





# The essentials of safe riding

### About this manual and the E-BoB

Traffic safety is about the life and property of every traffic participant. The essence of safe driving is to make sure that every road participant is safe. Complying with the traffic safety laws and regulations is the best way to make sure that

Many cars, bicycles, and pedestrians are moving on the same road as you, so when driving your motorcycle, you think just as much about as you think about yourself. This manual describes the essentials of safe driving to ensure comfortable and safe riding.

Please read this manual carefully before riding your BoB motorcycle.



### The BoB Safety Package



#### **Rider's helmet**

When riding your motorcycle always wear your safety helmet to make sure that you will not suffer brain damage in case of an unfortunate accident.



#### Passanger helmet

When riding with a passenger he/she always wear your safety helmet to make sure that you will not suffer brain damage in case of an unfortunate accident.



#### Safety vest

It is obligatory to always wear your BoB safety vest when offering rides to passengers. This will make sure passangers can identify you and you're visible at night.



#### **Riding gloves**

Your hands are vulnerable whilst riding. The riding gloves do not only increase riding comfort, but they also absorb the vibration of the motorcycle.



#### The BoB Book on Traffic Rules

The BoB Book on Traffic Rules explain all the traffic rules in your country. This is mainly focussed on general rules on the road and road signs.



#### The BoB Safety Book

The BoB Safety Book explains how you ride safely minimising the risk of damaging yourself and others.

## **Basic Preparations**

### 1. Preparations before riding

Before driving you should always check your motorcycle, this is the first step to driving safely. It might be that there something is broken, which can lead to an accident, therefore this check is essential for overal traffic safety.

#### Before driving be sure to do the following:

- 1. Be sure there is enough petrol or battery left for the journey.
- 2. Check if there is enough oil left in the motorcycle.
- 3. Check the tyre pressure be sure that the tyres are in good condition.
- 4. Check the tightness of the chain.
- 5. Check if the sound of the engine is normal.
- 6. Check if the rear break is working properly.
- 7. Check if the clutch is still working.
- 8. Check if all lights are working (front, rear, brake, all 4 turn signals)
- 9. Check if the battery is still working.
- 10. Check if the handle and the horn and if all buttons still work.



### 2. The proper riding position and posture

#### Having the correct riding posture is the foundation for safe riding.



Place your feet on the pedals and keep them stable. Let your feet face forward for smooth and safe braking and shifting

### 3. Proper driving outfit

#### Having the correct driving outfit is the basis for personal safety whilst riding

In order to reduce injuries caused by falls and to prevent burns caused by contact with hot parts, please wear clothing suitable for riding.



• Choose a bright coloured helment and clearly visbile jacket so others can easily see you

## About Riding

### 1. Times when you need to slow down

#### Riding in zones with speed limits

Even before you enter the speed limit zone, ride at a safe speed to avoid accidents, als be considerate of the road, traffic, weather conditions and surrounding environment.

#### Watch out and slow down when you pass pedestrians or bicycles



#### Things to always keep in mind whilst riding at a high speed

- Braking requires a certain distance to stop safely.
- Be sure to keep extra distance from the verhicle in front of you.
- You should avoid concentrating on the situation on the road.
- Be sure to avoid accidents at all times, as injuries will be more severe.
- Always drive on your side of the road



#### Slowing down before making a turn

- Reduce to a safe speed to ensure that your motorcycle will not rush out of the lane or skid, especially in the blind area of vision.
- Watch out for cars or motorcycles in the opposite lane as they may cross the centre line and enter your lane. When driving, observe and find any potential dangers or irregularities in advance.

#### The 3 elements of centrifugal force:

- It is proportional to the weight of the motorcycle
- It is proportional to the 2nd power of the speed of the motorcycle
- Inversely proportional to the turning radius



Among these three elements, the "weight of the motorcycle" and the "turning radius" cannot be changed. The only thing that can be controlled is the "speed". The E-BoB is heavier than a common motorcycle. Therefore, to safely make a turn, be sure to slow do to a lower speed before making a turn.

## Breaking and Reaction Time

### 2.1 How to use the brakes (E-BoB)

E-BoBs have front (right handle) and rear brakes (left handle), unlike petrol motorcycles the E-BoBs are automatic and there is no throttle to provide extra braking power.



3 Use front and rear brakes at the same time. Brake intermittently to alert drivers and cyclists behind. If emergency braking is applied, the wheels may lock up, which will cause slipping or falling.



2 Letting go of the throttle will cause the E-BoB to brake naturally, to save battery always let go of the throttle before starting to brake.



4 Distribution of front and rear brakes Braking at different speeds. The braking force of the front and rear wheels is reasonably distributed to achieve the best braking effect:

40km/h Front / rear 5:5

60km/h Front / rear 7:3

100km/h Front / rear 8:2/9:1

### 2.2 How to use the brakes (Moto)

Motorcycles have front (right handle) and rear brakes (righ foot), the engine can also provide additional braking when returning to the throttle.

The throttle will cause the engine to produce braking force, but if the engine is braked by a quick downshift, the rear wheels may slip or the engine may be damaged.



Distribution of front and rear brakes **S** Braking at different speeds. The braking force of the front and rear wheels is reasonably distributed to achieve the best braking effect:

40km/h Front / rear 5:5

7:3

8:2/9:1

60km/h Front / rear

100km/h Front / rear

Use front and rear brakes at the same time. Brake intermittently to alert drivers and cyclists behind. If emergency braking is applied, the wheels may lock up, which will cause slipping or falling.





4 Squeeze the clutch before the vehicle stops to prevent the engine from stalling. Afterwards slowly let go of the clutch to brake.



### 2.3 Reaction time

Reaction time refers to the time required for the brake to start to work after obtaining information, through judgment and analysis, including perception reaction time and action reaction time. During this time, the distance travelled by the motorcycle is called the reaction distance.



• Always keep into account that everything can happen and that you cannot brake instantly, therefore always keep your eyes out for potential dangers. Especially children can be unpredictable, so be extra careful when there are children on the road.

### 2.3 Stopping distance

- The stopping distance is the reaction distance plus the braking distance.
- The change of braking distance largely depends on road conditions, weather and speed.
- When you want to stop, keep in mind that you need enough distance



#### Stopping distance at different speeds



• The above stopping distance is the shortest stopping distance when driving on a dry asphalt road. The braking distance will become longer on slippery roads such as rain, snow, sand and soil or when worn tires are used. Therefore, it is necessary to carefully observe the road conditions and traffic environment, fully maintain the distance between vehicles, and ensure that there is sufficient parking distance.

## Safe Riding Essentials

### 3 Precautions in different weather conditions

#### When it is foggy

When it is foggy you're vision might be impared, making it more easy to hit someone else. You should put your big lights on and drive slowly and carefully.

#### On a clear, sunny day

Seeing the road might be harder as sunshine can impede your vision. It is best to not drive too long when you're feeling overheated. Also watch the tyres of the motorcycle as they can melt or pop.



#### When it is raining

The surfaces of wet roads can let the motorcycle slip more easily, increases the breaking distance and have a higher slipping risk. You are advised to drive carefully.

#### When it is snowing

When it is snowing and the road is icy the motorcycle can slip, also an icy road will increase the braking dis-tance. It is best to slowly drive with both feet on the ground to stabilise.



### 3.1 Important traffic situations

To enjoy safe driving, it is important to observe the surrounding traffic environment.

When you are driving in jam or when you are passing a car that is blocking your view from what might rush out from behind.

Vehicles or pedestrians may rush out from behind other cars, buildings or any ob. Therefore, be vigilant at all times while driving for cars and people rusing out from behind. This is especially important in jams where motorcycles or people selling stuff drive and walk round.



#### When you are preparing to insert into a lane on the road or motorway

First look in your mirror and over your shoulder so you can confirm for yourself it is safe for you to insert into a different lane. First use the turn signal to signal any persons or vehicles around and behind you, then start inserting carefully. If you are not sure if it is safe, then do not insert.



#### When you are driving on roads, especially at higher speeds

Always be careful of potholes or inconsistencies in the road that might affect you when you drive over them. Always make sure that you observe the road in front of you to be able to anticipate.



#### Whilst driving across parked cars or in a traffic jam

Be aware that people might open doors from cars you are passing. Always try to keep enough distance from cars. Next to that avoid driving across cars at a high speed, so you can anticipate if a door opens.



#### Whilst driving in the dark, especially when there are no lights

Compared with the daytime, the visibility of the surrounding environment at night is relatively poor. Drive carefully and carefully observe the road conditions, obstacles, parked vehicles, bicycles or pedestrians



### 3.2 Crossing a road crossing

#### When you enter an intersection, and when there is a stop sign

Always stop when there is any sign that you need to stop, this can be a stop sign, an indication on the road or a police agent, fully stop before crossing and look, cross when it is safe.



#### Traffic lights and turn signals on crossings

Observe the traffic lights and the turn signals of \_\_\_\_\_\_ the vehicle ahead, and do not enter the blind area of the car to ensure that you will not be hit by a turning car. Never drive when the light is red!



#### When you are preparing to insert into a lane on the road or motorway

A car in the opposite lane may pass in front of you when turning. Don't rush through the intersection, make sure you are safe before proceeding. Keep in mind that others might be rushing and don't give way, in this case always choose for your own safety.



### 3.3 Carrying passengers

When carrying passengers, confirm the following items with the rear seat passengers:

- Both the driver and the rear seat occupants should wear long-sleeved jackets and trousers to protect their bodies and wear helmets. The color of the jacket is as bright as possible. Don't wear skirts.
- Rear seat occupants should place their feet on the rear footrest, clamp the vehicle with their legs, and wrap their arms around the driver's waist. If the vehicle has an armrest, the rear-seat occupant can hold the armrest with one hand and the driver's waist with the other. Do not sit on one side, this is very dangerous.
  - When the motorcycle starts, the body of the passanger can recline the motorcycle, so let the passanger lean forward a bit.
  - When braking, the passenger will be pushed forward, use your legs to clamp the motorcycle to keep your body in driving position, to avoid losing any control.
  - When making a turn, ask the passanger to synch his/her movements with yours to make sure that you can make good and swift turn.

#### The driver should keep the following things in mind:

#### • Starting and stopping

When a motorcycle starts, accelerates or decelerates, it is difficult for the driver to move in synchronization with the body of the rear seat occupant. Remember to brake carefully and slowly to avoid emergency starting and emergency braking, as this may cause the driver and the rear seat occupants to lose their balance. Emergency braking may also be rear-end collision.

#### • Turning

When turning in a tandem ride, the motorcycle cannot lean according to the driver's wishes due to the influence of the rear seat occupants. The route of operation may change. Therefore, slow down sufficiently before turning and use a safe speed.

#### • Braking

Compared with single-person driving, two-person riding has a larger load and the braking inertia force is also larger. When braking, the driver is pushed forward by the body of the back seat occupant. The arm of the rear seat occupant should hold the driver tightly and hold the armrest tightly, with the legs clamped to support the body. The motorcycle should be vertical to maintain a stable state. Double riding requires a longer braking distance than single riding. Brake as soon as possible to ensure sufficient stopping distance

#### To reiterate: avoid emergency braking.

#### Never drive with more than one passenger

Driving with 2 or more passengers is illegal in most countries but is still a common practice, and you should always refrain from doing this as the chance of getting accidents is a lot higher. Also the number of people that can get injured will also go up!

#### Why you should never carry more than one passanger

When driving with 2 passangers the centre of gravity shifts backwards and a little bit upwards, when carrying three, this happends again. Due to this shift the pressure on the backwheel is higher and the upward force is lower, on the front wheel the upward force gets a lot higher, meaning that when you brake the motorcycle might flip backwards, injuring you and both your passangers.



## **Riding Skills**

### 4 Lifting your fallen motorcycle

# The essentials of lifting a vehicle by a single person and preventing the vehicle from falling over again.

Your motorcycle can fall, either by accident or maybe it was pushed over by a person or car. This is not a problem, but it is important to know how to lift it up. The motorcycle can either lie on its left side or right side, both sides require a slightly different approach in how to lift it up. Underneath it is explained how you do this.

## • Lifting it up from the left side



Grab the handlebar with your left hand, and hold the handle with your right hand to support the vehicle.



The waist should be as close to the body as possible, and the waist and both hands should be used at the same time to lift the vehicle.





Let the motorcycle lean against your body and grasp the left handle with both hands. Now grab the right handle again, and you are ready to park or ride.

## • Lifting it up from the right side

The lifting method is largely the same as the left lifting. So push the handle to the right and hold the front brake with your right hand.



### 4 Corner riding skills

A motorcycle driver needs to tilt his/her body when turning. The driver's upper body posture and the inclination of the body decide how the motorcycle will behave whilst taking the turn.

### 1. Basic straight posture

#### Advantages:

- coordinated posture
- no discomfort in riding
- a lot of control

#### Disadvantages:

 Needs more time to make a turn





#### Notes on your body posture

- Your head is in a straight line with the ground
- The upper body is tilted the in the same angle as the motorcycle

## 2. Leaning outward

#### Advantages:

• The body can be tilted at a larger angle, it is easier to turn small turns, and it is easy to obtain information in front of the curve

#### Disadvantages:

 The tilt angle of the body will become larger and it is easy to crash on slippery roads.





#### Notes on your body posture

- Your head is in a straight line with the ground
- The upper body is tilted the in the same angle as the motorcycle

## 3. Leaning inward

#### Advantages:

• The upper body is tilted more inward than the body, the body tilt angle is smaller, the tilt angle is small, and it is not easy to fall even on slippery road

#### Disadvantages:

 It is more difficult to see the road and thus make decisions on how to move.





#### Notes on your body posture

- Your head is in a straight line with the ground
- The upper body is tilted the in the opposite angle as the motorcycle