look under the motorcycle for signs of an oil or gas leak.
- Headlights and Taillight—Check them both. Test your dimmer to make sure both high and low beams are working.
- Turn Signals—Turn on the right and left turn signals. Make sure the front and rear of both lights flash.
- Brake Light—Try both brake controls and make sure each one turns on the brake light.

Once you are on the motorcycle, complete the following checks before you start:

- Clutch and Throttle—Make sure they work smoothly. The throttle should snap back when you let go.
- Mirrors—Clean and adjust both mirrors before you start. It's difficult to ride with one hand while you adjust your mirror. Adjust each mirror so you can see the lane behind and as much as possible the lane next to you. When the mirror is properly adjusted, you can see the edge of your arm or shoulder. However, it is the road behind and to the side that is the most important.
- Brakes—Try the front and rear brake levers once again. Make sure each one feels firm and holds the motorcycle when the brake is fully applied.
- Horn—Try the horn to be sure it works.

In addition to the checks you should make before every trip, check the wheels, cables, and fasteners at least once a week.

KNOW YOUR MOTORCYCLE

Be completely familiar with the motorcycle before riding it on the street.

If it is a borrowed cycle:

- Make all the checks you would on your own cycle.
- Find out where everything is, particularly the turn signals, horn, headlight switch, fuel control valve, and motor cutoff switch. Make sure you can find and operate them without having to look at them.
- Check the controls. Know the gear pattern. Work the throttle, clutch, and brakes a few times before you take off. All controls react a little differently.
- Ride very cautiously until you are used to the way the motorcycle handles. Take turns slowly and give yourself extra stopping distance.

RIDE WITHIN YOUR ABILITIES

To control a motorcycle, you have to be able to keep it upright and make it go where you want it to go at the right speed.

This manual cannot teach you how to control direction, speed, or balance. Only practice will do that. Control begins with knowing your abilities and riding within them. This manual will tell you a few things to help you keep the control you need to avoid accidents.

BODY POSITION

To properly control the motorcycle, your body must be in the proper position.

Seat—sit close enough to the handlebars to reach them with your arms slightly bent. Bending your arms allows you to turn the handlebars without having to stretch.

Hands—hold the handlegrips firmly so that you will not lose your grip if the motorcycle bounces. Start with your wrists flat. This will help keep you from accidentally using too much throttle especially if you need to reach for the brake suddenly. Also, adjust the handlebars so your hands are even with or below your elbows.

Knees—hold your knees firmly against the gas tank. This will help your balance as the motorcycle turns.

Feet—keep your feet firmly on the footpegs. A firm footing will help you maintain balance. Don't drag your feet along the ground. If your foot catches on something, you could be injured and also lose control of the motorcycle.

Keep your feet near the controls so you can use them quickly if needed. Also, try to keep your toes up. If you let them drop down, they may get caught between the road and the footpeg.

Posture—your body should be fairly erect. This lets you use your arms to steer the motorcycle rather than to hold yourself up.

TURNING

New riders tend to have more trouble turning than experienced riders. The only way to learn how to make good, safe turns is to practice. Here are two important tips for practicing:

1. Limit your speed. New riders often take turns too fast. When they can't hold a turn they either cross into another traffic lane, go off the road, or brake too hard and skid out of control.
2. Approach turns very carefully until you know how fast you can take a turn. Remember, you can always speed up as you come out of a turn.

Use these four steps for better control:

1. **Slow**. Reduce speed before the turn by closing the throttle and, if necessary, applying both brakes.
2. **Look**. Look through the turn to where you want to go. Turn just your head, not your shoulders and keep your eyes level with the horizon.

3. **Lean**. To turn, the motorcycle must lean. To lean the motorcycle, push on the handgrip in the direction of the turn. Push left—lean left—go left. Push right—lean right—go right. Higher speeds and/or tighter turns require the motorcycle to lean more.
4. **Roll**. Roll on the throttle through the turn. Maintain steady speed or accelerate gradually.

Avoid slowing down in the turn. In normal turns, the rider and the motorcycle should lean together at the same angle. In slow tight turns, lean only the motorcycle and keep your body straight.

BRAKING

Motorcycles have two brakes and you need both of them to stop effectively. The front brake is the more powerful of the two. It provides about three-quarters of your stopping power. The front brake is safe to use if you use it properly.

Here are some important things to remember about braking:

- Use both brakes every time you slow down or stop. If only the rear brake is used for "normal" stops, you may not have enough skill to use the front brake properly when needed.
  Squeeze the front brake and press down on the rear. Grabbing at the front brake or jamming down on the rear can cause the brakes to lock, which results in control problems.
- Apply both brakes at the same time. Some people believe that the rear brake should be applied first. That is not true. The sooner you apply the front brake, the sooner it will start slowing you down.
- The front brake can be used in a turn. Some people think this is dangerous. Using the front brake is dangerous **if** the road is very slippery **and** you don't use the brake properly. When leaning the motorcycle, some of the traction is used for cornering so less traction is available for stopping. A skid can occur if you apply too much brake.
- Some motorcycles have integrated braking systems that link the front and rear brakes together. You only apply the rear brake pedal. (Consult your owner's manual for a detailed explanation.)

SHIFTING GEARS

There is more to shifting gears than simply getting the motorcycle to accelerate smoothly. Accidents can occur if you use the gears incorrectly when you downshift, turn, or start on hills.

DOWNSHIFTING

It is important to shift down through all the gears as you slow down or stop. Remain in first gear while you are stopped so you can move out quickly if you need to.

Make sure you are going slowly enough when shifting into a lower gear. If you are going too fast, the motorcycle will lurch and the rear wheel may skid. This is more likely to happen when:

- Going downhill—the motorcycle tends to pick up speed on a downgrade.
- Shifting into first gear—on many motorcycles, the speed range for first gear is very low.

Under these conditions, you may need to use the brakes in order to slow down enough to shift safely.

SHIFTING IN A TURN

Do not upshift or downshift in a turn unless you can shift smoothly. A sudden change in power to the rear wheel can cause it to lock or spin. The result can be a skid. Change gears before entering a turn.

STARTING ON A HILL

It is more difficult to get the motorcycle moving on an upgrade than on flat ground. There is always a danger of rolling backward into someone behind you. Here is what to do:

- Use the front brake to hold the motorcycle while you start the engine and shift into first gear.
- Change to the foot brake to hold the cycle while you operate the throttle with your right hand.
- Open the throttle a little bit for more power.
- Release the foot brake when the engine begins to slow down. This means the engine is taking hold.
- Release the clutch gradually. If you release it too quickly, the front wheel may come off the ground or the engine may stop or both.

AVOIDING COLLISIONS

As a rider you can't be sure that drivers will see you or yield the right-of-way. To lessen your chances of being in an accident:

- Be visible—wear proper clothing, use your headlight, and ride in the best lane position.
- Communicate your intentions—use the proper signals, brake light, and lane position.
- Maintain an adequate space cushion—following, being followed, lane sharing, passing and being passed.
- Scan 10 to 15 seconds ahead of your path of travel.
- Identify multiple hazards.
- Be prepared to act—remain alert and know how to carry out proper accident-avoidance skills.

Blame does not matter when someone is injured in a crash. There is rarely a single cause of an accident. The ability to ride alertly, make critical decisions, and carry them out separates responsible riders from the rest. Remember, it is up to you to keep from being the cause of, or an unprepared participant in, any accident.

BEING SEEN

Vehicle drivers involved in accidents with motorcyclists often say that they never saw the motorcyclist. From ahead or from behind, a motorcycle's outline is only one-third to one-half the size of a car's. The saying "You can't hit what

you can't see" just doesn't apply to motorcycles. Even if a driver does see you coming, you are not necessarily safe. Smaller vehicles appear farther away and seem to be travelling slower than they actually are. Most drivers think they have plenty of time and may pull out in front of you. Too often, they are wrong.

However, motorcycle riders can help to make their motorcycle more noticeable.

HEADLIGHT

The best thing you can do to make your motorcycle visible to oncoming drivers is to always keep the headlight on. Studies show that during daylight hours a motorcycle with its lights on becomes twice as noticeable to oncoming drivers. A modulated beam headlight (one that flickers) is legal on motorcycles in California, but not after dark.

CLOTHING

Brightly colored, reflective helmets and clothing help make riders more noticeable. Remember, your body is half the visible surface area of the rider/motorcycle unit. Bright orange, yellow, and green jackets or vests are the best for being seen. Reflective tape on clothing helps others to see you. It can also be put on your helmet or on the motorcycle.

If you do not want to wear brightly-colored clothing, at least carry a reflective vest to wear at night. Such a vest is more noticeable to drivers behind you than a taillight.

HORN

The horn on a motorcycle is not much of an attention getter, but it is better than nothing. Put your thumb on it and be ready to use it whenever you pass a vehicle.

It is a good idea to give a quick toot before you pass anyone you think may move into your lane. Here are some situations:

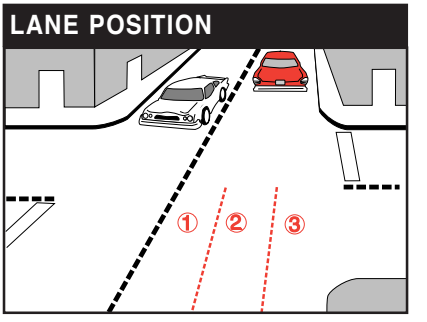
- A car is in the lane next to you and quickly approaching another vehicle.
- A parked car with a person in the driver's seat.
- Someone is walking or riding a bicycle in the street.

Don't be afraid to give a blast on the horn if you have any doubts about what others might do. In an emergency, press the horn loud and long. Be ready to stop or swerve away from danger.

POSITION

Keep your motorcycle where other drivers can see it. Here are some ways to do it:

- Don't ride in another driver's "blind spot." Either pass the other



driver or drop back. When you pass a vehicle, get through the driver's blind spot as quickly as you can. Approach cautiously, but once you are alongside, speed up and pass quickly.

- When you approach a cross street, move toward the center of the road to be closer to the other driver's line of sight.
- Ride where you can see the driver's face in the left side-view mirror. This way, the other driver is more likely to see you and know you are there. Also, when your headlight is on, it helps the other driver notice you.
- When you park your motorcycle, angle it at the curb so other drivers will see it and won't drive into your parking place. Also, the driver of the vehicle parked ahead of you is more likely to see your motorcycle in the rearview mirror before backing.

SIGNALS

The signals used by a motorcycle rider are the same ones used by the driver of a vehicle. However, signals are far more important to the motorcycle rider.

TURN SIGNALS

Turn signals do two things.

- First, they tell others what you plan to do. Use them any time you turn or change lanes. Use them even if you think no one else is around. It is the vehicle you don't see that will give you the most trouble.

LEFT TURN

RIGHT TURN

STOP

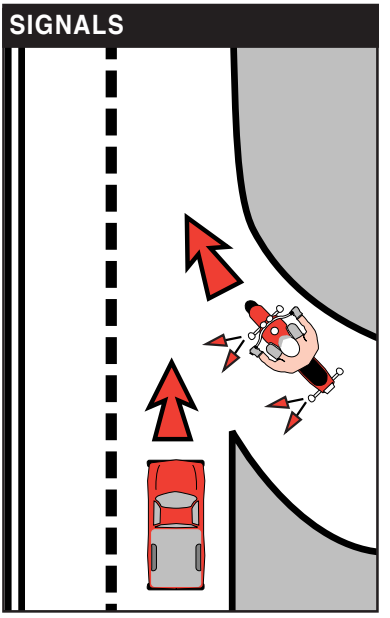
- Secondly, signal lights make you more visible. A driver behind you is more likely to see a turn signal than a taillight. It is a good idea to use turn signals even when you plan to do the obvious. For example, it is more likely that cars on the freeway will see you and make room for you.

CAUTION: Not canceling your turn signal is as bad as not turning it on. It is dangerous to leave a turn signal blinking. A driver may think you plan to turn and pull into your path. Check your instrument panel to see if you left your signal on.

BRAKE LIGHT

The motorcycle's brake light is not usually as noticeable as a vehicle's, particularly if the taillight is on. You can help others notice you by flashing the brake light before slowing down. Flash your brake light when you are:

- Being closely followed (tailgated). The tailgater may be watching you



and not see something ahead that will make you slow down.

- Making a tight, fast turn off a high-speed highway.
- Slowing or turning in the middle of a block, at an alley, or at some place where drivers do not expect you to slow or turn.

LOOKING FOR TROUBLE

Nothing you do will guarantee that other drivers will see you. The only eyes you can really count on are your own. A good rider is always "looking for trouble"—not to get into it, but to stay out of it.

Scan—search aggressively for potential hazards. Look ahead for hazards and potential escape routes, especially at intersections.

Identify—locate hazards and potential conflicts which include:

- Cars, trucks, and other vehicles. They share the road with you and move quickly. Your reactions to them must be quick and accurate.
- Pedestrians and animals. They are unpredictable and make short quick moves.
- Stationary objects. These include potholes, guard rails, bridges, roadway signs, hedges, or rows of trees. They will not move into your path, but may influence or complicate your riding strategy.

Predict—anticipate how the hazard may affect you. Speed, distance, and the direction in which the hazard is moving are important. Estimate the consequences of the hazard. How might the hazard—or your effort to avoid it—affect you and others?

Decide—which of the following three things you can do to reduce the hazard:

1. Communicate your presence. This is the most passive action you can take. It depends on the response of someone else. Use your lights and horn, but don't rely on the actions of others.
2. Adjust your speed. Accelerate, slow down, or come to a stop.
3. Adjust your position. Change lanes, lane position, or completely change direction. This will depend on the nature of the hazard and how much time and space you have.

Execute—carry out your decision. Your riding skills should be second nature to you. Even the best decision is meaningless if you do not have the skills to carry it out. Know your limits and ride within them.

THE ROAD AHEAD

The best way to stay out of trouble is to see it coming. Experienced riders make a practice of looking well ahead. In the city, they look from one-half to a full block ahead. On the highway, they look as far ahead as they can see clearly. Experienced riders give themselves plenty of time to adjust to problems. They avoid panic stops or sudden swerves that can cause even more trouble.

- Keep checking the road surface ahead for slippery spots, bad bumps, broken pavement, loose gravel, wet leaves, or objects lying in the road. Curves and ramps are known collectors of oil and gravel.
- Use your height advantage. Look over or through the vehicle in front of you for vehicles stopping or turning ahead.
- Check the roadside. Watch for vehicles that may leave the curb or enter from side streets or driveways. In heavy traffic look for places where you can leave the road in a hurry if needed.

LOOKING BEHIND YOU

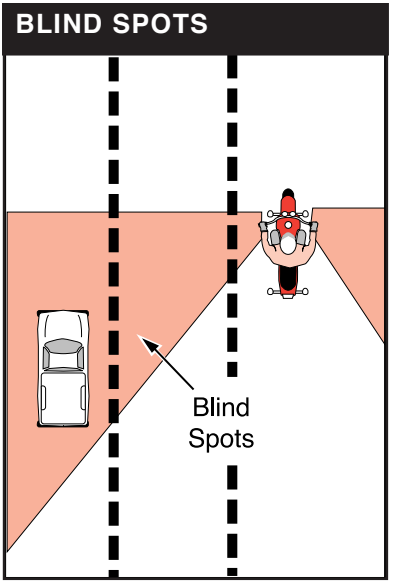
Checking your mirrors is not enough. Motorcycles have blind spots just as other vehicles. When you change lanes, make sure you turn your head and look over your shoulder to see if there is a vehicle behind you in the next lane. It is particularly important when making rapid lane changes, as many riders do.

On a roadway with several lanes, check the far lanes as well as the one next to you. Another driver may be headed for the same space you want.

USING YOUR MIRRORS

Traffic situations change quickly. To know what is behind you, check your mirrors every few seconds. That way, you won't be caught off guard if a vehicle overtakes and passes you. It is very important to use your mirrors when you:

- **Slow down or stop suddenly**. The driver behind you may not expect you to slow, or may be unsure where you will stop or turn. If there is someone close behind you, it may be better to keep moving.
- **Are stopped at an intersection**. The greatest potential for conflict between you and other traffic is at intersections. An intersection is anywhere traffic may cross your path of travel. Watch cars approaching from behind. If the driver isn't paying attention, he could be right on top of you before he notices you are there.
- **Change lanes**. Make sure no one is about to pass you.
- **Turn**. Watch cars behind, especially when turning at places where others may not expect it, such as alleys, driveways, and side streets.



Many motorcycles have rounded "convex" mirrors. They show more of the road behind than flat mirrors. However, convex mirrors also make objects seem farther away than they really are. If your motorcycle has convex mirrors and you are not used to them, try this: While stopped, pick out a parked car in your mirror. Try to form a mental image of how far away it is. Then turn around and look at it. See how close you came. Practice this until you become a good judge of distance. Even then, allow extra distance before changing lanes.

LANE POSITION

In some ways the size of your motorcycle can work to your advantage. Each traffic lane gives you three paths of travel: right side, center, and left side. Choose your lane position to:

- Increase your ability to see and be seen.
- Avoid other drivers' blind spots.
- Avoid surface hazards.
- Protect your lane from other drivers.
- Communicate your intentions.
- Avoid wind blast from other vehicles.
- Provide an escape route.

As a motorcycle rider, you can put yourself in a position to see things that a driver of a vehicle cannot see.

On curves

A primary cause of single-vehicle accidents is motorcyclists turning wide in a curve or turn and colliding with the roadway or a fixed object.

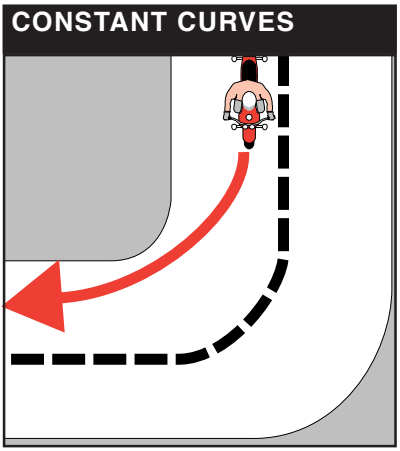
Move to one side of the lane or the other, depending on traffic and road conditions, to look for potential hazards

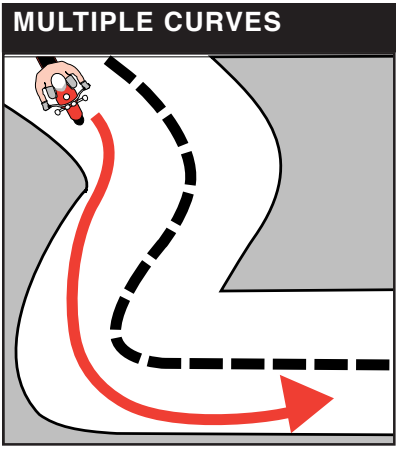
Every curve is different. Curves can remain constant, be banked or flat, gradually widen, get tighter, or involve multiple turns.

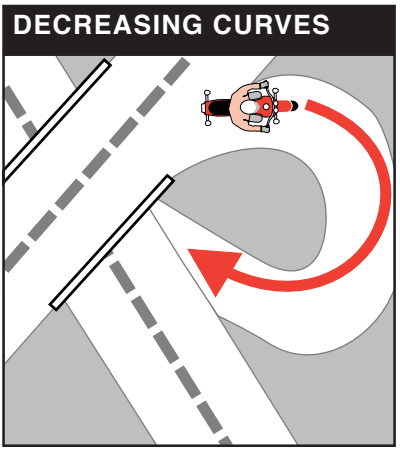
Ride within your skill level and posted speed limits.

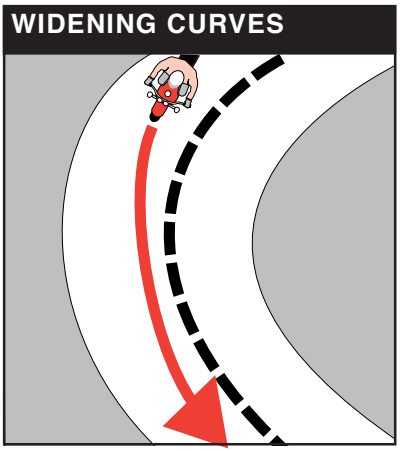
At intersections

Motorcycles don't have two to six feet of metal sticking out in front, so you can peek easily around buildings, parked cars, or bushes to see if anything is coming. Increase your chances of being seen at intersections by riding with your headlights on in a lane position that provides the best









view of oncoming traffic. Remember to keep a space cushion around you in case of an emergency.

Another option at intersections is to ride alongside a larger vehicle when you cross an intersection or other dangerous place. This larger vehicle can run interference for you.

At the roadside

You can angle a motorcycle across the road to see in both directions without straining. This is particularly important if you plan to turn across a lane of traffic. If possible, back into a parking space so you can ride the motorcycle out into traffic.

KEEP YOUR DISTANCE

The best protection you can have is distance between yourself and other traffic. If someone else makes a mistake, distance gives you two things:

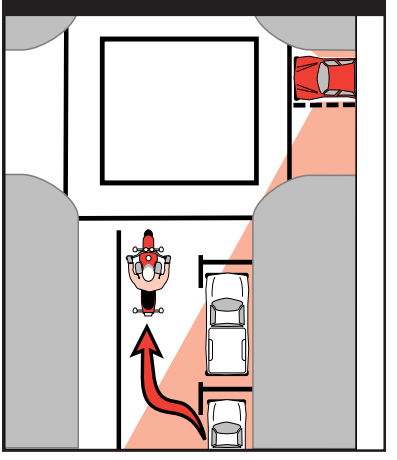
1. Time to react.
2. Some place to go.

DISTANCE IN FRONT

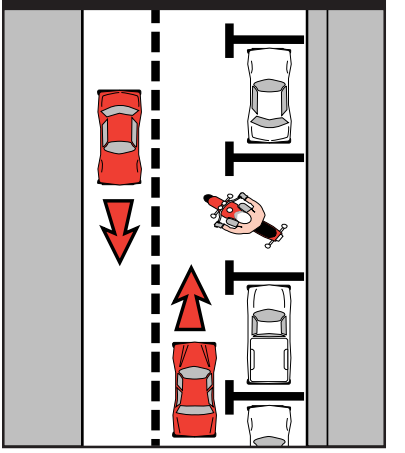
Following too closely (tailgating) is a major factor in accidents caused by motorcyclists. Motorcycles need as much distance to stop as cars. Under good riding conditions, keep at least two seconds distance between you and the vehicle ahead. This gives you time to react if the driver ahead stops suddenly or some other hazard appears in your path. It also gives you a better view of hazards in the road.

A larger cushion of space is needed if your motorcycle takes longer to stop. If the pavement is slippery, if you cannot see through the vehicle ahead, or if traffic is heavy, open up a four-second or more following distance.

BLIND INTERSECTION



PARKING AT CURBS



Keep well behind the vehicle ahead when you are stopped to make it easier to get out of the way of a driver getting too close to you. It will also give you a cushion of space if the vehicle in front of you starts to back up for some reason.

DISTANCE TO THE SIDE

The motorcyclist can do one thing an automobile driver cannot. He or she can move from one side of the lane to the other to increase the space around the motorcycle. An experienced rider changes position as traffic conditions change.

Here are some of the conditions that require changes in lane position:

Being passed

Whenever you are passed, move closer to the center of the lane (but watch for oil, gravel, etc.). There is no point in being closer to a passing vehicle than necessary. A slight mistake by either driver could cause a sideswipe. A position closer to the center of the lane also keeps you away from extended mirrors or things thrown from car windows, but does not invite other drivers to share your lane.

Give way to large trucks. They can create wind gusts that affect control. You will have more room to maneuver if you are closer to the middle of your lane.

Do not move into the portion of the lane farthest from the passing vehicle because the other driver may change lanes too early and cut you off.

Passing

When you pass a vehicle, ride in the left portion of the lane at a safe following distance to increase your line of sight and make you more visible. Signal and check for oncoming traffic. Use your mirrors and check behind you. Move into the left lane and accelerate. Select a lane position that doesn't crowd the vehicle you are passing and provides space to avoid hazards in your lane. Ride through the driver's blind spot as quickly as possible. Signal again, check your mirrors, and look over your shoulder before returning to your original lane.

Cars at intersections

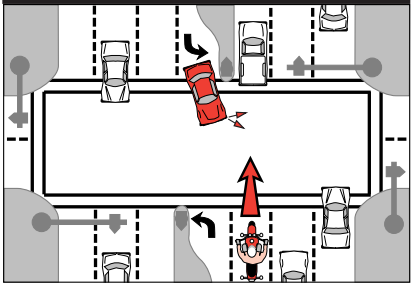
Most accidents between cars and motorcycles happen at intersections. The two leading causes are:

1. Vehicles turning left in front of motorcycles. Slow down when you approach an oncoming vehicle signaling a left turn. Then just before entering the intersection, move to the right, away from the left-turning vehicle.
2. Vehicles pulling out from a side street into motorcycles' paths. If a vehicle can enter your path, assume that it will. Approach slowly and move as far away from the vehicle as possible.
3. In either case, if the driver does pull out suddenly your chances of making a quick stop or a quick turn are better.

Parked vehicles

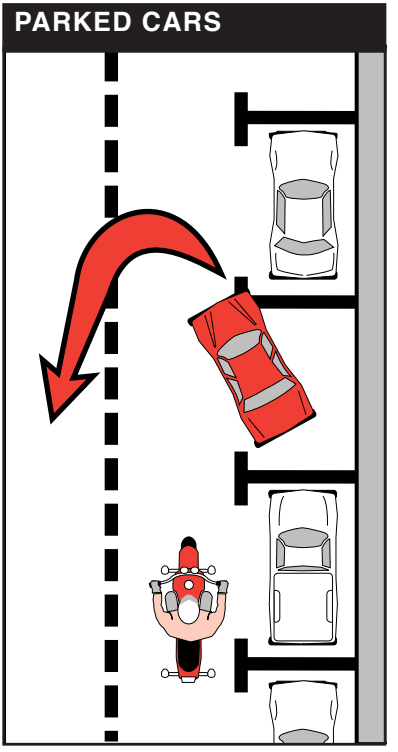
When you pass parked vehicles, you have an advantage over the automobile driver. By staying in the left portion of the lane, you can avoid the problems caused by doors opening, drivers getting out of vehicles, or people stepping from between vehicles.

LARGE INTERSECTIONS



A bigger problem is vehicles pulling away from curbs or parking spaces. Drivers often take a quick look behind them but fail to see a motorcyclist.

Cars making U-turns are a particular danger. The motorcyclist sees a vehicle pull out and slows down or changes lanes to let the vehicle enter. Then suddenly the vehicle turns across the road blocking the lane. This leaves the motorcyclist with no place to go. If you see a car pulling out of a parking space or away from the curb, approach cautiously.



Sharing lanes

Sharing lanes is not illegal in California. However, in many driving situations, it can be unsafe to share a lane with another vehicle. In the interest of motorcycle safety, vehicle drivers should not share lanes with motorcycles and motorcyclists should not share lanes with vehicles.

As a motorcycle rider, there are two things you can do to prevent lane sharing.

1. Don't ride between rows of slow moving vehicles because it isn't safe. Don't try to squeeze past a stopped car in the same lane. Anything can happen. A hand could come out a window, a door could open, a car could turn suddenly.
2. Discourage lane sharing by moving toward the center of the lane in situations where other drivers might be tempted to squeeze by you. Such situations include:

- Heavy bumper-to-bumper traffic.
- When you prepare to turn at an intersection, enter an exit lane, or leave the highway.
- When another driver wants to pass. If you move to the far side of the lane in these situations, you invite the driver to share the lane with you.

Merging cars

Drivers entering a highway from an entrance ramp may have trouble seeing a motorcycle because the motorcycle's headlight is not very visible at an angle. Don't assume that a driver on an entrance ramp sees you. Give drivers plenty of room and change lanes or make space to let them in.

Cars alongside

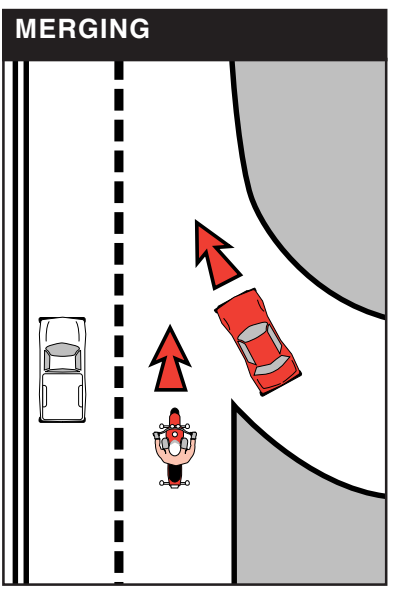
Don't ride alongside cars. A car in the next lane could change into your lane at any time or block your escape if you run into danger in your own lane. Speed up or drop back until you find a place that is clear on both sides.

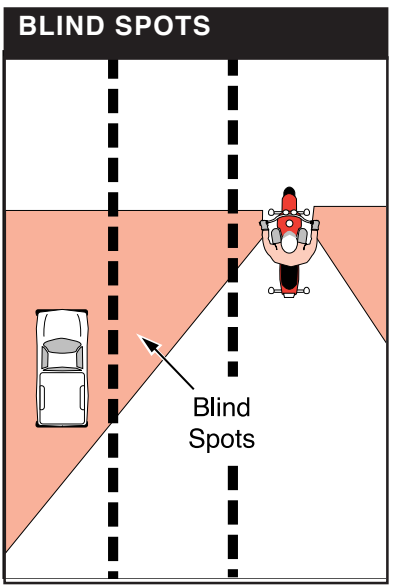
DISTANCE BEHIND

Many motorcyclists complain about drivers following too closely (tailgating). If you are tailgated, change lanes and let the tailgater pass. If this isn't possible, give the tailgater a gentle hand signal (see page 13) and be sure to give a friendly thank you signal when the other driver drops back.

If a driver still follows too closely, try this:

- Add distance between you and the vehicle ahead. This gives you and the tailgater more time to react in an emergency.





- When the way is clear for a safe pass, slow down so the tailgater can pass you.

DANGEROUS SURFACES

A motorcycle is delicately balanced on two wheels and handles better when ridden on surfaces that provide good traction. Any surface that affects the motorcycle's traction will affect its balance. Surfaces that provide poor traction include:

- Slippery surfaces.
- Uneven surfaces or obstacles.
- Railroad tracks, trolley tracks, and pavement seams.
- Grooves and gratings.
- Sloping surfaces.

SLIPPERY SURFACES

Some slippery surfaces are:

- Wet pavement, particularly just after it starts to rain and before surface oil washes to the side of the road.
- Gravel roads.
- Places where sand and gravel have collected on paved roads.
- Mud, snow, and ice.
- Wet painted lane markings and steel surfaces (i.e., manhole covers).

There are a number of things you can do to operate safely on slippery surfaces.

Reduce speed. It takes longer to stop on slippery surfaces. It is particularly important to reduce speed before entering curves. Remember, speed limits posted on curves apply to good surface conditions.

Use both brakes. However, the front brake is still more effective than the back brake, even on a slippery surface. Squeeze the brake lever gradually to avoid locking the front wheel. If the surface is icy, you shouldn't brake at all. If possible, squeeze the clutch and coast. Attempting this maneuver at anything other than the slowest of speeds could be hazardous.

Avoid sudden moves. Any sudden change in speed or direction can cause a skid on slippery surfaces. You should turn, brake, accelerate, and change gears as little and as gradually as possible. On a patch of ice, make no changes at all until you are across it.

Avoid slippery areas. Try to find the best pavement possible and use it.

- Oil from cars tends to build up in the center of the lane, particularly near intersections where cars slow down or stop. On wet pavement, it is better to operate in the wheel tracks of moving cars. Some people suggest using the left wheel track all the time. However, it is not always a good idea. Experienced riders change lane position depending on traffic and roadway conditions.
- Watch for oil spots when you stop or park. If you put your foot down in the wrong spot, you may fall.
- Dirt and gravel tend to collect along the sides of the road. It is very important to stay away from the road's edge when you make

sharp turns at intersections or enter and exit freeway ramps at high speed.

- Certain sections of a wet road dry faster or snow melts faster in certain areas. Try at all times to stay in the best part of the lane.

VERY SLIPPERY AREAS

It is almost impossible to maintain balance in ice, on hard-packed snow, or on wet wooden surfaces. Cautious motorcyclists will not ride when the roads are covered with ice or snow. However, if you must ride on icy or snowy roads, keep your motorcycle straight up and ride as slowly as possible. If you have to cross a large slippery surface, consider letting your feet skim along the surface to keep from falling. If the bike starts to fall, you can catch yourself.

UNEVEN SURFACES

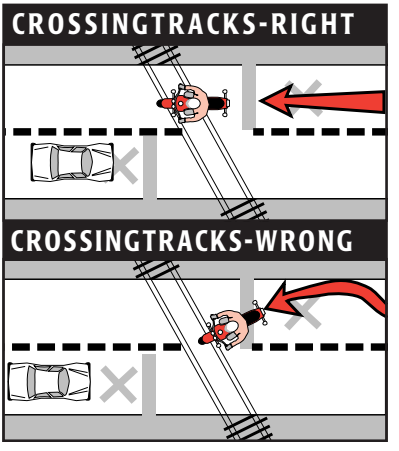
Watch for uneven surfaces such as bumps, broken pavement, "chuck holes," railroad tracks, or small pieces of highway trash in the road. If you see something in the road, first determine if you can go over the obstacle. Approach it at a 90° angle. Look where you want to go to control your path of travel. If you have to ride over the object, you should:

- Slow down to reduce the impact.
- Make sure the motorcycle is straight up.
- Rise slightly off the seat with your weight on the footpegs. Rising off the seat reduces your chances of being thrown off the bike. You may have trouble controlling the throttle. If you do, practice this in an area away from traffic, such as an empty parking lot.

RAILROAD OR TROLLEY TRACKS AND PAVEMENT SEAMS

To cross railroad tracks, it is usually safer to ride straight across within your lane. Crossing the tracks at a 90° angle may be more dangerous than crossing at a slight angle because your path may take you into the next lane.

However, it is necessary to turn when you cross something that is running parallel to your course, such as trolley tracks, ruts in the middle of the road, or a pavement seam. To cross, move far enough away to be able to cross at an angle of at least 45°. Then, just make a quick sharp turn. Do not try to edge across because it could catch your tires and upset your balance.



GROOVES AND GRATINGS

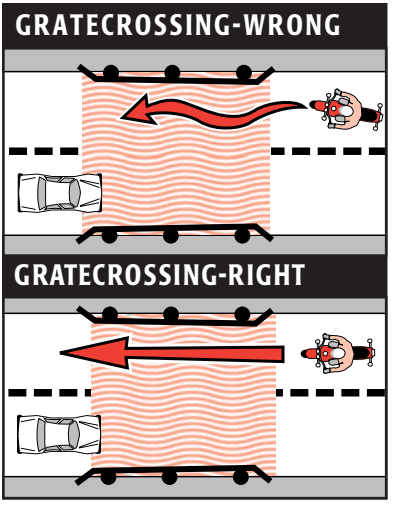
When you ride over rain grooves or metal bridge gratings, the motorcycle will tend to wander back and forth. While this may give you an uneasy feeling, it is not generally hazardous. The best thing to do is relax, ride straight across, stay on course, and "ride it out."

SLOPING SURFACES

A road surface that slopes from one side to the other is not difficult to handle when you ride straight ahead. However, in a curve, a slope can make the turn harder.

A high-crowned road is higher in the middle than at the sides. A turn to the left on a high-crowned road is like a turn on a curve that is banked the wrong way. The crown makes the turn more difficult because it:

- Cuts down on the clearance between the left footpeg and the surface.



- Adds the force of the downslope to the outward force of the turn, which increases the chance of a skid.
- Makes it necessary to turn uphill.

The only way to handle the "wrong way banking" is to slow down. This will straighten the motorcycle and reduce the outward force.

NIGHT RIDING

At night, the ability to see and be seen is limited. With only one headlight, it is hard to see the condition of the road or an object lying in your path. Also, other drivers have a hard time picking your headlight and taillight out of the stronger lights of other cars.

When you ride at night, you should:

- **Reduce speed**—If there is something in the road ahead, you will not be able to see it until you are too close. If you are going too fast, you may not be able to avoid it.

Reduce your speed at night, particularly on roads that you don't know well.

- **Increase distance**—It is difficult to judge distance at night both for you and for other drivers. Your eyes rely on shadows and contrasts in the light to determine how far away an object is or how fast it is coming towards you. These contrasts are distorted or missing

when it is dark or overcast. To compensate for this, follow other vehicles at a greater distance, leave more room at your side when you ride next to cars, and allow yourself more room to pass safely.

Be flexible about lane position. Change lane position as your need to see and be seen changes.

- **Use the car ahead**—If there is a car ahead, its lights can give a better view of the road ahead than your own lights. Car taillights bouncing up and down can alert you to bumps or rough pavement.
- **Use the high beam**—Get all the light possible. Use the high beam whenever you are not following or approaching oncoming vehicles.

EMERGENCIES

No matter how careful you are, there will be times when you find yourself in a tight spot. The chances of getting out safely depend upon your ability to react quickly and properly. Accidents often occur when a rider is not prepared or skilled enough in accident-avoidance maneuvers.

Know when and how to stop or swerve—two skills critical to avoiding an accident. It is not always desirable or possible to stop quickly to avoid an obstacle. Riders must also be able to swerve around an obstacle. Determining the skill necessary to the situation is important as well.

Studies show that most accident-involved riders:

- Under brake the front tire and over brake the rear tire.
- Do not separate braking from swerving.

The following information offers some good advice.

QUICK STOPS

Use the front brake, it supplies most of your stopping power, just don't "grab" at it. To stop quickly, apply both brakes at the same time. Squeeze the brake lever steadily and firmly. Apply the front brake as fully as possible without locking the front wheel. If the front wheel locks, release the front brake and then reapply. At the same time, press down on the rear brake. If you accidently lock the rear brake, keep it locked until you come to a complete stop. Even with a locked rear wheel, you can control the cycle on a straight length of road **if** the motorcycle is still upright and going in a straight line.

If you must stop quickly while turning or riding a curve, it may not always be possible to straighten the motorcycle and then stop. If you must brake while leaning, apply both brakes gradually. Increase the pressure as you straighten the motorcycle. Apply maximum pressure when the motorcycle is upright. If you "straighten" the handlebar in the last few feet as you stop, the motorcycle should be straight up and in balance.

SWERVING OR TURNING QUICKLY

Even stopping quickly may not be enough to keep you from hitting something in your path. You may notice a piece of debris or a pothole as the car ahead drives over it. Or the car ahead might stop suddenly. The only way to avoid an accident may be to turn quickly, swerve, or ride over the obstacle.

A swerve is two quick turns, one right after the other. The trick to making a quick turn is to apply a small amount of hand pressure on the handgrip in the direction you wish to go to get the motorcycle to lean quickly. The sharper the turn, the more the bike must lean.

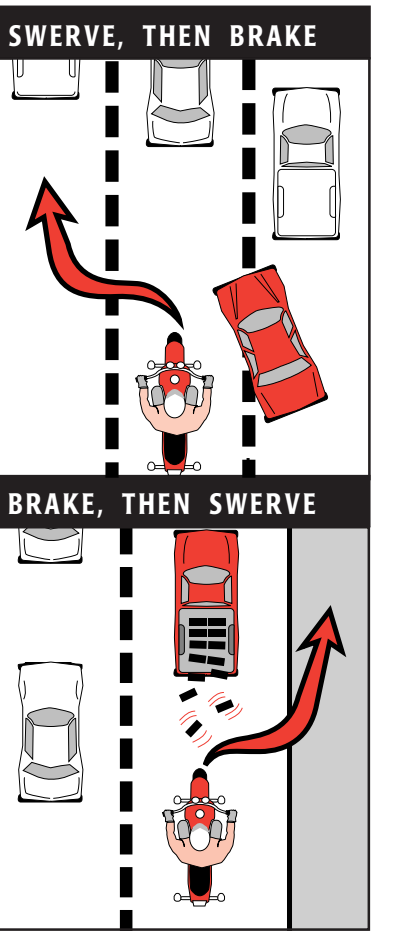
Press on the inside of the handgrip in the same direction you want to turn. Then press on the inside of the opposite handgrip to return to your original direction of travel. Do this after you are clear of the hazard. To swerve to the left, push the inside of the handgrips to the left, then push right to recover. To swerve to the right, push right, then push left to recover. Keep your knees snugly against the tank and your feet on the pegs. Make your escape route the target of your vision.

If you need to brake, do **not** brake while swerving. Brake before or after—never while swerving.

Try to stay in your own lane in an emergency. The moment you change lanes, you risk being hit by a car. You should be able to squeeze by most obstacles without leaving your lane. This is one time when the size of the motorcycle is in your favor. Even if the obstacle is a car, there is generally room to pass beside it. Change lanes only if you are sure there are no vehicles in the other lane.

RIDING OVER OBJECTS

Sometimes, there is no choice but to ride over an object in your path. A length of tailpipe may be too close to steer around. Riding over an object



is a lot like riding over an uneven surface. Try to:

- Ride a straight course. This keeps the motorcycle upright and reduces the chance of falling on impact.
- Hold onto the handgrips tightly so that you don't lose your grip when the front wheel hits the object.
- Rise slightly on the footpegs. This allows your legs and arms to absorb the shock and helps keep you from being bounced off the cycle as the rear wheel hits the object.

The three steps above let you ride safely over most obstacles. It is a good idea to check your tires for damage after riding over an object.

MINOR EMERGENCIES

There are a few other emer gencies that motorcycle riders should be prepared for. While they are not dangerous, they happen often enough to be problems.

FLYING OBJECTS

From time to time a motorcycle rider can be struck by insects, cigarette butts thrown from car windows, or pebbles kicked up by the vehicle ahead. If you ride without face protection you can be struck in the eye, the face, or the mouth. If you are wearing face protection, it can become smeared or cracked, making it difficult to see. Whatever happens, don't let it affect control of the motorcycle. Keep your eyes on the road and your hands on the handlebars and as soon as it is safe, pull off the road and repair the damage.

ANIMALS

Do everything you can to avoid hitting an animal. However, if you are in traffic, don't swerve out of your lane to avoid hitting an animal. You have a better chance of surviving an impact with an animal than you with a car.

Motorcycles tend to attract dogs. If you are being chased, don't kick at the animal—it is too easy to lose control of the motorcycle. Instead, shift down and approach the animal slowly. As you reach the animal, speed up suddenly. You will leave the animal behind so quickly that it will generally lose interest.

MECHANICAL PROBLEMS

Things that go wrong with the motorcycle itself can also cause emergencies. Three critical emergencies are a blowout, a stuck throttle, and a "wobble."

BLOWOUTS

If a tire suddenly goes flat, react quickly to keep your balance. A front wheel air loss is particularly dangerous since it affects steering.

A tire will seldom blow with a bang. You have to be able to detect a sudden air loss from the way the motorcycle reacts. If the front tire goes flat, the steering will feel

"heavy." Shift your weight as far back as you can.

If the rear tire goes flat, the back of the motorcycle may sway from side to side. Stay seated where you are.

If there is a blowout while riding:

- Hold the handgrips tightly and concentrate on steering. Try to maintain a straight course.
- Gradually apply the brake of the tire that is **not** flat, if you are sure which one it is.
- Wait until you are going very slowly and then edge toward the side of the road and stop.

STUCK THROTTLE

Sometimes when you try to close the throttle is working properly before continuing.

turn. If this happens when you slow for traffic, or make a turn, react quickly to prevent an accident. You should:

- Twist the throttle back and forth several times. If the throttle cable is stuck, this may free it.
- Try to close the throttle. If the throttle stays stuck, immediately operate the engine cutoff switch and pull in the clutch at the same time. This removes power from the rear wheel, though engine noise may not immediately stop. Once the motorcycle is "under control," pull off the road and stop.

When you are stopped, check the throttle cable carefully to find the source of the trouble. Make certain

WOBBLE

A wobble occurs when the front wheel and handlebars suddenly start to shake from side to side. This can happen at any speed.

Trying to accelerate out of a wobble only makes the cycle more unstable. Instead you should:

- Firmly grip the handlebars. Don't fight the wobble.
- Close the throttle gradually to slow the motorcycle. Do **not** apply the brakes; braking could make the wobble worse.
- Move your weight as far forward and down as possible.
- Pull off the road as soon as you can to fix the problem.

Most wobbles can be traced to improper loading, unsuitable accessories, or incorrect tire pressure. Some other things that can cause wobbles are:

- A bent or misaligned wheel.
- Poorly adjusted steering.
- A windshield or fairing that is improperly mounted or not designed for the motorcycle.
- Loose wheel bearings.
- Loose spokes.

CHAIN PROBLEMS

A chain that slips or breaks while you are riding could lock the rear wheel and cause your cycle to skid.

Chain slippage or breakage can be avoided by proper maintenance.

Slippage—If the chain slips when you try to speed up quickly or ride uphill, pull off the road. Check the chain and sprockets. Tightening the chain may help. If the problem is a worn or stretched chain or worn or bent sprockets, replace the chain, the sprockets, or both before riding again.

Breakage—You will notice an instant loss of power to the rear wheel. Close the throttle and brake to a stop.

ENGINE SEIZURE

When the engine "locks" or "freezes" it is usually low on oil. If the engine's moving parts can't move smoothly against each other the engine overheats. The first sign may be a loss of engine power or a change in the sound of the engine. Squeeze the clutch lever to disengage the engine from the rear wheel. Pull off the road and stop. Check the oil. If you need oil, add it as soon as possible or the engine will seize. When this happens, the effect is the same as a locked rear wheel. Let the engine cool before restarting.

GETTING OFF THE ROAD

If you need to leave the roadway to check the motorcycle or to rest for a while, here are some points to remember.

- **Check the roadside**—Make sure the surface of the roadside is firm enough to ride on. If it is soft grass, loose sand, or if you are just not sure about it, slow down before turning onto it.
- **Pull off the road**—Get as far away from the road as possible. A motorcycle stopped by the side of the road can be very difficult to see. You don't want someone else pulling off at the same place.
- **Park carefully**—Loose or sloped roadway shoulders make setting the stand difficult.
- **Signal**—Drivers behind might not expect you to slow down. Give a clear signal that you will be slowing down and changing direction. Check your mirror and turn your head to check traffic before you take any action.

CARRYING PASSENGERS AND CARGO

Only experienced riders should carry passengers or heavy loads. The extra weight changes the way the motorcycle handles, the way it balances, the way it turns, the way it speeds up, and the way it slows down. Before you carry a passenger or heavy load on the street, practice away from traffic.

When you do start carrying passengers, carry someone who is light, 100 pounds or less, before carrying a heavy person.

Here are some guidelines for carrying passengers and cargo.

PASSENGERS

To carry passengers safely:

- Make certain your motorcycle is equipped to carry passengers.
- Instruct your passenger before you start out.
- Adjust the suspension to handle the passenger's weight.
- Require your passenger to wear a helmet.
- Add a few pounds of pressure to the tires (check your owner's manual).

EQUIPMENT NEEDED FOR PASSENGERS

To carry passengers, your motorcycle must have:

- **A proper seat.** The seat should be large enough to hold both you and your passenger without crowding. You should not have to move any closer to the front of the motorcycle than you usually do. Passengers should not hang over the end of the seat.
- **Footpegs**. The passenger must have a set of footpegs. Without a firm footing, your passenger can fall off and pull you off too.
- **Protective equipment**. Passengers should have the same type of protective equipment and clothing as the operator.

INSTRUCTING PASSENGERS

Don't assume the passenger knows what to do. Even if he or she is a motorcycle rider, give complete instructions before you start.

Passengers should be told to:

- Get on the motorcycle after the engine has started.
- Sit as far forward as possible without crowding you.
- Hold tightly to your waist, hips, or belt.
- Keep both feet on the pegs at all times.
- Keep legs away from the muffler(s).
- Stay directly behind you, leaning as you lean.
- Avoid any unnecessary motion or talk.

RIDING WITH PASSENGERS

When you carry a passenger, the motorcycle responds more slowly. It takes longer to speed up, slow down, or make a turn. The heavier the passenger or the lighter the cycle, the longer these things take.

To adjust for the added weight of the passenger, you should:

- Operate at a lower speed, particularly on corners, curves, or bumps.
- Slow down earlier than usual when you approach a stop.
- Allow a greater following distance and keep more distance between yourself and cars to either side.
- Look for larger gaps whenever you cross, enter, or merge with traffic.

Warn your passenger when you intend to start moving, stop quickly, turn sharply, or ride over a bump. Tell your passenger to tighten his or her hold when you approach hazards.

If you must talk to your passenger, turn your head just enough to make yourself understood while you keep your eyes on the road ahead.

CARRYING LOADS

Although motorcycles are not really designed to carry cargo, small loads can be carried safely if they are properly positioned and fastened.

Keep the load low. Secure loads to the seat or put them in saddlebags. Do not pile loads against a sissy bar or frame on the back of the seat. This changes the center of gravity and disturbs the motorcycle's balance.

Keep the load forward. Place the load over, or in front of, the rear axle. Anything mounted behind the rear wheel affects the way the motorcycle turns and brakes. It can also cause a wobble.

Distribute the load evenly. If you have saddlebags, make certain the load in each one is about the same. An uneven load can cause the motorcycle to pull to one side.

Secure the load. Fasten the load securely with elastic cords (bungee cords). Rope tends to stretch and knots can come loose permitting the load to shift or fall. A loose load can catch in the wheel or chain. If this happens, the rear wheel may lock up and cause the motorcycle to skid.

Check the load. Check the load every so often, when stopped. Make sure it has not worked loose or moved.

GROUP RIDING

The highway is not a place to socialize. Motorcyclists riding in groups do not have any special rights. If you ride with others, do it in a way that promotes safety and does not interfere with the flow of traffic.

KEEP THE GROUP SMALL

Small groups make it easier and safer for car drivers who need to get around them. A small number isn't separated as easily by traffic or red lights. Riders won't always be hurrying to catch up. If your group is larger than four or five riders, divide it up into two or more smaller groups.

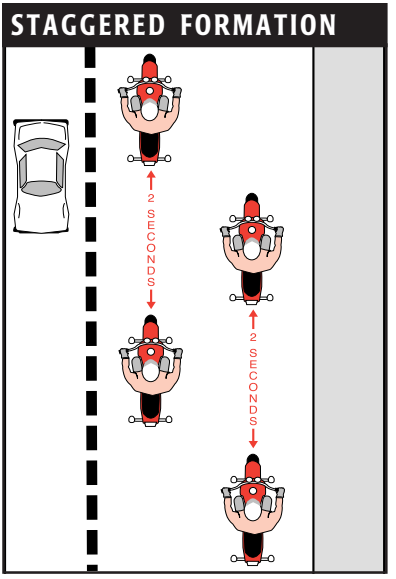
KEEP THE GROUP TOGETHER

There are several ways to keep riders from being separated from the group:

- **Plan ahead**—If you are the leader, look ahead for changes. Give signals early so "the word gets back" in plenty of time. Start lane changes early enough to allow everyone to complete the change.
- **Put beginners up front**—Place inexperienced riders behind the leader, where they can be watched by more experienced riders.
- **Follow those behind**—Let the last person set the pace. Use your

mirrors to keep an eye on the person behind you. If he or she falls behind, everyone should slow a little so the group can stay together.

- **Know the route**—Make sure everybody knows the route. Then if someone is separated for a moment, he or she won't have to worry about getting lost, making a wrong turn, or losing the group.
- **Keep your distance**—It is important to keep close ranks at a safe distance. A close group takes up less space on the highway, is easier to see, and is less likely to be separated. However, it must be done properly.
- **Don't pair up**—Operating directly alongside another motorcycle is a dangerous practice. If you have to avoid a car or something in the road, there will be no place to go. If you need to say something to another rider, wait until you are both stopped.
- **Staggered formation**—Use a "staggered" formation to keep close ranks and maintain an adequate space cushion. In a staggered formation, the leader rides in the left side of the lane while the second rider stays a little behind and rides in the right side of the lane. A third rider would take the left position, a normal two second distance behind the first rider. The fourth rider would be a normal two second distance behind the second rider. This formation keeps the group close without reducing following distance and having riders drive alongside one another. Staggered formation can be safely used on an open highway.



- **Return to single file formation**—Resume a single file formation on curves, during turns, and when entering or leaving a highway.

PASSING IN FORMATION

Riders in a staggered formation should pass other vehicles one at a time. Here is one way: When it is safe to do so, the lead rider should pull out and pass. When the leader returns to the lane, he or she should take the left lane position and keep going to open a gap for the next rider. As soon as the first rider has safely passed the vehicle, the second rider should move to the left position and watch for a safe chance to pass. After passing,

this rider should return to the right lane position and open up a gap for the next rider.

Some people suggest that the leader should move to the right side after passing a vehicle. This is not a good idea. It encourages the second rider to pass and return to the lane before there is a large enough space cushion in front of the passed vehicle. It is simpler and safer to wait until there is enough room in front of the passed vehicle to allow each rider to move into the same position held before the pass.

BEING IN SHAPE TO RIDE

Riding a motorcycle is a demanding and complex task. Skilled riders pay attention to the riding environment and to operating the motorcycle, identifying potential hazards, making good judgments, and executing decisions quickly and skillfully. Your ability to perform and respond to changing road and traffic conditions is influenced by how fit and alert you are. Alcohol and other drugs, more than any other factor, degrade your ability to think clearly and to ride safely. Even one drink can impair your performance.

ALCOHOL

Alcohol is a major contributor to motorcycle accidents, particularly fatal accidents.

Drinking and drug use is as big a problem among motorcyclists as it is among automobile drivers. Motorcyclists, however, are more likely to be killed or severely injured in an accident.

Alcohol enters the bloodstream quickly. Unlike most foods and beverages, it does not need to be digested. Within minutes after being consumed, it reaches the brain and begins to affect the drinker. The major effect of alcohol is to slow down and impair bodily functions—both mental and physical. Whatever you do, you do less well after consuming alcohol.

Factors such as your sex, physical condition, and food intake contribute to the way alcohol affects your system. These are just a few of the things that can cause your blood alcohol concentration (BAC) level to be even higher.

There are times when a larger person may not accumulate as high a BAC for each drink consumed because he or she has more blood and other bodily fluids than a smaller person. Whether or not you are legally intoxicated is not the real issue. Judgment and skills can be impaired well below the legal limit.

ALCOHOL AND OTHER DRUGS

No one is immune to the effects of alcohol or drugs.

Many over-the-counter, prescription, and illegal drugs have side effects that increase the risk of riding. It is difficult to accurately measure the involvement of particular drugs in motorcycle accidents. However, we do know

what effects various drugs have on the process involved in riding a motorcycle. We also know that the combined effects of alcohol and other drugs are more dangerous than either is alone.

ALCOHOL AND THE LAW

In California, it is illegal to drive with a BAC that is eight hundredths (0.08) of one percent or greater. However, a BAC below .08% does not mean that it is safe to drive. It is not safe to drive even after one drink. A breath, blood, or urine test is what usually determines whether you are riding legally or illegally.

IMPORTANT: You cannot legally purchase beer, wine, or hard liquor if you are under the age of 21. The law is very strict if you are under 21 and drive with a BAC that is 0.01% or more (VC §23136). The *California Driver Handbook* has more information.

FATIGUE

Riding a motorcycle is much more tiring than driving a car. When you plan a trip, keep in mind that you will get tired much more quickly and the effects of fatigue upon your control of the motorcycle will be much worse.

Here are some things to prevent fatigue:

- **Protect yourself from the elements**—Wind, cold, and rain make you tire quickly. Dress warmly. A windshield is worth its cost if you plan to do a lot of traveling.
- **Limit your distance**—Experienced riders seldom try to ride more than about six hours a day.
- **Take frequent rest breaks**—Stop and get off the cycle at least every two hours.
- **Do not drink or use drugs**—Artificial stimulants often result in extreme fatigue or depression when they start to wear off.

YOUR MOTORCYCLE

There are plenty of things on the highway that can cause trouble. Your motorcycle should not be one of them. Be sure you:

- Start with the right motorcycle for you.
- Are familiar with the controls.
- Check the motorcycle before every ride.
- Keep your motorcycle in safe riding condition at all times.
- Avoid add-ons and modifications that make your motorcycle harder to handle.

THE RIGHT EQUIPMENT

The first thing is to make sure you have the motorcycle right for you. If you are a beginner, stay with a smaller cycle—no more than 250cc—until you have ridden several hundred miles. Don't try a "big bike" until you have been riding for a year or more. Be sure the motorcycle "fits" you. Your feet should reach the ground while sitting on the seat.

There are a few items of equipment that are necessary for safe

operation. California requires that the following items be in good working order:

- Headlight and taillight
- Front and rear brakes
- Turn signals and horn
- At least one rearview mirror

These are just minimum requirements. To survive in traffic, you should have a mirror on each side on the handlebars. It is also a good idea to have reflectors along the side of the motorcycle.

New motorcycles and equipment sold in California meet the equipment requirements specified in the *Vehicle Code*. If you are importing a motorcycle, or buying a secondhand cycle, check the equipment to make sure it is working and meets the *Vehicle Code* requirements.

Every motorcycle must have an adequate, working muffler. The exhaust system must be properly maintained to prevent excessive or unusual noise. Don't do anything that will increase the noise of your motorcycle. These rules also apply to off-highway use.

Motorcycles are issued only one license plate which is displayed at the rear. A sticker on the license plate shows the latest month and year of registration. The plate must be kept clean and clearly readable.

MAINTENANCE

Your motorcycle needs more frequent attention than a car. With a car, you can usually wait until something goes wrong and then fix it. If something goes wrong with the motorcycle, it may cause an accident.

There is only one way to spot problems before they cause trouble. Inspect the motorcycle carefully and fix things right away. Checks that should be made each time you ride are listed on page 7. Here are some things to check once each week.

- **Tires**—Check the tread for wear. If the wear is uneven, have the wheels balanced and the alignment checked. Many blowouts are due to low air pressure. Also, check for cuts and scrapes that could lead to a blowout.
- **Wheels**—Check both wheels for missing or loose spokes. Check the rims for cracks or dents. Lift the wheel off the ground and spin it. Watch its motion and listen for noise. Also move it from side to side to check for looseness.
- **Controls**—Check the controls for smooth operation. Check the cables for kinks or broken strands. Lubricate the control mechanisms at each end of the cables.
- **Chains and sprockets**—Oil the chain and check the sprockets for worn teeth.
- **Shock absorbers**—Does the motorcycle bounce several times after it crosses a bump? Do you hear a "clunk?" If the answer is yes, the shock absorbers may need to be adjusted or replaced.
- **Fastenings**—Check for loose or missing nuts, bolts, or cotter pins.

If you keep the motorcycle clean, it is easier to spot missing parts.

- **Brakes**—Adjust the brakes so they lock the wheel when fully applied. If the wheel will not lock, or if you hear a scraping sound when you stop, have the linings checked.

ACCESSORIES AND MODIFICATIONS

A safe motorcycle can be quickly turned into a menace. If you add the wrong accessories or make changes in the motorcycle, it can make the motorcycle much harder to handle. Here are a few things to avoid.

Highway pegs

These are pegs mounted on the front of the motorcycle to allow the rider to lean back. The pegs may make the rider more comfortable, however, the problem is:

- It takes too long to reach the foot brake in an emergency.
- The operator doesn't have the footing needed to maintain balance.

Sissy bar

This is a high bar or frame mounted on the back of the seat. The problem is:

- When loaded, they change the motorcycle's center of gravity and affect its balance.
- They make it harder for the operator and passenger to get off the motorcycle in a hurry.

Ape hangers

These are high handlebars that extend above the operator's shoulders. The problem is:

- They are illegal in California and many other states.
- They put stress on handlebar mounts.
- They block your vision.

The wrong modifications can make the motorcycle harder to handle. They can also put excess strain on parts.

Engineers spend years designing a motorcycle that handles well. Don't make any changes unless you know what they can do to the motorcycle.

TRANSPORTING YOUR MOTORCYCLE

When a motorcycle or motor-driven cycle is carried on the front or rear of another vehicle, it must be safely loaded and must not interfere with any of the vehicle's lights. No part of the cycle may project more than three feet beyond the front bumper and the bumper may not extend more than two feet forward of the front of the vehicle. The motorcycle must not interfere with the driver's view to the front or sides. On a passenger vehicle, the motorcycle must not extend beyond the line of fenders to the left, nor more than six inches beyond the line of fenders to the right.

If the cycle is to be towed, it must be registered. The towing device must be securely mounted and strong

enough for the weight of the towed motorcycle. The motorcycle must be connected to the towing vehicle by a chain or cable, in addition to the towing device. During darkness, a towed motorcycle must display a red taillight and a license plate light.

MOTORCYCLE INSURANCE FACTS

The financial responsibility sections of the *Vehicle Code* apply to all two-wheel vehicle owners and operators.

If you, as an operator, are involved in an accident which causes more than $500 in property damage to one person, including yourself, or in which anyone, including yourself, is injured, no matter how slightly, you or your insurance agent, broker, or legal representative must report the accident to DMV. The CHP or police will not make this report.

You must make this report, whether you caused the accident or not and even if the accident occurred on private property. Report the accident within 10 days. Make the report on the Traffic Accident Report (SR1) form. You can get this form from any DMV or CHP office. This form is also available on DMV's web site at *www.dmv.ca.gov*. If you don't make this report, your driving privilege will be suspended. If you do not have the proper insurance coverage, your driving privilege will be suspended for one year. To get your license reinstated, you will need to provide proof of financial responsibility and maintain it for an additional three years. Using the information you give in the accident report, the department will check the insurance protection you had at the time of the accident.

Every accident reported to DMV by law enforcement shows on your driving record unless the reporting officer says another person was at fault. Every accident reported by you, or another party in the accident, shows on your record if any one vehicle has over $500 in damage or if anyone is injured or dies. It does not matter who caused the accident. The law says DMV must keep this record.

Check with your insurance company about your coverage before you buy or ride a motorcycle. Find out if your insurance policy will insure you while you are riding a friend's motorcycle or a rented motorcycle.

TREAD LIGHTLY!

Use of off-highway vehicles and other activities on public and private lands is increasing rapidly.

The U.S. Forest Service (USFS), Bureau of Land Management (BLM), and California Department of Parks and Recreation would like you to TREAD LIGHTLY!

HOW TO TREAD LIGHTLY

- Obtain a Travel Map from your local USFS or BLM office, or regulations from other public land agencies. Learn the rules and follow them.
- Avoid running over young trees, shrubs, and grasses—damaging or killing them.
- Stay off soft, wet roads and trails readily torn up by vehicles. Repairing the damage is expensive.
- Travel around meadows, steep hillsides, or stream banks and lake shores easily scarred by churning wheels.
- Resist the urge to pioneer a new road or trail, or to cut across a switchback.
- Stay away from wild animals that are rearing young—or suffering from food shortages. The stress they experience can quickly use up their limited energy reserves.
- Obey gate closures and regulatory signs.
- Stay out of designated wilderness areas. They are closed to all vehicles. Know where the boundaries are. Vandalism costs tax dollars.
- Get permission to travel across private lands. Respect landowner rights.

DISCLAIMER

When using this handbook, please remember that it is only a summary of the laws and regulations. DMV, law enforcement, and courts follow the full and exact language of the law contained in the California *Vehicle Code*. If there is a conflict, this handbook cannot be relied upon as law. You may buy a copy of the *Vehicle Code* for $3 at any DMV office or visit our website at www.dmv.ca.gov.

WHERE TO WRITE

If you have any suggestions or comments regarding this handbook, please write to:

Department of Motor Vehicles
Customer Communications Unit
M/S: C165
P.O. Box 932345
Sacramento, CA 94232-3450

OSP 02 70677