

Dear friend,

Thank you for choosing the all new **TVS HLX150F**.

As a proud owner of **TVS HLX150F**, you are now a part of a family of millions of satisfied TVS customers.

Your **TVS HLX150F** comes with all new urban designer styling which makes it much more chiseled, muscular and exudes definitive road presence that signals your arrival in Style, because great Style never goes out of Style!

The all new styling, coupled with never before features and an all new advanced 150cc engine makes your **TVS HLX150F** stand out and gives it a definitive edge.

This manual explains the features and operations of your **TVS HLX150F**. Please read it carefully and follow the instructions to enjoy years of safe riding.

To ensure reliable performance, we urge you to get your **TVS HLX150F** serviced only at TVS Motor Company Authorised Distributor or Dealer / Authorised Service Centers at specified regular intervals.

Happy Riding!

TVS MOTOR COMPANY LIMITED









This manual should be considered as a permanent part of the motorcycle and should remain with the motorcycle.

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.

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 **NOTE**

Accessories shown in the picture may not be part of the standard equipment Pictures shown in this manual are of TVS HLX150F with LED Head lamp version.

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Operating this vehicle safely is an important responsibility of the rider. To help you make decisions about safety, we have provided operating procedure and other information in this manual. This information alerts you on potential hazards that could hurt you or others. Since it is not possible to warn you about all hazards associated with operating or maintaining the vehicle, you must use your own judgement.

You will find important safety information in the following form in this manual. These words carry the following connotations:

 **WARNING**

Disregarding this message might result in injury to the rider.

 **CAUTION**

This message indicates special procedures or precautions to be followed to avoid damage to the vehicle.

 **NOTE**

This message provides further clarification for clear understanding of any particular information.

The first 1000 km is a crucial part of your motorcycle. Proper running-in operation during this period helps in ensuring a maximum life and smooth performance of your motorcycle.

The reliability and performance of your motorcycle depends on the special care and restraint exercised during the running-in period. It is especially important that you avoid operating the engine in high speed (RPM), which could expose the engine parts to excessive stress. Maximum recommended speed during the running-in is:

Maximum 50 kmph speed upto 1000 km (vary the engine speed for better mating of parts).

The first service at 500 ~ 750 km is most important. During running-in period all the engine components and other parts will have set in. All adjustments to be restored, all fasteners to be tightened. Engine cum transmission oil to be replaced. Timely performance of the first service will ensure optimum service life and performance from the engine.

CAUTION

Replacing the engine cum transmission oil during first service is most important for better life of engine. Always use TVS TRU4 PREMIUM oil (SAE 10W30 SL-JASO MA2) for better performance and life.

SAFE RIDING RECOMMENDATIONS

Any two wheeler riding requires some precautions to be taken to ensure the safety of the rider, pillion and other road users. These precautions are:

Familiarise yourself with new TVS HLX150F

Riding skill and your mechanical knowledge form the foundation of safe riding practices. We suggest you to practice riding **TVS HLX150F** in a low-traffic condition until you are thoroughly familiar with your vehicle and its controls. Remember practice makes you perfect.

Riding apparel

Loose, fancy clothing can be uncomfortable and unsafe when riding a two-wheeler. Choose good quality two wheeler riding apparel.

Know your limits

Ride within the boundaries of your own skill limits at all times. Knowing these limits and staying within them will help you avoid accidents.

⚠ WARNING

Always wear an ISI approved helmet that should fit your head comfortably and securely. You should also have good quality goggles to protect your eyes and help your vision.

To prevent or minimize accident, never consume alcohol or drugs before or during the operation of your vehicle. Even minimal consumption of these will affect the rider's ability to control the vehicle.

Posture

Proper vehicle riding starts with proper posture.

1. Sit erect on the seat at the position which you feel most comfortable.
2. Keep your arms relaxed to give extra cushion for body on uneven road surfaces.
3. Keep right arm and foot close to the brake lever and pedal, so as to enable fast action during panic braking.
4. Look widely instead of gazing at one point.
5. Alter your sitting location/posture slightly at intervals during long rides. This will reduce fatigue.

Cornering

When cornering, centrifugal force works in a direction perpendicular to the direction in which the vehicle is moving. Centrifugal force increases in proportion with speed and the radius of the corner. During cornering, reduce speed so as to lessen the effects of centrifugal force. By all means, avoid abrupt application of brake or sudden steering.

WARNING

One-hand riding is dangerous. Keep both hands firmly on the handle bar and both feet securely on the foot rest. Under no circumstances should both the hands be removed from the handle bar, as it is very dangerous.

Avoid use of mobile phones while riding as it could lead to fatal accident.

Do not downshift the gear in the midst of cornering. Slow down to a safe speed before negotiating a corner. If this is the first time that you are riding a vehicle of this type, we suggest that you practice on a safe, open area to become thoroughly familiar with the operation of the vehicle.

Braking

For safe riding, it is very important to master the braking techniques.

1. Close / release the throttle.
2. Hold the vehicle upright as you apply the brake.
3. Progressive application of brakes is safer.
4. Never depress the clutch lever while braking at higher speeds.
5. Apply both the brakes.
6. Riding down hills and while cornering, close throttle and down shift the gear to take advantage of gearbox and engine which acts as an additional brake. This will avoid the loss of control over the vehicle due to over speed.

Causes for poor braking

1. If the brake shoes or drum are worn out or if there is water or oil on them, sufficient friction does not develop and brakes do not work well.

2. Even when the brake works normally, if the road surface is wet or the tyre surface is worn-out, tyres do not take a firm hold on the surface, prolonging the stopping distance.
3. Approximately 60% braking effect is from front brake. Non-usage of front brake causes poor braking.

WARNING

As the vehicle speed increases, the stopping distance also increases progressively. Be sure that, you have sufficient distance between you and the vehicle or obstruction ahead of you.

Using only the front or rear brake is dangerous and can cause skidding and loss of control. Apply both the brakes together and with great care on a wet road or other slippery surfaces. Any abrupt braking on slippery or irregular roads can cause loss of rider control.

ACCESSORY INSTALLATION AND SAFETY TIPS

Use extreme caution while selecting and installing the accessories for your TVS HLX 150F.

The addition of unsuitable accessories can lead to unsafe operating conditions. Your friendly distributor or dealer will assist you in selecting quality accessories and installing them correctly.

While selecting the accessories, make sure the accessories should not obstruct lighting, steerability and suspension level.

Additional electrical equipments and controls should not exceed the specified electrical system load of the vehicle.

EMISSION CONTROL

All the TVS motorcycles are tested in the factory for optimum fuel efficiency and lowest possible CO levels. Kindly do not disturb the Carburettor settings as this may lead to higher fuel consumption and also higher CO levels.

If the vehicle needs any adjustments, please consult nearest TVS Motor Company Authorised Distributor or Dealer / Authorised Service Centre.

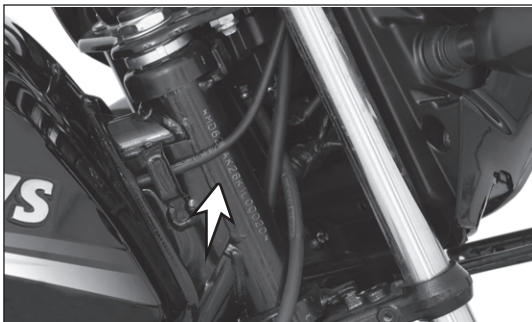
While adequate care is exercised at the factory to ensure that the emissions are within the limits, it is essential for the owner to always maintain TVS HLX 150F motorcycle in good condition by getting it periodically serviced and checked by TVS Motor Company Authorised Distributor or Dealer / Authorised Service Centre so that the emission and fuel consumption levels are maintained as per norms.

 **NOTE**

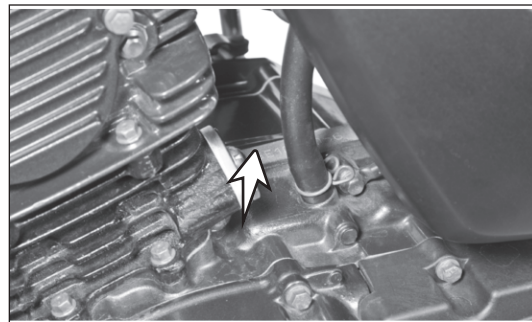
Get your vehicle certified by the Government authorised emission testing stations at specified intervals.

VEHICLE IDENTIFICATION NUMBER

Serial numbers of both frame and engine are required for vehicle identification. They are also required to assist you Distributor / Dealer for ordering parts or referring to special information.



The frame serial number is stamped on the left side of the steering head tube.



Engine serial number is stamped on the top surface of left side crankcase assembly near cylinder block.

Frame number

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Engine number

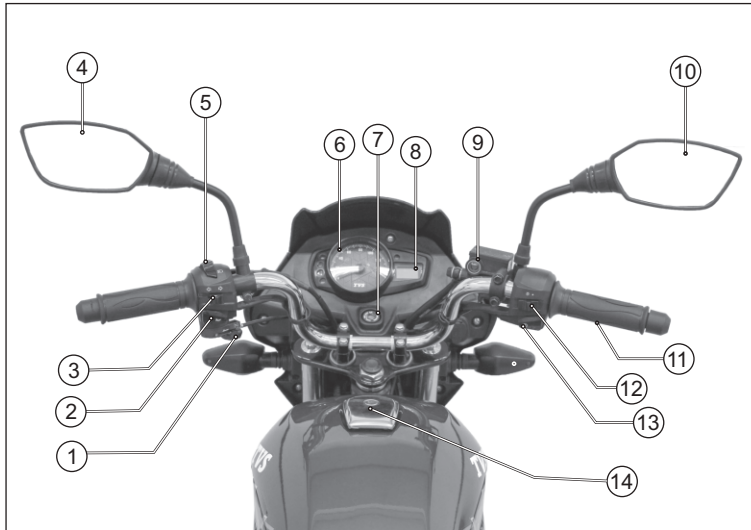
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Control key number

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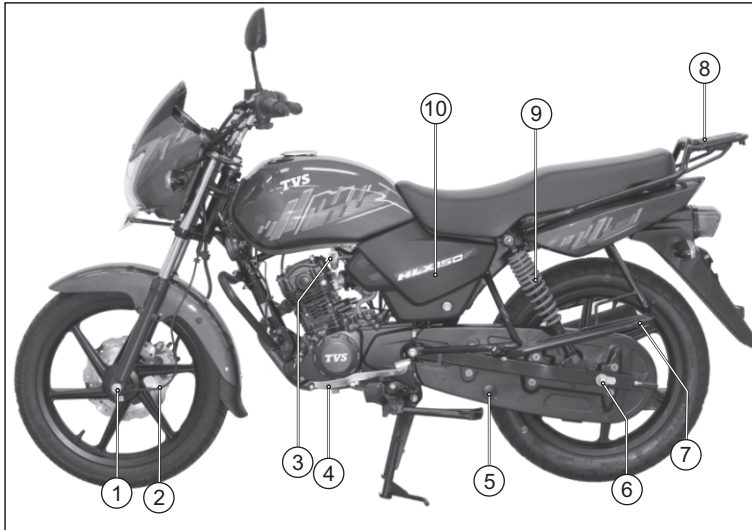
Please fill the above boxes now for future reference

LOCATION OF PARTS - HANDLE BAR



1. Choke lever
2. Horn switch
3. Turn signal lamp switch
4. Rear view mirror L
5. High / low beam switch
6. Speedometer
7. Ignition cum steering lock
8. Fuel gauge / ODO meter
9. Master cylinder front
10. Rear view mirror R
11. Throttle grip
12. Head lamp switch
13. Electric starter switch
14. Fuel tank cap

LOCATION OF PARTS - VEHICLE LEFT SIDE



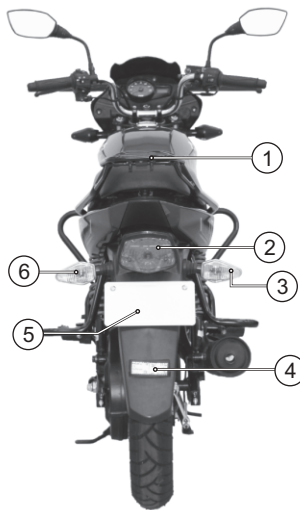
1. Front wheel axle
2. Speed sensor
3. Fuel cock
4. Gear shift lever
5. Chain inspection window
6. Rear wheel axle
7. Lady foot rest
8. Handle pillion
9. Rear shock absorber L
10. Lock cover frame L

LOCATION OF PARTS - VEHICLE RIGHT SIDE



1. Disc plate front
2. Front wheel axle nut
3. Caliper assembly front
4. Spark plug
5. Gauge oil level
6. Rear brake pedal
7. Rider foot rest R
8. Rear shock absorber R
9. Rear brake adjuster
10. Muffler assembly
11. Kick starter lever

LOCATION OF PARTS - VEHICLE FRONT AND REAR



FRONT

1. Turn signal lamp front L
2. Head lamp assembly
3. License plate front
4. Turn signal lamp front R

REAR

1. Pillion handle
2. Tail lamp assembly
3. Turn signal lamp rear R
4. Reflex reflector
5. License plate rear
6. Turn signal lamp rear L

CONTROL KEY

TVS HLX 150F comes with pair of identical control keys. These keys are to operate ignition cum steering lock, fuel tank cap and seat lock.

IGNITION CUM STEERING LOCK

There are three positions in the ignition cum steering lock. They are:

1. 'OFF' position

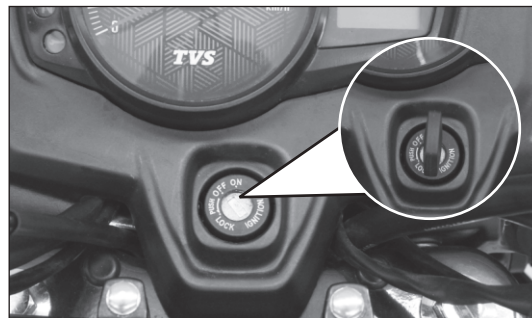
All the electrical circuits are turned 'OFF' in this position. Engine will not start. Key can be taken out.

2. 'ON' position

In this position, all the electrical circuits are turned 'ON' and the engine can be started now. Key cannot be removed in this position.

3. 'LOCK' position

TVS HLX 150F steering can be locked in both 'left' and 'right' directions. To lock the steering, turn the handle bar all the way to the 'left' or 'right'. Push the key in and turn it to the 'LOCK' position and take out. All the electrical circuits are turned 'OFF' in this position.



Insert the key into the lock and turn it to 'OFF' or 'ON' Position to unlock the steering.

WARNING

Never attempt to move the vehicle when the steering is locked, you may lose balance.

CAUTION

Leaving the ignition cum steering lock in 'ON' position will drain battery when the vehicle is not in use . So "Switch off" and take the key out when the vehicle is not in use.

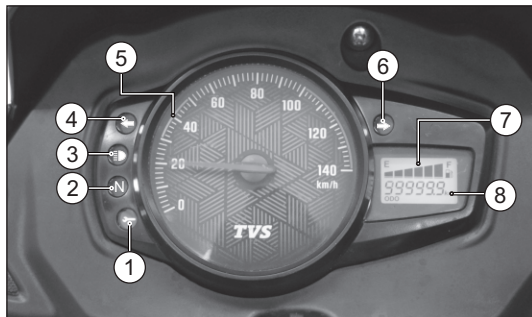
NOTE

When the ignition switch is turned 'ON' the speedometer performs self test. Wait till self test cycle of speedometer gets over.

SPEEDOMETER ASSEMBLY

1. Service reminder ()

If the vehicle is due for service, whenever the ignition switch is turned 'ON', an icon with spanner symbol blinks for 10 seconds after the self test cycle of speedometer and continues to glow till the vehicle is serviced and reset.



Get the vehicle serviced at TVS Motor Company Authorised Distributor or Dealer / Authorised Service Centers.

2. Neutral indicator lamp (N)

Glowes when the vehicle is in neutral and goes 'OFF' if the gear is shifted from neutral.

3. High beam indicator lamp ()

Glowes when the head lamp high beam is activated.

4. Turn signal indicator lamp left ()

Flashes when the left side turn signal indication is activated.

5. Speedometer

Indicates the vehicle speed in kilometers per hour.

6. Turn signal indicator lamp right ()

Flashes when the right side turn signal indication is activated.

NOTE

Service reminder indicator lamp works only based on the distance (km) covered by the vehicle. This is only a reminder indicator. Customers are advised to keep track and follow the service schedule.

7. Fuel gauge

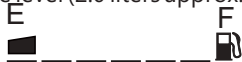
Digital bars indicates the approximate fuel quantity available in fuel tank. There are six bars to indicate the quantity of fuel available in the fuel tank.



All the six bars will be displayed when the fuel in the tank reaches above 9 liters approximately (full tank). When the fuel reaches half tank (5 liters approx.) the fuel gauge displays only four bars as shown.



The fuel gauge shows only single bar when the fuel reaches reserve level (2.0 liters approx.).



This single bar starts blinking when the fuel reaches to the level of approximately 1.0 liter. Refill the fuel immediately.

8. Odometer

Registers and displays the total distance covered by the vehicle in kilometers.

000001_{km}
ODO

HANDLE BAR LEFT SIDE

1. Choke lever

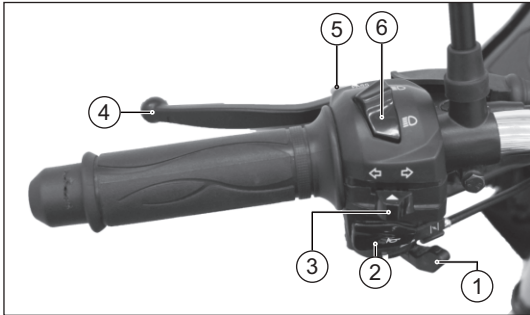
Pull the choke lever towards left to apply choke. During cold start, apply the choke and start the vehicle using electric starter or kicklever without opening / with less opening of throttle. Once the engine is started and running in stable RPM, release the choke lever and ride the vehicle.

CAUTION

Always use choke for starting the cold engine. Never open the throttle fully when the choke is applied. It may lead to flooding of engine and difficulty in starting.

2. Horn switch

Press the switch '  ' to operate the horn.



3. Turn signal lamp switch

Slide the turn signal lamp switch knob to left '←' or right side '→' to operate the respective turn signal lamps (LH/RH). Press the switch knob to turn 'OFF'.

⚠ WARNING

Always use the appropriate turn signal lamps when you intend to change lanes or take turns. Be sure to switch 'OFF' the turn signal lamps after negotiating the turns or lanes.

4. Clutch lever

Use the clutch lever to disengage the drive to the

rear wheel while shifting the gears. Pulling the lever towards grip disengages the drive.

5. Pass by switch

The pass by switch is used to flashes the head lamp both high beam and low beam by operating the switch in the condition of head lamp OFF.

When it is an head lamp ON in low beam condition while pressing the pass-by switch the only high beam tends to flash.

👁 NOTE

Pass Function Will not work if vehicle in high beam condition

6. Head lamp high / low beam switch

With the head lamp switch in 'ON' condition, press the beam control switch towards '☰' to turn-on the head lamp high beam. Press the switch towards '☷' to turn-on the head lamp low beam.

⚠ WARNING

Use appropriate head lamp beam 'high / low' as per the traffic and road conditions for your safety and to avoid inconvenience to other road users.

HANDLE BAR RIGHT SIDE

1. Front brake lever

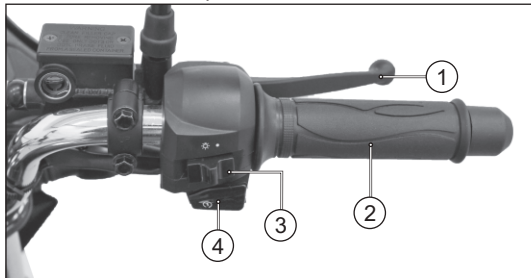
The front brake is applied by pulling the front brake lever gently towards the throttle grip. The brake lamp glows on application of front brake.

2. Throttle grip

Engine speed is controlled by the rotation of the throttle grip. Twist it towards you to increase the engine speed and away from you or release it to decrease the engine speed.

3. Head lamp switch

Head lamp switch has two positions. Working of switch at these two positions are as follows:



OFF: All the lamps are turned 'OFF' when the switch is positioned at ' ● ' even though the engine is running.

ON: Speedometer lamp, license plate lamp and tail lamp glows when the switch is positioned at ' ☀ ' with ignition 'ON' condition. Head lamp also glows along with above lamps when the engine is running.

4. Electric starter switch

Press the electric starter switch ' ⚡ ' to start the engine electrically with the transmission is in neutral or by depressing the clutch lever when the transmission is in gear.

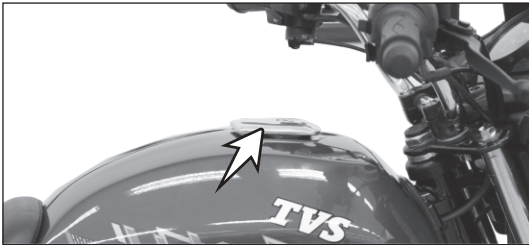
⚠ CAUTION

For cold starts, avoid using electric starter. Use kickstarter. A typical example is early morning start. This would reduce load on the battery and prevents quick drain.

FUEL TANK* CAP

To open the fuel tank cap, insert the control key into the fuel tank cap lock and turn it in clockwise direction and lift the cap.

To close, press the cap back to its original position and take out the key.



WARNING

Avoid spilling of fuel on the hot engine. Never refill fuel near open flame. Do not smoke while refueling. Do not use cell phones while refueling.

* The fuel tank is not a measuring instrument and the capacity of the fuel tank may slightly vary from the indicated capacity.

NOTE

Whenever refueling the bike, fill upto the bottom of neck portion of the fuel tank. Filling above the neck may result in improper breathing of fuel tank and seepage of fuel.

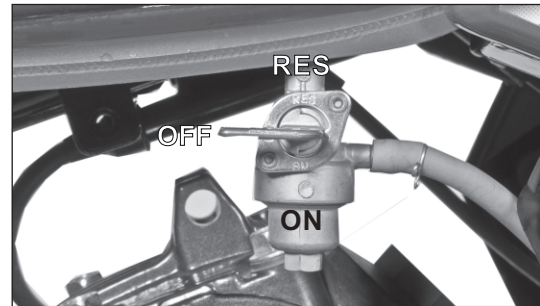
FUEL COCK

Fuel cock has the following three positions:

ON: Fuel flows in this position when the fuel is above the reserve level in the tank.

RES: Switch over the fuel cock lever to this position when the fuel stops flowing in 'ON' position.

OFF: Fuel flow cuts off from the tank to carburettor.



NOTE

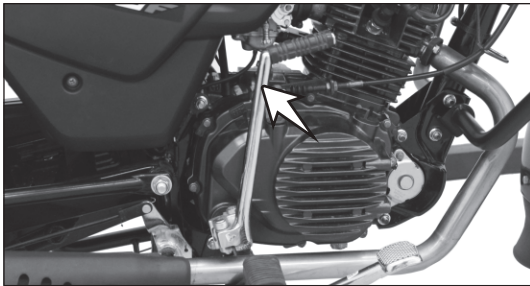
Leaving the fuel cock in 'ON' or 'RESERVE' position may cause the fuel tank to completely drain out, incase any malfunctioning of carburettor float system.

Similarly, if the fuel cock is positioned between 'ON' and 'OFF' may drain off entire fuel while riding the vehicle.

KICKSTARTER LEVER

The kickstarter lever is located on the right side of the vehicle.

To start the vehicle, turn the ignition to 'ON' and keep transmission in neutral. Keep your foot on the lever extension, kick from top and stroke to bottom with rapid motion.



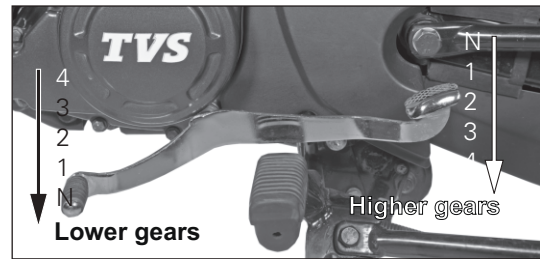
NOTE

Please note that the engine can be started with the kickstarter lever only when the vehicle is in neutral.

GEAR SHIFT LEVER

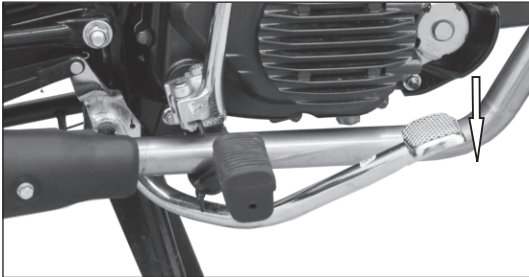
TVS HLX 150F has a heel and toe gear shift lever. To shift the gear from neutral to higher, press the rear end of gear shift lever by heel once for each gear after applying the clutch.

Similarly, to down shift to lower gears, press the front end of the lever by toe once for each gear after applying the clutch.



REAR BRAKE PEDAL

Rear brake pedal is located on the right side of the vehicle. Press the rear brake pedal with your right foot to apply the rear brake. The brake lamp glows on application of brake.

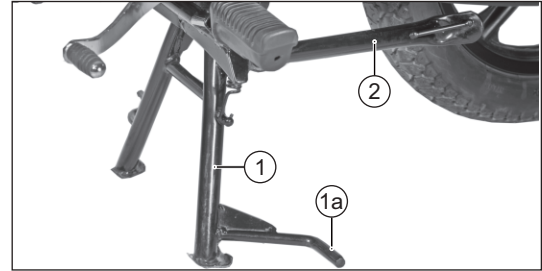


WARNING

Brakes are items of personal safety and should always be maintained in proper condition.

CENTRE STAND AND SIDE STAND

TVS HLX 150F is equipped with a centre (1) and side stand (2). To place the vehicle on the centre stand, hold the handle bar left grip with left hand and pillion handle with right hand.



Place your foot firmly on the centre stand extension (1a) and press with adequate effort. Ensure both the legs of centre stand are touching the ground before placing the vehicle on the stand.

Side stand can be operated by sitting on the vehicle with your left foot by pushing it away from the vehicle till it stops.

WARNING

Always release the side stand to its full up position before moving the vehicle.

CAUTION

Never sit on the vehicle when it is supported by side stand. Always park the vehicle on a flat, firm surface.

COVER FRAME L

TVS HLX 150F is provided with lockable cover frame on the left side. Open the cover frame to access tool kit and battery assembly.

1. Insert the key in the cover frame at lock (1) and rotate it in clockwise direction.
2. Pull out the cover frame gently at (2), slide it forward at (3) and take out.



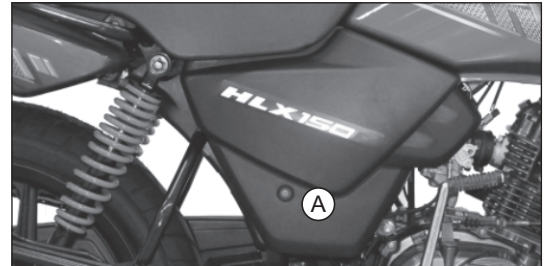
Reassembling:

1. Assemble the cover frame by carefully sliding the rear portion (3) on to the hook on the frame while ensuring the availability of rubber cushion on the hook.
2. Locate its lug (2) on the hole provided in the fuel

tank while ensuring the availability of rubber cushion on the hole, gently press and lock with the key by rotating in anti-clockwise direction.

COVER FRAME R

Cover frame R can be removed by removing the mounting screw (A). Follow the procedure of cover frame L removal and reassembly.



NOTE

While re-fixing the cover frame, ensure the availability of rubber cushion in the fuel tank hole.

TOOL KIT

To assist you in performing certain aspects of maintenance and emergency repairs, a tool kit is supplied along with the vehicle and is located below the cover frame L.

Remove the cover frame as explained earlier.

Tool kit consists one number each of the following:

1. 16 mm box spanner
2. 14x17 mm open end spanner
3. 10x12 mm open end spanner
4. Combination screw driver bit
5. Screw driver handle
6. Tool bag

NOTE

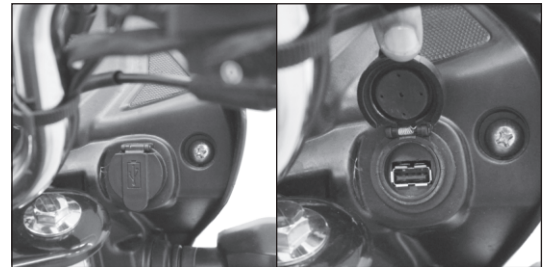
It is recommended to use the tool kit in case of any emergency only. It is always advisable to take your vehicle to TVS Motor Company Authorised Distributor or Dealer / Authorised Service Centers.

SMART PHONE CHARGER

Location for fixing a smart phone charger has been provided on the right side bottom of the housing head lamp of your vehicle. Please follow the guidelines mentioned below for using it properly:-

DO's

1. Ensure that no water enters into the unit, by closing the USB flap properly.
2. Use the USB, if approved standard USB cable used for charging mobile.
3. Do make sure the flap is not damaged while opening / inserting the USB cable.



DON'TS

1. Do not leave the USB charging flap open / partially closed.
2. Do not attempt to use / charge any other device, other than mobile phones. Only one mobile phone should be charged at a given time.
3. Do not try to force the USB connector in, check whether it is inserted in the appropriate direction, to prevent the damage to the charger.
4. Do not charge your mobile when engine is off.

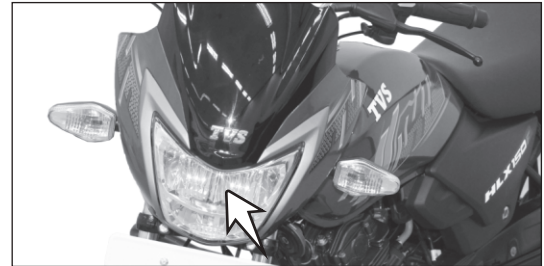
CAUTION

The charging time of the mobile may vary, depending on the mobile's battery state of charge.

The unit has been designed to prevent water entry and is not replaceable.

LED HEAD LAMP

TVS HLX 150F comes with a LED head lamp which glows once the engine is started when headlamp switch turned ON. The head lamp beam (high / low) can be controlled by pressing the 'high / low beam switch.



Inspection before riding

Check the following items before riding.

ITEM	WHAT TO CHECK FOR
Engine cum Transmission oil	Availability of oil upto the level (page no. 42)
Fuel	Enough fuel for the planned distance of running
Tyres	Correct pressure (page no. 50) Adequate tread depth / No cracks or cuts
Battery	Proper working of speedometer lamp, tail lamp, license plate lamp, brake lamp, turn signal lamps, neutral lamp and electric starter. Electrolyte level (page no. 39)
Speedometer	Performing self check
Lighting	Proper working of head lamp high beam / low beam and high beam indicator.
Steering	Smooth movement, No play or looseness
Throttle	Correct free play of cable, Smooth operation
Clutch	Correct free play of cable (page no. 43) Smooth and progressive action
Brakes	Availability of brake fluid (incase of disc brake), proper working of brake and correct brake play (page no.45).
Wheels	Free rotation

Starting the engine

Turn the fuel cock lever to the '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.

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

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 internal components.

WARNING

Do not run the engine indoors where little or no ventilation available. Exhaust gases are extremely poisonous.

SETTING THE VEHICLE IN MOTION

Depress the clutch lever and engage first gear by pressing the rear end of the gearshift lever downward by heel. Twist the throttle grip towards you and 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 by closing the throttle, pulling the clutch lever in and pressing the rear end of the gear shift lever downwards once again. Release the clutch lever and open the throttle again. Select the required gears in similar manner.

Using the transmission

The transmission is provided to keep the engine 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.
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 or Dealer / Authorised Service Centers for usage.

WARNING

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

CAUTION

Never mix oil with 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 (page no. 36 and 37). 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. Check, clean and readjust the gap periodically.

Air cleaner element

A dirty air cleaner restricts airflow, increases fuel consumption. Clean the air cleaner elements periodically.

Clutch

Increase of engine rpm during acceleration, without increasing the road speed indicates clutch slip. A slipping clutch will cause high fuel

consumption.

If the condition persists even after adjusting the clutch lever play, immediately have the clutch checked by TVS Motor Company Authorised Distributor or Dealer / 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 leaks if any from tank, carburettor and fuel lines.

Tyres

Low tyre pressure has the same adverse effect on a vehicle as of loading the vehicle heavily. The drag on the vehicle will be increased resulting decreased fuel economy.

Further more, handling may be adversely affected. Check the tyre pressure regularly and inflate it to the recommended pressure. Never use tyres, which are worn beyond the permissible limit.

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 and frequent braking will reduce the fuel economy.

NOTE

Switch 'OFF' the engine during long waits to protect environment and to reduce the fuel consumption.

MAINTENANCE SCHEDULE

The maintenance schedule indicates the intervals between periodic services. At the end of each interval, be sure to inspect, check, replace, adjust, lubricate and service as instructed. If the maintenance is not done periodically, it will result in rapid wear and severe damage to the vehicle. If the vehicle is used under high stress conditions such as continuous full throttle operation or if used / operated in dusty climate, certain jobs should be performed more often to ensure reliability of the vehicle. Cylinder head, steering components, suspension, chain and wheel components etc., are key items and require very special and careful servicing. TVS Motor Company Limited strongly recommends that the jobs as per the maintenance schedule be performed by your TVS Motor Company Authorised Distributor or Dealer / Authorised Service Centers.

Periodic inspections may reveal one or more parts that may need replacement. Whenever replacing parts on TVS HLX 150F, it is recommended that you use only the **TVS Motor Company Genuine parts**.

CAUTION

Proper running-in and maintenance are mandatory for making certain that your vehicle is reliable and gives optimum performance at all times. Be sure that the periodic maintenance is performed thoroughly in accordance with the instructions given in this owner's manual.

In more dusty areas, the air filter element may require early replacement than the mentioned kilometers to avoid costly damages to the engine.

PERIODIC MAINTENANCE SCHEDULE

Item	Service km Period from the date of sale	Service					Service		Remarks
		1st 500-750 1 month	2nd 2500-3000 3 months	3rd 5000-6000 6 months	4th 8500-9000 9 months	5th 11500-12000 12 months	Every 3000 km	Every 6000 km	
Engine cum transmission oil	R	I & T	R	I & T	R	I & T	R		
Oil filter (strainer)	C	-	C	-	C	-	C		
Centrifugal filter	-	-	C	-	C	-	C		
Spark plug	C & A	-	-	-	R	-	-	Replace every 12000 km	
Air cleaner element	-	-	-	-	R	-	-	Replace every 12000 km	
SAI filter	-	-	-	-	R	-	-	Replace every 12000 km	
PCV filter element	-	-	-	-	R	-	-	Replace every 12000 km	
Carburettor assembly	C & A	-	-	-	C & A	-	-	C & A every 12000 km	
Tappet clearance	I & A	-	I & A	-	I & A	-	I & A		
Fuel cock sediment bowl	C	C	C	C	C	C	-		
Hose fuel	I	I	I	I	I	I	-	Replace every three years	
All control cables ¹	I, A & L	I, A & L	I, A & L	I, A & L	I, A & L	I, A & L	-		
Throttle grip	-	-	L	-	L	-	L	Lubricate using grease	
Choke operation	I	I	I	I	I	I	-		
Steering smooth operation / play	I & A	I & A	I & A	I & A	C, L & A	I & A	-	C & L with fresh Bechem premium grade 3 grease every 12000 km	
Front fork oil	-	-	-	-	-	-	-	Replace every 18000 km	
Front and rear suspension	I	I	I	I	I	I	-	Inspect for proper functioning	
All fasteners	I & TI	I & TI	I & TI	I & TI	I & TI	I & TI	-		
Drive chain	C, L & A	C, L & A	C, L & A	C, L & A	C, L & A	C, L & A	-	Adjust if necessary	

Item	Service km	service					service		Remarks
		1st 500-750 1 month	2nd 2500-3000 3 months	3rd 5000-6000 6 months	4th 8500-9000 9 months	5th 11500-12000 12 months	Every 3000 km	Every 6000 km	
All bulbs, horn and switches		I	I	I	I	I	I	-	Inspect for proper functioning
Head lamp beam		I & A	I & A	I & A	I & A	I & A	I & A	-	
Brake effectiveness / play ²		I & A	I & A	I & A	I & A	I & A	I & A	-	
Brake cams		-	-	C & L	-	C & L	-	C & L	Lubricate using grease
Brake pad wear		I	I	I	I	I	I	-	Replace if necessary
Brake fluid		I & T	I & T	I & T	I & T	I & T	I & T	-	Replace every 21000 km
Brake hose		I	I	I	I	I	I	-	Replace every three years
Master cylinder cups		-	-	-	-	-	-	-	Replace every 21000 km
Wheel freeness		I	I	I	I	I	I	-	
Tyre pressure at cold condition		I & S	I & S	I & S	I & S	I & S	I & S	-	
Engine idling RPM		I & S	I & S	I & S	I & S	I & S	I & S	-	
Idling CO% ³		I & S	I & S	I & S	I & S	I & S	I & S	-	
Centre / side stand pivot		L	L	L	L	L	L	-	Lubricate using TRU4 oil
Kick starter pedal pivot		L	L	L	L	L	L	-	Lubricate using TRU4 oil
Swing arm bearings		-	-	-	-	-	-	-	Lubricate using grease every two years

R - Replace; I - Inspect; T - Top up; C - Clean; A - Adjust; L - Lubricate; TI - Tighten; S - Set

¹ Inspect for proper operation and adjust play. Lubricate ends using grease.

² Lubricate brake pedal shaft every service using TRU4 oil

³ Idling CO% should be set with the help of exhaust gas analyser and tachometer only

LUBRICATION SCHEDULE

Item	Interval	Initial 500 - 750 km	Every 2500 - 3000 km	Every 5000 - 6000 km	Every 8500 -9000 km
Throttle grip		-	-	Grease	-
Speedometer gear		-	-	Grease	-
Speedometer cable		-	-	Grease	-
Brake cam		-	-	Grease	-
Drive chain		TRU SPRAY	TRU SPRAY	-	-
Brake pedal shaft		Grease	Grease	-	-
Kick starter pedal pivot		4T oil	4T oil	-	-
Steering stem bearings	 Clean and lubricate with fresh grease every 12000 km			
Swing arm shaft	 Grease every 2 years			
Front brake and throttle cables	 Lubricate at ends using grease in all services			

RECOMMENDED LUBRICANTS

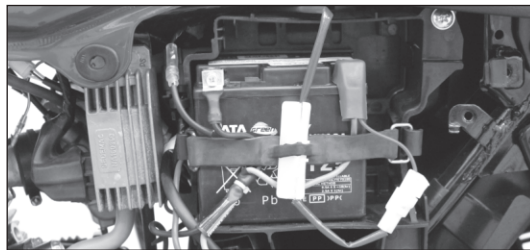
Application	Qty	Manufacturer	Brand
Engine cum transmission oil	1000 ml (after draining) 1200 ml (after disassembly)	-	TVS TRU4 DURALIFE oil (SAE 20W50 API-SL, JASO MA2)
Front fork oil	146 ± 2.5 ml / leg	-	Teleshockab oil
Grease	-	Bechem	Bechem premium
Disk brake fluid	-	TVS Girling	DOT 3 / DOT 4

SELF - MAINTENANCE PROCEDURES

BATTERY

Battery is located below the cover frame L. follow the procedure given below for accessing the battery:

1. Place the vehicle on centre stand on a flat surface and open the cover frame L as explained on in page no. 26.
2. Check the battery voltage. If the voltage measured is less than 12.4V, charge the battery using TVS Motor Company Limited recommended battery charger only at TVS Motor Company Authorised Distributor or Dealers / Authorised Service centers.
3. While connecting the terminals, observe the correct polarity. Connect the red wire to the '+' terminal and black wire to the '-' terminal of the battery.
4. Apply petroleum jelly to the terminals to avoid corrosion.



Incase of any abnormality or for removal of battery from the vehicle, contact TVS Motor Company Authorised Distributor or Dealer / Authorised Service Centers.

CAUTION

Never check the battery charge by shorting terminals. Always connect the positive terminal first and then negative to avoid sparking.

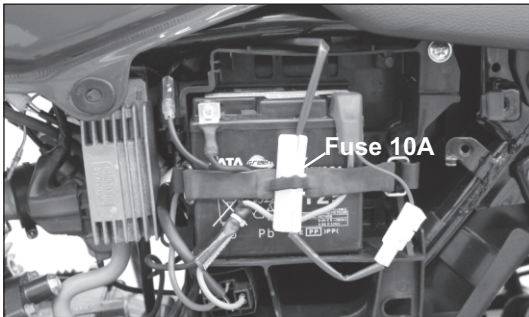
The inversion of the battery wires can damage the battery and the recharging system.

If the motorcycle is to remain unused for a long time (a month or longer), it is advisable to disconnect the battery cables or have the battery removed by skilled personnel.

FUSE REPLACEMENT

Non-working of electrical systems may be due to safety fuse failure. Short circuit or overload in the electrical system are the main causes for fuse failure. Follow the procedure given below for inspecting and replacing the fuse.

1. Open the cover frame L as explained earlier (refer page no. 26).
2. The fuse case fitted on the battery band contains a 10 A fuse.
3. Pull out the fuse case from battery band.



Failed fuse

4. Open the fuse case and slide out blown fuse.
5. Replace the fuse with a new (extra fuse is provided inside the fuse case itself).
6. Close the fuse case and re-fix it into the battery band.
7. Turn 'ON' the ignition switch and check for proper functioning of electrical systems. In case the fuse fails again, consult the nearest TVS Motor Company Authorised Distributor or Dealer / Authorised Service Centers.

CAUTION

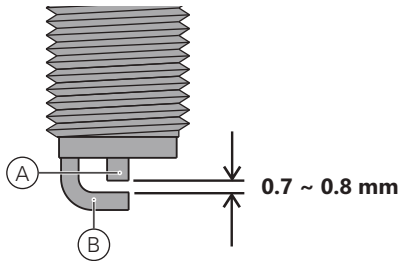
Do not use vehicle by shorting the wires without a fuse. This may result in overheating of electrical / wiring system and may result in fire.

Do not use fuse of higher amperage than specified for the safety of electrical system.

SPARK PLUG

1. Clean the dust and mud around the spark plug mounting to avoid falling inside the cylinder.
2. Pullout the suppressor cap from spark plug. Using spark plug spanner, remove the spark plug.

A spark plug with heavy carbon deposits will not produce strong sparks. Hence, only if necessary, remove the carbon deposits from the spark plug with a small wire brush or spark plug cleaning tool.



Inspect the spark plug gap with a wire gauge / feeler gauge. Readjust the spark plug gap to **0.7 ~ 0.8 mm** if required.

After cleaning and adjusting the gap, reinstall the spark plug and tighten by hand to avoid cross threading. Finally tighten using the spanner. Do not over tighten or cross thread the spark plug.

CAUTION

Always use only recommended make and type of spark plug. Replace spark plug every 12000 km.

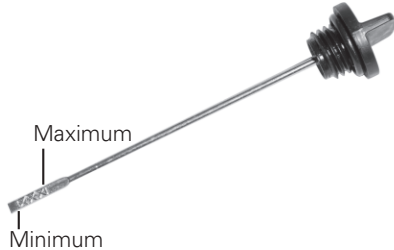
Cover the spark plug hole with cloth when the plug is removed to prevent dust / water entry.

It is advisable to tighten the new spark plug by hand till the end and then using spark plug spanner by rotating 1/4 turn. Now loosen the spark plug and re-tighten by 1/8 rotation.

ENGINE CUM TRANSMISSION OIL LEVEL

Check the engine cum transmission oil level periodically.

1. Place the vehicle on centre stand on a flat surface. Wipe-off the surroundings of gauge oil level.
2. Remove the gauge oil level and wipe it clean.
3. Insert the gauge in its mounting hole. Do not thread in.



4. Take out the gauge and check the oil level.
5. The oil level should be between minimum and maximum level marks of the gauge as shown in the figure.
6. If the oil level is less than the minimum level, add TVS TRU4 PREMIUM oil (SAE 10W30 SL-JASO MA2) upto the maximum level mark.
7. Wipe out the oil traces with a clean cloth to prevent dust accumulation and assemble back the gauge oil level.

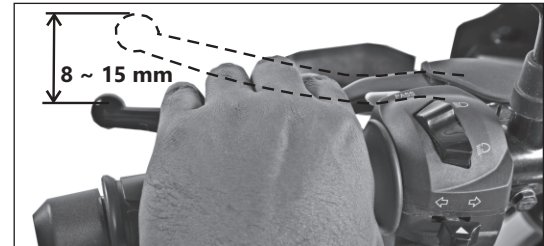
CAUTION

If the vehicle is driven with less engine cum transmission oil, the engine components will be severely damaged. Check the oil level as per the schedule to avoid costly damage.

Do not fill excess oil may cause oil leak. Always use TVS TRU4 PREMIUM oil (SAE 10W30 SL-JASO MA2) only.

CLUTCH ADJUSTMENT

Clutch lever free play is one of the most important adjustment which you may need to check in-between services for better life of the clutch plates. The free play of the clutch lever should be 8 ~ 15 mm as measured at the clutch lever end before the clutch begins to disengage.

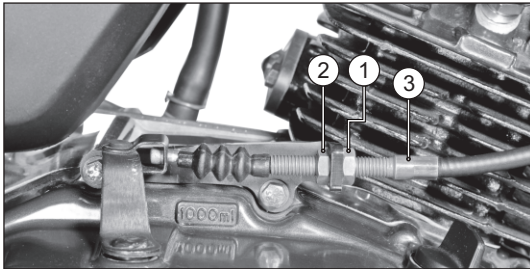


CAUTION

Too much or too less clutch lever free play will damage the clutch plates, thereby affecting the performance of the vehicle. Adjust the clutch lever free play only when the engine is cold.

Adjust the clutch lever free play periodically by following procedure.

1. Ensure that the engine is cold.
2. Loosen the lock nut (2) while holding the clutch cable adjuster (3). Adjust the clutch cable adjusting nut (1) 'in' or 'out' to give sufficient play in the clutch lever.
3. After adjusting the play, hold the adjuster nut in the same position, tighten the lock nut.

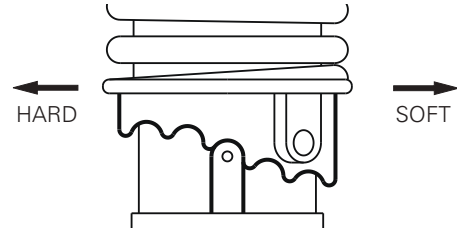


REAR SHOCK ABSORBERS

TVS HLX 150F is fitted with 5 step adjustable rear shock absorbers to meet different road and load condition. There are 5 notches for adjusting spring

stiffness.

If the spring is adjusted to the minimum notch, then the shock absorber will be softer which is good for lighter loads. If the spring is adjusted to maximum notch, then it will be stiffer which is good for heavy loads.



Adjust the spring pre-load by shifting the adjuster to the required notch according to the different load conditions.

The more you compress the spring, the suspension becomes more stiff.

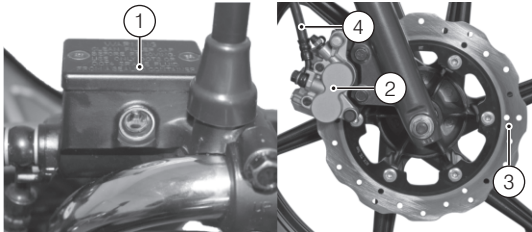
CAUTION

Keep both left and right shock absorbers spring adjusters in the same position.

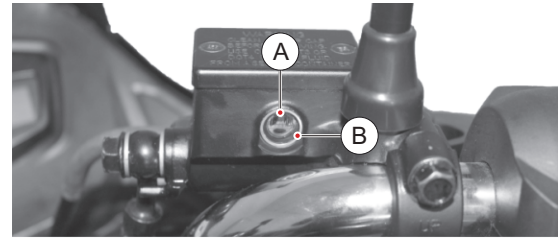
BRAKES

Front brake

You can observe a master cylinder (1) on the right side of the handle bar, a caliper assembly (2) fitted to the fork leg R, a disc (3) to the front wheel and a high pressure hose (4) connecting the master cylinder and the caliper assembly.



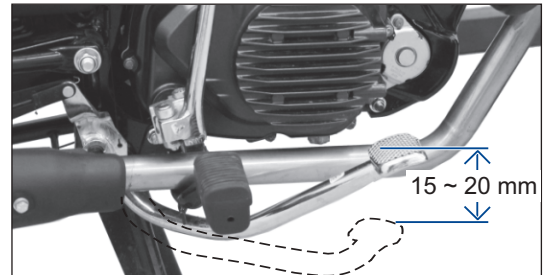
1. Check the master cylinder brake fluid level through the view piece glass (A).
2. Brake fluid level always should be above the 'MIN' mark (B) provided on the master cylinder view piece glass when the master cylinder is parallel to the ground.
3. If the brake fluid level is below the mark or while applying brake if you feel the brake is more spongy or ineffective due to air entry, contact TVS Motor



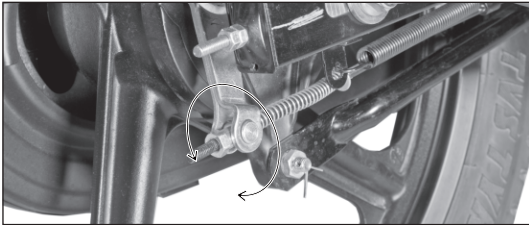
Company Authorised Distributor or Dealer /
Authorised service center for topping-up the brake
fluid, air bleeding and other brake related inspections.

Rear brake

1. Measure the free play of the rear brake pedal at the pedal end as shown in the figure.

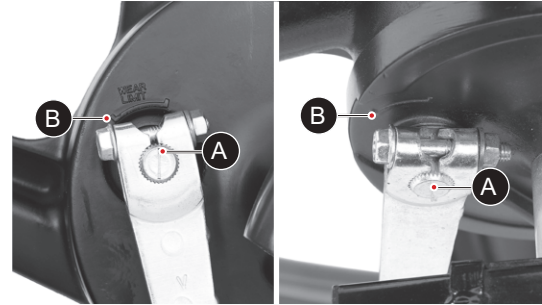


2. The free play of the brake pedal before the engagement of brake should be between 15 ~ 20 mm.
3. If the measured free play is more than the limit, adjust the nut provided at the rear wheel end to obtain the correct play.
4. Turn the adjuster nut clockwise to reduce the free play or turn it in anti-clockwise direction to increase the free play.



Brake shoe wear indicator

When the brake is applied, wear limit index mark (A) on both front and rear cam brake should be within the range of wear limit indicator (B) on panel assembly. In case the index mark (A) is going



beyond the wear limit indicator (B) range, index the cam lever to next slot (serration tooth) with the help of the nearest TVS Motor Company Authorised Distributor or Dealer / Authorised service center to utilize the remaining shoe life.

CAUTION

Replace the brake shoes as a set, if wear limit index mark (A) exceeds beyond the range of wear limit indicator (B) even after indexing the lever.

TYRES

Tyre pressure:

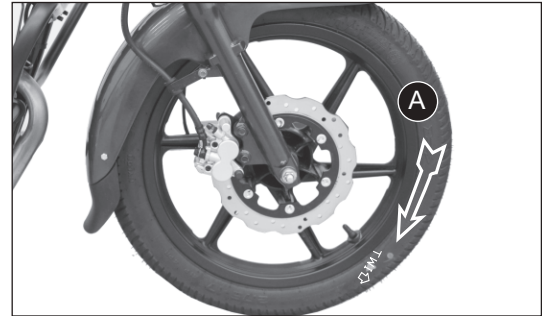
Check the tyre pressure atleast once in a week if not more frequently. Insufficient air pressure in the tyres not only hasten tyre wear, but also seriously affects the stability of the vehicle.

Under inflated tyres make smooth cornering difficult and over inflated tyres decreases the tyre contact with the ground which can lead to skidding and loss of control. **Lower tyre pressure consumes more fuel.** Be sure that the tyre pressure is within the specified limit at all times.

	Solo	Pillion
Front	1.75 kg/cm ² (25 PSI)	1.75 kg/cm ² (25 PSI)
Rear	2.25 kg/cm ² (28 PSI)	2.53 kg/cm ² (32 PSI)

Tyre tread condition

Operating the vehicle with excessively worn tyres will decrease riding stability and can lead to loss of control. It is recommended to replace the tyre when the tyre wears off to the tyre wear indicator level (indicated by TWI (A) on the tyre).



CAUTION

The tyre walls of the tubeless tyre which in contact with the wheel rim are only seals the air inside the wheel assembly. Hence care should be taken not to damage the side walls of the tyres during removal / reassembly.

Tyre rotation direction

While reassembling the tyres, after removing from the wheel rim, ensure that the arrow mark (A) on the tyre facing the direction of wheel rotation.

Tyre puncture

Your motorcycle is fitted with a tubeless tyre on both front and rear wheel. In case of any puncture / tyre damage, it is advised to visit the nearest tyre manufacturer Dealer or the tyre repair shops who knows the repairing method of tubeless tyre.

It is not necessary to remove the tyre from wheel rim always to attend a puncture. Even though if there is need of tyre removal, it is strongly recommended to use a tyre removal / fitment machine.

If at all, tyre levers needs to be used, the levers should be free from sharp edges. Care should be taken not to damage the tyres and rims.

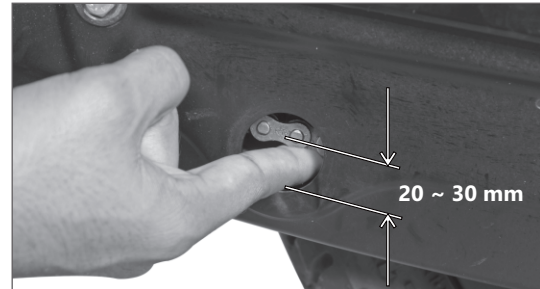
DRIVE CHAIN

Proper lubrication and adjustment of drive chain gives long service life of chain. Poor maintenance of chain causes premature wear or damage to the drive chain and sprockets. **Poor chain maintenance also affects mileage of the vehicle.**

WARNING

Riding with improperly adjusted chain / high slackness can cause the chain to come off the sprockets resulting in accident or serious damage to the motorcycle. Misalignment of rear wheel or sprockets can cause abnormal wear of chain and sprockets and results in unsafe riding condition.

The drive chain must be cleaned, checked, lubricated and adjusted at specified intervals mentioned in the maintenance schedule.



Even though the chain is cleaned, lubricated and adjusted during regular service by the Distributor or Dealers, the user must clean the

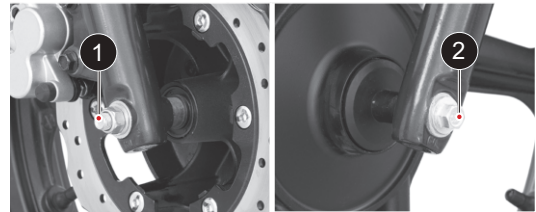
chain with TRU SPRAY chain cleaner & dry cloth and lubricate using TRU SPRAY / TRU4 oil frequently for better chain life and smooth vehicle running.

Maintain the drive chain in the following manner:

1. Place the vehicle on center stand with the transmission in neutral.
2. Remove the dust seal chain cover and inspect the drive chain slackness (vertical movement) using the finger as shown.
3. The slackness of the drive chain should not exceed the limit (maximum 20 ~ 30 mm). **Excess slackness consumes more fuel.**
4. If the slackness is found more, contact TVS Motor Company Authorised Distributor or Dealer / Authorised service center for adjustment.
5. If it is within the limit, clean the chain with TRU SPRAY chain cleaner & dry cloth and lubricate using TRU SPRAY / TRU4 oil and re-fix the dust seal chain cover.

FRONT WHEEL REMOVAL AND REASSEMBLY

1. Remove the axle nut (1) along with a washer.
2. Pull out the axle (2) from the front wheel.
3. In case of disc brake model, remove spacers from both side of the wheel.
4. In case of drum brake model, remove a spacer from right side of the wheel.
5. Place a support below the frame to prevent the vehicle from falling and lift the vehicle up.



6. carefully dislocate the disc from the caliper assembly and slide the wheel out.
7. Reverse the procedure for reassembling.

⚠ WARNING

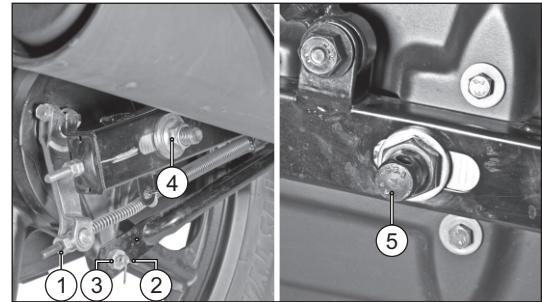
Always make sure that whenever the wheel is removed, axle nut is properly re-tightened to the specified torque.

Incase of disc brake model, ensure the proper seating of disc in the caliper assembly during reassembly.

Incase of drum brake model, ensure the proper seating of brake panel with the fork leg assembly during reassembly.

REAR WHEEL REMOVAL AND REASSEMBLY

1. Remove the rear brake adjuster nut (1) and disconnect the brake rod.
2. Remove the split pin (2) and the nut (3) from torque link mounting with the brake panel and disconnect the torque link.
3. Remove the axle nut (4).
4. Pull out the axle (5) and take out the spacer bush from the rear wheel assembly.
5. Tilt the vehicle to the left and take out the wheel along with the brake panel. Separate the brake panel from the wheel



6. For locating and reassembling the rear wheel easily, engage the gear. This will arrest the free movement of the drum sprocket.
7. Reverse the procedure for reassembly.

STORAGE PROCEDURES

For storage of your motorcycle for longer period of over a month and above, we recommend to carry out the following steps:

1. Clean the vehicle thoroughly. Park the vehicle on centre stand.
2. Warm up the engine and drain engine cum transmission oil. Store the oil, if new, in a dust free container.
3. Empty the fuel tank. Turn the fuel cock lever to 'OFF' position.
4. Drain the petrol from carburettor.
5. Remove the spark plug and feed in several drops of engine cum transmission oil through spark plug hole. Crank the engine few times and reinstall the spark plug.
6. Remove the battery, store it away from direct sunlight and freezing temperatures.
7. Place a suitable support at the bottom of the frame so that both the tyres are off the ground.

This will ensure better tyre life.

8. Cover up the vehicle completely with a clean tarpaulin or any other suitable cover. Store the vehicle inside a garage or similar area to avoid damage due to dust and rain. Make sure that the storage area is well ventilated and free from any source of flame or spark.

WARNING

The exhaust system becomes hot after a run. Park the vehicle in a place where pedestrians or children are not likely to touch the vehicle.

CAUTION

Do not park the vehicle on a slope or soft ground or else it may fall down.

During storage, the battery must be recharged on a constant current battery charger at recommended amperage atleast once in a month.

TAKING THE VEHICLE OUT OF STORAGE FOR REGULAR USE

1. Take the vehicle out of the garage and clean it thoroughly.
2. Remount the battery after bench charging if required.
3. Fill the engine cum transmission oil [TVS TRU4 PREMIUM oil (SAE 10W30 SL-JASO Ma2)] and check the oil level using gauge oil level.
4. Lubricate the parts as instructed in the periodic maintenance schedule.
5. Fill up fresh petrol in the fuel tank.
6. Check and inflate the tyres to the specified tyre pressure.
7. Check and correct the points mentioned in page no. 30.
8. Turn the ignition switch to 'ON' position. Start the engine with choke 'ON' for a few minutes and ride out.

CAUTION

Avoid using alkaline solution like detergent soaps for washing the vehicle. This may damage head lamp and other lamp assemblies.

RECOMMENDED TIPS WHEN TAKING A LONG TRIP OF MORE THAN 500 KM:

- A) Please keep the following items for use in case of emergency:
1. Tool kit complete.
 2. Recommended spark plug one number.
 3. Head lamp, tail lamp and turn signal lamp bulb one each.
 4. Throttle, clutch and front brake cable one each.
 5. Drive chain lock - one number.
- B) Precautions to be taken for the journey:
1. Ensure engine cum transmission oil is up to the level.
 2. Adequate fuel in fuel tank.

- C) Check your motorcycle for the following:
1. Tightness of all bolts and nuts with correct torque value.
 2. Fitness of tyres / tyre pressure / tread depth.
 3. All bulbs, indicators and horn functioning.
 4. Smooth functioning of all cables and their free play.
 5. Smoothness of steering operation.
 6. Drive chain and sprocket condition. Chain adjustment.
 7. Front / rear brake functioning and rear brake lamp switch adjustment.
 8. Front fork for any abnormality.
 9. Fuel cock bowl filter cleanliness.
 10. Spark plug gap and condition of spark plug.
 11. Air filter element cleanliness.
 12. Correct idling speed.
 13. Lubrication of all items mentioned in the periodic maintenance schedule.

14. Any other job as necessary.
15. Have your vehicle checked at any TVS Motor Company Authorised Distributor or Dealer / Authorised Service Centers.

 **WARNING**

Long journey are to be taken only after the running-in period of 1000 km.

Sl.No.	Description	Odometer reading	Job card no. / Date	Servicing Dealer's stamp and sign.
1	1st service between (a) 500 - 750 km or (b) 1 month from the date of purchase, whichever occurs earlier.			
2	2nd service between (a) 2500 - 3000 km or (b) 3 months from the date of purchase, whichever occurs earlier.			
3	3rd service between (a) 5000 - 6000 km or (b) 6 months from the date of purchase, whichever occurs earlier.			
4	4th pay service between (a) 8500 - 9000 km or (b) 9 months from the date of purchase, whichever occurs earlier.			

Sl.No.	Description	Odometer reading	Job card no. / Date	Servicing Dealer's stamp and sign.
5	5th service between (a) 11500 - 12000 km or (b) 12 months from the date of purchase, whichever occurs earlier.			
6	6th service between (a) 14500 - 15000 km or (b) 15 months from the date of purchase, whichever occurs earlier.			
7	7th service between (a) 17500 - 18000 km or (b) 18 months from the date of purchase, whichever occurs earlier.			
8	8th service between (a) 20500 - 21000 km or (b) 21 months from the date of purchase, whichever occurs earlier.			

Sl.No.	Description	Odometer reading	Job card no. / Date	Servicing Dealer's stamp and sign.
9	9th service between (a) 23500 - 24000 km or (b) 24 months from the date of purchase, whichever occurs earlier.			
10	10th service between (a) 26500 - 27000 km or (b) 27 months from the date of purchase, whichever occurs earlier.			
11	11th service between (a) 29500 - 30000 km or (b) 30 months from the date of purchase, whichever occurs earlier.			

MANUFACTURER : **TVS MOTOR COMPANY LIMITED**
P.B. No. 4, Harita, Hosur - 635 109, India.

ENGINE

Type : Single Cylinder, 4 stroke, air cooled spark ignition engine

Cylinder bore : 57 mm

Stroke : 57.8 mm

Piston displacement : 147.49 cc

Compression ratio : 9.7 ± 0.3

Carburettor : MIKUNI BS 26 (CV type)

Air filter : Paper filter element with Polyurethane foam element

Lubrication system : Positive lubrication

Maximum power in Kw : 9.0 kw @ 7500 rpm

Maximum torque in Nm : 12.3 Nm @ 5000 rpm

Maximum speed : 102±2 km / hr

Engine idling rpm : 1400 ± 200 rpm (under warm condition)

Starting system : Electric starter/Kick starter

TRANSMISSION

Clutch : Wet - Multi plate type

Transmission : 5 speed constant mesh

Gear shift pattern : 1 Gear Down 4 Gear Up

Primary transmission : Spur gears

Secondary transmission : Chain and sprockets

GEAR RATIOS

I Gear : 2.917

II Gear : 1.857

III gear : 1.333

IV gear : 1.050

V gear : 0.880

Primary reduction : 3.25

Final reduction : 3.143

CHASSIS

Overall length	: 2040 mm
Overall width	: 745 mm
Overall height	: 1150 mm
Ground clearance	: 195 mm
Wheel base	: 1295 mm
Kerb weight (with tool kit & 90% of fuel)	: 122 kg
Pay load	: 130 kg
Maximum laden weight	: 243 kg
Steering angle	: 42±2° (Left)
	: 42±2° (Right)
Caster angle	: 25.6°±1.0°
Frame	: Single cradle tubular frame
Front suspension	: Telescopic oil damped
Rear suspension	: hydraulic shocks with rectangular swing arm
Trail length	: 77 mm

TYRE

Front	: 2.75 X 17, 41P (tubeless)
Rear	: 100/90 X 17, 55P

Tyre pressure

Front	: 1.75 kg/cm ² (25 PSI)
Rear - Solo	: 2.0 kg/cm ² (28 PSI)
Rear - Pillion	: 2.25 kg/cm ² (32 PSI)

BRAKES

Front	: Hand operated, 240 mm dia (Disc)
Rear	: Foot operated, internally expanding 130 mm dia. Drum

ELECTRICAL

Ignition system	: DC - Digital ignition (IDI) : TCI
Spark plug	: BOSCH UR4KC
Spark plug gap	: 0.7 ~ 0.8 mm
Magneto	: 12V, 110W (fly wheel magneto)
Battery	: 12V, 5 Ah MF
Head lamp	: LED, 11W
Tail / brake lamp	: 12V, 5/10W x 1

Turn signal lamps	: 12V, 10W x 4
Instrument panel	: LCD/ LED indicators
Horn	: 12V, DC
Fuse	: 10A x 1

CAPACITIES

Fuel tank including reserve **	: 10.0 litres (reserve 2 litres)
Fuel	: Unleaded Petrol
Engine cum transmission oil	: TVS TRU4 PREMIUM oil (SAE 10W30 SL-JASO Ma2)
Engine cum transmission oil	: 1000 ml capacity
Front fork oil grade	: I O C / C a s t r o l teleshockab oil
Front fork oil capacity	: 155 ± 2 ml per leg (GIL make) 140 ± 2.5 ml per leg (TOP make)
Brake fluid	: TVS Girling DOT3 / DOT 4

CAUTION

Using the bulb other than the specified rating can result in overloading of the electrical system or premature failure of the bulb.

NOTE

Specifications are subjected to change without notice.

****** *The fuel tank is not a measuring instrument and the capacity of fuel tank may slightly vary from the indicated capacity.*