

SKYTEAM

ST50-8/ST110-8 ST50-8A/ST110-8A
OPERATION INSTRUCTION



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SKYTEAM MOTORCYCLE

PREFACE

Dear customers:

Welcome to Skyteam family. We thank cordially to you for choosing Skyteam motorcycle.

Skyteam motorcycles have good designing, advanced technology beautiful outlook. They have been sold around many countries around the world. They have good fame in customers.

Skyteam motorcycles are ideal means of transportation and will bring more convenience and pleasure to your life.

This owner's manual contains the right usage and simple inspecting and adjusting methods of Skyteam motorcycle. Please make sure to read it carefully before running your motorcycles. It will help in using and maintaining Skyteam motorcycles. In order to ensure well and safe running of your motorcycle, please use Skyteam spare parts(including oil). If you meet any problem in using Skyteam motorcycles, please do not hesitate to contact with us. We will try to solve your problems with our high efficient service.

**ALL INFORMATION IN THIS MANUAL IS SUBJECT TO CHANGES
WITHOUT PRIOR NOTICE FROM THE MANUFACTURER**

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IMPORTANT NOTES

RUNNING-IN INFORMATION FOR YOUR MOTORCYCLE

The first 1,600km is the most important in the life of your motorcycle. Proper running-in operation during this period will help ensure maximum life and performance of your new motorcycle.

Motorcycle reliability and performance depend on special care and restraint exercise during the running-in period. It is especially important that you avoid the operation that may cause the engine parts to over-heat.

Please refer to the "running-in" section for specific running-in recommendation.

Please read this manual and follow its instructions carefully

To emphasize special information, the words WARNING, CAUTION and NOTE imply special meaning and should be carefully read.

WARNING: The personal safety of the rider may be involved, disregarding this information could result in personal injury.

CAUTION: These instructions point out special service procedures or precautions that must be followed to avoid damaging the machine.

NOTE: This provides special information to make maintenance easier or important instructions more explicit.

CONSUMER INFORMATION

ACCESSORY INSTALLATION AND SAFETY PRECAUTION TIPS

There are a variety of accessories available to Skyteam owners. The installation of unsuitable accessories can lead to unsafe riding. For proper installation of accessories, we have laid down some principles that will help you make the correct choice and installation of accessories:

(1) If you want to install an accessory which will result in an extra weight or an aerodynamic effect on your motorcycle, try to install it as low as possible and as close as possible to the center of gravity of your motorcycle. Check carefully the holder for installing accessories to make sure for its firmness. The loose installation will lead to unstable and dangerous conditions due to weight deviation.

(2) Check the net clearance and turning angle to make sure that they are adequate. The improper load, which may result from installing accessories, will very likely lower their safety. Checks should also be made to ensure that this load will not hinder the idling, turning and other control actions.

(3) Fixing the accessories on handlebars or front fork will result in unstable operation. This extra weight will reduce the maneuverability of your motorcycle during turning operation, meanwhile, it will also cause unstable condition due to vibration at the front end. Therefore, accessories fixed on handlebars or front fork should be minimized.

(4) Parts like wind glass, windshield, waist support, bags across seat and suitcase all have a aerodynamic effect on the stability of your motorcycle, when there is a side wind or large vehicles passing by. The improper installation or bad design of accessories will affect your driving safety. Therefore, you should be careful when choosing and installing accessories.

(5) Certain accessories displace the rider from his normal riding position. This will restrict not only the freedom of movement of the rider, but also his control ability.

(6) Extra electrical accessories may overload the existing electrical system. Severe overloads may damage the wiring harness or create a dangerous situation due to the loss of electrical power during the operation of the motorcycle.

When fix additional parts on your motorcycle, mount is as low as possible and as close as possible to the motorcycle. An improperly mounted load can result in a high center of gravity that is very dangerous and make the motorcycle difficult to handle. The size of a load can affect the aerodynamics and the handling of the motorcycle. Balance the load between the both sides of the motorcycle and fasten is firmly

SAFE RIDING RECOMMENDATIONS FOR MOTORCYCLE RIDERS:

Motorcycle riding is an exciting sport with great joy. Nevertheless it also requires some extra precautions to ensure the safety of the rider. These precautions include:

WEAR A HELMET

The serious injury is head injury. High quality helmet is one of the most important accessories a driver requires. So the driver must wear a helmet when he drives. The driver should also wear a suitable pair of goggles.

RIDING APPAREL

Tight and non-flapping apparel will make your riding movement comfortable and safe when riding your motorcycle. Good quality motorcycle riding apparel should be chosen.

CHECKS BEFORE RIDING

Review in detail the instructions in the "CHECKS BEFORE RIDING" section of this manual. Do not forget to perform all the safety checks to ensure the safety of the rider

TO FAMILIARIZE YOURSELF WITH THE MOTORCYCLE

Your riding skill and your mechanical knowledge form the foundation for safe riding practices. We suggest that you practice riding your motorcycle in a non-traffic situation without obstacles until you are thoroughly familiar with your motorcycle and its controls. Remember that practice makes perfect.

TO KNOW YOUR SAFETY SPEED LIMITS

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

BE EXTRA SAFETY CONSCIOUS ON BAD WEATHER DAYS

Riding on bad weather days, especially wet days, requires extra caution. Remember braking distance doubles on rainy days. Pay attention to the traffic markings on the road. Whenever in doubt about road condition, SLOW DOWN!

PREVENT THE ACCIDENT

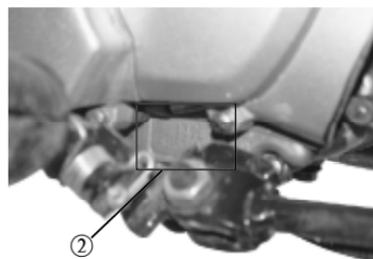
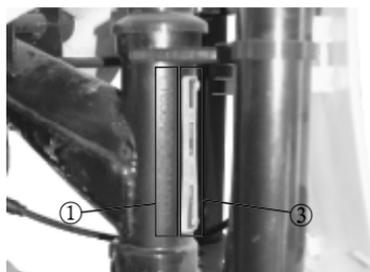
When other vehicles drive toward and turns a head of the motorcycle, accident often happens. A clever driver always supposes that other drivers may not notice him even in the daytime. Bright and reflective dress should be wear when you drive the motorcycle. In the evening, you should open the front

and rear lights to warn other drivers. Be sure not to drive your motorcycle into the blind areas of other drivers.

REFIT

Remove original equipment and refit the motorcycle may cause dangerous riding. Be sure that all equipment's fixation applies to the local standards and regulations.

SERIAL NUMBER LOCATION



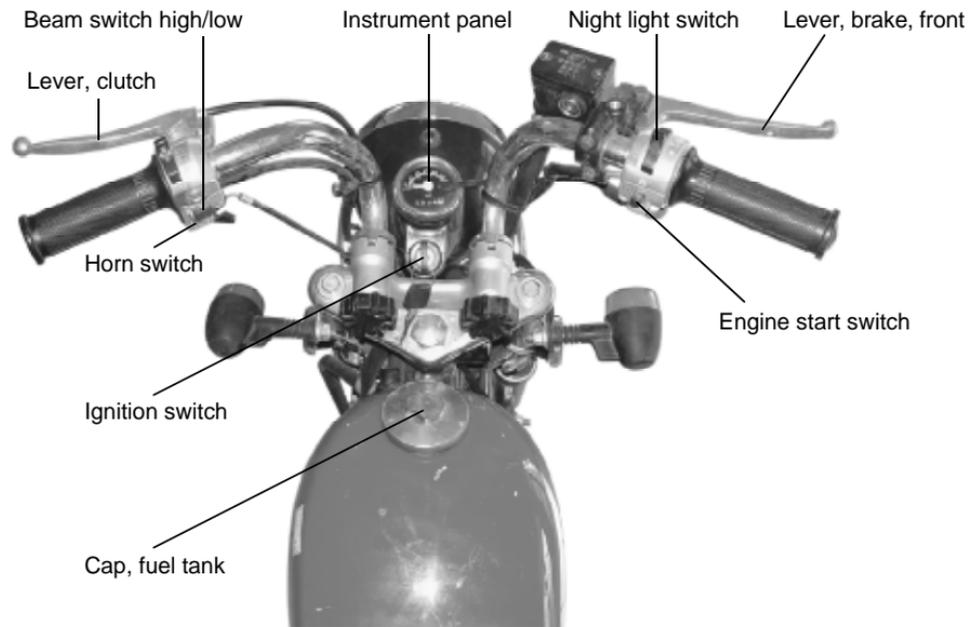
The frame and/or engine serial numbers are used to register the motorcycle. These information are very important to Skyteam service centers when you order spare parts or ask for special service. The frame number or vehicle identification number (VIN) are stamped on the tube of the steering head. The engine number is stamped on the left side of the crankcase. The name plate is on the right side of head pipe of the frame

Please write down the serial numbers in the following blocks:

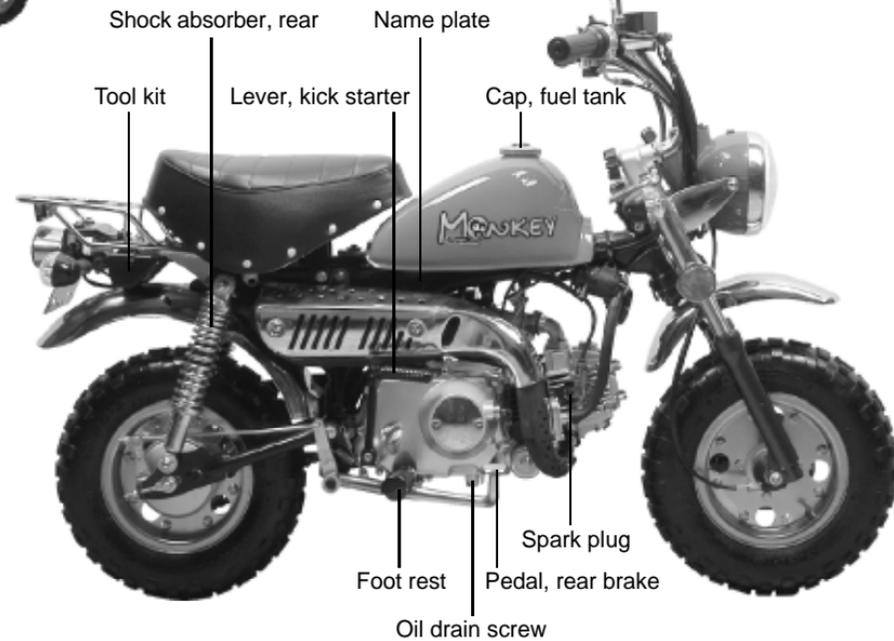
FRAME NO. _____

ENGINE NO. _____

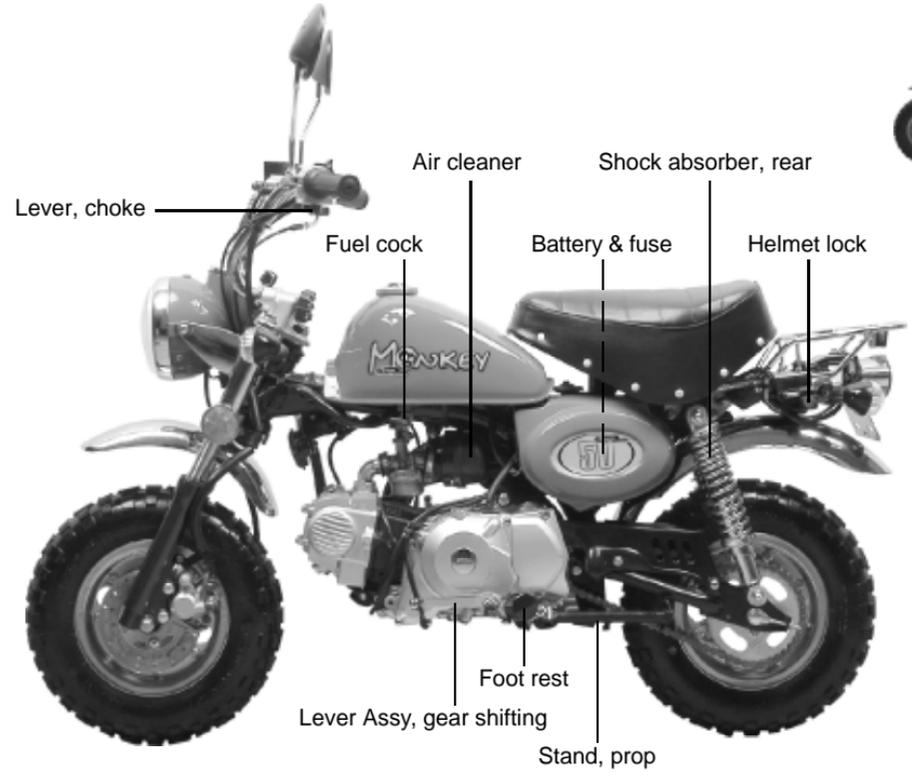
FIXATION OF SPARE PARTS



8



9



CONTROLS

KEY

This motorcycle is equipped with a pair of identical ignition keys. Keep the spare key in a safe place.

IGNITION SWITCH

There are two positions for ignition switch:

"OFF" position

All electrical circuits are disconnected.

"•" position

The ignition circuit is connected and the engine can be started.



INSTRUMENT PANEL

SPEEDOMETER ①

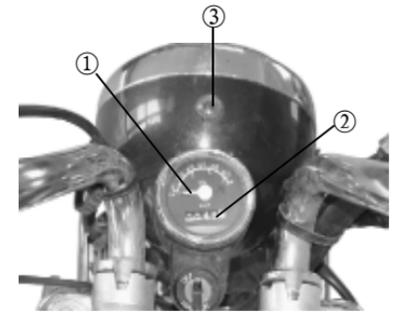
The speedometer indicates the driving speed in kilometers per hour

ODOMETER ②

The odometer keep the record of the total distance that the motorcycle has run since it was used.

NEUTRAL INDICATOR LIGHT ③

When the transmission is in neutral position, the green neutral indicator light comes on. When the transmission is not in neutral, the indicator won't flash.



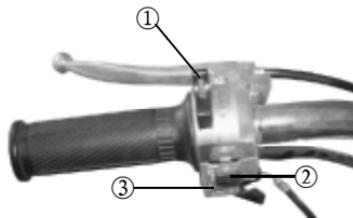
LEFT HANDLEBAR

DIMMER SWITCH ①

Move the switch to "H" position, the head light high beam comes on. On the contrary, move the switch to "L" position, the low beam is on.

TURN SIGNAL SWITCH ②

When the switch in "L" position, the left turn signal light starts flashing, When the switch is in "R" position, the right turn signal light starts flashing. When the switch is in middle position, the turn signal lights do not work.



WARNING

When you are going to drive to another traffic lane or turn right(left), you should open turn signals in time. When finished, turn switch to the middle.

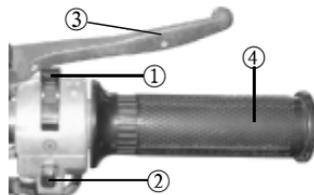
HORN BUTTON ③

Press the button and the horn will sounds.

RIGHT HANDLEBAR

Nighttime riding light switch ①

"H": When the engine is running, the head light, instrument light and tail light come on simultaneously.



"H": No matter the engine runs or not, the head light, instrument light and tail light come on simultaneously
"L": The head light, instrument light and tail light come of simultaneously.

Electrical Start Button ② "H"

"H": Push down the electrical start button to start the engine.

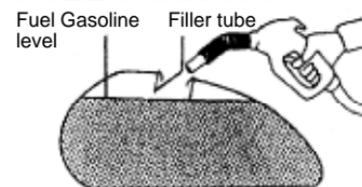
Front Brake Lever ③

Grip the front break lever to break the front wheel.

Throttle Grip ④

The throttle grip is used to control the engine speed. Twist it toward yourself to accelerate and turn it away from yourself to decelerate.

FUEL TANK CAP



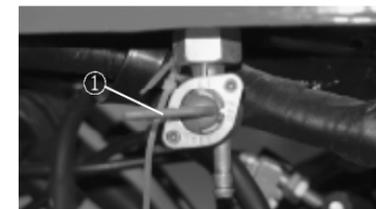
WARNING

Do not overfill the fuel tank(less than the bottom of the filler tube as shown) to prevent the overflow when the fuel temperature increases. Do not splash gasoline on warm engine. Do not fill the fuel as shown in the picture.

FUEL COCK

This type of motorcycle has a manual fuel lever that can be located in the following three positions: "ON"(Open), "RES"(Reserved) and "OFF"(Close)

"ON": normally the fuel lever is in this position.



During this time, the gasoline flows through the fuel plug to the carburetor

"RES": If the fuel level in the fuel tank is too low. Turn the lever to the "RES" position to use the reserved fuel.

"OFF": When you stopped the engine, even for a few minutes, you should turn the fuel lever to "OFF" position.

CAUTION

After you stopped the engine, it will be very dangerous if the fuel lever is still in the "ON" or "RES" position. It will cause the carburetor to overflow and the fuel may flow into the engine, which, when the engine is started, may bring serious mechanical damage or fire.

You must turn the fuel lever to "OFF" position when you stopped the engine.

NOTE

When the fuel tank is in the "RES" position, refuel the tank at a nearby gasoline station at once. After the refueling, turn the fuel lever to "ON" position.

KICK STARTER LEVER

The kick starter lever is located on right side of the engine.

WARNING

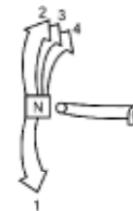
After starting the engine, check if the kick starter lever has returned to its normal position.

REAR BRAKE PEDAL

Stamping the rear brake pedal to brake the rear wheel. Meanwhile the rear brake indicator light turns on.

GEARSHIFT LEVER

This type of motorcycle has four gear positions. The lever is connected with a ratchet. When one gear has been chosen, the lever returns to its original position automatically for the choice of another one.



CAUTION

When the gearshift is in neutral gear position, the green indicator in the head light housing (neutral indicator light) will light.

STEERING LOCK

Turn the handlebar to the left and insert the key. Turn 180 degrees clockwise, then draw out the key. You have locked the steering lock.

WARNING

Don't move the motorcycle when the steering lock is locked. Otherwise you may lose balance.



HELMET LOCK

Insert the ignition key into helmet lock and turn counterclockwise to open the lock. Match the lock ring of the helmet to right position and lock the helmet lock. Then draw out the key.

WARNING

Do not ride with the helmet on the lock. The helmet may draw into the rear wheel and cause the motorcycle out of control.



FUEL AND ENGINE OIL RECOMMENDATION

FUEL

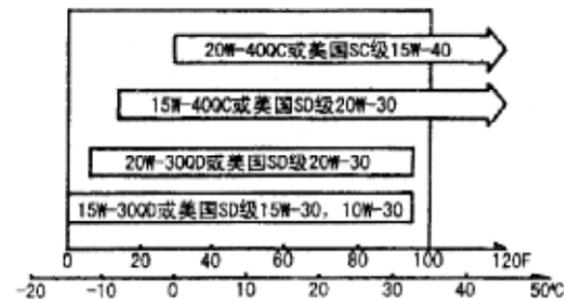
Please use SH0041-93 non-lead fuel with octane number great than 90.

Using non-lead fuel will prolong the service time of the spark plug, exhausting system and other parts of the motorcycle.

OIL

This motorcycle use the oil confirming to Chinese standard GB1121-95 and U.S. standard SAEJ183E80. Please use 15W/40 SF/CD GB1121-95 engine oil. We recommend you to use Skyteam's oil for 4-stroke engine-type 15W/40. Do not use common oil, vegetable oil or castor oil.

Please choose different oil according to the different area and temperature. Reference to the following chart.



RUNNING-IN

The forward explains how important the proper running-in is to achieve maximum life and performance of your new motorcycle. The following guidelines explain proper running-in procedures.

MAXIMUM SPEED

Initial 150km	Less than 30km/h
Up to 800km	Less than 35km/h
Up to 1600km	Less than 45km/h

TO VARY THE ENGINE SPEED

The engine speed should be varied and not held at a constant speed. This allows all the parts in the engine to be loaded and unloaded. The parts will cool down when they are unloaded. This is helpful in matching between the engine parts. During running-in period, it is necessary to apply a reasonable stress on all engine parts to ensure the best matching between them. The load applied should not be excessive.

TO AVOID CONSTANT LOW SPEED

Operating of the engine at a constant low speed (light load) can cause parts to be grazed and not properly seated. Allow the engine to accelerate freely at different gears provided that the recommended maximum limit is not exceeded. However, please do not use full throttle for the first 1600km.

ALLOW THE ENGINE OIL TO CIRCULATE BEFORE RIDING.

To start the engine that was in hot or cold condition, it should be allowed to have sufficient idling time prior to being loaded or running, this way could ensure the lubricating oil to be applied to all the important parts.

PERFORM YOUR FIRST AND THE MOST CRITICAL SERVICE

The first 1,000km service is the most important one that your motorcycle will receive. At this time all adjustments should be made, and all fasteners should be tightened and the dirty oil should be replaced.

Timely performing of the first 1,000km service will ensure optimum service life and performance of the engine.

CAUTION

The first 1,000km service should be performed as outlined in the Maintenance Schedule section of this Owner's Manual. Pay particular attention to the caution and warning in Maintenance Schedule section.

CHECKS BEFORE RIDING

Before riding the motorcycle, be sure to check the following items. Never underestimate the importance of these checks and perform all of them before riding your motorcycle.

WHAT TO CHECK	CHECK FOR:
STEERING	(1)Smoothness (2)No restriction of movement (3)No play or looseness
BRAKES	(1)Correct pedal and lever play (2)No dragging (3)No slippage
TIRES	(1)Correct pressure (2)Adequate tread depth (3)No crack or cuts
FUEL	Fuel enough for planned distance
LIGHTING	Operation of all lights: Head, Tail, Brake, Instrument and Turn signal lights
INDICATOR	Neutral indicator light
HORN SWITCH	Correct function
ENGINE OIL	Enough amount of oil
THROTTLE	(1)Correct play of the throttle cable (2)Easy operation and positive return of the throttle grip to the closed position.
TRANSMISSION CHAIN	(1)Suitable strain (2)suitable lubricating

RIDING TIPS

WARNING

- (1)If it is your first time to ride a motorcycle of this type, we suggest that you practice on a non-public road until you are thoroughly familiar with the controls and operation of the motorcycle.**
- (2)Riding with only one hand is extremely dangerous. Keep both hands firmly on the handlebars and feet securely on the footrests. Under no circumstances should both hands be removed from the handlebars.**
- (3)Don't try to shift gear in the course of cornering. Slow down to a safe speed before negotiating a corner.**
- (4)When the road surface is wet or slippery, there is a reduction in tire friction. You should reduce speed when you experienced these conditions in which braking and cornering ability are weakened.**
- (5)In the case of side winds which may be experienced at the exits of tunnels, when passing by the cut of hill, or when being overtaken by large vehicles, you should reduce speed and ride alertly.**
- (6)Follow the speed limit and traffic regulations at all times.**

STARTING THE ENGINE

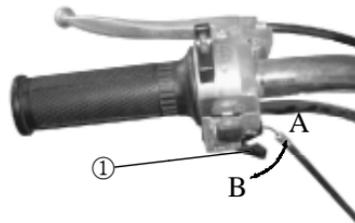
Check the fuel lever to make sure that it is at "ON" position, insert the key into the ignition switch and turn it clockwise to the "ON" position. When transmission is in neutral, the neutral indicator will light.

CAUTION

Always start the engine with the transmission in neutral.

WHEN THE ENGINE IS COLD

Turn the choke lever from "A" position to "B" position, push the electric starter button or depress the kick starter lever to start the engine. Immediately after the engine starts, let the engine run until the engine sufficiently warms up, then return the choke lever to its original position. When the engine runs smoothly and the choke lever is in its disengaged position, the engine is warmed up sufficiently. The more cool is the temperature, the more time is needed for warming up the engine.



WHEN THE ENGINE IS WARM

Open the throttle by 1/8 to 1/4, push the electric starter button or depress the kick starter lever. The operation of the carburetor choke system is usually not necessary when the engine is warm (the choke lever should be at "A" position).

NOTE

If 2~3 times operation can not start the engine, open the throttle grip 1/8 to 1/4 turn, then restart the engine.

A motorcycle not used for long-time or poor vaporized fuel may cause difficult starting, in this time, don't turn the throttle grip, but repeatedly start the engine.

WARNING

Do not run the engine indoor where there is little or no ventilation available. Carbon monoxide fumes are extremely poisonous. Never leave the motorcycle running while unattended, even for a moment.

CAUTION

Do not let engine run excessively without riding, or it will overheat and may damage internal engine components.

STARTING OFF

Automatic clutch

Stamp down the shifting lever, the first gear is engaged. Twist the throttle lever toward yourself, the motorcycle moves forward.

For shifting to next higher gear, slowly increase the speed, and then shut off the throttle. Turn shifting lever to next higher gear and open the throttle, the highest gear can be engaged by following these steps.

Manual clutch

Keeping the engine running at idle speed, pulling in the clutch lever and wait a minute, stamp down the shifting lever with left foot toe to engage the first gear. Slowly open the throttle and lightly leave the clutch lever, the gear is engaged and the motorcycle moves forward.

For shifting to next higher gear, firstly open the throttle, then shut off the throttle, at same time leave the clutch, stamp down the shifting lever to 2nd gear. Then lightly loosen clutch lever to let the gear engaged, then slowly open the throttle.

WARNING

Before starting off you must put the side stand back to its upper position. Don't let it hang.

DVRIVE ON A SLOPE

When climbing up a slope, the motorcycle may begin to decelerate and appear lack of power. You should change the gear shift to low speed positions, allowing the engine to run in normal power range. But the shift change should be quick to prevent the motorcycle loss the potential to move forward.

When going down a slope, you should gear down your engine to make it easy to break your motorcycle. Don't run your engine excessively.

USE THE BRAKE AND PARKING

Twist the throttle grip away from yourself to close the throttle completely

Apply the front and rear brakes evenly and at the same time.

NOTE

An inexperienced rider would only use the rear brake, which could speed up the wear of the brake and make the braking distance longer.

WARNING

It's dangerous to use the front or rear brake only. It can cause skidding and loss of control. When driving on wet and slippery roads or turning a corner, be extremely careful and brake slowly. Braking abruptly on a slippery or rough road is particularly dangerous.

WARNING

The higher the speed is the longer the braking distance is required. Be sure to keep distance between you and the vehicles or objects in front of you.

Pulling in the clutch lever and letting the linkage gear in the transmission disconnected, reduce the motorcycle speed and shift the gear into neutral, until full brake.

- Before you stop the motorcycle, change the gear to neutral position. See the neutral indicator light to ensure the gear is in the neutral position.
- The motorcycle should be parked on a solid and plain ground.
- If your motorcycle has to be parked by the side stand on a slope, you'd better get your motorcycle engaged in the first gear to prevent sliding. Return the gear shift to the neutral prior to starting the engine.
- Turn the ignition switch to "OFF" to shut down the engine.
- Take the ignition key out the switch.
- Turn the fuel lever to "OFF".
- Lock the steering lock.

CHECKS AND MAINTENANCE

The chart below indicates how many kilometers or how many months you have to make periodic services. At the end of each interval, be sure to check, inspect, lubricate and service as instructed. If your motorcycle is used under high load conditions such as continuous full throttle operation, or is operated in a dusty climate, certain services should be performed after that to ensure reliability of the motorcycle. Under this condition, Skyteam service station could give you further instructions. Steering components, suspension and wheel components are key items that require very special and careful servicing. We suggest that you have these items checked and serviced by your authorized dealer

CAUTION

Proper running-in maintenance(1000km)is a mandatory item that could make your motorcycle reliable and give full performance at all time. Be sure that this periodic maintenance is performed thoroughly and in accordance with the instructions in this manual.

PERIODIC MAINTENANCE CHART

Item \ Period	First 1000km	1600km	3000km	5000km	Afterwards Every 2000-3000km
* Engine fixing bolts and nuts	C(check)	C	C	C	C
* Intake and exhaust valve clearances (cold state)	C	A (adjust)	C	A	CA (Check&Adjust)
Transmission Chain tension					
Carburetor	C	Clean	C	C	CA
Air cleaner	-	-	Clean	-	Clean
Lubricating oil in gear box	Change	Change	Change	Change	Change
Lubricating oil filter gauze	C	C	C	C	C
Spark plug	C	C	C	C	C
Throttle grip and cable	C	-	C	C	C
* Front and rear brakes	C	C	C	C	C
Type pressure	C	-	C	C	C
Soft shaft of odometer	C	-	-	C	-
* wheel center bearings (Front & rear)	C	-	-	Oil	C
Gasoline tank cock	C	-	C	C	C
Steering stem	C	C	C	C	C
* * All fasteners	C	C	C	C	C
* Fuel and lubricating pipes	C	C	C	C	C

NOTES:

(1) This table is a reference for periodic maintenance, ideally more checks and maintenance should be carried out.

(2) "Check" in the table contains cleaning, adjusting, lubrication and changing.

(3) Ask for a professional repairer when you can not treat any items by yourself.

(4) The intake and exhaust valves should be checked after every 1,600km. The valve clearance in cold state is 0.05mm.

(5) After worn, the limiting thickness of the upper plate of the brake shoe is 1.5mm. The brake shoes should be replaced in full sets.

(6) Checks should often be made to see the swing condition of the front and rear wheels. If the wheel swing seriously, find out the reason and conduct troubleshooting.

**The steel rim and hub in front and rear wheel assemblies are connected by four connecting bolts (M8X16-Zn.D), whose tightening torque value is 18-25N.m.

NOTE

In the periodic maintenance you may need to change one or more parts. We suggest you to use Skyteam spare parts. We suggest you to go to qualified Skyteam service station for maintenance to the items with "*". For other items, you may check and maintain for yourself.**

TOOLS

To help you to implement the periodic maintenance, we supply you with a tool kit which is placed in the small bag below the rear side of the frame.

LUBRICATING

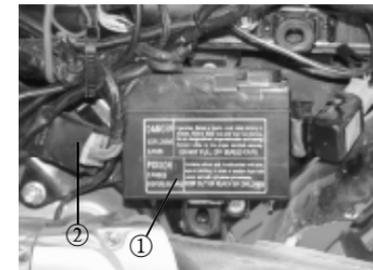
In order to keep every part of your motorcycle performing well and extend their service life, you should do proper for your driving. After driving on rainy day or washing the motorcycle, you are required to apply the lubrication on the necessary parts. The main places to be oiled are drive chain, brake cable, front brake lever and kick start lever pivot.

BATTERY

This battery is 12V-4Ah dry and needn't to be maintained, so it doesn't have to be checked and supplied with electrolyte.

When the left side cover of motorcycle is opened, the battery (1) and fuse (2) can be seen.

Pls cover the lid 25 minutes after adding the electrolyte, when the battery is used for the first time. The voltage should be higher than 12.5-12.6 volt when measured by the multi-meter. If the voltage is lower than the stipulated data, pls change the battery with the accumulator



ATTENTION

If the manufacturing date is before two years, the battery must be charged when it's the first time to use.

CHARGING METHOD

Pls charge 10-12 hours under 0.2ampere AC. Then the charging voltage is 12.5-12.6 volt, and the performance of the battery could act 90%-100% which allow the battery could be used for quite a long time.

CAUTION

The battery cover cannot be dismantled and more once assembled, because the battery is hermetic.

If the battery is not used for a long time, pls take it away from the motorcycle to avoid discharging or leaking automatically. Pls take apart the connector if the battery is left on the motorcycle.

AIR CLEANER

If the air cleaner filter is clogged with the dust, the intake resistance will be increased, resulting in the reduction of output power and more consumption of the fuel. The checks and cleaning should be conducted to the filter assembly for every 3,000km.

NOTE

Under dusty conditions, the air cleaner filter assembly must be cleaned or replaced more frequently.

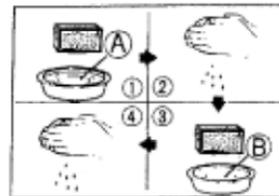
CLEANING THE FILTER ASSEMBLY

Clean the filter assembly as the following:

(1) Fill a washing pan of a proper size with non-flammable cleaning solvent (A), immerse the filter assembly in the solvent and wash it clean.

(2) Squeeze the solvent off the washed filter assembly by pressing it between the palms of both hands. Do not twist and wring it or it will develop fissures.

(3) Immerse the filter assembly in a pool of motor oil (B) and squeeze the oil off it to make it slightly wet with oil.



CAUTION

Before and during the cleaning operation, carefully examine the filter assembly for any crackles. A new one should be replaced if a crackle is observed.

(4) Reinstall the cleaned filter assembly. Be absolutely sure that the filter assembly is securely in position and is sealed properly.

CAUTION

Never start the engine without the filter assembly in position. It will quicken engine wear and shorten the engine service life.

SPARK PLUG

After the first 1,000km and afterwards every 3,000km riding, remove the carbon deposits from the spark plug with a small metal wire brush or a spark plug cleaner. Re-adjust the electrode gap of spark plug with a gap thickness gauge to make it between 0.6 to 0.7mm

The spark plug should be replaced after every 6,000km riding.



CAUTION

The standard spark plug for this motorcycle has been carefully selected to meet most operation ranges. If the spark plug color differs from a standard one, you should consult your Skyteam dealer before selecting an alternative plug with a different heat range. The selection of an improper spark plug can lead to severe engine damage.

CAUTION

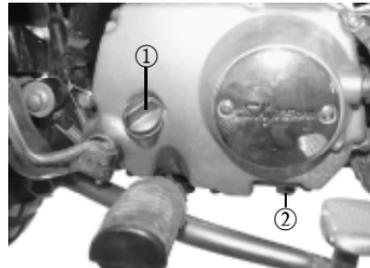
Do not over torque the spark plug otherwise threads of the cylinder head will be damaged. Do not allow contaminants to enter the engine through the spark plug hole when the plug is removed.

TRANSMISSION OIL(GEAR BOX OIL)

After a long time driving, the transmission oil may degrade, which could reduce the lubricating performance of the oil. Therefore, after first 1000km driving and every 6000km afterwards, change the oil according to the following instructions:

Changing of the oil in the engine case should be done when the engine is warm.

Screw out the oil gauge(1)and the drain plug(2)to drain the oil thoroughly. Then refit the drain plug and fill in new oil. The oil level can be checked by using the oil gauge: insert the oil gauge in the gear box, the oil level should be maintained between the upper limit marking and lower limit marking. (When checking, do not screw in but insert the gauge in to the oil filling hole.)



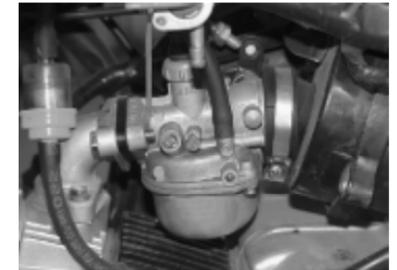
CARBURETOR

Undisturbed carburetion is the basis to ensure good performance of your engine. The carburetor has been presented to the optional condition before delivery. Do not attempt to change its setting. There are two adjustments that you should take care of: engine idle speed and throttle cable play.

CARBURETOR IDLE SPEED ADJUSTMENT

(1) Start up the engine and warm it up.

(2) When the engine is warm, turn off the throttle, turn the adjusting screw in or out so that the engine may run at its idle speed shown in "SPECIFICATIONS"



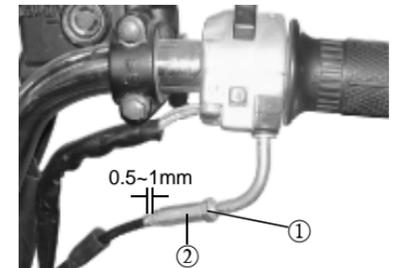
CAUTION

It is recommended that this adjustment be conducted by the approved dealer. You can do it by yourself according to the above procedures if a speedometer is available.

THROTTLE CABLE ADJUSTMENT

As shown in the figure, there should be 0.5-1mm backlash in the throttle cable. Adjust it according to the following instructions:

- Hold the hose of the throttle cable and check the backlash.
- Loosen the locking nut (1) and turn the adjusting nut (2) until the required backlash is obtained.
- Tighten the locking nut.



TRANSMISSION CHAIN ADJUSTMENT

We suggest you to change your transmission chain in Skyteam's service station or dealer's station when it has been worn.

WARNING

To ensure the safety, you should make checks and adjustments to the transmission chain before riding.

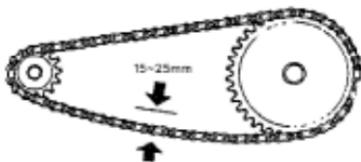
When performing the periodical check, the following states of drive chain should be checked.

(1)Loose pins (2)Damaged rolls (3)Dry and rusty chain links (4)Excessive damages (5)Twisted and bonded links (6)Loosely adjusted chain

If the above troubles are found, the sprocket is most likely to be damaged. Therefore the following check of the sprocket is necessary.

- (1)Excessively worn sprocket teeth.
- (2)Broken or damaged sprocket teeth.
- (3)Loosened locking nuts of the sprocket.

After every 1,000km riding, adjust the transmission chain tension according to the following method to ensure the sag is between 15-25mm. Depending on your riding conditions, you may make frequent adjustment.



WARNING

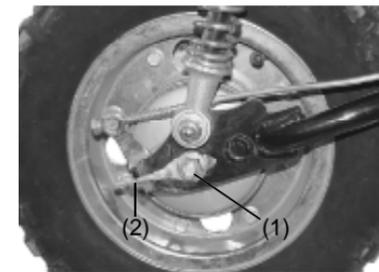
For every 1,000km riding at most, adjust the transmission chain tension. In fact you'd better to adjust before every riding. Excessive chain slack could cause the chain to come off the sprockets and result in an accident or serious engine damage. The transmission chain adjustment should be conducted as per following methods:

(1)Place the motorcycle on the side stand.

(2)Loosen the locking nut(1), and then loosen the adjusting nut.

WARNING

Hot exhaust pipe may hurt people, sometimes even the engine has been stopped. You must not check the chain unless the exhaust pipe has cooled down.



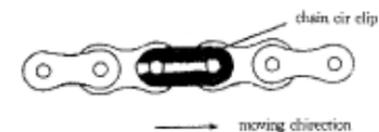
(3)Adjust the sag of transmission chain by turning the adjusting bolt to the right or left. At the same time, the centers of the front and rear sprockets must be held in alignment. For your convenience of adjustment, reference marks are made on swing arms and all chain adjusters. They can be aligned with each other and referenced from one end to another. Refit the locking nut(1) and lock the adjusting nut(2) after the sag of transmission chain is adjusted between 15-25mm.

NOTE

Be sure the two sprockets are not worn, or replace them with new ones.

CAUTION

Fit the joint clip to the chain with its open end toward the reverse movement direction.



CLEANING AND OILING TO THE TRANSMISSION CHAIN:

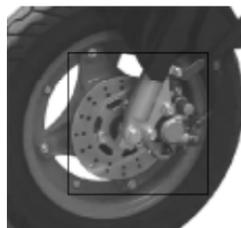
Dirty transmission chain will cause the weariness to not only transmission chain itself but also sprockets. After cleaning with cleaning fluid, use oil or special chain oil.



BRAKE

This motorcycle has hydraulic disc front brake and rear drum brake. Brakes are items of personal safety and should be properly adjusted. Remember to check periodically the brake system and these checks should be conducted by qualified Skyteam dealer

FRONT BRAKE



BRAKE FLUID

WARNING

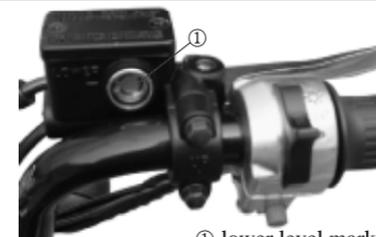
Brake fluid may cause irritation. Avoid contact with skin or eyes. In case of contact, flush thoroughly with water and call a doctor if your eyes were exposed.

CAUTION

Do not use the remained brake fluid from an unsealed container, never reuse the brake fluid remained in the last repairing, because the used brake fluid may absorb the water from the air. Use DOT 4 brake fluid from a sealed container. Do not spill out the brake fluid, when the brake fluid is glued to the paint, plastic and rubber material, a chemical reaction shall take place, causing the damage.

Check that the fluid level is above the lower level mark^① with the motorcycle in an upright position.

Brake fluid must be added to the reservoir when ever the fluid level begins to reach the lower level mark^①. Filling the reservoir up to upper level mark.



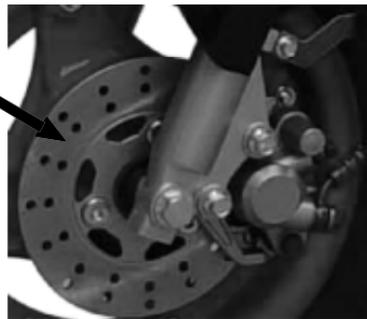
① lower level mark

CAUTION

Check if it is short of brake fluid, check the hose and other components for corrosion or cracks.

BRAKE LINING

The main points for checking the front brake lining are to see whether the lining wear is out of the range. Replace the brake lining wear is out of the range. Replace the brake lining if the lining wear is beyond the brake wear limit mark.

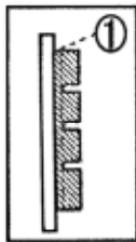


WARNING

If the brake system or brake linings have to be repaired, we suggest that these repair should be performed by your authorized Skyteam dealer. Skyteam dealer knows your motorcycle best and is dedicated to your complete satisfaction.

CAUTION

The high pressure brake is used by disc brake system. To ensure the safety, the replacement interval of oil pressure line and brake fluid should not be more than that stipulated in "MAINTENANCE SCHEDULE" of this manual.



① limit mark

Before riding the motorcycle, be sure to check daily the following items:

- (1) Check the front brake system for leakage of brake fluid.
- (2) Check the oil pressure line for leakage of fluid or tears.

- (3) Check the brake lever and brake pedal for free play
- (4) Check the front brake lining for wear.

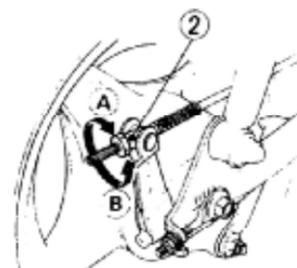
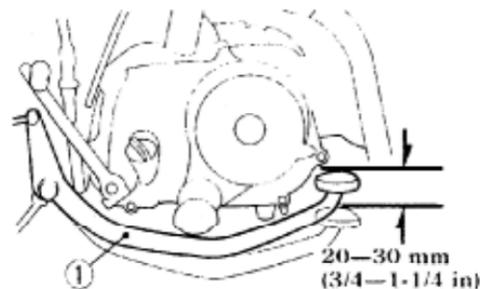
WARNING

When the new brake lining begins to be used, don't ride your motorcycle immediately after the replacement. Apply the brake, release it, then spin the wheel and check that it rotates freely. Repeat this procedures several times and allow the brake fluid to circulate normally

REAR BRAKE

When adjusting the rear brake, locate the pedal at the most comfort riding position.

When adjusting the travel of brake pedal(1), adjust the free travel to 20-30mm by screwing in or out the rear brake adjusting nut(2).



REAR BRAKE LIGHT SWITCH

The rear brake light switch is located below the right frame cover. To adjust the rear brake light switch, lift up or down the switch (adjust the nut) until the rear brake light turns on when the brake pedal is stepped down.

TIRES

Tire inflation pressure and tread should be checked regularly. To ensure a good performance and long service life, check your tires frequently for both wear and inflation pressure.

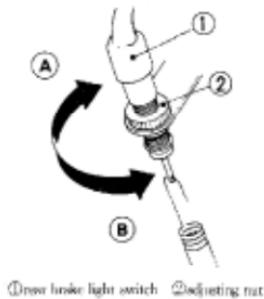
TIRE PRESSURE

Improper tire pressure will not only quicken tire weariness but also seriously affect the stability of the motorcycle. Insufficient pressure will make turning difficult. Too high pressure will cause less contacting area of the tire with the ground, which will bring the slippery or even the loss of control. Be sure to make the tire pressure in the stipulated limits. Adjust the air pressure correctly when the tires are cold.

Front tire pressure: 250kPa Rear tire pressure: 250kPa

TIRE TREAD CONDITION

Operating the motorcycle with excessively worn tires will decrease riding stability and can lead to loss of control. It is recommended that the front and rear tires be replaced when the remaining depth of tire tread becomes 1.6mm or less.



① Draw brake light switch ② Adjusting nut

WARNING

The standard of the tires of your motorcycle is: 3.50-8 4PR(front and rear tires). Using other types of tires may cause problem. We suggest you choose standard tires Skyteam provided.

The pressure and condition of tires are very important to the function and safety of the motorcycle. Please check frequently the weariness and pressure condition.

LIGHTING BULBS

When you change a burned light bulb, you must use the bulb of the same power. The use of bulbs with power higher than rated power will cause the overload of the whole circuit or the light to burn too early. Rated powers for bulbs please refer to “electrical system” in “specification list” of this manual.

FUSE

The fuse is located under the side cover and beside the battery. The whole electrical system is protected by one fuse. If the engine suddenly stopped during the ride or electrical system is cut, you should inspect the fuse first.

NOTE

Be sure to use the fuse with right electrical flow. Do not use aluminum or iron thread to replace it. If the fuse often melts, that means that the electrical system has problem. You should inspect in the Skyteam service station.

TROUBLE SHOOTING

If the engine can't be started, please perform the following checks to find out the reasons.

- (1)Whether there is sufficient fuel in the fuel tank.
- (2)Whether the fuel flows from the fuel cock into the carburetor
- (3)Disconnect the carburetor and turn the fuel lever to "ON" position to see if there is fuel flowing out of the hose.
- (4)If the fuel has arrived the carburetor, then check the ignition system.

WARNING

Do not let fuel run off, always keep it in vessel. Keep the fuel away from the hot engine or exhaust pipe. Keep away from any fire or hot material.

- (1)Take off spark plug and connect it again to the inlet of spark plug.
- (2)Turn ignition switch to "ON" position, make the spark plug close to the engine case and start the engine. If the ignition system works normally, the blue flare flashed across the spark plug gap; if there is no flare, you should consult with your dealer for the repair

WARNING

Don't let the spark plug near spark plug opening aperture in cylinder head. Because the fuel vapor in the cylinder can ignite and cause fire.

WARNING

To prevent the possibility of lightening, you'd better not let the metal shield of the spark plug touch the metal part of the engine that without painting. The people who has heart disease or is fixed with a cardiac muscle frequency modulator should not do this work to prevent the possibility of lightening.

NOT ENOUGH ENGINE POWER

- (1)Check the supply system of the fuel tank.
- (2)Check the ignition timing of the ignition system.
- (3)Check the idle speed of the engine.

NOTE

You'd better contact with Skyteam service station before the trouble-shooting. The repair without Skyteam service station's agreement may influence the content of the items of service.

SPECIFICATIONS

DIMENSION AND DRY MASS

Overall length	1375mm
Overall width	600mm
Overall height	860mm
Wheel base	900mm
Ground clearance	120mm
Dry mass	64kg
Max. laden weight	90kg

MAIN PERFORMANCE PARAMETERS

Fuel consumption at economical speed	≤ 1.5L/100km
Rated power	1.6km(7500r/min) (ST50-8、ST50-8A) 4.5kw(7500r/min) (ST110-8、ST110-8A)
Max. torque	2.75N.m(4500r/min) (ST50-8、ST50-8A) 6.5N.m(4500r/min) (ST110-8、ST110-8A)
Idle speed	1350r/min (ST50-8、ST50-8A) 1400r/min (ST110-8、ST110-8A)

ENGINE

Model	139FMA-2 (ST50-8、ST50-8A) 152FMH (ST110-8、ST110-8A)
Type	Single-cylinder, four-stroke, forced air-cooled
Bore x stroke	39mmx41.4mm (ST50-8、ST50-8A) 52.4mmx49.5mm (ST110-8、ST110-8A)
Piston displacement	49.0cm ³ (ST50-8、ST50-8A) 107cm ³ (ST110-8、ST110-8A)
Compression ratio	8.8:1 (ST50-8、ST50-8A) 9.1:1 (ST110-8、ST110-8A)
Starter system	Electric starting and Kick starting
Carburetor	Piston type
Air cleaner	Dry
Lubrication system	Pressure and splashing lubrication

TRANSMISSION

Clutch	Automatic, centrifugal type
Transmission type	4-gear, pedal

Gear ratio(crankshaft: output shaft)

First gear	13.28:1
Second gear	6.98:1
Third gear	4.83:1
Fourth gear	3.70:1

CHASSIS

Tire size	Front tire 3.50-8 4PR Rear tire 3.50-8 4PR
Tire pressure	Front tire 250kPa Rear tire 250kPa
Suspension	Spring(front, rear)
Brake	Disc type (front) Drum type (rear)
Steering angle	40°(right and left)
Negative caster	27°
Turning dia.	3000mm

ELECTRICAL

Ignition type	CDI
Generator	Magneto
Battery	12V-4Ah
Spark plug	A7TC
Head light	12V 35W/35W
Turning signal indicator light	12V 10W
Tail/brake light	12V 3W/10W
Instrument indicator light	12V 3W
Horn	12V 1.5A 95dB(A)
Fuse	10A

CAPACITIES

Fuel tank	4.5L(ST50-8、ST110-8) 8.5L(ST50-8A、ST110-8A)
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All information, illustrations, photographs and specifications contained in this manual are based on the latest product information available at time of publication. Due to improvements or other changes, there may be some discrepancies in this manual. Skyteam reserve the right to make changes at any time without notice.

