WHEN TO CHANGE TO A HIGHER GEAR

95. If the lower gear is selected when the speed is above the appropriate range, the engine will operate in a harsh manner. It is necessary to change to a next higher gear.

Types of acceleration:

a. **Rapid Acceleration** – It is used when the situation allows you to pick up speed
b. **Gradual Acceleration** – It is applied when the situation does not allow you to pick up speed.

WHEN TO CHANGE TO A LOWER GEAR

96. When the speed of the motorcycle is reduced and is below the speed range of a particular gear, vibration will occur. Therefore, it is necessary to change down to a next lower gear.

3 common scenarios where you must lower the gear:

a. Before coming to a stop – Apply gradual braking, change to a lower gear to slow down before stopping. This is to maximise your engine braking and to stop effectively.

b. Before entering a corner release the throttle to reduce the speed of the motorcycle. You should shift down to the appropriate lower gear (eg. The 3rd or 2nd gears) and apply the engine braking together with the front and rear brakes accordingly. However, if you shift down the gear too early before entering the corner, the engine braking will cause you not to be at the appropriate speed and may cause the motorcycle to jerk, so be mindful and use the front and rear brakes first.

c. Going uphill or downhill – When going up a slope, the speed tends to decrease. Unless you change to a low speed gear the motorcycle may not be able to climb up and the engine may stall. You should start to accelerate a little more just before going up the slope. When going down, you will need to use a lower gear for the engine braking to work well. When your motorcycle engine stalls while moving off on a slope, you should immediately step on the foot brake pedal.

GEAR SHIFTING

97. When you start riding and continue to accelerate, the engine speed will increase. Although it depends on the acceleration situation, the standard practice is to change to a higher gear when rotation speed is around 3,000 to 4,000 rpm. Once you get used to it, you will not have to look at the speedometer every time because you can estimate the rpm by the engine sound.