

### INSPECTION BEFORE RIDING

Check the following items before riding.

ITEM	WHAT TO CHECK FOR
Engine cum transmission oil	Availability of oil upto the level
Fuel	Enough fuel for the planned distance of running
Tyres	Correct pressure Adequate tread depth / No cracks or cuts.
Battery	Proper working of position lamps, horn, brake lamp, turn signal lamps, neutral lamp, pass by switch and electric starter. Low battery indication / Electrolyte level
Speedometer	Performing self check.
Lighting	Proper working of head lamp high beam / low beam, high beam indicator, speedometer back illumination, tail lamp and number plate lamp.
Steering	Smooth movement / No play or looseness.
Throttle	Correct free play of cable / Smooth operation.
Clutch	Correct free play of cable / Smooth and progressive action.
Brakes	Availability of brake fluid and proper working of brake
Wheels	Free rotation.

### STARTING THE ENGINE

Turn the fuel cock lever to 'ON' or 'RESERVE' position based on the availability of fuel in the tank. Insert the control key into the ignition cum steering lock and turn it to the 'ON' position. Wait till the self test cycle of speedometer gets over.

Keep the transmission in neutral and press the electric starter switch to start the engine electrically or kick start.

#### When the engine is cold

- ❑ Pull the choke knob and start the engine using kick starter with no opening / very less opening of throttle.
- ❑ Once the engine is started and running stable, push back the choke knob and ride the vehicle (when the engine is warm / hot do not use choke).



#### Warning

*Do not run the engine indoors where little or no ventilation available. Exhaust gas is extremely poisonous.*



#### Caution

*Do not keep the engine in idling rpm for long and do not open excessive throttle when engine is idling and the vehicle is parked. It leads to overheating of engine and damage to the internal components.*

### SETTING THE VEHICLE IN MOTION

1. Depress the clutch lever and engage first gear by pressing the gearshift lever down.
2. Open the throttle slowly and simultaneously release the clutch lever gently and gradually. The vehicle starts moving forward.
3. As the vehicle picks up speed, shift to the next higher gear by closing the throttle, applying the clutch and lifting the gear shift lever up.
4. Release the clutch lever and open the throttle smoothly. Select the required gears in similar manner.

#### Using the transmission

The transmission is provided to keep the engine to run smoothly in its normal operating speed range. The gear ratios have been carefully chosen to meet the characteristics of the engine.

The rider should always select the most suitable gear to achieve the necessary speed and pulling power smoothly.

### Riding on hills / gradients

When climbing steep hills, the motorcycle may begin to slow down and show lack of power. At this point you should shift to a lower gear so that the engine will again be operating in its normal power range. Shift gears rapidly to prevent the motorcycle from losing momentum.

When riding down a hill, the engine may be used as braking by shifting to a lower gear.

### STOPPING AND PARKING

1. Close the throttle completely and apply both the brakes simultaneously.
2. Down shift the gears as the road speed decreases. Bring the engine to neutral position just before the vehicle stops.



### Warning

*Reduce speed to a safe limit before turning / cornering. Do not apply brake while turning / cornering. Do not disengage clutch before braking.*

3. Turn the ignition 'OFF'.
4. Park the vehicle on a firm, flat surface.
5. Lock the steering and turn 'OFF' the fuel cock.

### FUEL RECOMMENDATION

Use unleaded petrol only.

The petrol should be 85 to 95 octane by research method. Use recommended fuel additives for longer life of engine components and lower maintenance. Petrol mixed with ethanol will have impact on engine components. Contact your TVS Motor Company Authorised Distributor / Dealer or Authorised Service Centers for usage.



### Caution

*Never mix oil in petrol in the fuel tank. Always fill fuel from the reputed and reliable fuel stations.*



### Note

*Use fuel additives in petrol as recommended by the respective manufacturer for low carbon deposition.*

### CHECKS AND TIPS FOR IMPROVING FUEL ECONOMY

#### Regular checks

Carry out the periodic maintenance checks as specified in this manual (refer page no. 32 and 33).

Regular maintenance checks will save fuel and ensure trouble-free, enjoyable and safe riding besides keeping environment clean.

#### Spark plug

A dirty or defective spark plug leads to wastage of fuel due to incomplete combustion. Inspect and clean the plug if necessary. Visually inspect the spark plug gap and replace if the gap is found more.

**Replace the spark plug every 12000 kms (1 year). Always use recommended spark plug only. Since twin electrode plug is used in the vehicle, do not try to adjust the gap of the electrodes as it may damage the plug.**

#### Air cleaner element

A dirty air cleaner element restricts airflow and increases fuel consumption. **Inspect and clean the air cleaner element periodically. Replace every 12000 kms.**

#### Clutch

Increase in engine rpm during acceleration, without a increase in road speed indicates the clutch slip. A slipping clutch will cause high fuel consumption and engine over heat.

If the condition persists even after adjusting the clutch lever play, immediately have the clutch checked by TVS Motor Company Authorised Distributor / Dealer or Authorised Service Centers.

#### Engine cum transmission oil

Dirty or less engine cum transmission oil increases the friction between various parts of engine and reduces the engine life, thereby increases the fuel consumption.

**Regularly inspect the engine cum transmission oil for correct level and top-up if necessary. Get it replaced at regular intervals as per the maintenance schedule.**



#### Caution

*Never drive the vehicle with half clutch. This will reduce the life of clutch and affects the performance of the vehicle and fuel economy.*

### Fuel leak

Check and arrest fuel leak if any, from tank, carburettor and fuel lines. Loss of fuel due to leak may drain the fuel tank completely.

### Evaporation

Vehicle parked in the hot sun leads to wastage of fuel through evaporation. Also lower fuel levels in the tank will have increased evaporation and condensation of moisture inside, which may result in rusting of the tank.

Ensure to close fuel tank cap after every filling. If the fuel tank cap kept open for long time, it leads to safety and fuel loss.

### Tyres

Low tyre pressure has adverse effects on the vehicle. The **drag on the vehicle** increases resulting decreased fuel economy. Further more, handling may be adversely affected.

Check the tyre pressure regularly (weekly) and inflate it to the recommended pressure (refer page no. 43). Never use tyres which are worn beyond the permissible limit.

### Chain slackness

Check and ensure drive chain slackness. Excess slackness leads to higher fuel consumption (refer page no. 45).

### Wheel freeness

Check and ensure the wheel freeness by rotating the wheel at least once in a week to avoid wastage of fuel.

### Fast starting from rest wastes fuel

A racing start from rest at full throttle can waste fuel and damage the engine. It also creates a potentially dangerous traffic situation.

### Fast acceleration wastes fuel

Fuel is wasted whenever you suddenly accelerate or apply brake.

### Avoid unnecessary idling

While waiting for someone or stopping in signals for long time, if the engine is kept running at idle speed, it causes unnecessary wastage of fuel.

### Avoid frequent braking

Anticipate corners and slopes as well as the traffic conditions. **Unnecessary frequent braking will reduce the fuel economy.**