

**TVS**  
**KING GS+**

**(4 Stroke Petrol)**

## CUSTOMER DATA

NAME : .....

Address : .....

.....

PIN Code :

Tel. No : ..... Mobile No : .....

Booklet No : ..... Date of sale : .....

Vehicle Chassis No : ..... Engine No : .....

Dear customer,

We at TVS Motor Company congratulate you for choosing TVS King. We wish you many miles of enjoyable riding and better earnings in the years ahead.

TVS King is manufactured at the world class manufacturing facility of TVS Motor Company with best quality of material and workmanship .We hope it will fulfill your dreams and ambitions.

This booklet is your guide to maintain and operate your TVS King. So please read and follow the manual carefully to enjoy years of pleasurable riding and increased earnings. As with any good machine, proper care and maintenance are essential for trouble free operation and optimum performance of your vehicle.

Our dealerships are well equipped with the required diagnostic equipment and a dedicated company trained service team for professional care of your vehicle so that you can be rest assured of our support in the unlikely event of any trouble with the vehicle's performance. Hence we urge you to get your vehicle serviced only at Authorized TVS Motor Company Dealers / Service Centers.

For any problem or further clarification, you can contact our Help Line Number or write to TVS Motor Company quoting your Engine. No & Chassis .no .

You are requested to fill the user information coupon provided in this booklet.

Wishing you pleasant riding and increased earnings for years to come.

With warm regards,  
TVS Motor Company.

## FOREWORD

All information illustrations, photographs and specifications contained in this owner's manual are based on the latest product information available at the time of this publication. TVS Motor Company limited may however; incorporate modifications or improvements on its vehicles at any time without notice, and therefore, in such events it is possible that the relevant part of the owner's manual does not apply to your vehicle.

Prior permission of TVS Motor Company Limited is required for quoting, copying or reproducing any part of this owner's manual.

## NOTICE

### NOTE

Pictures illustrated in this manual are of TVS King GS+

Accessories shown in the picture may not be part of the standard equipment.

## ACCESSORIES DETAILS

Sl.No.	DESCRIPTION	Quantity
1	Tool kit.	1 set 6 tools
2	First Aid kit	1 set 6 items
3	Spare wheel	1 number
4	Keys	2 numbers

In case of critical problems during the course of product usage, servicing or any technical assistance you may contact us at

TVS Motor Company Limited  
Service Department - 3 Wheeler  
Post box No. 4, Harita, Hosur - 635109  
Tamilnadu, India  
Phone : (04344) - 276780 - 84

Your safety and safety of others is very important while operating this vehicle .

To help you make informed decision about safety, we have provided operating procedure and other information on labels in this manual. This information alerts you on potential hazards that could hurt you or others.

We are providing the following safety labels and safety messages in the manual

## SAFETY INFORMATION

### WARNING

Disregarding this message might result in injury to the driver and passenger.

### CAUTION

This message indicates special procedure or precaution to be followed to avoid damages to the vehicle

### NOTE

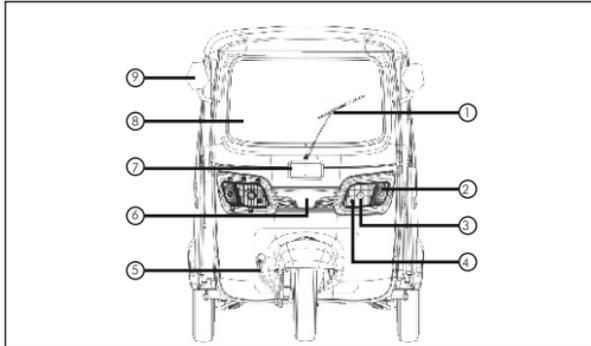
This message provides further clarification for better understanding of any particular information

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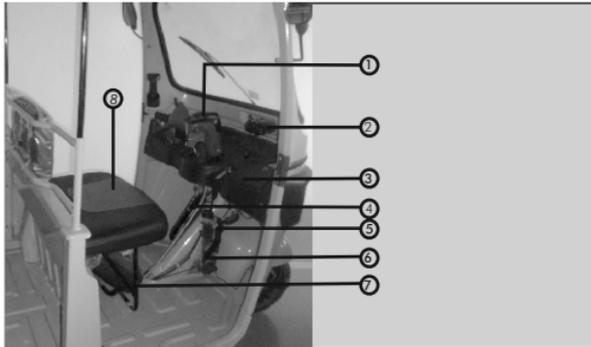
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**FRONT VIEW**



**DRIVER CABIN - RH**



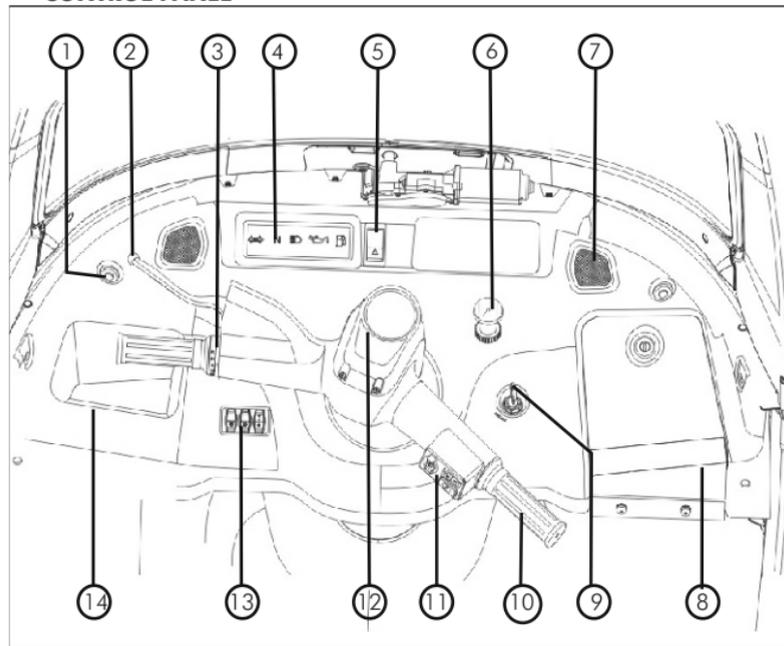
**FRONT VIEW**

1. Wiper blade
2. Turn signal lamp
3. Head lamp
4. Position lamp
5. Front brake fluid hose
6. Logo grill
7. Number plate front
8. Wind shield glass
9. Rear view mirror

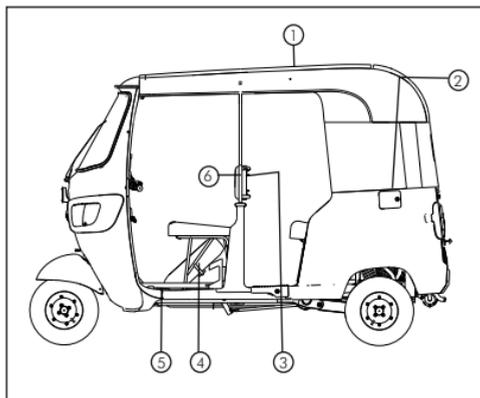
**DRIVER CABIN - RH**

1. Handle bar
2. Wiper Motor
3. Dash board
4. Hand brake control lever
5. Tandam master cylinder
6. Brake Pedal
7. Spare wheel
8. Driver seat

**CONTROL PANEL**

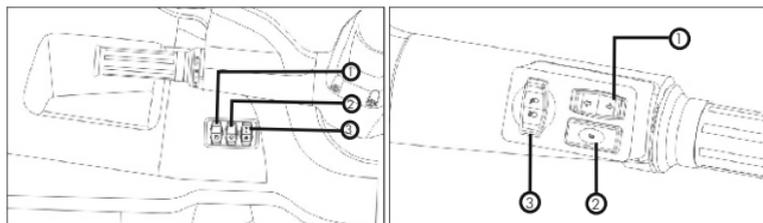


1. Mobile charger unit
2. Clutch operating lever
3. Gear position indicator
4. Cluster assembly tell tale lamp
5. Hazard warning switch
6. Choke knob
7. Speaker grill
8. Glove box
9. Ignition switch
10. Throttle grip
11. Control switch assembly RH
12. Speedometer
13. Control switch assembly LH
14. Utility box



**VEHICLE - LH**

1. Soft top assembly
2. Fuel lid
3. Fare meter mounting
4. Spare wheel
5. Hand starter lever
6. Driver back rest



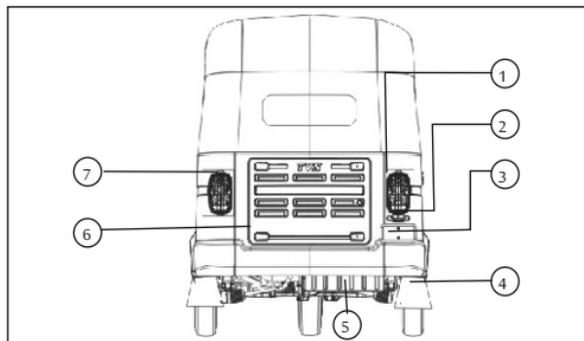
**SWITCH - LH ( On dash board )**

1. Self starter switch
2. Wiper switch
3. Head lamp ON / PARK / OFF switch

**SWITCH - RH ( On handle bar )**

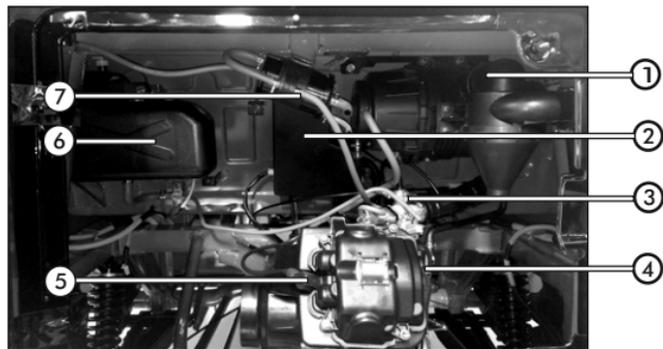
1. Turn signal lamp switch
2. Horn switch
3. Head lamp High / Low beam switch

**VEHICLE REAR & ENGINE ROOM**



**VEHICLE REAR**

1. Rear combination Lamp RH
2. Rear number plate lamp
3. Rear number plate
4. Mud Flap
5. Exhaust assembly
6. Rear Tail Door
7. Rear combination Lamp LH



**ENGINE COMPARTMENT**

1. Air filter assembly
2. Cover TCI unit
3. Carburetor
4. Secondary Air Injection (SAI)
5. Spark plug
6. Petrol tank
7. EVAP Unit

<b>MANUFACTURER</b>	TVS Motor Company Ltd, PB No.4, Harita, Hosur - 635109, Tamilnadu, India.	
<b>ENGINE</b>	Engine Type	4 Stroke, Air Cooled, Single Cylinder SI Engine
	Cylinder Bore X Stroke	62 mm X 66 mm
	Piston Displacement	199.26 cc
	Max Engine Output Power - Petrol	6.7 kW @ 4750 rpm
	Max Torque - Petrol	15 Nm @ 3000 rpm
	Max Speed	60±2 km/h
	Engine idling rpm (Petrol)	1250 ± 100 rpm
	Idle CO (Petrol)	<1.5% @ Tail Pipe
	Air Filter Type	Cylindrical - Paper Filter
	Starting system	Electric Starter & Hand Starter
	Max Gradeability in 1st Gear	10°
<b>TRANSMISSION</b>	Clutch	Wet, Multi plate type
	Gear	Manual, 4 Forward & 1 Reverse
	Differential	Integral with Engine
<b>CHASSIS &amp; DIMENSIONS</b>	Frame	Semi- Monocoque chassis - Pressed longitudinal & cross members
	Overall Length	2647 mm
	Overall Width	1329 mm
	Overall Height	1740 mm
	Ground Clearance	165 mm
	Wheel Base	1990 mm
	Rear Wheel Track	1150 mm
	Kerb Weight with 90% Fuel	347 kg
	Maximum GVW	677 kg
<b>SUSPENSION</b>	Front	Trailing Arm with Hydraulic damper & Coil Spring
	Rear	Trailing Arm with Hydraulic damper & Coil Spring

<b>TYRE</b>	Type & Size	Cross ply- tube type, 4.00-8, 76F 6PR / 4.00-8 76E 6 PR
	Tyre Pressure Front (Laden)	30 psi / 2.11 kg/cm <sup>2</sup>
	Tyre Pressure Rear (Laden)	34 psi / 2.40 kg/cm <sup>2</sup>
<b>BRAKES</b>	Front & Rear	Drum & Foot Operated, Hydraulic, Internally Expanding Shoe with Auto Adjuster type
	Parking	Hand Brake (Mechanical )
	Brake Fluid grade	DOT 3 / DOT 4
<b>ELECTRICALS</b>	Type	12V AC+DC, Negative Earth
	Ignition System	DC TCI
	Spark Plug	Bosch UR6DE
	Battery Type	12V 32Ah
	Generator	Flywheel Magneto, 12V, 65 W @ 1000rpm & 155 W @ 2000 rpm
	Head Lamp	12V, 35/35W X 2, Twin Headlamp
	Position Lamp	12V, 4W X2
	Tail/Brake lamp	12V, 5/21W X 2
	Reverse Lamp	12V, 21W X 1
	Turn Signal Lamp	12V, 10W X 4
	Number Plate Lamp	12V, 5W X 1
	Speedometer Lamp	12V, 2W X 1
	All instrument panel Lamp	12V, 2W X 5
	Horn	12V DC
	Fuse	12V, 20 A X 1 (Main ) Rear, 10 A X 2 Front
<b>CAPACITIES &amp; SPECIFICATIONS</b>	Petrol Tank Capacity	7.5 ± 0.5 litre
	Engine & Differential Oil Grade	4T SAE 20W40
	Engine Oil Quantity	1750 ml & 1800 ml While Overhauling
	Differential Oil Quantity	250 ml & 300 ml While Overhauling
	Brake Fluid Quantity	250 ml
	Clutch Free Play	10 to 20 mm
	Turning radius	"2701 / 2822 mm (RH Turn) 2442 / 2532 mm (LH Turn)"

\* Specifications are subject to change on account of continuous improvements in the product

Here you can familiarize yourself with operation of features provided in your vehicle.

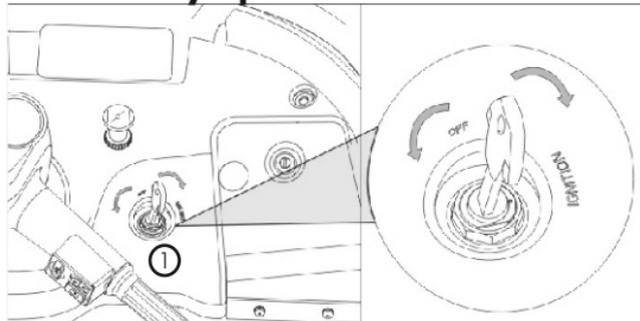
1. Control Key operations
2. Safety Features
3. Operating Features

## FEATURES IN YOUR VEHICLE

Accessories provided with the vehicle

1. Tool Kit
2. First Aid Kit
3. Owner's Manual

## Control key operations



### Ignition switch

TVS Auto comes with a set of two control keys.

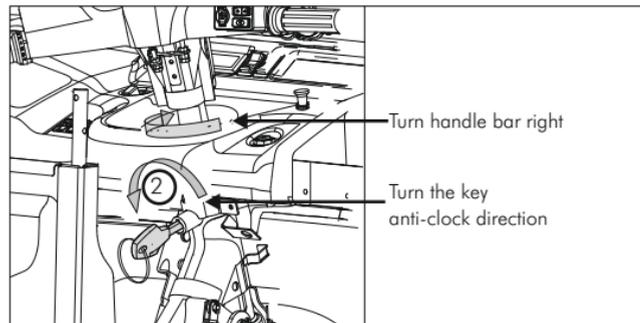
This key is used to operate ignition switch, steering lock, glove box, rear tail door and fuel lid.

#### 1. Ignition switch

The ignition switch has two positions.

**OFF:** All electrical circuits are turned OFF in this position. Key can be taken out in this position

**ON:** In this position the engine can be started. Horn, turn signal wiper motor and tell tale lamp, can be operated. Key cannot be taken out in this position



### Steering lock

#### 2. Steering lock.

To protect your vehicle from theft, steering lock is provided in your TVS King. It is positioned on the steering column, below the dash board.

To lock the steering,

- Turn the handle bar to extreme right.
- Turn the key in anti-clock direction
- Take out the key



### Fuel lid lock

#### 3. Fuel lid lock

Fuel lid is provided on the LH side of the vehicle.

To fill the fuel open the fuel lid by inserting key and turn it in anti-clock wise direction and pull outwards.

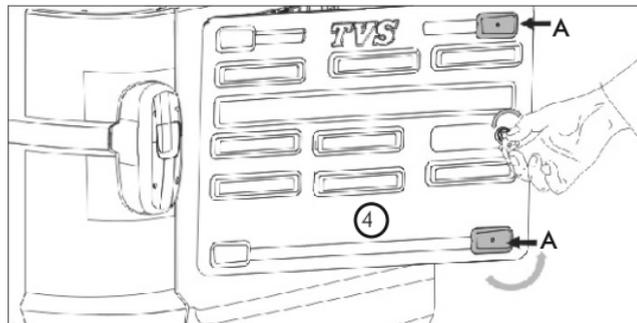
Key cannot be taken out in this position.

Open the petrol tank cap to fill the fuel.

To lock the lid close the lid and turn the key in clock wise direction

#### **CAUTION**

Use only unleaded petrol. Do not mix 2T oil with petrol.



### Rear tail door

#### 4. Rear tail door

To open the rear tail door insert the key and turn it in anti-clock wise direction.

Key cannot be taken out in this position.

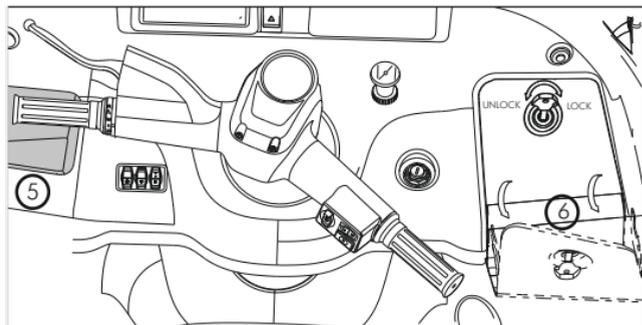
Loosen two knobs (A) and open the engine door

To lock the rear tail door close the door and turn the key in clock wise direction.

Tighten the door knobs.

#### **NOTE**

Your TVS petrol vehicle petrol tank capacity is 8 ltrs.



Utility box and Glove box

### 5. Utility box

It is provided on the left side of the dash board.

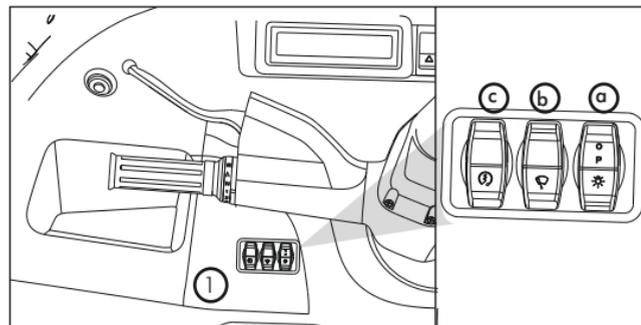
### 6. Glove box

It is provided on the right hand side of the dash board

To open the glove box turn the key anti clockwise. Key cannot be taken out in this position. To lock the utility box close the lid, turn the key in clock wise direction and take out key.

### Safety features

These features are provided to assist you in safe driving.



Switch assembly LH

### 1. Switch assembly LH

It is positioned on dashboard LH

a) Head Lamp Switch

It has three positions explained as follows

● : Head lamp, position lamps, speedometer lamp, tail lamp and number plate lamp will not glow with switch in this position though ignition switch may be in 'ON' position. and engine is in running condition.

P : Position Lamp, tail lamp and speedometer lamp and number plate lamp will glow when switch is in this position with ignition switch in 'ON' though engine is not running.

TVS King comes with DC headlamp. In this switch position, '  ' head lamp also will glow along with speedometer lamps, tail lamps, number plate lamp and position lamp when engine is in running condition.

### b) Wiper motor Switch

It has two positions

**ON** : Wiper motor operates in this position.

**OFF** : Wiper motor stops operating in this position.

#### **CAUTION**

Do not operate the wiper motor on the dry wind shield glass. During washing please ensure that the wiper motor is wrapped with polythene sheet to prevent water entry.

### c) Self Starter Switch

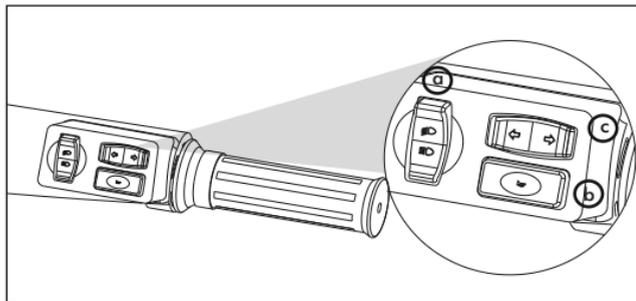
Press the '  ' switch to start the engine electrically with ignition switch in 'ON' condition and transmission in neutral.

#### **CAUTION**

Do not operate the starter motor for more than 2 sec.

## 2. Switch assembly RH

It is located on the handlebar RH



### a) Head Lamp high/low beam switch

Press the knob towards '  ' to operate in high beam of the headlamp and towards '  ' to operate in low beam.

#### **WARNING**

Use appropriate beam (High / Low) as per the traffic and road condition for safety and comfortable riding.

### b) Horn Switch:

Press the button '  ' provided on the RH switch assembly to operate the horn.

### c) Turn signal lamp switch (Left & Right)

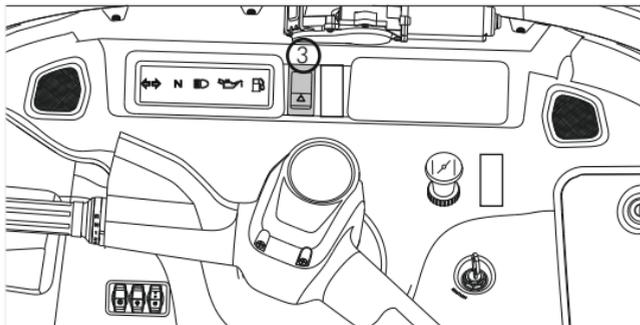
On pushing the turn signal switch in left or right '↔' '↔' the respective indicator lamps will glow in both front and rear. It gives an indication in which direction you are turning.

To turn off turn signal lamp bring the switch to central position.

#### **WARNING**

Always use the appropriate turn signal lamps when you take a turn.

Switch off turn signal lamp after negotiating turn.



Switch assembly center

### 3. Hazard switch

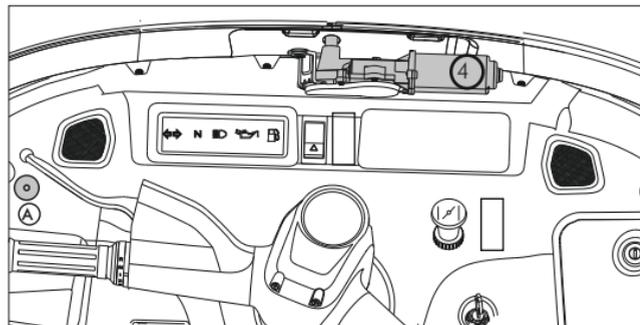
Press this switch '△' to operate warning lamps in case of vehicle breakdown on road for repair or emergency. This switch can be operated even when ignition is in OFF position.

### 4. Wiper motor.

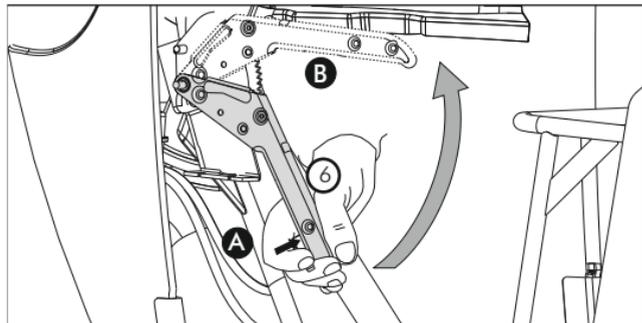
It is located on the wind shield frame above dash board.

### 5. Mobile charger

Your TVS King comes with mobile charger ( A ) on dashboard LH side as shown in the above fig.



Wiper motor



Parking brake lever

### 6. Parking brake lever.

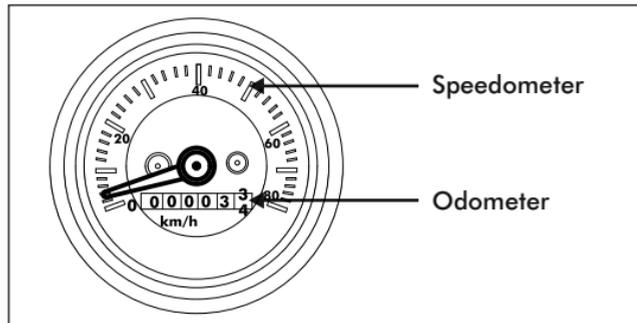
It is provided below the dash board. Use the parking brake while parking the vehicle especially on gradient to prevent vehicle rolling.

Press the lock button ' A ' and pull the lever ' B ' upward to apply the brake. To release brake again press the lock button and push the lever downwards.

#### **WARNING**

Ensure that hand brake is released before driving the vehicle

### Control features



Speedometer & Odometer

#### 1. Speedometer

Indicates the vehicle on- road speed in kilometer per hour.

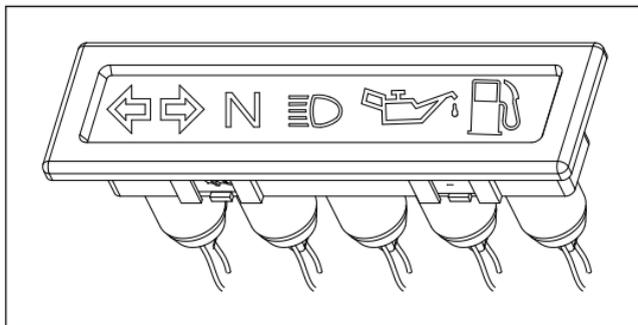
#### 2. Odometer

It registers the total distance covered by the vehicle.

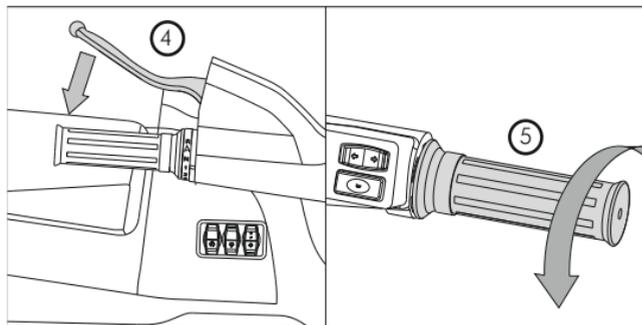
#### **NOTE**

Check kilometer readings carefully to service your vehicle at the recommended kilometers mentioned in service coupons.

### 3. Tell tale lamp



Symbols	Description	Glow indication	Action to be taken	Colour
	Turn signal indicator lamp	Left or right indicator is in 'ON'	Switch off after taking turn	Green
	Neutral indicator lamp	Vehicle is in neutral gear condition	Safe to start engine	Green
	High beam indicator lamp	Head lamp high beam is in 'ON'	An indication signal	Blue
	Engine oil pressure indicator	Low engine oil pressure	Take the vehicle to dealer	Red
	Low fuel warning lamp	Fuel level is below minimum level	Fill fuel immediately	Orange



Clutch lever & Tube complete throttle.

#### 4. Clutch lever.

Use the clutch lever to disengage/engage the drive, from the engine to transmission while shifting gears. Depress the lever towards your side to dis-engage and release the lever to engage the clutch

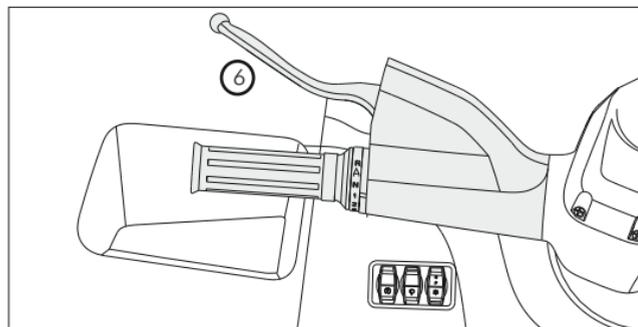
#### **CAUTION**

Always use clutch lever while changing gears to ensure smoother gear shifting

#### 5. Tube complete throttle

Engine rpm is controlled by the position of the throttle grip. Rotate it in anti-clockwise to increase the engine rpm. Rotate it clockwise or release it to decrease the engine speed.

#### 6. Tube complete gear shift



Tube complete gear shift

To shift gears depress the clutch lever and rotate the gear shift twist grip downwards to engage forward and up wards to engage the reverse gear.

In between the neutral 'N' and reverse 'R' there is an alert 'A' position

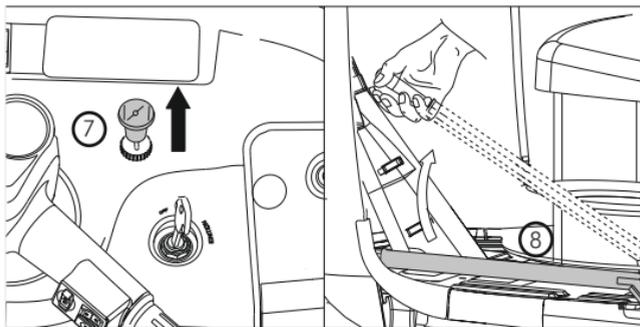
## 7. Choke lever

It is positioned on the dash board. Pull the choke lever towards up-wards to operate the choke. It will get locked in that position.

To release the choke press it down to original position.

### CAUTION

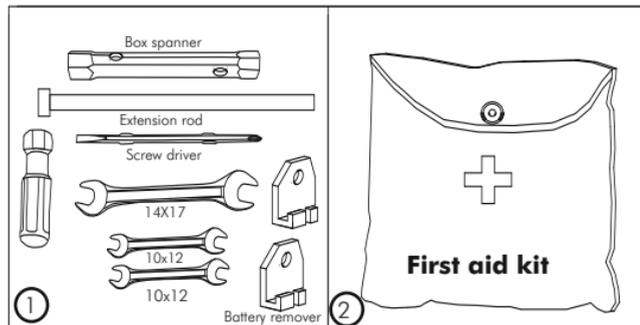
Don't forget to release the choke after starting vehicle



Hand starter lever & choke knob

## 8. Hand starter lever

Pull the hand starter lever upward to start the engine.



### Tool kit

#### 1. Tool Kit

Tool kit is located in the lockable glove box on the right hand side of the dashboard

### CAUTION

Always follow the procedures given in self maintenance section while using tools provided in the tool kit.

Please bring your vehicle to the Authorized dealer or service center in case of any major repairs.

#### 2. First Aid Kit

First aid kit is also located in the glove box. It will be useful during minor injury.

**SAFE RIDING TIPS**

**Importance**

Your safety and safety of others is very important. Operating this vehicle safely is a big responsibility on you.

**For safe driving**

Always make a pre ride inspection before you start the vehicle. We suggest that you practice driving your vehicle in a non traffic situation until you are thoroughly familiar with your vehicle operation and its control.

**Daily checks before riding**

Location	What to check for	Reference Page
Engine cum transmission & Differential oil	Check the availability up to required level	27,28,29
Fuel	Enough fuel for the planned distance of running	20
Brakes	Check for effectiveness, Brake pedal free play, dragging of brakes, brake sponginess.	
Tyres	Correct tyre pressure, Adequate tread depth, No crack or cut	31
Battery	Ensure the working of Horn, Brake lamp, Head lamp high beam & Low beam. All indicator lamp etc	16,17,18,34
Steering & suspension	Check for smoothness, any play or looseness.	
Controls (Clutch, Brake and Throttle etc.)	Check the free play, smooth operation, positive return to original position.	34,35,36,37
Tell tale lamps	Inspect all the tell tale lamps for any warning.	20
Propeller shaft, Flange, Slider block and pin	Sufficient quantity of grease	33
Differential & gearbox breather tube	Check if both gear box and differential breather tube are blocked with mud or any dirt	

## USEFUL INFORMATION

- Periodic maintenance helps good performance of an automobile and our services are planned to keep your vehicle performing good.
- Carrying out the services at the specified intervals is necessary for availing of warranty.
- To avail the eight periodic services take your vehicle along with your Owner's manual to any authorised TVS dealer ship or service center across the country.
- Always use choke for cold starting.
- Drive at optimum speeds of 35 to 40 kmph.
- Use clutch only while shifting gears. Do not engage and dis-engage the clutch suddenly.
- Do not run the vehicle at full throttle for long periods and in stationary condition.
- Check and top up engine oil every day and replace the differential and transmission oil at every 5000kms
- Always use recommended grade of lubricants and Genuine TVS Motor spare parts.
- Maintain recommended tyre pressure and rotate tyres at every 5000 kms.
- Reduce the speed while taking sharp turns. Do not apply the brakes while turning

## Running-in information

The first 2000 km is a crucial part of TVS King. Proper running in operation during this period helps in ensuring a longer life and smooth performance of your vehicle. During running in period do not exceed following speed limits .

Km.	1st Gear	2nd Gear	3rd Gear	4th Gear
0 - 750	10 km/h	15 km/h	25 km/h	40 km/h

Always keep within specified speed limit

Do not operate the engine in a manner that could expose the engine to excessive stress.

## OPERATING YOUR VEHICLE

### Starting the vehicle

- Insert the ignition key in the ignition switch and turn it clockwise to ON position. (Ref page no.14, fig No.1)
- Bring the transmission to neutral. Confirm by checking if the neutral indicator lamp on dash board is lit.
- Apply choke if vehicle is in cold condition or starting in the morning. (Ref page no 22, fig No.7)
- Pull the starting lever up-wards or use electric start switch (ES model) to start the engine. (Ref page no 22, fig No.8)
- Wait for some minute and let the engine to warm up before engaging the gears and moving on.

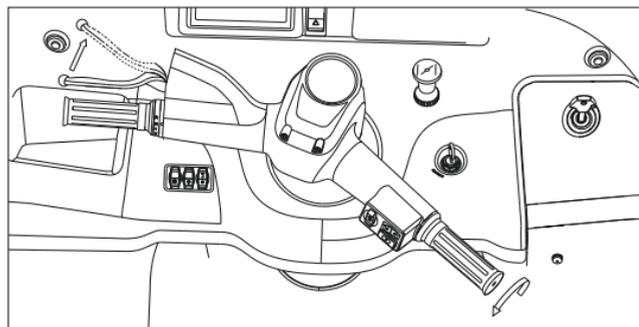
#### CAUTION

Do not open the throttle while the choke is applied, it will cause flooding of engine and difficulty in starting.

### Setting the vehicle in motion ( Ref fig.)

- When the engine has started release the parking brake. - -
- Dis-engage the clutch by depressing the clutch lever.
- Rotate the gear shift twist grip downward to engage the first gear.
- Open the throttle a little by rotating the throttle grip in the clock wise direction; simultaneously release the clutch lever gently and gradually.

- The vehicle will start moving forward. As the vehicle picks up speed shift to the next higher gear. Select the required gears in similar manner.



### Setting the vehicle in motion

Km.	1st Gear	2nd Gear	3rd Gear	4th Gear
Speed	0-12km/h	10-25km/h	20-40km/h	25-50km/h

#### CAUTION

While shifting to each gear close the throttle fully and depress the clutch with out fail.  
Ensure that the hand brake is released before moving the vehicle after parking.

### Stopping and parking

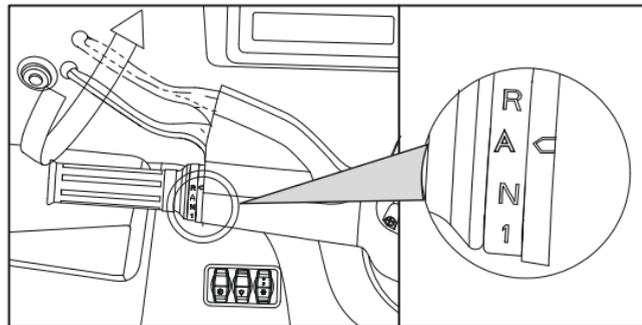
- Close the throttle completely and apply the brake.
- As the vehicle speed reduces depress the clutch lever and down shift the gears.
- Bring the transmission to neutral position just before vehicle stops.
- Turn ignition switch to OFF position and take out the key.
- Apply parking brake. (Ref Page No.19, fig No.6) Lock the steering by turning the handle bar to the left.(Refer page no.14, fig No.2)

#### WARNING

Do not depress the clutch while braking at high speeds.  
Always apply the parking brake while parking on gradient.

#### Reverse gear operation

- Bring the vehicle in neutral position
- Let the vehicle to stop completely
- Depress the clutch lever.
- Turn the gear change twist grip upwards to move alert 'A' position, beeper sound can be hear. (Refer fig.)
- Turn the gear change twist grip upwards to reverse 'R' position to engage the reverse gear. (Refer fig.)
- Engage the clutch gradually to move the vehicle.



#### Reverse gear operation

##### Fuel saving tips

- Carry out the periodic maintenance services regularly at TVS authorised service stations.
- Perform daily checks as specified in page no 23
- Avoid sudden and frequent braking.
- Switch OFF the engine if you have to idle the vehicle for more than 2 minutes.
- Clean, check and adjust the sparkplug gap periodically. For service procedure see page no. 30
- Clean the air filter element as per schedule see page 38
- Lubricate propeller shaft, slider block, pin and flange as per lubrication schedule.

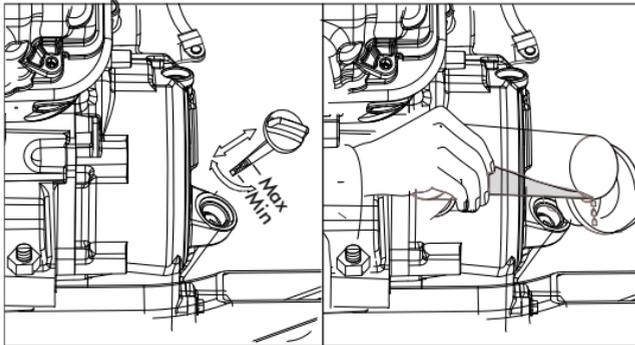
## SELF MAINTENANCE PROCEDURE

The following maintenance can be done by your self to ensuring good performance of your vehicle.

### CAUTION

Attending major maintenance work and repairs yourself can affect the performance of your vehicle. Approach TVS authorised Dealer or service center in the case of any major problem.

### Engine oil level checking and topping up



### Engine oil level checking and topping up

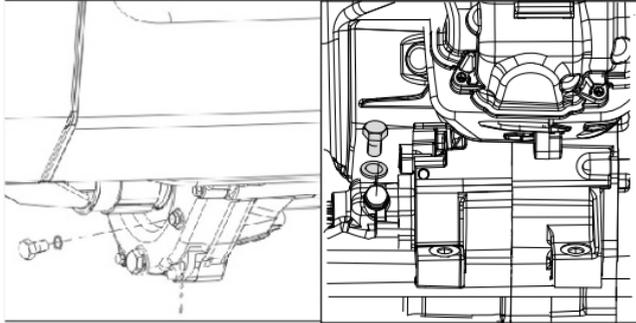
Transmission Oil level can be measured by means of dip stick provided on the cover crank case as shown in the fig.

- Park the vehicle on level ground
- Allow 5 to 10 min for the oil to settle down.
- Remove the dip stick from its location.
- Wipe it clean with dry cotton waste.
- Re-insert the dip stick
- Again take out the dipstick to note the oil level, it should be in-between the 'Min & Max' level or up to 'Max' level.
- In case the oil level is below the 'MIN' level mark top it up to 'Max' level.
- Insert and tighten the dip stick completely.

### Differential Oil level checking and topping up

- Differential oil level can be checked with the help of oil level checking bolt provided on cover differential.
- Park the vehicle on the level ground.
- Allow 5 to 10 min. for the oil to settle down.
- Unscrew the oil level check bolt using 10mm spanner
- The oil level is correct, if oil just starts flowing out when the plug is removed.
- If not, oil level is less, top up with recommended oil till the oil starts flowing out.

- To top up oil loosen filler bolt using 17mm spanner.
- Fill recommended oil and tighten filler bolt with washer.
- Tighten the level plug with washer with out fail.

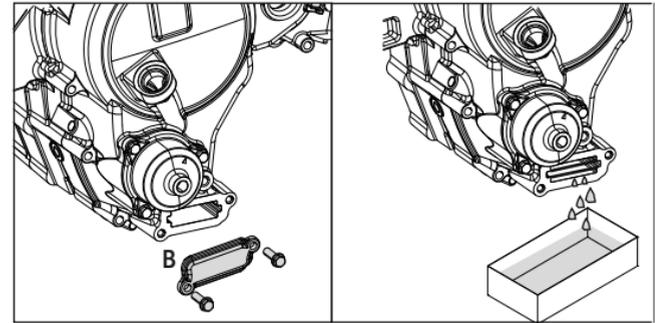


Differential oil level checking and topping up

Tool name	Tool size
Ring spanner, Socket spanner	10mm, 17mm

### Engine Oil Replacement

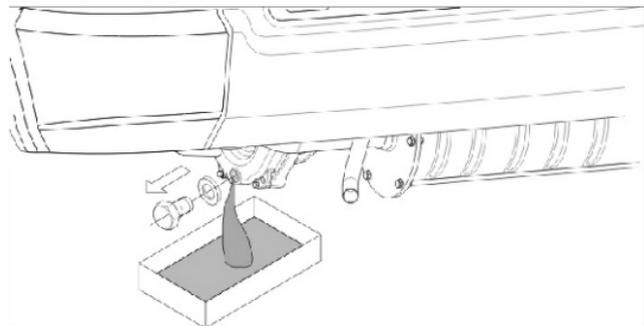
- Run the Engine for a few minutes to warm up the oil
- Park the vehicle on level ground
- Allow some time for the oil to settle down.



### Engine Oil Replacement

- Place a oil pan under the drain plug and un-screw hex. flange nuts (2nos.) and take out the cover oil strainer(B)
- Refit drain plug along with plain washer and tighten it.
- Remove the dip stick and pour the correct quantity of recommended oil.
- Check the oil level.
- Insert and tighten the dip stick completely.
- Replace engine oil at every 5000 kms.

Tool name	Tool size
Ring spanner	10 mm



### Differential Oil Replacement

#### Differential Oil Replacement

- Run the Engine for a few minutes to warm up the oil
- Park the vehicle on level ground
- Allow some time for the oil to settle down.
- Place a pan under the drain plug and remove the oil drain plug with plain washer. Drain the oil completely.
- Refit drain plug along with plain washer and tighten it.
- Loosen and take out the filler bolt and fill correct quantity of recommended oil
- Tighten filler bolt. Check oil level
- Replace differential oil at every 5000 km

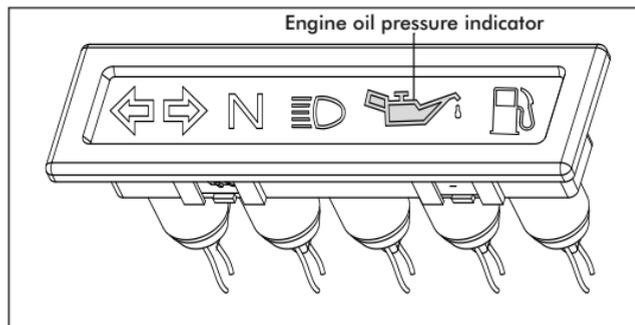
Tool name	Tool size
Ring spanner, Tubular spanner	17mm

### CAUTION

- Always use recommended transmission and differential oil.
- Two different grade and brand of oil should not be mixed.

### Low Engine Oil Pressure Indicator

- It is located on cluster assembly tell tale lamp as shown in the figure.
- This indicator must glow in Ignition switch ON and before starting the engine.



Engine Oil Pressure Indicator

- It must switch off as soon as acceleration is given i.e., engine rpm increases, or else bring the vehicle to authorised dealer or service centre

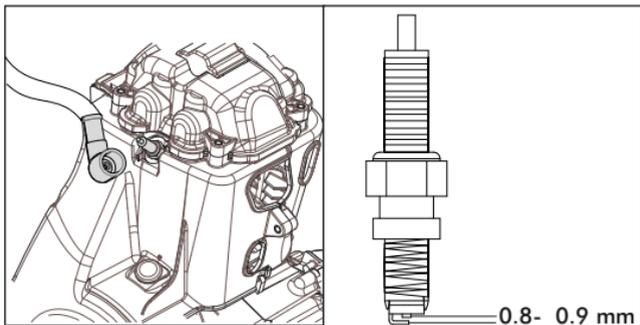
**CAUTION**

Do not run the vehicle if the low engine oil pressure indicator continues to glow while driving

**SPARK PLUG**

**Cleaning the spark plug**

- Pull out the suppressor cap from the spark plug.
- Remove the spark plug by using plug spanner provided in the tool kit.



Spark plug cleaning

- Clean carbon from the electrodes and around the base with the help of spark plug cleaner.
- Adjust the gap to the specified limit if incorrect
- Spark plug should be replaced at every 10000km.

Tool name	16 mm plug spanner	
Spark plug Gap	:	0.8- 0.9 mm
Spark plug Type	:	Bosch UR 6 DE
Spark plug cap	:	Resistive

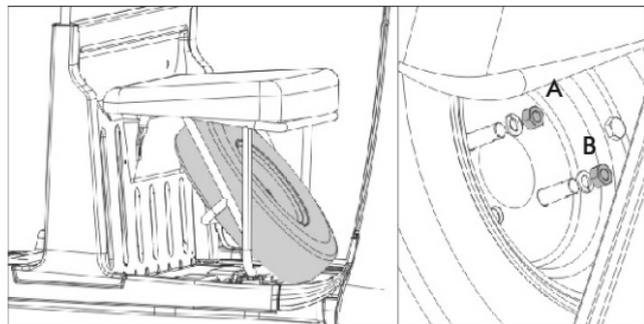
**CAUTION**

To adjust spark plug gap or replacement approach our Dealer or Authorized service center.  
 Plug the spark plug hole when the spark plug is removed to avoid entry of foreign particles inside cylinder  
 Always use recommended make and type of spark plug.

**Changing tyres and wheels**

**1. Spare wheel removal**

- Spare wheel is fitted on the frame driver seat assembly.
- Loosen the spare wheel mounting nuts along with spring washer using 17 mm tubular spanner. (2nos.) (A, B)
  - Take out the spare wheel.



**Spare wheel removal**

**NOTE**

While mounting the spare wheel on the frame driver seat always make sure that air filler valve is facing down wards.

**Tyre and wheel changing procedure.**

**Removal**

- Apply parking brake
- Loosen the wheel retaining nuts diagonally. (4 nos.)
- Place the jack as shown in the fig. (For removing front wheel B. rear wheel A.)
- Lift up the vehicle until the wheel clears the ground.
- Remove the retaining nuts and take out the wheel.



Jack position rear - A

Jack position front - B

**Assembly**

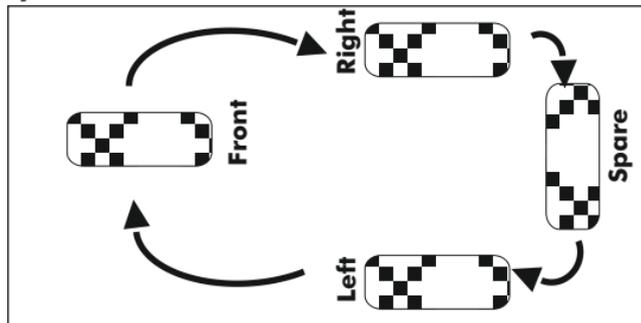
- While assembling the spare wheel tighten the wheel nuts diagonally.
- Lower the vehicle slowly to the ground then tighten the nuts fully to the recommended torque.

Tool name	Tool size
Ring spanner, Socket spanner	17mm

**Tyre pressure**

	Un-laden	Laden
Front	30 psi	30 psi
Rear	30 psi	34 psi

### Tyre rotation



### Tyre rotation

Rotation of tyre is recommended for uniform tread wear on all the wheel positions to achieve optimum tyre life.

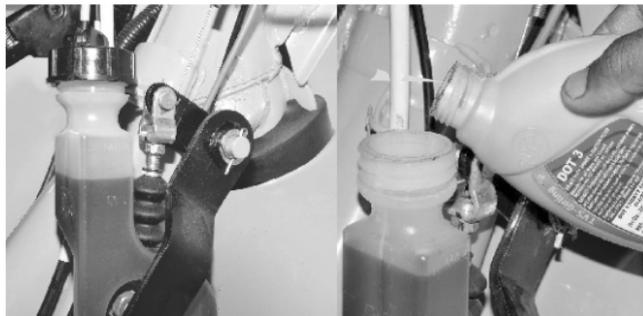
So it is advised that rotation of tyres be carried out after every 5000 kms.

#### CAUTION

The best tyres should always be fixed at the rear wheels which are driving wheels, thereafter follow the sequence of rotation as shown in the fig.

It is recommended to replace the tyre when the tyre wears off to the Tyre Wear Indicator level (indicated by TWI on the tyre)

### BRAKES



### Brake fluid level checking & topping up

#### Brake fluid level checking.

Brake oil level can be checked on the brake fluid tank fitted on the left side under the dash board in the driver cabin.

The level should be in-between the 'Max & Min' level.

If it is below the 'Min' level top up using recommended brake fluid up to 'Max' level.

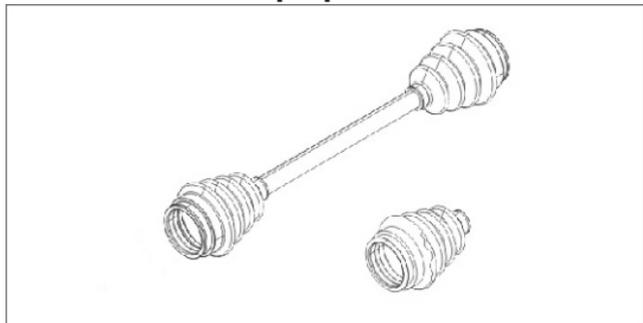
#### WARNING

In the case of changing brake fluid it is recommended to approach our Dealer or Authorized Service centers.

Avoid dust entry to the fluid reservoir while topping up.

Bellows should be kept in good condition and replace.

## Rubber bellows for propeller shaft



### Rubber bellows

Bellows should be kept in good condition and replaced immediately if torn or cracked by approaching our Dealer or Authorized service centers.

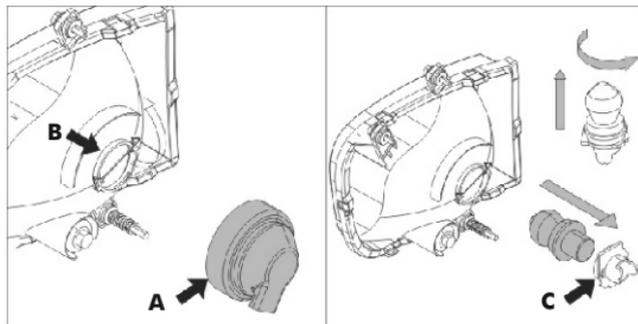
Torn or cracked bellows allow dust and water into the propeller shaft flanges which will cause damage to flange, slider block and pins. Inspect the bellows regularly.

### ELECTRICAL

#### Head lamp bulb removal

To replace bulb

- Remove the rubber boot ( A ) from reflector housing which is located under the dash board
- Un-lock the clip ( B ) to take out the bulb holder assembly.



#### Head lamp bulb removal

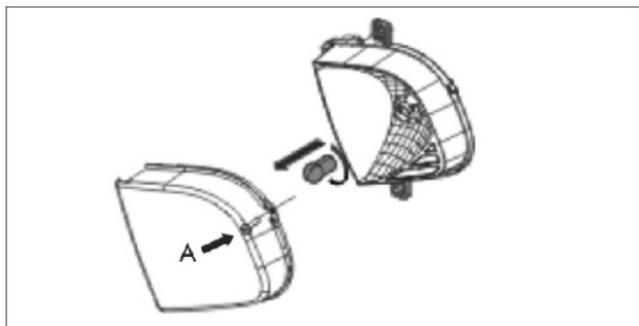
- Push the bulb in and turn it in anti-clockwise direction to remove the bulb from holder ( C ).
- Push the new bulb in and turn it in clockwise direction to fit new bulb.
- Insert holder into reflector housing and lock the holder clip. Reinsert rubber boot.

#### Tail/brake/ rear turn signal lamp bulb

- Loosen and remove screws holding the lens.
- Remove lens. Push in and twist in anti clockwise direction to remove bulb.
- Replace bulb and assemble back in reverse order of disassembly.

### Front turn signal bulb replacement

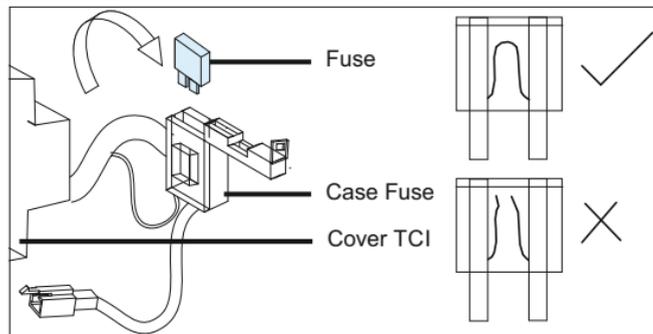
- Loosen and remove screws (1 nos.) (A) holding the lens.
- Remove lens. Push the bulb in and twist in anti clockwise direction to remove bulb.
- Replace bulb and assemble back in reverse order of removal.



Bulb removal

### Battery fuse replacement

The fuse case fitted on the cover TCI unit contains a 15 A fuse. If the fuse is blown off, turn the ignition switch to OFF position. Open the fuse case, take out the fuse from copper fuse holder and replace it with spare fuse provided. Show fig.



### Battery fuse removal

#### NOTE

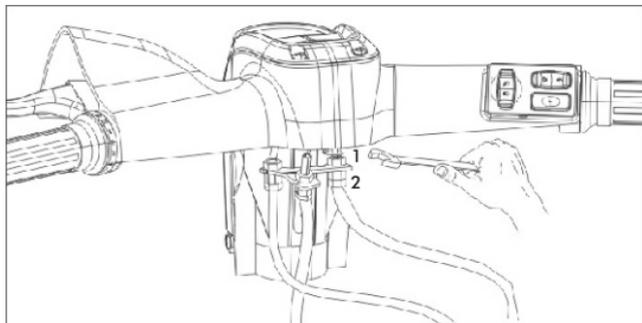
Battery provided with your vehicle is a maintenance - free battery. Do not top up with distilled water.

### Throttle cable adjustment

Throttle cable free play can be measured by holding the adjuster and pulling the cable gently out. The gap between the adjuster and cable outer is the free play.

To adjust the throttle cable free play

- Loosen the lock nut 1 holding adjuster
- Adjust the cable slack by turning the adjuster 2 in or out to obtain the recommended free play.



### Throttle cable adjustments

- After adjusting the free play, holding the adjuster, tighten the lock nut.

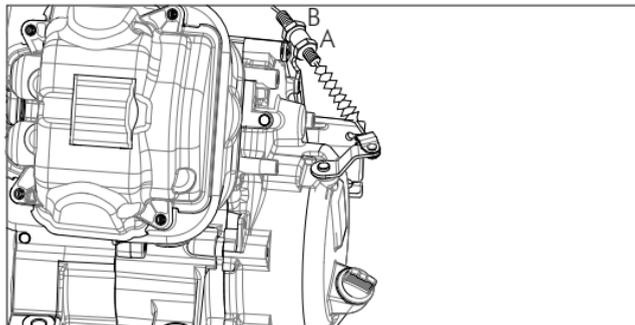
Throttle cable free play : 1 - 2 mm

Tool name	Tool size
Double end spanner	10 mm (2)nos.

### Clutch cable adjustment

Clutch free play is measured at the clutch lever end.

- Loosen lock nut ( A ).
- Adjust the play adjuster nut ( B ) in or out to get the specified play at the lever end.



### Clutch cable adjustment

- After adjusting the play holding the adjuster nut lock the lock nut.

Clutch free play: 10 - 20 mm

Tool name	Tool size
Double end spanner	10 mm, 12mm

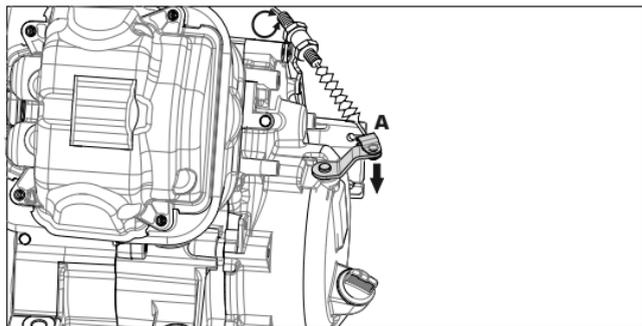
### CAUTION

Too much or too less clutch free play will damage the clutch plates affecting the performance of the vehicle. Clutch play should be adjusted only when the engine is cold.

## Clutch cable inner replacement

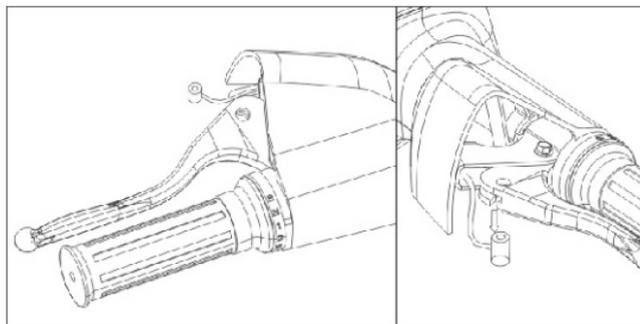
### Removal

- Loosen the stopper nut at rear
- Remove cable from release lever (A)
- Take out the cable from stopper
- Disconnect cable from lever end
- Pull out cable inner from lever end



Clutch cable assembly at engine end

Tool name	Tool size
Double end spanner	10 mm, 12mm



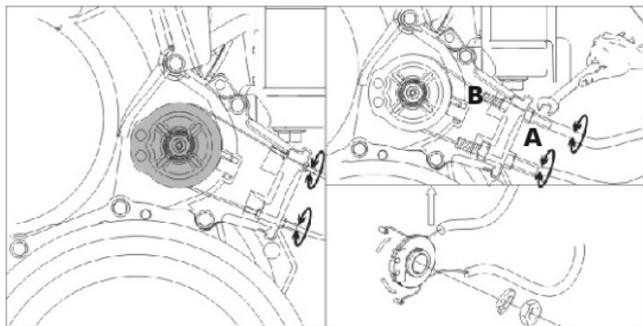
Clutch cable assembly at pulley end

### Assembly

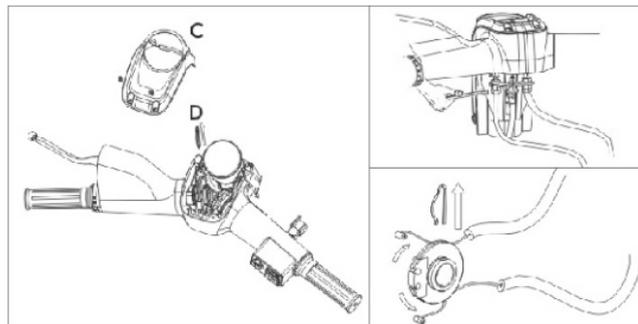
- Connect cable to clutch lever
- Insert cable inner through cable outer
- Connect adjuster to stopper clutch cable at engine end
- Pull out clutch inner through clutch release lever and pinch bolt
- Tighten pinch bolt
- To adjust free play, loosen pinch bolt pull cable in or out and tighten pinch bolt.

**Gear cable inner replacement****Removal**

- Loosen lock nut and adjuster nut near pulley at engine end
- Remove cover handle bar (C) by loosening two screws
- Remove the lock clip (D)
- Remove the handle bar sleeve and take out pulley gear shift.
- Pull out cable inner gear shift
- Loosen pulley gear shift nut at engine end and take the pulley out



Gear cable assembly at engine end.



Gear cable assembly at engine end.

**Assembly**

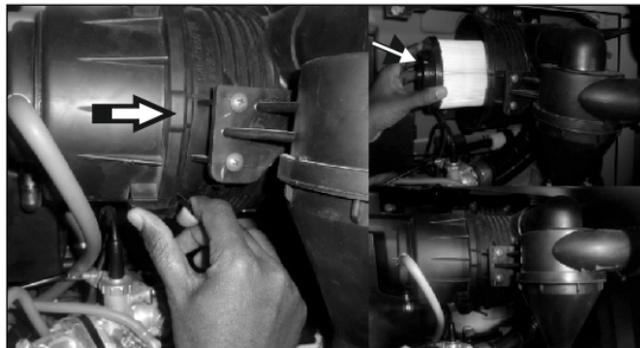
- Connect gear cable inner to pulley gear shifter at handle bar end.
- Insert cable inner through cable outer and adjuster
- Take out adjuster gearshift cable from stopper
- Loosen pulley nut and take out pulley
- Pull out cable inner and connect to pulley at engine end through pinch bolts
- Apply oil on inner and route it through outer and holes provided in the pulley gear shifter and tighten pinch bolts.

- Connect adjuster to stopper gear cable at engine end.
- Connect the pulley to shaft gear shifter and tighten nut.
- Connect pulley to handle bar end and insert sleeve in to handle bar
- Lock the pulley with clip
- Adjust cable free play by loosening lock nut and turning adjuster nut in or out.
- Refit cover handle bar and tighten screws.

### Air filter cleaning

#### Removal

- Open the rear tail door.
- Clean the Outer Surface of the air filter thoroughly.
- Loosen the three lock clip provided o the cover air filter, and take out the cover air filter.
- Take out the paper filter cartridge.
- Blow the compressed air from inside out of the filter element to free the filter from dust particle.
- Replace the Paper filter element every 40000 kms. or found damaged for better performance of the vehicle and engine life.

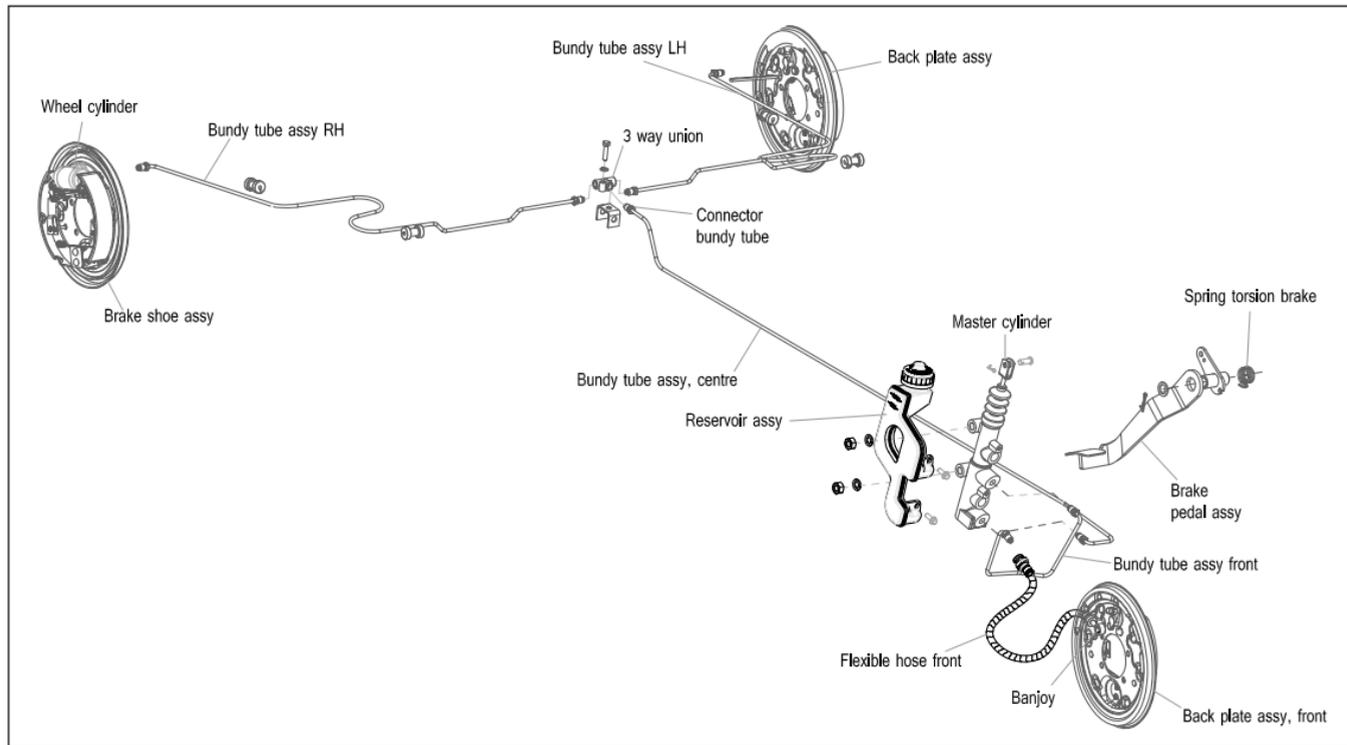


- Clean the cover air filter and case air filter.
- Re-assemble the air filter element in the reverse order of removal.

Cleaning the Paper filter element	Every 5000 kms
Replacement of Paper filter element	Every 40000 kms

#### **CAUTION**

While assembling the cover air filter locate the groove of cover air filter properly



**SERVICE RECORD SHEET**

Sl.no	Description	Odometer reading	Job card number / date	Servicing dealers stamp & sign
1.	1st service			
2.	2 nd service			
3.	3 rd service			
4.	4 th service			
5.	5 th service			
6.	6 th service			
7.	7 th service			
8	8 th service			
9.	9 th service			
10.	10 th service			
11.	11 th service			
12.	12 th service			
13.	13 th service			
14.	14 th service			
15.	15 th service			
16.	16 th service			

## BASIC TROUBLE SHOOTING.....

### ENGINE DOES NOT START

#### STEP REASON

- |   |  |
|---|--|
| 1 | No fuel flow to carburetor             |
| 2 | No fuel flow from carburetor to engine |
| 3 | Ignition system                        |

#### CAUSE

No fuel in fuel tank  
Clogged fuel filter/fuel cock

No current flow to spark plug

Dirty/excess gap spark plug  
Defective spark plug  
Defective ignition coil  
Defective TCI unit  
Defective battery/magneto/pulsar coil  
Defective ignition switch

#### COUNTER MEASURE

Fill fuel  
Clean (refer note)  
Blocked jets Clean the carburetor (refer note)  
Make sure the ignition switch is ON' position and the suppressor cap is connected.  
If problem persists try spark test:  
1.Remove the spark plug from the engine and connect the suppressor cap.  
2.Touch the side electrode of the spark plug to the engine (do not touch the metallic part of the spark plug as this may cause shock)  
3.Look for blue sparking between electrodes by hand starting or by electric start  
If no sparking  
Inspect for loose contacts at wire terminals.  
Clean and adjust gap (Refer page no. 30) .  
Replace  
Replace (Refer note) - Page No.65  
Replace (refer note) - Page No.65  
Replace (Refer note) - Page No.65  
Replace (Refer note) - Page No.65

**POOR PICK – UP**

STEP	REASON	POSSIBLE CAUSE	COUNTER MEASURE
1	No free movement of wheel	Brake binding Low tyre pressure High friction in between flange & slider block	Adjust brakes Inflate to specification (refer page no.31) Lubricate with grease (refer page no.33)
2	Clutch slippage	Incorrect free play Clutch plates worn out	Adjust free play Replace (Refer note) - Page No.65
3	Improper power transfer to wheel	Slider block and flange worn out	Replace (Refer note) - Page No.65
4	Improper ignition		Refer step no. 3 of (Engine does not start) - Page No.63

**EXCESSIVE FUEL CONSUMPTION**

STEP	REASON	POSSIBLE CAUSE	COUNTER MEASURE
1	Fuel leakage	Leakage from fuel tank, hose and joints	Correct leakage (Refer note) - Page No.65
2	Air cleaner choked	Filter elements clogged with dust	Clean the air cleaner foam element (Refer page no.38)
3	Spark plug	Dirty / excess spark plug	Clean and adjust gap
4	Tyre	Low tyre pressure	Inflate to specification (refer page no.31)
5	Faulty engine	Faulty carburettor, poor compression	Repair engine (refer note) - Page No.65

**ELECTRICAL SYSTEM**

STEP	REASON	POSSIBLE CAUSE	COUNTER MEASURE
1	Horn not working	Fuse blown Battery discharged Defective horn Horn switch contact points worn out Wiring cut/disconnected	Replace (refer page no.34) Recharge (refer note) - Page No.65 Replace (refer note) - Page No.65 Correct / Replace (refer note) - Page No.65 Replace/connect (refer note) - Page No.65

STEP	REASON	POSSIBLE CAUSE	COUNTER MEASURE
2	No light	Bulb fused Loose terminals Defective lighting coil Defective regulator	Replace (refer page no.33) Correct (refer note) Replace (refer note) Replace (refer note)
3	Wiper motor not working	Wiring cut/ disconnected Battery discharged Defective wiper motor	Correct/Replace (refer note) Charge (refer note) Replace (refer note)

**OTHERS**

STEP	REASON	POSSIBLE CAUSE	COUNTER MEASURE
1	Poor braking	Shoe wear Air lock Brake fluid leakage	Replace (refer note) Bleed hydraulic line (refer note) Check brake fluid level / Replace bundy tube (refer note)

**NOTE**

Contact Authorised TVS Motor Company Dealer / Authorized service centre to carry out these jobs.

## PERIODIC MAINTENANCE SCHEDULE

S.no	Sub activity	Activities	750	5000	10000	15000	20000	25000	30000	35000	40000	45000	50000	
1	Check & Top up	Engine oil	Check and top up every 1000 kms											
2		Differential Oil.	•	•		•		•		•		•		
3		Brake fluid in brake fluid reservoir	•	•	•	•	•	•	•	•	•	•	•	
4	Check & Adjust	Engine foundation bolt	•		•		•		•		•		•	
5		Exhaust pipe, silencer mounting fasteners	•	•	•	•	•	•	•	•	•	•	•	
6		Wheel nuts & brakes for effective working	•	•	•	•	•	•	•	•	•	•	•	
7		Valve tappet clearance			•		•		•		•		•	
8		Oil circulation at cylinder over head camshaft	•	•	•	•	•	•	•	•	•	•	•	
9		Carburetor - idle speed, CO%, HC	Only In case of complaint											
10		Control cables free play and adjust If required.	•	•	•	•	•	•	•	•	•	•	•	•
11		Tyre pressure	Once in a week / Every 1000 kms											
12	Clean & adjust	Spark plug	•	•		•		•		•			•	
13		Decarbonize cylinder head and piston								•				
14	Replace	Engine Oil	•	•	•	•	•	•	•	•	•	•	•	
15		Differential oil			•		•		•		•		•	

## PERIODIC MAINTENANCE SCHEDULE

Sl.No	Sub activity	Activities	750	5000	10000	15000	20000	25000	30000	35000	40000	45000	50000	
16	Replace	Spark plug			•		•		•		•		•	
17		Oil Pump drive Chain and Guide Chain									•			
18		Brake Fluid												•
19	Clean	Vehicle	•	•	•	•	•	•	•	•	•	•	•	
20		Air filter element	•	•	•	•	•	•	•	•	•	•	•	
21		Carburetor	Only In case of complaint											
22		Petrol tank.	Only In case of complaint											
23		Oil strainer ( Replace if damaged )	•	•	•	•	•	•	•	•	•	•	•	•
24		Inspect	Compression pressure			•		•		•		•		•
25	Assembly Chain Tensioner		Only In case of complaint											
26	Electrical	Check all lights, horn & switches functioning	•	•	•	•	•	•	•	•	•	•	•	
27		Battery Voltage, Charge if Required apply Pet. Jelly	•	•	•	•	•	•	•	•	•	•	•	
28	Greasing	Steering races & balls			•		•		•		•		•	
29		Speedo gear & pinion	•		•		•		•		•		•	
30		Muff cup ( Flange)			•		•		•		•		•	
31		Brake lever fulcrum point		•	•	•	•	•	•	•	•	•	•	
32		Hand starter front & rear shaft			•		•		•		•		•	

## PERIODIC MAINTENANCE SCHEDULE

Sl.No	Sub activity	Activities	750	5000	10000	15000	20000	25000	30000	35000	40000	45000	50000
33	Others	Tyre rotation		•	•	•	•	•	•	•	•	•	•
34		SAI Filter Clean / Replace									•		

## RECOMMENDED LUBRICANTS

Product	Recommended grade	Brand	Quantity.
Engine oil	SAE 20W50 API-SL, JASO MA2	TVS TRU4 DURALIFE oil	1750 ml
Differential	SAE 20W50 API-SL, JASO MA2	TVS TRU4 DURALIFE oil	250 ml
Brake fluid	DOT 3 / DOT 4	TVS Girling	250ml
Grease (Muff cup)	IPOL IPLEX RR3	IPOL	120g
Grease (Steering)	BECHEM PREMIUM III	BECHEM	30g