

STATE OF ALASKA

# MOTORCYCLE OPERATOR MANUAL

DMV

PREPARED BY  
ALASKA DEPARTMENT  
OF ADMINISTRATION  
DIVISION OF MOTOR VEHICLES  
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# State of Alaska



## MOTORCYCLE MANUAL

This publication was released by the Alaska Department of Administration, Division of Motor Vehicles at a cost of \$0.21375 per copy and printed in Anchorage, Alaska. Please help reduce the cost of state government by returning the manual or passing it on to another future driver.

The purpose of this manual is to provide the reader with a general familiarity with the principles of safe and lawful operation of a motorcycle.

The contents of this manual are NOT intended to serve as a precise statement of the Statutes and Regulations of the State of Alaska pertaining to the operation of a motorcycle, and should not be understood by the reader as such.

REV. 2/15  
Printed 2/15

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## PREFACE

Operating a motorcycle safely in traffic requires special skills and knowledge. This manual, with the cooperation of the Motorcycle Safety Foundation, is made available to help novice motorcyclists reduce their risk of having a crash. The content of this manual was updated and expanded by the Motorcycle Safety Foundation from the original version. The original version was developed by the National Public Research Institute under contract to the National Highway Traffic Safety Administration with the cooperation of the Motorcycle Safety Foundation.

Alaska requires the operator of any motorcycle with an engine displacement of 50cc or more to have a Class M1 or M3 license in addition to the regular license. The M1 license is valid for all sizes and is available only to individuals who are 16 years of age or older. Motorcycles and motor scooters with engine displacement of less than 50cc can be operated with a basic driver license. A Class M2 license allows an applicant who is 14 or 15 years of age to operate a motor-driven cycle, motor-scooter, motorized bicycles, or similar conveyance with a motor attached and having an engine with less than 50 cc displacement. A Class M3 license allows the operation of three-wheeled motorcycles (trike), three wheeled motor-driven cycles, and three-wheeled motorized bicycles with an engine displacement of 50 cc or more, single or in combination with a trailer designed to be used with these vehicles.

An applicant for an M1, M2, or M3 license may have the testing requirements waived by completing a Motorcycle Safety Foundation Course and presenting the completion certificate to DMV. The certificate is valid to waive the road test for one year. The MSF scooter test is not valid for waiving the road test.

If you are under 18 years of age and obtaining your first driver or M1 or M3 license, you must have held a permit for 6 months prior to obtaining your provisional license. Please refer to the basic driver manual for more information on provisional driver licenses.

An applicant for an M1, M2, or M3 license will be required to pass two written tests and a road skill test. The first test will deal with the basic rules of the road (this test is waived if the applicant has a valid license or instruction permit). The second test is a motorcycle written test based on the information found in this manual.

After passing the written tests, applicants will be required to pass a road skills test. The applicant will be required to wear a helmet. All applicants must wear eye protection if there is not a windshield on the motorcycle used for the road skills test. Applicants must provide the motorcycle, helmet, and eye protection. The motorcycle used for testing must be appropriate for the class of license being sought. An M1 or M3 license requires that you use a motorcycle with an engine displacement of 50cc or more. Testing in a motorcycle with a sidecar qualifies for an M3 only.

Mandatory insurance and financial responsibility laws do apply to the operation of motorcycles of all types. Please refer to the basic driver manual for more information.

The object of this manual is to prepare applicants for a motorcycle license to take the required tests, and to help reduce the number of motorcycle crashes. We hope you will use this manual as an aid in safe and enjoyable riding.

State of Alaska  
Division of Motor Vehicles



## A Message from the Highway Safety Planning Agency

The increased popularity of motorcycle use in Alaska is substantiated by the increase in motorcycle registrations and motorcycle operator licenses. This popularity is also reflected by the increase in motorcycle deaths and injuries upon our roadways.

As you know, the motorcycle rider has several disadvantages when operating in traffic. Some of these include the instability of a two-wheel vehicle, low visibility in traffic situations, and the lack of protective devices. The majority of serious motorcycle injuries and deaths are the direct result of a head injury. The importance of wearing an approved motorcycle helmet cannot be overstressed.

We urge you to enjoy your motorcycle and to have a safe ride by driving defensively, use your headlight at all times, and most importantly, wear your helmet.

Items to consider when driving a vehicle other than a motorcycle:

- Motorcycles are vehicles with the same rights and privileges as any vehicle on the roadway.
- Allow the motorcyclist a full lane width. Although it may seem as though there is enough room in the traffic lane for an automobile and a motorcycle, remember the motorcycle needs room to maneuver safely. Do not share the lane.
- Approximately one-half of all motorcycle crashes involve another motor vehicle. Nearly 40 percent were caused by the other vehicle turning left in front of the motorcyclist.
- Motorcycles are small and may be difficult to see. Motorcycles have a much smaller profile than vehicles, which can make it more difficult to judge the speed and distance of an approaching motorcycle.
- Always signal your intentions before changing lanes or merging with traffic. This allows the motorcyclist to anticipate traffic flow and find a safe lane position.
- Remember that motorcyclists are often hidden in a vehicle's blind spot or missed in a quick look due to their smaller size. Always make a visual check for motorcycles by checking mirrors and blind spots before entering or leaving a lane of traffic and at intersections.
- Don't be fooled by a flashing turn signal on a motorcycle – motorcycle signals usually are not self-cancelling and riders sometimes forget to turn them off. Wait to be sure the motorcycle is going to turn before you proceed.
- Remember that road conditions which are minor annoyances to you pose major hazards to motorcyclists. Motorcyclists may suddenly change speed or adjust their position within a lane in reaction to road and traffic conditions such as potholes, gravel, wet or slippery surfaces, pavement seams, railroad crossings, and grooved pavement.
- Allow more distance – three or four seconds - following a motorcycle so the motorcyclist has enough time to maneuver or stop in an emergency. In dry conditions, a motorcycle can stop more quickly than a car.

Cars Alongside ..... 20

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## PREPARING TO RIDE

As a rider, what you do before you start a trip goes a long way toward determining whether or not you'll get where you want to go safely. Before taking off on any trip, a safe rider makes a point of:

- **Wearing the right gear.**
- **Checking the motorcycle.**
- **Getting familiar with the motorcycle.**

### WEAR THE RIGHT GEAR

When you ride, your gear is "right" if it protects you. In a crash, you have a far better chance of avoiding serious injury if you are wearing:

- **An approved helmet.**
- **Face or eye protection.**
- **Protective clothing.**

#### The Helmet

Crashes are not rare events—particularly among beginning riders. And one of every five motorcycle crashes reported results in head or neck injuries—the worst kind of injuries you can get.

Head injuries are your greatest threat. They are just as severe as neck injuries—and far more common. Wearing a helmet neither raises nor reduces your risk of neck injury. But head injuries are another matter. Wearing a securely fastened helmet is the single most important thing you can do to improve your chances of surviving a crash.

#### Helmet Use

Some riders don't wear helmets because they think helmets will limit their view to the sides. Others wear helmets only on long trips or when riding at high speeds. Here are some facts to consider:

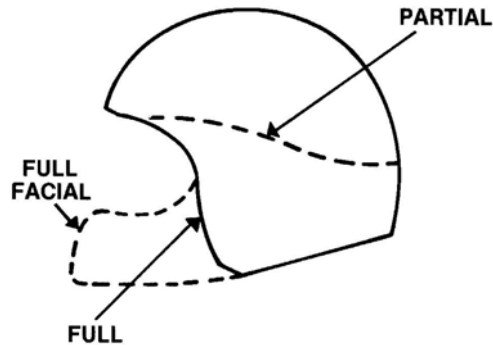
- An approved helmet lets you see as far to the sides as necessary. A study of more than 900 motorcycle crashes failed to find even one case in which a helmet kept a rider from spotting danger.
- Most crashes happen on short trips (less than five miles long), just a few minutes after starting out.
- Even low speed crashes can be fatal. Most riders are going slower than 30 mph when they get hurt. At these speeds, helmets can cut both the number and the severity of head injuries by half.



No matter what the speed, unhelmeted riders are three times more likely to die from head injuries than are riders who are wearing helmets at the time of the crash.

### Helmet Selection

There are three types of helmets, providing three different levels of coverage—partial, full, and full facial.



Whatever style you choose, you can get the most protection out of that type helmet by making sure it:

- Meets U.S. Department of Transportation (DOT) and state standards. Helmets with labels from the Safety Helmet Council of America, the American National Standards Institute (ANSI), or the Snell Memorial Foundation give you added assurance of quality.
- Fits snugly. all the way around.
- Has no obvious defects such as cracks, loose padding, or frayed straps.

Not all helmet damage is obvious. If you're thinking of buying a used helmet, first make sure it's made by a company that will check it for damage. Then have the manufacturer check it before you pay for it.

Whatever helmet you decide on, make sure to keep it securely fastened on your head when you ride. Otherwise, if you have a crash, it's likely to fly off your head before it has a chance to protect you.

### Eye and Face Protection

A plastic faceshield can help protect your whole face in a crash. It also protects you from wind, dust, dirt, rain, insects, and stones thrown up from cars ahead. These things are distracting and can be painful. If you have to deal with these problems, you can't devote your full attention to the road.

Goggles can protect your eyes from all these things, though they won't protect the rest of your face like a faceshield does. A windshield is no substitute for a faceshield or goggles. Most windshields will not protect your eyes from wind. Neither will eyeglasses or sunglasses. Glasses won't keep your eyes from watering, and they might blow off when you turn your head while riding.

To be effective, eye or face protection must:

- Be free of scratches.
- Be made of material that does not shatter.
- Give a clear view to either side.
- Fasten securely, so it cannot be blown off.
- Allow air to pass through, to reduce fogging.
- Allow enough room for eyeglasses or sunglasses if needed.

Tinted eye protection should not be worn at night or any other time when little light is available.

## **Clothing**

Clothing can help protect you in a crash.

- Jacket and pants should cover your arms and legs completely. Make sure they fit snugly enough to keep from flapping in the wind, yet loosely enough to let you move freely. Leather or heavy denim clothing is best. However, sturdy synthetic material can give you a lot of protection as well. Wear a jacket even in warm weather. Many jackets are designed to protect you without getting you overheated, even on summer days.
- Boots or shoes should be high enough to cover your ankles and sturdy enough to give them support. Soles should be made of hard, durable material. Heels should be short, so they do not catch on rough surfaces. If your boots or shoes have laces, be sure they're tucked in so they won't catch on your motorcycle.
- Gloves are also important. They give you a better grip and help protect your hands in a crash. Your gloves should be made of leather or heavy cloth.
- In cold or wet weather, your clothes should keep you warm and dry, as well as protect you from injury. You cannot control a motorcycle well if you are numb. 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; otherwise they may tear apart or balloon up at high speeds. Some gloves are made to keep wind or rain from going up your sleeves.

## **CHECK THE MOTORCYCLE**

If something's wrong with the motorcycle, you'll want to find out about it before you get in traffic. Here are the things you should check before every ride.

### **While Walking to the Cycle**

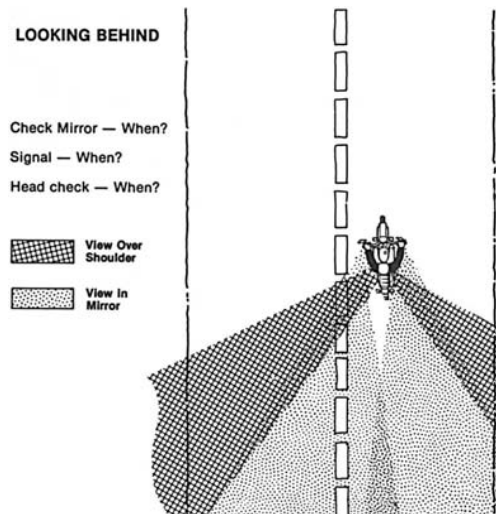
Take a good look at your tires. If one looks low, check the pressure. The motorcycle will not handle properly if the air pressure is too low.

Look under the bike for signs of an oil or gas leak. If there is a puddle, check oil and gas levels and get the leak fixed.

### While Sitting on the Cycle

As you sit on your cycle, check the following before you start out:

- **Brakes**—Try the front and rear brake levers one at a time. Make sure each one feels firm and holds the motorcycle when it is fully applied.
- **Clutch and Throttle**—Make sure they work smoothly. The throttle should snap back when you let go.
- **Turn Signals**—Turn on both right and left turn signals. Make sure all four lights flash brightly enough to be seen.
- **Headlight and Taillight**—Check them both. In daylight, pass your hand in front of the beam to make sure the head light is on. At night, try your dimmer to make sure both high and low beams are working.
- **Brake Light**—Try both brake controls, and make sure each one turns on the brake light.
- **Horn**—Try the horn. Make sure it works.
- **Mirrors**—Clean and adjust both mirrors before starting out, because it's difficult to ride with one hand while you try to adjust a mirror. Adjust each mirror to let you see the lane behind and as much as possible of the lane next to you. When properly adjusted, a mirror may show the edge of your arm or shoulder—but it's the road behind and to the side that's most important.



## GET FAMILIAR WITH THE MOTORCYCLE

Make sure you are completely familiar with the motorcycle before you take it out on the street. This is particularly important if you are riding a borrowed cycle. If you are going to use an unfamiliar motorcycle: 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 engine cut off switch. Make sure you can find and operate them without having to look for them.
- Check the controls. Make sure you know the gear pattern. Work the throttle, clutch, and brakes a few times before you start riding. All controls react a little differently.
- Ride very cautiously until you are used to the way the motorcycle handles. For instance, accelerate gently, take turns more slowly, and leave yourself extra room for stopping.

## CONTROL FOR SAFETY

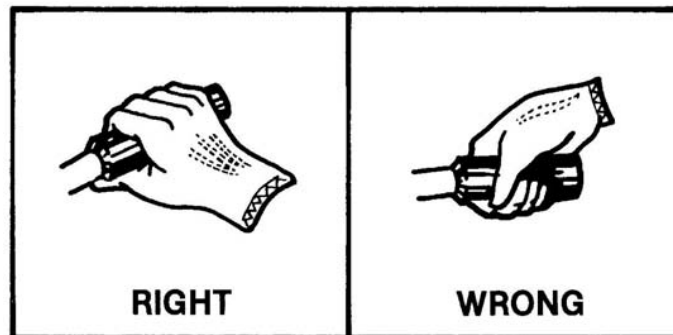
This manual cannot teach you how to control direction, speed, or balance. That's something you can learn only through a lot of practice. However, here are a few pointers to help you keep control and avoid crashes.

### BODY POSITION

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

**Seat**—Sit far enough forward so that your arms are slightly bent when you hold the handlegrips. Bending your arms lets you turn the handlebars without having to stretch.

**Hands**—Hold the handlegrips firmly. This will help you keep your grip if the motorcycle bounces. Start with your right wrist down. This will help you keep from accidentally using too much throttle—especially if you need to reach for the brake suddenly.



**Knees**—Keep your knees against the gas tank. This will help you keep your balance as the motorcycle turns.

**Feet**—Keep your feet firmly on the foot pegs. Firm footing can help you keep your balance. Don't drag your foot along the ground. If your foot catches on something, you could lose control of the motorcycle. Keep your feet near the controls. This lets you get to the controls fast if you have to use them. Also, don't let your toes drop down—they may get caught between the road and the foot peg.

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

## **TURNING**

The only way to learn how to make good, safe turns is to practice. Here are two important tips for practicing turns and curves:

**Limit Your Speed.** New riders often try to take curves or turns too fast. When they can't hold the turn, they end up crossing into another lane of traffic or going off the road. Or, they try to make up for it by braking too hard. As a result, they skid out of control. Until you learn to judge how fast you can really take a curve, approach all turns very carefully. Be sure to reduce your speed before you enter the curve. You can always speed up as you come out of a curve.

**Lean with the Motorcycle.** Some riders are afraid to lean with the motorcycle. But, you have to lean to turn. The sharper the curve, and the faster you ride, the more you must lean. For most turns, you and the motorcycle must work together as a unit, both leaning about the same amount.

## **BRAKING**

Your motorcycle has two brakes. You need to use both of them. The front brake is more powerful. It provides about three-quarters of your motorcycle's total stopping power. The front brake is not dangerous if you learn to use it properly. Here are some things to remember about braking:

- Use both brakes every time you slow down or stop. If you use only the rear brake for "normal" stops, you may not develop the habit or the skill to use the front brake properly when you really need to stop quickly.
- Apply both brakes at the same time. Some people believe that the rear brake should be applied first. That is not a good idea. The sooner you apply the front brake, the sooner it will start slowing you down.
- Remember, you can use both brakes in a turn. The front brake is dangerous only if the road is very slippery and you use the brake incorrectly. Otherwise, using both brakes in a turn is no more dangerous than using them when you are going in a straight line if you know the technique.

## **SHIFTING GEARS**

There is more to shifting gears than simply getting the motorcycle to pick up speed smoothly. Crashes can happen if you use the gears incorrectly when downshifting, turning, or starting on hills.

### **Downshifting**

Shift down through the gears as you slow down or stop. Stay in first gear while you are stopped; this way you can move out quickly if you need to.

Make certain you are going slowly enough when you shift into a lower gear. If you're going too fast, the motorcycle will lurch, and the rear wheel may skid. This is more likely to happen when you are going downhill or shifting into first gear. Under these conditions, you may need to use the brakes to slow down enough to shift safely.

### **Shifting for a Turn**

It is best to change gears before entering a turn; however, it isn't always possible. If necessary, remember to do it smoothly. A sudden change in power to the rear wheel can cause a skid.

### **Starting Uphill**

It is harder to get a motorcycle started and moving on an upgrade than it is on flat ground. When you are facing uphill, you run the danger of rolling back and dropping the bike. Here's how to start on a hill safely:

- (1) If the engine is not running, hold the motorcycle with the front brake while you start the engine.
- (2) With the engine running and the front brake still holding, shift into first gear.
- (3) With the clutch lever still held in, apply the foot brake and release the front brake.
- (4) Open the throttle a little bit for more power.
- (5) Release the clutch slowly. If you release it too quickly, the front wheel may come off the ground or the engine may stop—or both.
- (6) As the engine begins to take hold, gradually release the foot brake.



## **BEING SEEN**

In crashes with motorcyclists, car drivers often say that they never saw the motorcycle. It's hard to see something you're not looking for, and most drivers are not looking for motorcycles. Also, from ahead or from behind, a motorcycle's outline is much smaller than a car.

Even if a driver sees you coming, you aren't necessarily safe. Because you and your bike are smaller than other vehicles, it's easier for others to mistake your distance and speed. However, you can do a lot to make it easier for others to see you and your cycle.

### **CLOTHING**

Most crashes occur in broad daylight. If you don't wear bright clothing, you double your risk of not being seen during the day. Remember, your body is half of the visible surface area of the rider/cycle unit.

Clothing that helps you be seen includes bright orange, yellow, or green jackets or vests. Your helmet can do more than protect you in a crash. If it is brightly colored, it can help others see you.

Any bright color is better than drab or dark colors. Fluorescent clothing (helmet and jacket or vest) is best for daytime riding. At night, it is best to wear reflective gear. Reflective material on the sides of helmet and vest will help drivers coming from the side spot you. It can also be a big help for drivers coming toward you on the road ahead or from behind.

### **HEADLIGHT**

The best way to help others on the road see your motorcycle is to keep the headlight on—at all times. Studies show that, during the day, a motorcycle with lights off is twice as likely to go unnoticed by other road users.

### **SIGNALS**

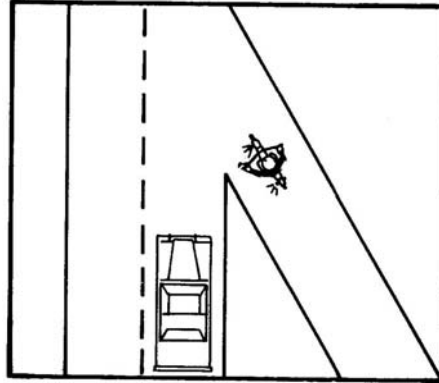
The signals on a motorcycle are similar to those on a car. However, signals are far more important to a rider.

#### **Turn Signals**

Turn signals do two things for you:

- (1) They tell others what you plan to do. Use them anytime you plan to change lanes. Use them even when you think no one else is around. It's the car you don't see that's going to give you the most trouble.
- (2) Your signal lights make you easier to spot. Drivers behind are more likely to see your turn signal than your taillight. That's why it's a good idea to use your turn signals even when what you plan to do is obvious. For example, when you

are on a freeway entrance ramp, drivers on the freeway are more likely to see you—and therefore make room for you—if you use your turn signal.



Not turning off a signal is just as bad as not turning it on. A driver may think you plan to turn again and pull directly into your path. Once you've made your turn, check your signal to make sure it is off.

### **Brake Light**

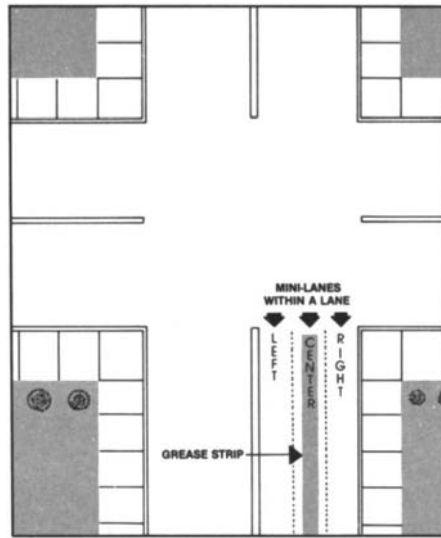
Your motorcycle's brake light is not as noticeable as the brake lights on a car—particularly when your taillight is on. (It goes on with the headlight.) Still, you can help others notice you by tapping the foot brake lightly before you slow down. This will flash your brake light. It is especially important to signal others by flashing your brake light whenever:

- You are going to slow down more quickly than might be expected (for example, when you are going to make a turn off a highspeed highway).
- You are going to slow where others may not expect it (for example, when you will slow to turn in the middle of a block, at an alley).

If you are being followed closely, it's a good idea to flash your brake light before you slow—even if you won't be slowing more quickly than might be expected. The tailgater may be looking only at you and fail to see something further ahead that will make you slow down.

### **POSITION FOR BEING SEEN**

Though the size of a motorcycle can make it harder for other drivers to spot you, you can make size work to your advantage. A car driver has very little choice about where they position their car in a lane. However, each marked lane gives a motorcyclist three possible paths of travel, as indicated in the illustration.



Each "mini-lane" is approximately four feet wide. By selecting the appropriate "mini-lane," you can make yourself more easily seen by others on the road.

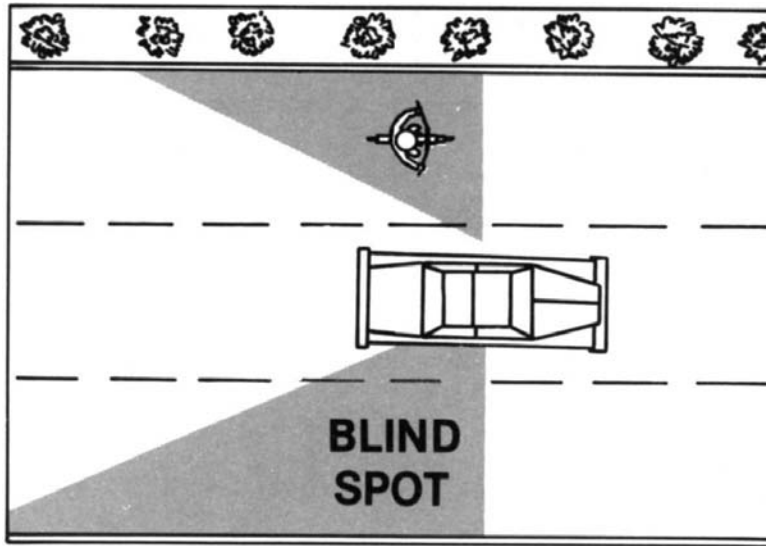
In general, the center portion of the lane (the middle "mini-lane") is the best position for riders when it comes to being seen. Some people feel that riding in the center portion is dangerous. They argue that the grease strip which often appears in this portion (formed by droppings from other vehicles) is slippery and will cause riders to fall. Such fears are overblown.

Grease strips are usually no more than two feet wide. Since the center portion of the lane is four feet wide, you can operate to the left or right of the grease strip and still be within the center portion. Unless the road is wet with rain, the average grease strip gives just as much traction as the rest of the pavement. Of course, big buildups of grease—as may be found at very busy intersections or toll booths—should be avoided.

The main idea of positioning yourself to be seen is this: Ride in the portion of the lane where it is most likely that you will be seen. In other words, ride where it will be most difficult for other drivers to miss seeing you. Here are some ways to do this.

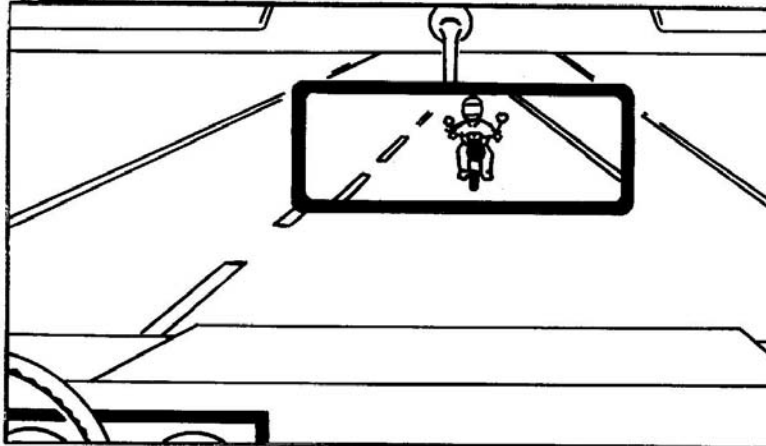
### **Stay Out of Blind Spots**

Either pass the other vehicle or drop back. When you pass a car, get through the blind spot as quickly as you can. Approach with care, but once you are alongside, speed up and get by quickly.



### Let the Driver Ahead See You

When behind a car, try to ride where the driver can see you in their rearview mirror. Riding in the center portion of the lane should put your image in the middle of the rearview mirror— where it's most likely to be seen. Riding at the far side of a lane may let you be seen in a sideview mirror, but most drivers don't look at their sideview mirrors nearly as often as they check the rearview mirror.



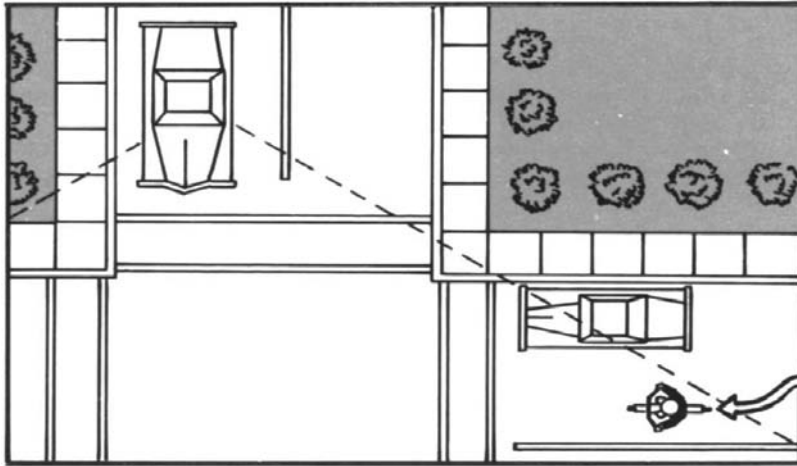
### Help Drivers at Intersections See You

The most dangerous place for any rider is an intersection. That's where most motorcycle crashes take place. The most common cause of these crashes is that the car driver never saw the rider.

The best way to increase your chances of being seen as you approach an intersection usually is to ride in the center portion of the lane with your lights on.

However, it will sometimes be better to move to another position.

If you are approaching a blind intersection, it is best to move to the portion of the lane that will bring you into another driver's field of sight at the earliest possible moment. In the picture below, the rider has moved to the left portion of the lane—away from the parked car—so the driver on the cross street can see the rider as soon as possible.



## HORN

Most motorcycle horns are not very loud, but they're better than nothing. Get your thumb on the horn, and be ready to use it whenever you need to get someone's attention.

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

- A driver in the lane next to you is getting too close to the vehicle ahead and may want to pass.
- A parked car has someone in the driver's seat.
- Someone is in the street, riding a bicycle or walking.

In an emergency, a warning beep won't be enough. Blast the horn in a true emergency and be ready to slow or turn away from the danger.

## LOOKING FOR TROUBLE

The two biggest dangers facing you as a rider are: (1) oncoming cars that turn left in front of you and, (2) cars on side streets that pull out into your lane. *Never count on "eye contact" as a sign that a driver has seen you and will yield the right of way. All too often, a driver looks right at a motorcyclist and still fails to "see" them.*

No matter what you do, you can't guarantee that others 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.

### THE ROAD AHEAD

The best way to avoid trouble is to see it coming as soon as possible. Experienced riders make a practice of looking far ahead. On city streets, they scan the road from one-half to a full block ahead. On the highway, they look as far ahead as they can see clearly.

Experienced riders don't just "stare off into space." They keep track of what's happening right ahead of them as well. By looking far as well as near, they get a complete picture of the situation ahead and leave themselves plenty of time to adjust to problems. Thus, they can spot and handle trouble without having to make a panic stop or a sudden swerve that can cause a crash. Here's what to look for while scanning the road ahead:

- **Road Conditions**—Keep checking the road surface ahead for slippery spots, bad bumps, broken pavement, loose gravel, wet leaves or objects in your path
- **Traffic Conditions**—When there is a car directly in front of you, look over or through the car for traffic stopping or turning further down the road. Check the roadside for cars that may pull away from the curb or cut into your lane from side streets or driveways.
- **Escape Routes**—Look for open space where you can leave the road in a hurry if you have to. Scanning the road and roadside for escape spots is most important when you are riding in heavy traffic.

### USING YOUR MIRRORS

While it's most important to keep track of what's happening ahead, you can't afford to ignore what's happening behind. Traffic conditions can change quickly. By checking your mirrors every few seconds, you can keep track of the situation behind.

Knowing what's going on behind can help you make a safe decision about how to handle trouble ahead. For instance, if you know someone is following you too closely, you may decide to avoid a problem ahead by turning away from it, rather than by trying to stop quickly and risk being hit by the tailgater.

Frequent mirror checks should be part of your normal scanning routine. Make a special point of using your mirrors in these situations:



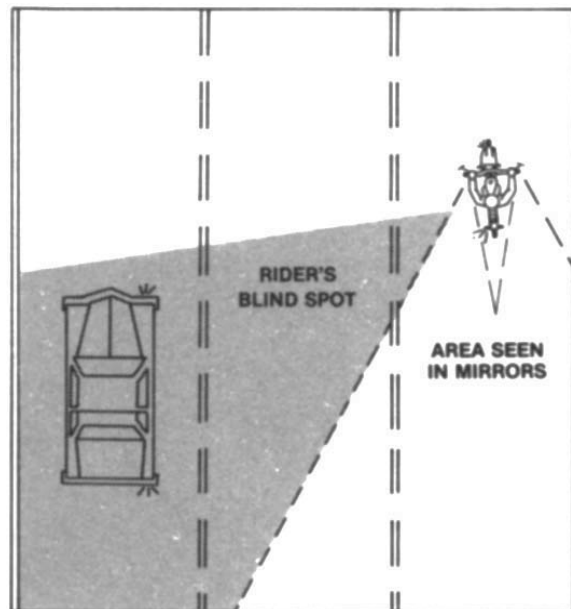
- When you are stopped at an intersection—Watch cars coming up from behind. If the driver isn't paying attention, they could be right on top of you before they see you.
- Anytime you plan to change lanes—Make sure no one is about to pass you.
- Anytime you will slow down—It is especially important to check if the driver behind may not expect you to slow, or if they may be unsure about exactly where you will slow. For example, they might see you signal a turn and think you plan to slow for a turn at a distant intersection, rather than at a nearer driveway.

Many motorcycles have rounded "convex" mirrors. These give you a wider view of the road behind than do flat mirrors. However, they also make cars seem farther away than they really are. If you are not used to convex mirrors, get familiar with them. Here's how: While you are 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 with your mirrors until you become a good judge of distance. Even then, allow extra distance before you change lanes.

## HEAD CHECKS

Mirrors do a pretty good job of letting you see behind. But motorcycles have "blind spots" just like cars. Before you change lanes, make sure to make a head check: turn your head, and look at traffic to the side. This is the only way you can be sure of spotting a car just about to pass you.

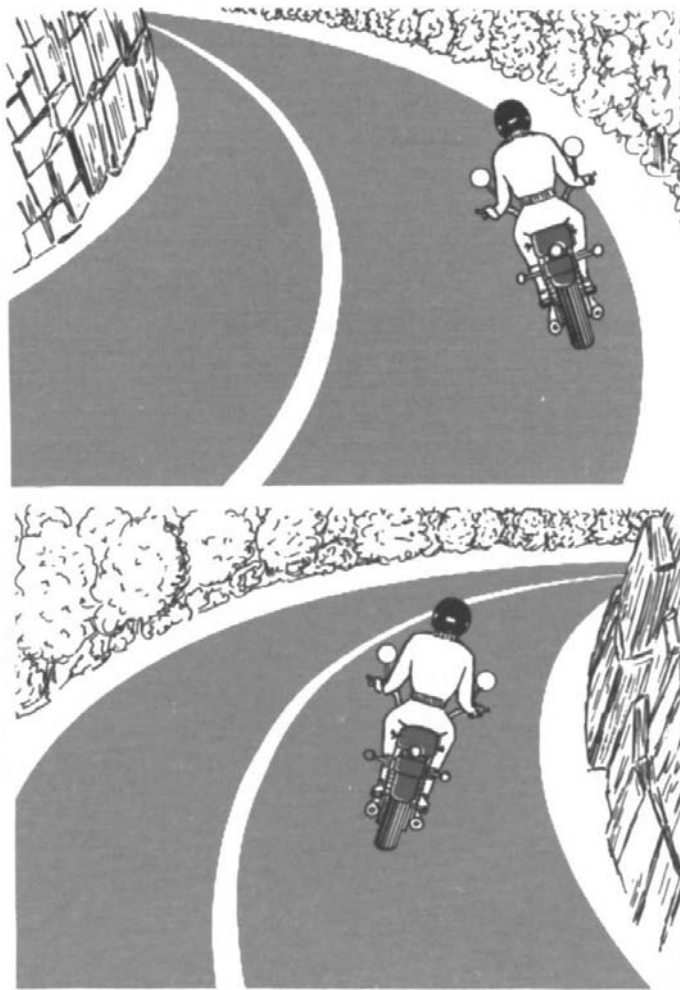
On a road with several lanes, make sure to check the far lane as well as the one next to you. A driver in the distant lane may be headed for the same space you plan to take.



## POSITION TO SEE

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

- **On Curves**—You can move from one portion of a lane to another to get a better view through a curve. Moving to the right portion of your lane before a left-hand curve and staying on that side until you come out of the curve lets you spot traffic coming toward you as soon as possible. On right hand curves, a left-center position is best. It lets you see oncoming cars fairly early without putting you so far left that you run the danger of being hit by a car that tries to "cut" the curve by drifting into your lane.

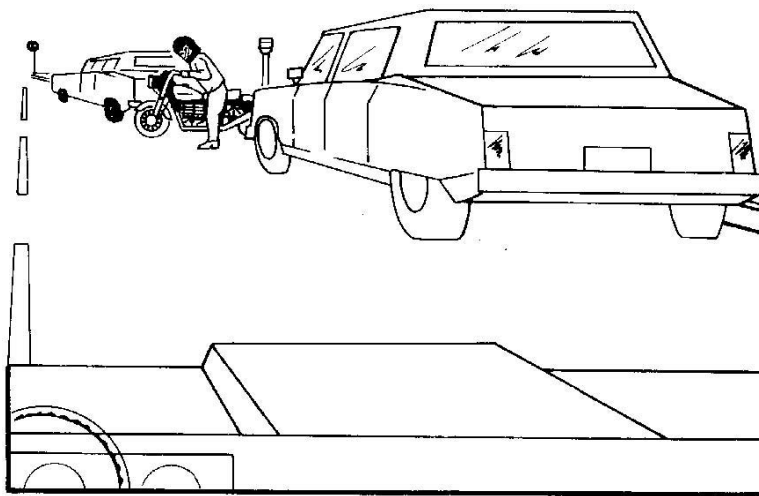


- **At blind intersections**—An intersection is anywhere a driveway, alley, or road meets another road. Blind intersections can make it hard to see danger coming from the side. If you have a stop sign, stop there first. Then edge forward and stop again, just short of where the cross-traffic lane meets your lane. From that

position, you can lean your body forward and look around buildings, parked cars, or bushes to see if anything is coming. Just make sure your front wheel stays out of the cross lane of travel while you're looking.



- **At the roadside**—Angle your motorcycle so that you can see in both directions without straining and without having any part of the cycle in the lane of travel. Angling your motorcycle so that you can get a clear view in both directions is particularly important if you plan to turn across a lane of traffic.



## KEEPING YOUR DISTANCE

The best protection you can have is distance—a "cushion of space"—all around your cycle. If someone else makes a mistake, distance gives you two things:

- Time to react.
- Some place to go.

### DISTANCE IN FRONT

"Following too closely" is a major factor in crashes caused by motorcyclists. Motorcycles usually need as much distance to stop as do cars. In fact, some motorcycles require more stopping distance than four-wheeled vehicles.

How much distance do you need to keep from following too closely? Normally, you will need 4 seconds' distance between yourself and the vehicle ahead. Here's how to gauge your following distance:

- (1) Pick out a marker—a pavement marking or lamp post, for instance—on or near the road ahead.
- (2) When the rear bumper of the vehicle ahead passes your marker, start counting off the seconds: "one-second-one, one-second-two, one-second-three, one-second-four."
- (3) If you reach your marker before you reach "four," you are following too closely.

A four-second following distance leaves you enough time to stop or swing by if the driver ahead of you stops suddenly. It also gives you a better view of potholes and other dangers in the road.

You should maintain a four-second following distance. This larger cushion of space is needed if your motorcycle will take longer than normal to stop (for example, if the pavement is slippery with rain) or if you cannot see through the vehicle ahead.

Keep well behind the vehicle ahead even when you are stopped. This will make it easier to get out of the way if someone bears down on you from behind. It will also give you a cushion of space if the vehicle ahead starts to back up for some reason.

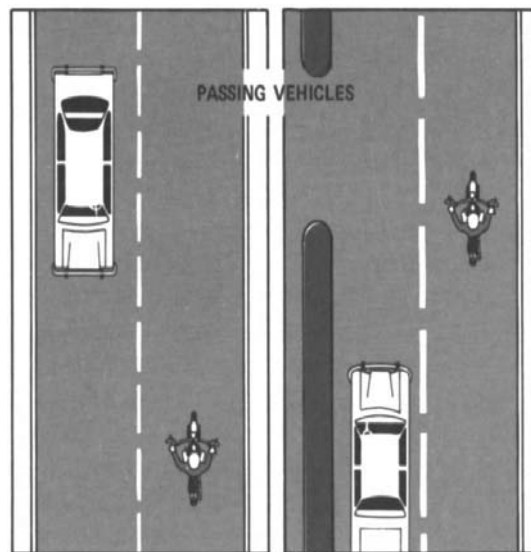
### DISTANCE TO THE SIDE

By shifting from one portion of a lane to another you can keep a safe cushion of space on both sides. An experienced rider changes position within lane as traffic conditions change. Here are some conditions that require changes in lane position.

#### Passing Vehicles

When you are being passed from behind or by an oncoming vehicle, keep in the center portion of your lane. If you ride any closer to them, you could be hit by:

- **The other vehicle**—A slight mistake by you or the passing driver could cause a sideswipe.
- **Extended mirrors**—Some drivers forget their mirrors hang out further than their fenders.
- **Something thrown from windows**—Even if the driver knows you're there, a passenger may not see you and might toss something on you or the road ahead of you.
- **Blasts of wind from large vehicles**—They can affect your control. You have more room for error if you are in the middle portion when you are hit by this blast than you would have if you were on either side of the lane.

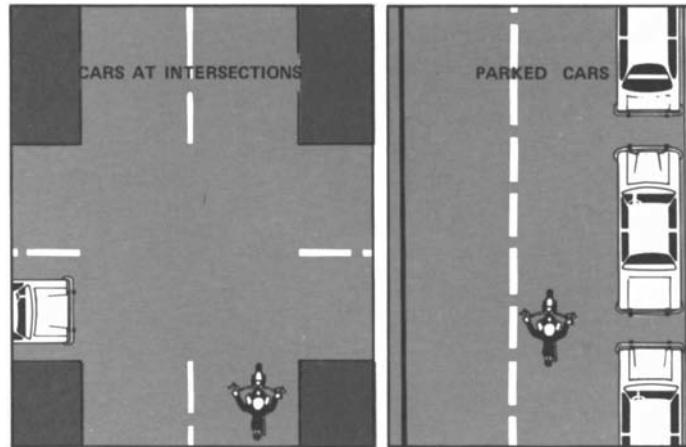


Do not move into the portion of the lane furthest from the passing vehicle. While such a move would open up additional space between you and the passing vehicle, it might invite the other driver to cut back into your lane too early.

### **Cars at Intersections**

If a car can enter your path at an intersection, assume that it will. Approach the intersection slowly, and be ready to give way if the other vehicle starts to move. It's not a good idea to move away from the driver automatically. If they see you slow down and move to one side of the lane, they may think you plan to turn—and they might pull out in front of you.

By holding your position in lane while you slow down, you won't give the driver any wrong ideas about what you plan to do. And, by going slower, you have a better chance of stopping or turning away quickly if the driver does pull out. The slower you ride, the less room you need to stop or swerve safely.



### **Parked Cars**

When passing parked cars, stay toward the left of your lane. This lets you avoid problems caused by doors opening, drivers getting out of cars, or people stepping from between cars.

A bigger problem is the car pulling out in front of you. A driver may pull away from the curb without checking for traffic behind. Even if they do look, they may fail to see you. In either event, the driver might cut into your path.

Drivers making U-turns are the most dangerous. By slowing down or changing lanes, you can make room for someone cutting in. But a car making a sudden U-turn may cut you off entirely, blocking the whole roadway and leaving you with no place to go. Since you can't tell what a driver will do when they start to pull out, your first move should be to get their attention. Sound your horn. Then continue with caution, until either the driver makes their move or you are past the car.

### **Lane Sharers**

Cars and motorcycles both need a full lane to operate safely. Drivers should not share lanes with motorcycles; motorcyclists should not share lanes with cars. Drivers are most tempted to lane share when:

- In heavy, bumper-to-bumper traffic.
- When they want to pass you.
- When you are preparing to turn at an intersection.
- When you are about to get in an exit lane, or leave a highway.

As a motorcycle rider, you can do two things to prevent lane sharing:

- (1) You can make sure you don't try to share lanes. Don't ride between rows of stopped or slow-moving cars. Don't try to squeeze past a stopped car in the same lane. Anything can happen: a hand could come out of a window; a door could open; a car could turn suddenly.



- (2) Discourage lane sharing by others. The best way to do this is to keep a center portion position whenever other drivers might be tempted to squeeze by you.

If you move to the far side of your lane in these situations, you invite others to share the lane with you.

### **Merging Vehicles**

Don't assume that drivers on an entrance ramp can see you on the highway. Give them plenty of room, and change to another lane if it is open. If there is no room for a lane change, adjust your speed accordingly to open up space for the merging driver to pull into.

### **Cars Alongside**

Do not ride next to cars or trucks in other lanes if you do not have to. A car in the next lane could switch into your lane without warning. Cars in the next lane also block your escape if you come upon danger in your own lane. Speed up or drop back until you find a place that is clear of traffic on both sides.

### **DISTANCE BEHIND**

If someone tailgates you, don't try to lose them by speeding up. You'll just end up being tailgated at a higher speed.

The only safe way to handle a tailgater is to get them in front of you. When someone is following too closely, the best thing to do is change lanes and let them pass. If you can't do this, slow down and open up extra space ahead of you. This will encourage them to pass. If they don't pass, you will have left yourself and the tailgater more time and space to react in case an emergency does develop.

## **HANDLING DANGEROUS SURFACES**

Your chance of falling increases whenever you ride across:

- Slippery surfaces.
- Uneven surfaces or obstacles.
- Railroad tracks.
- Grooves and gratings.

### **SLIPPERY SURFACES**

Motorcycles handle better when ridden on surfaces giving good traction. Surfaces that provide poor traction include:

- Wet pavement, particularly just after it starts to rain and before surface oil washes to the side of the road.

- Gravel roads, or places where sand and gravel have collected on paved roads.
- Mud, snow, and ice.
- Lane markings and steel plates and manhole covers, especially when wet.

## Handling Slippery Surfaces

There are a number of things you must do to ride safely on slippery surfaces:

**Reduce Speed**—Slow down before you get to a slippery surface. Your motorcycle needs more distance to stop on slippery surfaces. By going slower, you can stop and turn more gradually, reducing your chances of skidding. It is particularly important to reduce speed before entering wet curves.

**Avoid Sudden Moves**—On slippery surfaces, any sudden change in speed or direction can cause a skid. Speed up, shift gears, turn and brake as little and as smoothly as possible.

**Use Both Brakes**—Don't be afraid to use the front brake as well as the rear brake. The front brake is still more effective than the rear brake, even on a slippery surface. Just be careful to apply it gradually and avoid locking up the front wheel. Don't squeeze the brake lever too hard.

**Avoid Slippery Areas**—Try to find the best surface available, and use it.

- Under normal conditions, riding on the grease strip is not dangerous. However, the grease strip can become dangerous when wet. When it starts to rain, move out of the center portion entirely, and ride in the tire tracks left by cars. Often, the left tire track will be the best position. However, you should change your lane position for traffic and other roadway conditions as well.
- Watch for oil spots when you stop or park. If you put your foot down in the wrong place, you may slip and fall.
- Dirt and gravel tend to collect along the sides of the road—especially on curves and ramps leading to and from highways. Stay away from the edge of the road, particularly when making sharp turns at intersections and when getting on or off freeways at high speed.
- Rain dries and snow melts faster on some sections of a road than on others. Try to stay on the driest, least slippery part of the lane at all times.

## Very Slippery Surfaces

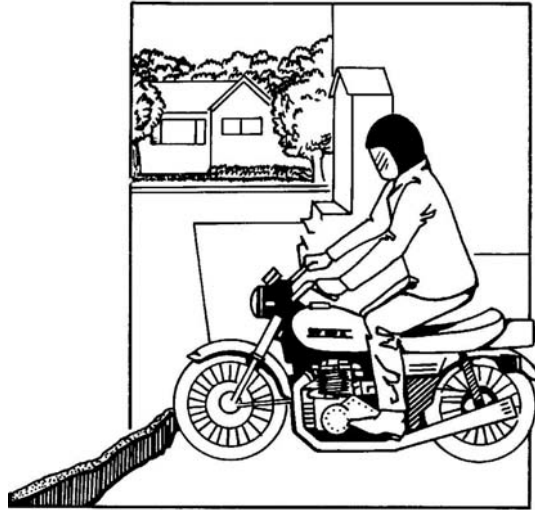
Safe riders wouldn't even consider riding on roads covered with ice or snow. However, you may find yourself on a road with scattered patches of ice or snow. Patches of ice tend to crop up in low or shaded areas and on bridges and overpasses. You may also encounter, from time to time, wet wooden surfaces or wet leaves in the fall. These are just as slippery as an ice patch.

Avoid all of these surfaces if at all possible. If you can't, keep your bike straight up and proceed as slowly as possible, letting your feet skim along the surface so you can catch yourself if the bike starts to fall. Be sure to keep off the brakes while you are on a very slippery surface.

## UNEVEN SURFACES AND OBSTACLES

Watch for uneven surfaces such as bumps, broken pavement, potholes, or railroad tracks. If you have to ride over them, or obstacles such as a piece of tire tread or tailpipe, here's what you should do:

- Slow down to reduce the jolt.
- Make sure the motorcycle is straight up.
- Rise slightly off the seat with your weight on the foot pegs so you can absorb the shock with your knees and elbows.



Rising off the seat will cut your chances of being thrown off the bike. However, controlling the throttle can be somewhat tricky. Practice this technique in a safe area (such as a deserted parking lot) before you try to do it on-street.

If you ride over an object on the street, it's a good idea to pull off the road and check your tires and rims for damage before going any further.

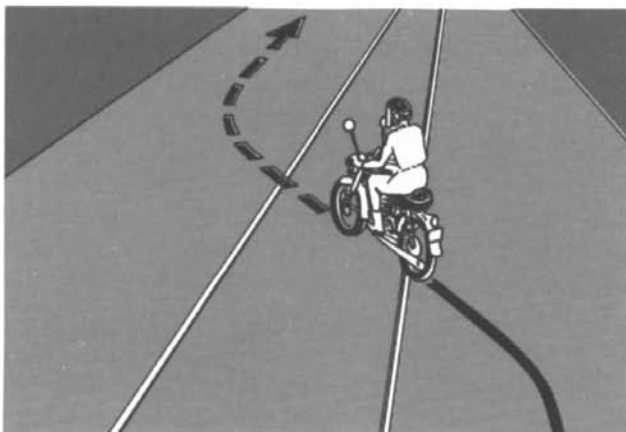
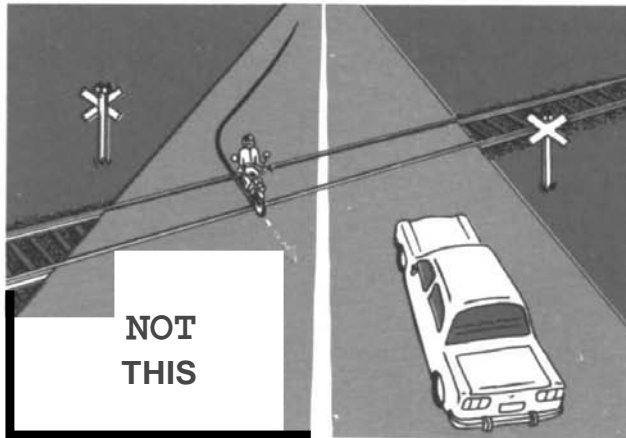
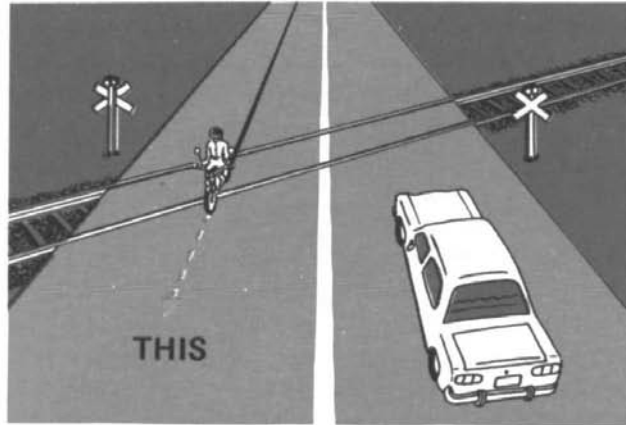
## RAILROAD TRACKS

You don't have to cross railroad tracks head-on (at a 90 degree angle). Usually, it is safer to take the tracks as they come, riding straight within your lane. A motorcycle can cross tracks at an angle as sharp as 45° without difficulty. Changing your course to take tracks head-on can be more dangerous than crossing at an angle—it may carry you into another lane of traffic.

To cross railroad tracks safely, move far enough away to be able to cross them at an angle of at least 45°. Then, make a quick, sharp turn across. Do not try to edge across. The tracks or seam could catch your tires and throw you off balance.

You do need to change direction, however, to cross something that runs in the same

direction you are going. For example, you may wish to cross trolley tracks, ruts in the middle of the road, or pavement seams that run parallel to your course.



## GROOVES AND GRATINGS

When you ride over rain grooves or metal bridge gratings, the motorcycle shakes. It's an uneasy, wandering feeling, but it's generally not dangerous. The best thing to do is relax, stay on course, maintain speed, and ride straight across. Some riders make the mistake of trying to cross these surfaces at an angle. This may reduce the uneasy feeling, but it also forces the rider to zigzag to stay in lane. The zigzag is far more dangerous than the wandering feeling.



## RIDING AT NIGHT

At night it is harder for you to see and be seen. With only one headlight, it is more difficult to see the condition of the road or something lying in your path. And other drivers may have a hard time picking your headlight or taillight out of the stronger lights of cars around you.

Here are some methods that will help you ride safely at night:

**Reduce Your Speed**—If something is lying in the road ahead, you won't be able to see it until you are very close to it. If you are going too fast, you may not be able to avoid it. Always drive slower at night than you would during the day—particularly on roads you don't know well.

**Increase Distance**—No one can judge distance as well at night as during the day. Your eyes rely greatly upon shadows and light contrasts to judge both how far away an object is and how fast it is coming. These contrasts are missing or distorted under the artificial light available at night. Allow yourself extra distance at night. Open up a four-second following distance. And give yourself more distance in which to pass.

**Use the Car Ahead**—If a car is ahead of you, make the most of it. The car's headlights can give you a better view of the road ahead than even your high beam can. And keep an eye on the car's taillights and brake lights. Taillights bouncing up and down can alert you to bumps or rough pavement.

**Use Your High Beam**—Get all the light you can. Use your high beam whenever you are not following or meeting a car.

You should be flexible about lane position, changing to whatever portion of the lane is best able to help you see, be seen, and keep an adequate space cushion. For example, riding in the center portion at night is not nearly as dangerous as some people would lead you to believe. Cars seldom pass over a pothole or road debris without some warning—like a flash of brake lights.

## DEALING WITH EMERGENCIES

No matter how careful you are, there will be times when you find yourself in a tight spot. Your chances of getting out safely depend upon your ability to react quickly and properly. The most important emergency skills are those needed to make quick stops and quick turns. These skills should be practiced in safe areas before you need to use them on the road.

### QUICK STOPS

To stop quickly, apply both brakes. Don't be shy about using the front brake, but don't

"grab" at it, either. Squeeze the brake lever steadily and firmly, applying the front brake as fully as you can without locking the front wheel. At the same time, apply the rear brake hard.

If you are on a straight-away, don't worry about locking the rear wheel. Even with a locked rear wheel, you can still control the cycle and stop quickly as long as your motorcycle is upright and going in a straight line.

If you must stop quickly while turning, apply both brakes to straighten the motorcycle, then apply them hard without locking either wheel. Remember, if the rear wheel locks when the motorcycle is turning, it is likely that the wheel will slide sideways and you will fall.

## **QUICK TURNS**

Sometimes, you may not have enough room to stop, even if you were to use both brakes properly. For example, an object might appear suddenly in your path. Or, the car ahead might squeal to a stop. The only way to avoid a collision would be to make a quick turn.

The key to making a quick turn is to get the motorcycle to lean quickly in the direction you wish to turn. The sharper the turn, the more the bike must lean.

To get the motorcycle to lean quickly, push on the inside of the handlegrip in the same direction you want to turn. If you wish to turn to the right, push on the inside of the right handlegrip. This causes the front wheel to move slightly to the left as you and the motorcycle continue straight ahead. As a result, the motorcycle will lean to the right.

As the motorcycle begins to lean, you will maintain pressure on the inside of the handlegrip in the direction of the lean. You don't have to think about it. Your instincts will make you press on the handlegrip to keep the motorcycle from falling over.

You can demonstrate this to yourself. While riding in a straight line, press the inside of the right handlegrip. You will notice the motorcycle turn to the right. This is how you get the motorcycle to lean in normal turns, but most people don't notice it except on very sharp turns. Practice making quick turns so you can make them in a real emergency.

In making a quick turn, try to stay in your own lane. The moment you change lanes, you risk being hit by a car. Change lanes only if you have enough time to make sure there are no vehicles in the other lane. 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. However, the only time you should try to squeeze by a car in your lane is when you are faced with a true emergency.

## **MECHANICAL PROBLEMS**

You can find yourself in an emergency the moment something goes wrong with your motorcycle. Mechanical problems include tire failure, a stuck throttle, a "wobble," chain problems, and engine seizure.

In dealing with any mechanical problem, you must take into account the road and traffic conditions you face. Here are some guidelines that can help you handle some mechanical problems safely.

### **Tire Failure**

If the cycle starts handling differently, pull off and check the tires. Perhaps the hardest part of dealing with tire failure is to "get on top of the situation" quickly. You will seldom hear a tire blow. You must be able to tell when a tire has lost air suddenly from the way the cycle reacts.

If the front tire goes flat, the steering will feel "heavy." If the rear tire goes flat, the back of the motorcycle will tend to jerk from side to side. If one of your tires suddenly loses air, you must react quickly to keep your balance. A front wheel blow out is particularly dangerous. It affects your steering, and you have to steer well to keep your balance.

Here's what to do if either tire goes flat while riding:

- (1) Hold the handlegrips firmly and concentrate on steering. Try to keep a straight course.
- (2) Stay off the brakes, and slow gradually.
- (3) Wait until the motorcycle is going very slowly. Then, edge to the side of the road, and stop.

### **Stuck Throttle**

Sometimes when you try to close the throttle you may find that it won't turn. If this happens when you are slowing for traffic ahead or making a turn, you must react quickly to prevent a crash.

Your first reaction will be automatic: You will twist the throttle back and forth. If the throttle cable is stuck, this may free it. However, if the throttle stays stuck after you have rotated it several times, immediately hit the engine cutoff switch and pull in the clutch. Use the engine cut-off switch and the clutch at the same time. Hitting the cutoff will turn off the engine, and pulling in the clutch will keep the braking power of the engine from locking up the rear wheel.

After you have stopped, check the throttle cable carefully to find the source of the trouble. Make certain the throttle works freely before you start to ride again.

### **Wobble**

A "wobble" is when the front wheel and handlebars suddenly start to shake from side-to-side. This can occur at low, as well as high speeds.

Do not try to "accelerate out of a wobble." That will only make the cycle more unstable. Instead:

- Grip the handlebars firmly, but don't try to fight the wobble.
- Close the throttle gradually, and let the motorcycle slow down. Do not apply the brakes; braking could make the wobble worse.



- Pull off the road as soon as you can. Then find out what caused the wobble—and fix it.

Most wobbles can be traced to either improper loading or the use of unsuitable accessories. If you are carrying a heavy load, lighten it. If you can't lighten the load, shift it. Center the weight lower to the ground and further forward on the cycle. Also check your tire pressure and the settings for spring pre-load, airshocks, and dampers. Make sure they are at the levels recommended by the manufacturer for carrying that much weight. If you have a windshield or fairing, make sure it is mounted properly.

Aside from improper loads and accessories, other things that may contribute to wobble are:

- Poorly adjusted steering.
- Worn steering parts.
- A front wheel that is bent, misaligned, or out of balance.
- Loose wheel bearings.
- Loose spokes.
- Improper tire size or tread design.

### **Chain Problems**

If your chain slips or breaks while you're riding, it could lock the rear wheel and cause your cycle to skid. You must react quickly.

**Slippage**—You may first hear or feel the chain slip when you try to speed up quickly or while riding uphill. If so, pull off the road, and check the chain and sprockets. Tightening the chain may help. But usually the problem is a worn or stretched chain or worn or bent sprockets. In these cases, replace the chain, the sprockets, or both before riding again.

**Breakage**—When the chain breaks, you'll notice an instant loss of power to the rear wheel. Hit the engine cutoff switch to keep the engine from over-revving, and brake to a stop.

Chain slippage or breakage can be avoided by proper maintenance.

### **Engine Seizure**

Engine seizure means that the engine "locks" or "freezes." Engines seize when they are low on oil. Without oil, the engine's moving parts can't move smoothly against each other, and the engine overheats. The first sign that an engine needs oil may be a loss of engine power. You may also notice a change in the engine's sound.

If you ignore these warnings and don't add oil, the engine may seize. When this happens, the effect is the same as a locked rear wheel.

Squeeze the clutch lever to disengage the engine from the rear wheel. Pull off the road and stop. Let the engine cool. You may be able to add oil and restart the engine. Even so, you should have the engine checked thoroughly for damage as soon as possible.

## GETTING OFF THE ROAD

If you need to leave the road to check the motorcycle (or just to rest for a while), be sure you:

**Check the roadside**—Make sure the surface of the road side is firm enough to ride on. If it is soft grass or loose sand, or if you're just not sure about it, slow way down before you turn onto it.

**Signal others**—Drivers behind might not expect you to slow down. As soon as you can, give a clear signal that you will be slowing down and changing direction. Make sure to check your mirror and make a head check before you take any action.

**Pull well off the road**—Get as far off the road as you can. It can be very hard to spot a motorcycle by the side of the road. You don't want someone else pulling off at the same place you are.

## OTHER EMERGENCIES

There are two other emergencies that motorcycle riders should be prepared for. They happen often enough to be real problems.

### Flying Objects

From time to time you can be struck by insects, cigarettes thrown from cars, or rocks kicked up by the tires of the vehicle ahead. If you aren't wearing face protection, you could be hit in the eye, face, or mouth. If you are wearing face protection, it might get smeared or cracked, making it difficult for you to see. Whatever happens, don't let it affect your control of the motorcycle. Keep your eyes on the road and your hands on the handlebars. As soon as it is safe, pull off the road and repair the damage.

### Animals

Naturally, you should do everything you can to avoid hitting an animal. However, if you are in traffic, don't swerve out of your lane to avoid a small animal. Hitting something small is less dangerous to you than hitting something big—like a car. Motorcycles tend to attract dogs. If you find yourself being chased, don't kick at the animal. It's too easy to lose control of the motorcycle. Instead, shift down and approach the animal slowly. As you reach it, speed up quickly. You will leave the animal behind.

# CARRYING PASSENGERS AND CARGO

You should avoid carrying passengers or large loads until you have gained a lot of experience riding alone. The extra weight changes the way the motorcycle handles, balances, turns, speeds up, and slows down. And, before taking a passenger or heavy load on the street, practice in a safe, off-road area.

## PASSENGERS

To carry passengers safely you must:

- Make sure your motorcycle is equipped and adjusted to carry passengers.
- Instruct the passenger before you start.
- Adjust your riding technique for the added weight of the passenger.

## Equipment

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 sit any further forward than you usually do. Passengers should not hang over the end of the seat.

**Footpegs**—The passenger must have their own 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 protective equipment and clothing recommended for operators.

You should also adjust the cycle to handle the extra weight. While your passenger sits on the seat with you, adjust the mirror and headlight to the change in the motorcycle's angle. And it is a good idea to add a few pounds of pressure to the tires if you carry a passenger (check the owner's manual). If the shock absorbers are adjustable, they also should be reset to handle the added weight.

## Instructing Passengers

Don't assume the passenger knows what to do—even if he or she is a motorcycle rider. Provide complete instructions before your start.

To prepare your passenger for riding, tell him or her to:

- Get on the motorcycle after you have started the engine.
- Sit as far forward as possible without crowding you.
- Hold firmly to your waist, hips or belt.
- Keep both feet on the pegs at all times, even when the motorcycle is stopped.
- Keep their legs away from the muffler.

- Stay directly behind you leaning as you lean.
- Avoid any unnecessary talk or motion.

Also, be sure to tell your passenger to tighten his or her hold when you:

- Approach surface problems.
- Are about to start from a stop.
- Are going to make a sudden move.

## Riding With Passengers

Your motorcycle will respond sluggishly with a passenger on board. The heavier your passenger, the longer it will take to slow down, speed up, or make a turn—especially on a light cycle. Here's what you should do to adjust for the difference in handling:

- Go a little slower, especially when taking curves, corners, or bumps.
- Start slowing earlier as you approach a stop.
- Open a larger cushion of space ahead and to the sides. Wait for larger gaps when you want to cross, enter, or merge with traffic.

Remember, you should try to warn your passenger of special conditions ahead—when you will pull out, stop quickly, turn sharply, or ride over a bump. Otherwise, talk as little as possible. When you must talk, turn your head slightly to make yourself understood. But, be sure you don't turn your head too far. Never take your eyes off the road ahead.

## CARRYING LOADS

A motorcycle is not really designed to carry cargo. However, small loads can be carried safely if they are positioned and fastened properly.

**Keep the Load Low**—Fasten loads to the seat, or put them in saddle bags. Do not pile loads against a sissy-bar or frame on the back of the seat. Placing a load high against a bar or frame raises the cycle's center of gravity and disturbs its balance.

**Keep the Load Forward**—Place the load over or in front of the rear axle. Tank bags are one way to keep loads forward. Mounting loads behind the rear axle can affect how the motorcycle turns and brakes. It can also cause a wobble.

**Distribute the Load Evenly**—If you have saddle bags, make sure each is loaded with about the same weight. An uneven load can cause the motorcycle to drift to one side.

**Secure the Load**—Fasten the load securely with elastic cords (bungee cords). A loose load can catch in the wheel or chain. If that happens, the rear wheel may lock up and skid.

**Check the Load**—Stop and check the load every so often. Make sure it has not worked loose or moved.

## GROUP RIDING

If you ride with others, you must do it in a way that doesn't endanger anyone or interfere with the flow of traffic.

### KEEP THE GROUP SMALL

A large group tends to interfere with traffic. It makes it necessary for cars to pass a long line of motorcycles at a time. Also, large groups tend to be separated easily by traffic or red lights. Those who are left behind often ride unsafely trying to catch up. If your group is larger than four or five riders, divide it into two or more smaller groups.

### KEEP THE GROUP TOGETHER

Here are some ways to keep the group together:

**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 tailender set the pace. Use your mirrors to keep an eye on the person behind. If he or she falls behind, slow down a little. If everyone does this, the group will stay with the tailender.

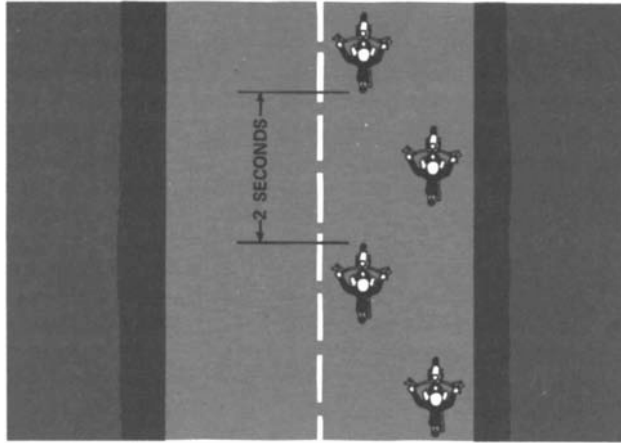
**Know the Route**—Make sure everybody knows the route. Then, if someone is separated for a moment, he or she won't have to hurry to avoid getting lost or taking a wrong turn.

### KEEP YOUR DISTANCE

It's important to keep close ranks and 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.

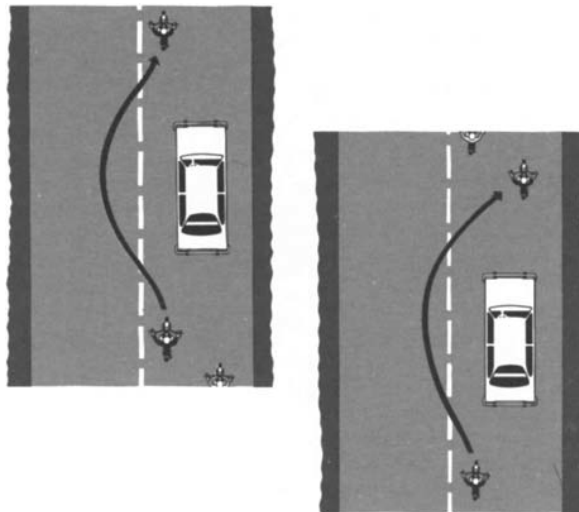
**Don't Pair Up**—Never operate directly alongside another motorcycle rider. If one of you has to avoid a car or something on the road, there would be no place to go. If you have to say something to another rider, wait until you are both stopped—then it's okay to pull up alongside.

**Staggered Formation**—Riding in a "staggered" formation is the best way to keep ranks close and yet maintain an adequate space cushion. In a staggered formation, the leader rides to the left side of the lane, while the second rider stays a little behind and rides to the right side of the lane. A third rider would take the left position, a normal four-second distance behind the first rider. The fourth rider would be a normal four-second distance behind the second rider. This formation keeps the group close and keeps each rider a safe distance from others ahead, behind and to the sides.



A staggered formation can be used safely on an open highway. However, it is best to move into a single file formation when taking curves, making turns, or entering or leaving a highway.

**Passing in Formation**—When riders in a staggered formation want to pass, they should do it one at a time. First, the lead rider should pull out and pass when it is safe. After passing, the leader should return to the left position and keep up to passing speed until they have opened up room for the next rider. As soon as the first rider has passed safely, the second rider should move up to the left position and watch for a safe chance to pass. After passing, this rider should return to the right position and open up room 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. By taking up a rightside lane position, the leader would encourage the second rider to pass and cut back in before a large enough cushion of space has been opened up in front of the passed vehicle. It's much simpler and safer if each rider waits until there is enough room ahead of the passed vehicle to allow the rider to move into the same position held before the pass.



# BEING IN SHAPE TO RIDE

Riding a motorcycle is far more demanding than driving a car. You must be in good physical and mental shape to ride safely. Three things that can keep cyclists from being in shape to ride safely are alcohol, drugs, and fatigue.

## ALCOHOL

Drinking and riding is very dangerous. Tests of riders killed in crashes show that 40% had alcohol in their systems.

That figure is high, but not surprising. Riding a motorcycle safely requires a very high degree of skill and a good sense of balance. Most important, however, safe riding requires good judgment.

Alcohol can affect all of the skills you need to ride safely. Too much alcohol can affect your sense of balance, your coordination, and your ability to see accurately. Alcohol can make it impossible for you to concentrate on your riding. However, the first critical ability harmed by alcohol is your judgment. You need to be able to judge many things accurately: other vehicle distance, position, movement and speed, and how well you are riding. Just one drink can harm your ability to make sound judgments, even though you don't "feel" any effects.

### Safety Limits vs. Legal Limits

Long before you drink enough to be legally impaired or intoxicated, your ability to make sound judgments—your ability to ride safely—is greatly reduced. This is one reason that alcohol plays such a large role in fatal motorcycle crashes. Alcohol takes away that fine edge—the sharp judgment you need to stay safe while riding on two wheels.

Of the motorcyclists killed in crashes after drinking, one in four are not legally intoxicated at the time of their crash. People who drink and ride should start worrying about whether or not they're going to finish the trip alive long before they should worry about whether or not they are "legal."

### Separating Drinking and Riding

If you are going to drink alcohol, make sure to keep your drinking separate from your riding. The only thing that can keep alcohol from affecting your riding ability is time.

It takes your body at least one full hour to get rid of one drink. One beer, one glass of wine, one shot of liquor—each is considered to be one drink. Once you start drinking, be sure to wait at least an hour for each drink you have taken before you get on your cycle.

Coffee, exercise, or cold showers may help you keep awake, but they won't restore any of the judgment or the physical skills that are dulled by alcohol. The only thing you can do is to wait long enough for your body to burn off the alcohol and get itself back to normal.

## **OTHER DRUGS**

Almost any drug can affect the skills you need to ride a motorcycle safely. This includes prescription drugs as well as illegal drugs. It even includes over-the-counter drugs like cold tablets or allergy pills. These everyday drugs can leave you weak, dizzy, or drowsy. Make sure you know the effects of any drug before you ride. If you begin to feel dizzy or weak while riding, stop and wait until you feel normal.

One last word about drugs: They should not be mixed. This holds true for alcohol, over-the-counter medicines, prescription drugs, etc. When two drugs are combined, the effects are unpredictable. The combination can make you sick, confused, or even unconscious. These extra powerful effects are most common when alcohol is one of the drugs in the mixture. If the mixture of drugs hits you while you're riding, you could be in real trouble.

## **FATIGUE**

Riding a motorcycle is much more tiring than driving a car. When you plan a long trip, bear in mind that you'll tire much sooner than you would in a car. Also remember that fatigue can affect your control of the cycle.

Here are some things you can do to keep from getting too tired:

- 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 long distance riding.
- 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.



# YOUR MOTORCYCLE

There are plenty of things on the highway that can cause you trouble. Your motorcycle should not be one of them. To make sure your motorcycle won't let you down:

- Start out with the right equipment.
- Keep it in safe riding condition.
- Avoid add-ons or modifications that make your cycle harder to handle.

## THE RIGHT EQUIPMENT

First, make sure your motorcycle is right for you. It should "fit" you. Your feet should be able to reach the ground while you are seated on the cycle.

Crashes are fairly common among beginning riders — especially in their first six months of riding. Don't try a "big bike" until you have a lot of riding experience.

No matter how experienced you may be, ride extra carefully on any bike that's new or unfamiliar to you. More than half of all crashes occur on cycles their riders have used for less than six months.

A few items of equipment are necessary for safe operation. At minimum, your cycle should have:

- Headlight and taillight
- Front and rear brakes
- Turn signals
- Horn
- Two mirrors

These are just minimal requirements. It's also a good idea to have reflectors all around —especially on the rear of the cycle.

## MOTORCYCLE CARE

A motorcycle needs more frequent attention than a car. A minor mechanical failure in a car seldom leads to anything more than inconvenience for the driver. When something goes wrong with a motorcycle, it may cause a crash.

The only way to head off problems before they cause trouble is to inspect your motorcycle carefully and often. If you find something wrong, fix it right away. In addition to the checks you should make before every trip, here are some checks you should make at least once each week:

**Tires**—Look for cuts or nails in the tread and cracks in the sidewalls. Check for excess or uneven tread wear. Tread problems can make the cycle hard to handle, especially on wet pavement. If the wear is uneven, check wheels for balance and

alignment. Check the air pressure with a gauge to make sure each tire is at the level recommended by the manufacturer. Improper air pressure can affect your cycle's braking and turning. Low pressure also can lead to blowouts.

**Wheels**—Check the rims for cracks, dents, or rust. Check for missing or loose spokes on wire-spoked wheels. Lift each wheel off the ground and spin it, listening for noise and looking for out-of-line motion. Shake the wheel from side to side, checking for looseness.

**Cables**—Check brake, clutch, and throttle cables for kinks or broken strands. Replace as necessary. Lubricate the control mechanisms at both ends of each cable.

**Oil**—Keep the oil up to the recommended level. Lack of oil can make your engine seize.

**Drive Train**—For a chain-driven cycle, make sure your chain is adjusted properly. Check the sprockets for worn or bent teeth. For a shaft-driven cycle, look for grease on the shaft unit. If the housing is greasy, check the grease level and make sure any grease plugs are fitted tightly.

**Fastenings**—Check for loose or missing bolts, nuts, or cotter pins. It's easier to spot missing items if you keep the motorcycle clean.

**Brakes**—Make sure the brakes are adjusted properly. If you hear a scraping sound when stopping, check the brake system—linings, calipers, and linkage. For hydraulic brakes, check the fluid level.

**Lights**—Check all lights for lens cracks or dampness inside the lens. Also look for rust spots on light casings.

## EARNING YOUR LICENSE

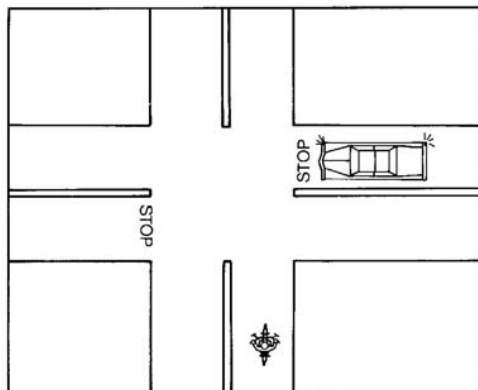
Safe riding requires knowledge and skill. To earn your license, you must pass both a knowledge test and an on-cycle skill test. These tests will cover the information, practices, and ideas from this manual.

To pass, you will have to study this manual thoroughly and practice the skills and techniques it discusses.

### KNOWLEDGE TEST

Here are some study questions. They are the same kind of questions you will find on the knowledge test. See if you can complete them correctly. Answers are printed at the bottom of the next page.

1. It is MOST important to flash your brake light to warn the driver behind that:
  - A. they are following too closely.
  - B. you will be slowing suddenly.
  - C. there is a stop sign ahead.
2. The FRONT brake supplies how much of a cycle's total stopping power?
  - A. about one-quarter.
  - B. about one-half.
  - C. about three-quarters.
3. In the situation pictured below, the car is waiting to turn across your lane. You should slow down and:
  - A. make eye contact with the driver.
  - B. get ready to give way.
  - C. hold position in lane.



4. The key to making a quick turn is:

- A. shifting your weight quickly.
- B. turning the handlebars quickly.
- C. getting the cycle to lean quickly.

5. If you get a flat tire while riding, you should:

- A. hold the handlegrips firmly and stay off the brakes.
- B. shift your weight toward the good wheel and brake.
- C. normally brake on the good wheel and pull off the road as soon as possible.

## **ON-CYCLE TEST**

During the on-cycle test, you will be graded on how safely you handle your motorcycle  
You will be tested for your ability to:

- Get and keep yourself and your motorcycle in safe condition.
- Accelerate, brake, shift, and turn safely.
- Help others see you and help you see and communicate with them.
- Adjust speed and position to changes in traffic and riding conditions.
- Stop and turn quickly to cope with problems while riding.

You may also be tested on:

- Selecting safe speeds while going straight and turning.
- Picking the correct path and staying there.
- Making normal and quick stops.
- Making normal and quick turns.

The examiner will score you on factors related to safety such as:

- Distance—e.g., Did you stop within the space allowed?
- Time—e.g., Did you turn fast enough to handle the situation?
- Position—e.g., Did you keep the cycle in the proper path?
- Procedure—e.g., Did you use both brakes to stop?

If the on-cycle test is taken on a trike or a motorcycle with a side car, your driver license will be restricted to 3-wheel only motorcycles.

Ans: 1-b, 2-c, 3-c, 4-c, 5-a

## DMV FIELD LOCATIONS

<u>CITY</u>	<u>LOCATION</u>	<u>TELEPHONE</u>
<b>Anchorage Main</b>	3901 Old Seward Highway, Suite 101	269-5551
<b>Bethel</b>	300 State Hwy (City Hall)	269-5551
<b>Delta Junction</b>	Mile 1420 Alaska Hwy.	543-2771
<b>Eagle River</b>	11723 Old Glenn Highway, #113	895-4424
<b>Fairbanks</b>	1979 Peger Road	269-5551
<b>Haines</b>	259 Main St (Gateway Building)	451-5180
<b>Homer</b>	3798 Lake St Ste B	766-2553
<b>Juneau</b>	2760 B Sherwood Lane	235-7341
<b>Ketchikan</b>	415 Main Street, #101 (State Bldg)	465-4385
<b>Kodiak</b>	2921 B Mill Bay Rd Ste B	225-4116
<b>Palmer</b>	1800 Glenn Hwy, #1	486-4612
<b>Sitka</b>	901 Halibut Point Road Ste A	443-2350
<b>Soldotna</b>	43335 Kalifornsky Beach Road #9	745-2185
<b>Valdez</b>	217 Meals Ave Ste 6 (State Bldg)	747-3253 262-4681 835-2443

## COMMISSION AGENT LOCATIONS

<u>CITY</u>	<u>LOCATION</u>	<u>TELEPHONE</u>
<b>Anderson</b>	260 West 1st (City Hall)	582-2501
<b>Barrow</b>	2022 Ahkovak St. (City Hall)	852-5211
<b>Craig</b>	506 2 <sup>nd</sup> Street	826-3959
<b>Cordova</b>	2 <sup>nd</sup> & Lake St. (Old Hospital Bldg.)	424-6125
<b>Dillingham</b>	Alaska & D St	842-5162
<b>Glennallen</b>	"Mile 187.5 Glenn Hwy (North side of hwy, East of Wells Fargo)	822-3999 or 320-1000
<b>King Salmon</b>	Bldg 150 King Salmon AFB	246-4222
<b>Kotzebue</b>	240 5 <sup>th</sup> Ave, 2 <sup>nd</sup> Floor	442-3202
<b>Petersburg</b>		
Driver Licensing	16 S Nordic Dr	772-3838
Motor Vehicles	15 N. 12 <sup>th</sup> Street, Ste. 103	772-4264
<b>Seward</b>	410 Adams Street (City Hall)	224-4037
<b>Skagway</b>	79 State St	983-2232
<b>Tok</b>	Mile 1314 Alaska Hwy	883-4481
<b>Trapper Creek</b>	"The Other Place" – 114.6 Parks Hwy	733-3513
<b>Unalaska</b>	26 Public Safety Way	581-2833
<b>Wrangell</b>	431 Zimovia Highway	874-3304