

# Lifan Owner Manual

- Lifan LF125GY-5
- Lifan LF150GY-5
- Lifan LF200GY-6

First Edition -English

## PREFACE

Thank you for choosing LIFAN motorcycle. May you enjoy riding all time.

The manual contains the necessary instructions and guidance with respect to the operation and maintenance of the motorcycle, and **BE SURE TO READ IT CAREFULLY BEFORE YOU RIDE THE MOTORCYCLE**. Proper operation and maintenance can guarantee a safe riding to minimize troubles of the motorcycle and keep it in a sound condition, which can extend the engine service life.

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## IMPORTANT NOTICE

### ● Operator and Passenger:

This motorcycle can carry an operator and one passenger. The maximum load weight of the motorcycle must not exceed 150kg.

### ● Off-road:

This motorcycle is designed for off-road use.

Pay special attention to statements preceded by the following words:

**⚠WARNING:** Indicates a strong possibility of severe personal injury or death if instructions are not followed.

**⚠CAUTION:** Indicates a possibility of equipment damage if instructions are not followed.

**NOTE:** provides helpful information.

**Environmental Protection (EP):** indicates special precautions that must be taken to meet environment protection laws and regulations. Improper use of a motorcycle may cause environment pollution.

Never take any actions on your motorcycle if it requires any repair, take it to a professional or an authorized service station, otherwise, you may take upon yourself the consequences.

The manual should be considered as a permanent part of the motorcycle and should remain with the motorcycle when resold.

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# MOTORCYCLE SAFE RIDING

## SAFERIDING RULES

**⚠WARNING** Motorcycle riding requires special efforts on your part to ensure safety. Know these requirements before you ride.

- Always make a pre-ride inspection before you start the engine. You may prevent accident or equipment damage.
- Most countries require a special motorcycle riding test or license. Make sure you are qualified before you ride. NEVER lend your motorcycle to an inexperienced rider.
- Make yourself conspicuous to help avoid the accident that wasn't your fault:
  - a) Wear bright or reflective clothing.
  - b) Don't ride in another motorist's "blind spot".
  - c) Don't speedily cross another's way.
  - d) Obey all national and local laws and regulations.
  - e) Obey the speed limits, and NEVER travel faster than conditions warrant.
  - f) Signal before you make a turn or lane change to draw other motorists' attention.
  - g) Use extra caution at intersections, parking lot entrances and exits.
  - h) Always remember to ride with both hands and keep both feet on the rider footrest while the passenger grasps the handrail with both feet on the rear footrest.

## PROTECTIVE CLOTHS

- For the safety sake, always wear a helmet, a face shield, dust glasses and protective clothing. Your passenger needs the same protection.
- The exhaust system becomes hot during operation, and it remains hot for a while after stopping the engine. Take care not to touch the exhaust system while it is hot. Wear clothing that fully covers your legs.
- Do not wear loose clothing that could catch on the control levers, wheels, etc.

## REFITTING

**⚠WARNING** Arbitrarily refitting the motorcycle or removing the original parts may make riding unsafe, and is illegal also. The user

must obey all national and local laws and regulations in relation to vehicle and traffic. If you have a good proposal concerning refitting of the motorcycle, please write us. The refitment can be done with permission of the Co. Otherwise, the user will take the consequences.

## LOADING

**⚠WARNING** Addition of accessories and cargo may reduce the motorcycle's stability, performance and safe operating speed.

- Keep cargo and accessory weight lower and close to the center of the motorcycle. Load weight equally on both sides to minimize imbalance. As weight is located further from the motorcycle's center of gravity, handling is proportionally affected.
- Adjust tyre pressure and rear suspension to suit load weight and riding conditions.
- Make sure that cargo is fastened on the vehicle.
- Do not attach items to the handlebars, fork or fender. Otherwise, unstable handling or slow steering response may occur.
- The maximum load weight of the motorcycle is 150kg. Please do not overload.

## ACCESSORIES

Genuine accessories of the Motors have been specifically designed and tested on the motorcycle. Because the factory cannot test all other accessories, you are personally re-sponsible for selection, installation and use of accessories not produced by the Co. Always follow Safe Riding Rules and these below:

- Carefully inspect the accessory to make sure that it does not obscure any lights, reduce ground clearance or banking angle, or limit suspension travel, steering travel or control operation.
- Do not install other cooling equipment for the engine.
- Do not add electrical equipment that will exceed the motorcycle's electrical system capacity.

## GENERAL INFORMATION

### PARTS LOCATION (Fig. 1-3)

Fig. 1 (Left view)



- ① Fr. fender ② Headlight ③ Tank trim cover ④ Carburetor ⑤ Seat  
⑥ Side-cover ⑦ Rear carrier ⑧ Taillight ⑨ Tool box ⑩ Side stand  
⑪ Engine code ⑫ Gearshift pedal ⑬ Nameplate ⑭ Fr. shock absorber

Fig. 2 (Right view)



- ① Rr. winker ② Exhaust muffler ③ Kick-starter ④ Fuel filler cap  
⑤ Fr. winker ⑥ Fr. wheel ⑦ VIN ⑧ Rr. brake pedal  
⑨ Rr. fork ⑩ Rr. wheel



## CONTROLLING PARTS

### METER AND INDICATORS (Fig. 8)

- ① Speedometer
- ② Odometer
- ③ Left turn signal indicator, "←"
- ④ Right turn signal indicator, "→"
- ⑤ Tachometer
- ⑥ Red zone of tachometer

It means that the engine runs at a top limit speed, in this case, service of the engine will be shortened.

**NOTE** Avoid the needle entering the red zone.

- ⑦ Gear indicator
- ⑧ Hi-beam indicator, "H"
- ⑨ Trip meter
- ⑩ Reset knob of trip meter

### IGNITION SWITCH AND STEERING LOCK

#### Ignition Switch (Fig. 9)

The 2-position ignition switch is located under the meter, and equipped with 2 keys. It functions as follows:

- "OFF": Engine and lights cannot be operated and the key can be removed.
- "ON": Engine and lights can be operated, and the key cannot be removed.

#### Steering Lock (Fig. 10)

The steering lock is located on the left side of the



Fig. 8



Fig. 9 Ignition switch



Fig. 10 Steering lock

steering tube. To lock the steering head, turn left the steering bar as far as it will go, align the lock core with a hole, then insert the key and turn it counterclockwise to lock, at last remove the key. Unlock in the reverse order of lock.

### RIGHT HANDLEBAR CONTROLS (Fig. 11)

#### Emergency Switch

In an emergency, depressing the switch to "OFF" will stall the engine at once; in normal riding cases, always set the switch to "ON".

#### Starter Button

Depress the button "P" to start up the engine.

#### Front Brake Lever

Pull the front brake lever toward to apply the front brake.

#### Throttle Grip

The grip used to control the engine's rotational speed, turning in the grip will increase fuel supply, while turning out it will decrease fuel supply.

### LEFT HANDLEBAR CONTROLS (Fig. 12)

#### Headlight Dimmer Switch

Push the switch to "H" to select high beam. Push the switch to "L" to select low beam.

#### Lighting Switch

"ON": The headlight, taillight and meter indicators are bright.

"P": The parking light, taillight and meter indicators are bright.



Fig. 11

- ① Emergency switch
- ② Starter button
- ③ Front brake lever
- ④ Throttle grip

"●"(OFF): The headlight, parking light taillight and meter indicators are off.

### Turn Signal Switch

Move the switch to "←" to signal a left turn, and to "→" to signal a right turn.

While normally riding or after turning, keep the switch in the "●" position with all the wipers turned off.

### Horn Button

Press the button "↔" to sound the horn.

### Clutch Lever

It is designed to disengage/engage the crankshaft from/with the transmission and rear wheel for starting the engine or gearshifting.

### CHOCK LEVER (Fig. 13)

The choke lever is located in the left-front of the handlebar. Close the choke by lifting the lever and open it by pushing down the lever.

### REFUELING AND FUEL FILLER CAP

#### Fuel Tank (Fig. 14)

The fuel tank capacity is 10.5 L including the reserve supply of 2.3 L.

#### Fuel Filler Cap

Opening of cap

- Open the lid and insert the ignition key.
- Turn the key clockwise by 90°.
- Remove the cap.

To reinstall the cap, depress it onto the tank inlet in position, then turn and remove the key.



Fig. 12

- ① Headlight dimmer switch
- ② Lighting switch
- ③ Turn signal switch
- ④ Horn button
- ⑤ Clutch lever



Fig. 13

### ⚠WARNING

- Do not overfill the tank (there should be no fuel in the filler neck). After refueling, make sure the fuel filler cap is closed securely.
- Gasoline is extremely flammable and is explosive under certain conditions. Refuel in a well-ventilated area with the engine stopped. Do not smoke or allow flames or sparks in the area where the fuel tank is refueled.



Fig. 14

- Before refueling, make sure to filter fuel first. Spilled fuel vapor may ignite. If any fuel is spilled, make sure the area is dry before starting the engine.

KEEP OUT OF REACH OF CHILDREN.

### FUEL COCK (Fig. 15)



- The 3-way fuel cock is on the bottom-left side of the fuel tank. With the fuel cock in the "●" position, fuel cannot flow from the tank to the carburetor. Turn it OFF whenever the motorcycle is not kept in use.
- With the fuel cock in the "☐" position, fuel will flow from the main fuel supply to the carburetor. With the fuel cock in the "☐" position, fuel flow the reserve fuel supply to the carburetor. Use 2.3 L of reserve fuel only when the main supply is gone. Refuel at the earliest opportunity.

**⚠CAUTION** After refueling, return the fuel cock to ON position. Otherwise, you may run out of fuel with no reserve. Learn how to operate the fuel cock when riding the motorcycle.



### GEARSHIFT PEDAL (Fig. 16 & 17)

The motorcycle is equipped with a 5-speed mesh transmission. The gear indicator shows the gear position at present.



Gearshift pedal Fig. 16

#### International 5-speed

It is forbidden to gearshift up or down when the throttle is still not decreased and the clutch is in



#### Non-cyclic 5-speed

It is forbidden to gearshift up or down when the throttle is still not decreased and the clutch is in



Fig. 17

### REAR BRAKE PEDAL (Fig. 18)

The rear brake will function and the rear stop light will glow when applying the pedal.



Fig. 18  
Rear brake pedal

### REAR SHOCK ABSORBER (Fig. 19)

The rear shock absorber is located on the middle of the frame. It is of adjustable type for different loads or riding conditions. To increase the spring preload for a stiffer rear suspension, turn the adjusting nut in direction B, then tighten up the lock nut. To decrease the spring preload to suit light



Adjusting nut  
Rr. shock absorber  
Fig. 19  
Lock nut

loads and smooth road conditions, turn the adjusting nut in direction A, then tight the lock nut.

### SIDE STAND (Fig. 20)

When parking the motorcycle, turn the side stand clockwise as far as it will go. Before riding, turn it to the initial position.

#### CAUTION

Be sure to turn the side stand in the position B before driving the motorcycle. Otherwise, it may fall over.



Fig. 20

## OPERATION GUIDE

### PRE-RIDE INSPECTION

Inspect your motorcycle every time before you ride it. The items listed here will only take a few minutes to inspect, and in the long run they can save time, expense, and possibly your life.

1. Engine oil level - add engine oil if required. Check for leaks.
2. Fuel level - refuel when necessary. Check for leaks.
3. Front and rear brakes - check operation, and adjust free play if necessary.
4. Tyres - check condition and pressure.
5. Battery electrolyte - check that the electrolyte is suitable.
6. Throttle - check for smooth opening and full closing in all steering positions. Adjust or replace it if necessary.
7. Lights and horn - check that headlight, tail/brake light, wipers, parking light, indicators and horn function properly.
8. Drive chain - check condition and slack. Adjust and lubricate if necessary.
9. Fasteners - check that all nuts, screws and bolts are mounted securely.
10. Steering system - check for its smoothness and reliability.

### STARTING THE ENGINE

**⚠ WARNING** Do not start the engine in a narrow area to prevent accidents. The exhaust contains poisonous carbon monoxide (CO) gas that cause loss of consciousness and lead to death.

Attempting to start the engine with the transmission in gear may result in damage to equipment.

Before starting, confirm the following:

- Make sure the fuel in the tank is enough. Set fuel cock to "I" position.
- Insert the ignition switch and turn it to "ON" position.
- Move the gearshift pedal into NEUTRAL to light up the indicator "N" (green).
- Set the choke lever to the fully closed position if the engine is cold.

**CAUTION** Do not abruptly tread the kick-starter to avoid being an injury to your foot or damaging the engine case due to its rebound.

- With the throttle slightly open (less than 1/8 of its entire opening), operate the kick-starter so as to start the engine. Then push choke lever to half-open position.
- Warm up the engine entirely at an idle speed of 1400r/min until it works normally, and then push the choke lever to its fully open position.

**NOTE** Starting up the engine in regions with especially low air temperature, tread the kick-starter pedal several times first to revolve the crankshaft a few turns while the ignition key should be at "ON".

### BREAKING-IN

Help assure your motorcycle's future reliability and performance by paying extra attention to how you ride the first 1000km. During this period avoid full throttle riding, be sure to drive at a speed no more than 80% of each gear and to continually changing speed. After the break-in period, be sure to conduct maintenance on your vehicle to keep it in a sound condition.

### RIDING

- Start the engine and warm up it.

- While the engine idling, pull in the clutch lever and push down the gearshift pedal to shift into low (1st) gear.
- Slowly release the clutch lever and at the same time gradually increase engine speed by opening the throttle.
- When the motorcycle attains a steady speed, close the throttle, pull in the clutch lever and shift to 2nd gear by treading the gearshift pedal.

This sequence is repeated to progressively shift to higher gears.

- Coordinate the throttle with brakes for smooth deceleration.
- Both front and rear brakes should be used at the same time and should not be applied strongly enough to lock the wheel, or braking effectiveness will be reduced and control of the motorcycle be difficult.

#### **CAUTION**

It is forbidden to gearshift up or down when the throttle is still not decreased and the clutch is in. Otherwise, damage to the engine, chain and other parts may occur. Make sure the gearshift pedal is operated gently and exactly. Riding with your foot resting on the brake pedal may suddenly change a speed and/or damage the driving mechanism.

#### **BRAKING AND PARKING**

To stop the motorcycle, close the throttle and disengage the clutch by pulling in the clutch lever, then smoothly operate the front and rear brakes until stopping the motorcycle.

Shift the transmission into neutral, turn the emergency switch to "☞" position. Then set the fuel cock to "●" position, support the motorcycle with the center or side stand. After parking, turn the ignition switch to "☞" position and lock the steering

lock, followed by removing the key.

#### **CAUTION**

For parking, gradually apply both the front and rear brakes until stopping the motorcycle, prevent it from side-slipping or falling over. Independent use of only the front or rear brake downgrades stopping performance, and may damage or wear the brake speedily. Be careful to avoid applying an emergency brake when riding on wet surfaces, or at a high speed. Otherwise a traffic accident may happen.

# MAINTENANCE

## TOOL KIT (Fig. 21)

Some roadside repairs, minor adjustments and parts replacement can be performed with the tools available in the kit.

- ① Screw driver handle
- ② Double-end screw driver
- ③ Spark plug, #16 × #18
- ④ Open-ended spanner, 8 × 10mm
- ⑤ Open-ended spanner, 13 × 15mm
- ⑥ Tool bag



Fig. 21

## MAINTENANCE SCHEDULE

Maintenance work should be performed in light of Maintenance Schedule. Letters in the table indicate as follows:

I: INSPECT AND CLEAN, ADJUST, LUBRICATE OR REPLACE IF NECESSARY

C: CLEAN R: REPLACE A: ADJUST L: LUBRICATE

\* The item should be serviced by your dealer, unless the owner has the proper tools and is mechanically qualified. Refer to the manual.

\*\* In the interest of safety, we recommend these items should be serviced only by your dealer.

NOTES: ① Clean more frequently when riding in unusual wet or dusty areas.

② At higher odometer readings, still follow the frequency intervals established in this manual.

ITEM	REGULAR SERVICE	ODOMETER READING, km (Note ②)				Remarks
		1,000km	4,000km	8,000km	12,000km	
* Fuel line system			I	I	I	
* Fuel filter		C	C	C	C	
* Throttle operation		I	I	I	I	
* Carburetor choke			I	I	I	
Air cleaner element	Note ①		C	C	C	
Spark plug		I	I	I	I	
Lubricant in gear case	Yearly	R	After 500km - 1000km, every 2,000km-R			
* Crankcase dirt		I	I	I	I	
* Engine idle speed		I	I	I	I	
Drive chain		I, L	I, L	I, L	I, L	
Battery	Monthly	I	I	I	I	
Brake shoes/pad wear			I	I	I	
Brake system		I	I	I	I	
* Brake light switch		I	I	I	I	
* Headlight adjustment		I	I	I	I	
Clutch		I	I	I	I	
Side stand			I	I	I	
* Suspension		I	I	I	I	
* Nuts, bolts, fasteners		I	I	I	I	
** Wheels/spokes		I	I	I	I	
** Steering bearings		I			I	

## ENGINE OIL (EP)

### Check of Engine Oil (Fig. 22)

Check the engine oil level every use. The dipstick ① is located onto the rear portion of the right crankcase cover. The level must be maintained between upper mark ② and lower mark ③.

- Place the motorcycle on a level ground with the center stand. Remove the dipstick, wipe it clean. Reinsert and screw in the dipstick, then remove it for checking.
- Add engine oil SAE15W/40-SE to upper level mark ②. Do not overfill.
- Insert the dipstick. Check for leaks.

**CAUTION** Running the engine with insufficient oil can cause serious damage to the engine.

### Change of Engine Oil (Fig. 23)

It is better to drain when the engine is still warmed.

- Place an empty container under the engine, unscrew the drain plug.
- Tread the kick-starter pedal several times so as to help empty the oil thoroughly.
- Reinstall the drain plug, and tighten it up.

※ Pour approx. 0.9L of SAE15W/40-SE into the engine. Restart the engine, keep it idle for a few minutes, and then stall it. Recheck the oil level, and add oil if necessary.

**CAUTION** When running in very dusty conditions, oil changes should be performed more frequently than specified in the maintenance schedule.

### CLEARAWAY CARBON DEPOSIT (EP)

Clear away carbon deposit around the spark plug and piston ring, on the piston top, in the piston ring slot and combustion chamber regularly.



Fig. 22  
① Dipstick  
② Upper level mark  
③ Lower level mark



Drain plug Fig. 23

## SPARK PLUG (EP) (Fig. 24)

Spark Plug Type: D7/D8

### Check and Replace

- Disconnect the spark plug cap from the spark plug. Clean any dirt from around the spark plug base. Remove the spark plug by the special wrench.
- Inspect the electrodes and center porcelain for deposits, and clean with a wire brush. If the spark plug is damaged, replace it.
- Check the spark plug gap which should be  $0.7 \pm 0.1$  mm, and adjust by bending the side electrode if necessary.



Fig. 24

## AIR CLEANER (EP) (Fig. 25)

The air cleaner must be cleaned and then soaked in clean oil at least once every 4000km's drive. Riding in very dusty area, the job should be done more often. See your dealer for further information.

- Remove the right side cover. Then remove the air cleaner cover by driving out the screws, and take out the element.
- Wash the element in cleansing solvent and dry it.
- Soak the element in gasoline engine oil SAE15W/40-SE until saturated, and then squeeze out the excess oil.
- Install the removed parts in the reverse order of removal.



Fig. 25  
① Screw  
② Air cleaner cover  
③ Element

## VALVE CLEARANCE (Fig. 25)



Fig. 26

- ① T mark
- ② Index mark
- ③ Adjusting screw
- ④ Locknut

Check valve clearance when the engine is cold at the specified intervals.

- Remove the view hole cap on the front-left case cover, magneto cap and cylinder head cover.
- Rotate the flywheel counterclockwise until T mark on the flywheel aligns with the index mark on the view hole. Check it is in TDC of the compression stroke by moving the rocker arms. If they are free, it means check can be done. Otherwise, rotate the flywheel through 360°.
- Clearance should be 0.05mm for the intake and exhaust valves.
- If it is necessary to make an adjustment, loosen the valve lock nut and turn the adjusting screw so there is a slight resistance when the feeler gauge is inserted. Then tighten up the lock nut, and recheck the clearance.

## EXHAUSTMUFFLER(E<sup>P</sup>)

Clear away regularly carbon deposit in the exhaust pipe; check the exhaust pipe inside for crack and washer for damage, and repair or replace if necessary.

### 3-WAY CATALYTIC CONVERTER (OPTIONAL) (E<sup>P</sup>) (Fig. 27)

3-way catalytic converter is mounted on the exhaust system of motorcycle. It is designed to decrease contaminations such as CO, HC, NO<sub>x</sub>, etc. by redox reaction to catalyst when the exhaust gases flow through the device.

Applying the catalyst controls the pollutant emissions from the motorcycle, i.e. a chemical reaction sets in when exhaust gases pass through the converter

that contains a catalyst. The noble metal catalyst is characterised by good adhesiveness, and accelerates a chemical reaction without itself being affected. Its basic principle is as follow: pollutants in the exhaust gases, such as CO, CH, NO<sub>x</sub>, etc. spread into micro-holes in the catalyst when gases pass through the device, an adsorption reaction happens on the surfaces of catalyst, as a result, converting them into harmless compounds (CO<sub>2</sub>, H<sub>2</sub>O, N<sub>2</sub>, etc.) and entering the air. The purging efficiency of catalyst varies with temperature of, density of and speed of gases.

Attention should be drawn to the following points during service:

1. Handle 3-way catalyst with care, don't knock or press it, and keep away oil and dirt. It should be stored in dry and well-ventilated place.
2. Never let acid liquid or electrolyte infiltrate into the exhaust muffler, otherwise, make the catalyst inefficient.
3. Unleaded gasoline should be used.

**NOTE:** The exhaust muffler marked with LC-X is equipped with the product only. See table below:



Fig. 27

Mark	Engine Model
LC-2A	1P30MB, 1P30MG (1P30MG)
LC-2	1P30MB, 1P30MG, 1P30PF, 1P30M, 1P30PF
LC-3	1P30MJ, 1P30J, 1P30PJ, 1P30J
LC-3A	1P30MT
LC-4	2V40PM
LC	1P30MJ, 1P30J

## FUEL FILTER (Fig. 28)

The fuel filter is namely a fuel cock gauze. Unscrew the screw, remove the gauze, and then clean the gauze in gasoline. Reinstall the parts in the reverse order.

## OPERATION OF THROTTLE (Fig. 29)

- Check for smooth rotation of the throttle grip from the fully open to the fully closed position at both full steering position.
- Measure the throttle grip free play at the throttle grip flange. The standard free play should be approx. 2-6mm. To adjust the free play, loosen the locknut, turn the adjuster. Adjustment over, fasten the locknut.



## IDLE SPEED OF CARBURETOR (EP) (Fig. 30)

● The carburetor is installed between the engine and air cleaner.

**NOTE** The carburetor has been set accurately in factory. The user only needs to adjust idle speed after the engine is warmed up.

- Adjust idle speed with the throttle stop screw to set idle speed at about 1500r/min. Turn the screw in A direction will increase idle speed, in B direction decrease idle speed.



- When the engine has no idle speed or runs at a decreased speed, set the throttle stop screw in the middle between the two limit positions to help mix air and fuel.

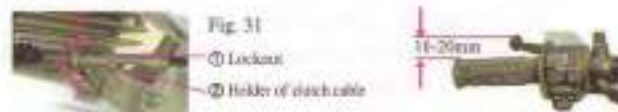
- Run the engine again. Readjust the throttle stop screw, if necessary.

## CHECK LEAKS ALONG AIR SUPPLY LINE (EP)

Check regularly air supply line, specially such as the joint between the muffler and engine, the joint between the air cleaner, carburetor and inlet pipe, etc. for leakage, and repair or replace damaged parts once there are some troubles to assure a normal air supply, and avoid polluting the environment.

## ADJUSTMENT OF CLUTCH (Fig. 31)

- The free play should be 10-20mm and the free clearance be 3-4mm. Adjust as follows: loosen the locknut ① located at the holder ② of clutch cable.
- Turning in direction A will decrease the free play, in direction B increase the play.



## DRIVE CHAIN (Fig. 32)

### Check

Check the drive chain for wear and slack. Lubricate the chain if it seems to be dry.

Slack should be 10-20mm. Support the motorcycle with the center stand, check slack in the lower chain run midway between the sprockets.

### Adjustment

Loosen the rear axle nut and lock nut, turn both adjusting bolts until the chain slack meets the standard, and make sure left and right adjusters align with the same index marks. After checking, tighten up the rear axle nut with a torque of 50-60N.m.

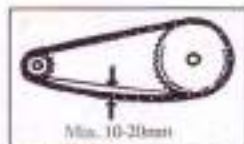


Fig. 32

- ⑩ Chain clip ⑪ Adjusting bolt ⑫ Locknut  
⑬ Rear axle nut ⑭ Chain

※ Check the chain for slack.

※ If slack of chain is changed, recheck and readjustment to rear brake should be conducted, because such change will influence the free play of rear brake.

### Lubrication

Pull out the chain clip with pliers, remove the joint and chain. Wash the chain in cleansing solution and dry it in the air. Check the chain including link plates, bushings, and rollers for damage, cracks, wear-out. Replace if necessary. Lubricate the chain, then reinstall and adjust it.

**CAUTION** The chain clip shall be so installed as to make sure that its closed end faces the direction of wheel rotation.

### FRONTBRAKE

#### Drum Brake (Fig. 33)

Measure the distance the tip of the front brake lever moves before the brake starts to engage. The free play should be 10-20mm. If adjustment is necessary, turn the adjusting nut until meeting the specified value. Apply the brake several times and check for free wheel rotation after the brake lever is released.



Fr. brake lever



Fig. 33 ① Brake arm ② Pin  
③ Adjusting nut

**NOTES** Make sure the curved slot in the adjusting nut is corresponding with the pin after making final free play adjustment. If such adjustment is still unsatisfactory, see your dealer for help.

#### Disc Brake (Fig. 34)

When operating the brake lever, the pads equipped with caliper will clamp the brake disc. If any pad is worn to its limit depth, replace both pads as a set in no time.

Place the motorcycle on the level ground. Check the brake fluid level through the sight glass. If the fluid level is below the LOWER, loosen the cylinder cover screws, remove the cover, add brake fluid up to the UPPER level mark.

### ⚠ WARNING

Apply only specified brake fluid, or braking effectiveness and riding safety will be affected adversely. Do not allow contaminants such as dirt or water to enter the brake fluid tank. Brake fluid may cause irritation. Avoid contact with skin or eyes. In case of contact, flush thoroughly with water.

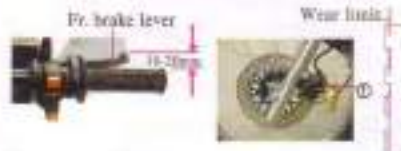


Fig. 34

- ① Brake caliper ② Sight glass ③ Main cylinder  
④ Screw ⑤ Cover



The free play should be 10-20mm. Adjust it as follows if necessary:  
Pump the brake lever, then gently loosen the bleed valve while holding the lever. Take care to tighten up the bleed valve as soon as flowing fluid. Repeat above procedure until the system is completely bled.

Apply the brake several times and check for free wheel rotation after the brake lever is released.

### REAR BRAKE (Fig. 35)

The free play of the rear brake pedal should be 20-30mm. If adjustment is necessary, conduct as follows:



Fig. 35

- ① Rr. brake pedal
- ② Adjusting nut
- ③ Pin



To adjust, turn the adjusting nut. Turning it in the clockwise direction will decrease the free play, and in the counterclockwise direction increase the free play.

Apply the brake several times and check for free wheel rotation after the brake pedal is released.

**NOTE** Check the friction pad for wear. Replace the wear pad if it exceeds the limit.

### ADJUSTMENT OF BRAKE LIGHT SWITCH (Fig. 37)

The rear brake light switch is located on the right of the vehicle. If the switch operates too late, turn the nut in direction B; if the switch operates too soon, turn the nut in direction A.

Adjusting nut  
Fig. 36



### HOW TO USE BRAKE WEAR INDICATOR (Fig. 37 & 38)

Should either pads of front brake be worn to the limit depth, replace both pads as a set as soon as possible.

The rear brake is equipped with a brake wear indicator. If the pointer aligns with the reference marks on full application of the brake, the brake shoes must be replaced.

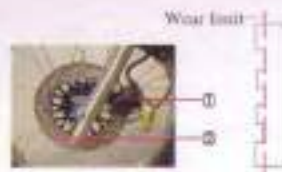


Fig. 37

- ① Brake caliper
- ② Brake disc



Fig. 38

- ① Rr. brake end cover
- ② Indicator
- ③ Reference mark
- ④ Brake arm



### FRONT/REAR SHOCK ABSORBER AND SUSPENSION

Support the motorcycle on the stand, pull in the front brake lever to lock the front wheel, pump the front/rear shock absorber up and down several times to see that it functions well without noise or leakage. Check the rear fork bashing for proper play by pressing the side of the rear wheel. Make sure that all of the fasteners are tightened securely.

### TYRE

Proper air pressure will provide maximum stability, riding comfort and prolong tyre life.

TYRE PRESSURE		
Rider & passenger	Front tyre: 200kPa	Rear tyre: 225kPa
Tyre Size	Front tyre: 2.75-21-4PR	Rear tyre: 4.10-18-4PR

**WARNING** Operation with excessively worn tyres is hazardous and will adversely affect traction and handling.

**NOTE** Tyre pressure should be checked before you ride while the tyres are "cold". Check the tyres for cuts, embedded nails, or other sharp objects. Check the rims for dents or deformation. See your dealer for change or damaged tyres or punctured inner tubes.

**CAUTION** Improper tyre inflation will cause abnormal tread wear and create a safety hazard. The tyre pressure less than the rated value may result in slipping wheel on the ground or coming off from the rim.

When the tread depth in the middle section of tyres reached limits below, please replace them.

TREAD DEPTH LIMITS			
Front tyre	1.5mm	Rear tyre	2.0mm

#### FRONT WHEEL (Fig. 39)

Loosen the lock screw, remove the odometer cable.

Loosen the front axle nut, extract the front axle, and remove the front wheel.

#### REAR WHEEL (Fig. 40)

Unscrew the rear brake adjusting nut, take the link out of the brake arm. Loosen the lock nuts at both sides of the rear wheel, then loosen the rear axle nut and adjusting bolt.



- ① Fig. 39
- ② Fixing screw
- ③ Odometer cable
- ④ Front axle nut

Take out the chain clip by pliers, remove the chain and rear axle nut, retract the rear axle, at last, remove the rear wheel.

#### NOTES

Installation shall be done in the reverse order of removal

Tightening torque of rear axle nut: 50-60N.m

Adjustment of rear brake and chain: refer to related items in the manual.

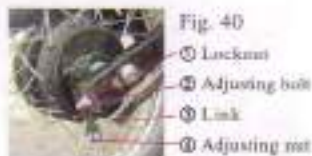
#### FUSE (Fig. 41)

The fuse is positioned behind the left cover near the battery stay. The fuse will blow to protect the circuit automatically in the case of troubles such as a short circuit or an overload trouble. After the troubleshooting, fit a new fuse available in the fuse box.

**CAUTION** Specially pay attention to specification (15A) of fuse when replace it. Never use other material such as aluminium, iron or copper wire instead. Otherwise the circuit may be burnt.

#### BATTERY (EP) (Fig. 42)

The battery is located behind the left cover of vehicle. Maintain it in accordance with the Maintenance Schedule in the manual. The battery electrolyte level should be between the UPPER level mark and LOWER level



- Fig. 40
- ① Locknut
- ② Adjusting bolt
- ③ Link
- ④ Adjusting nut



Fig. 41



Fig. 42

mark, add proper distilled water to the UPPER level mark. Be careful not to exceed the UPPER mark when adding distilled water. Otherwise, overflowing electrolyte may cause corrosion.

**⚠CAUTION** Be sure not to discard the battery electrolyte or used battery. Handle in accordance with national or local environmental protection rules. Avoid entering water around the battery when washing the vehicle.

**⚠WARNING** If the battery is to be removed, disconnect the negative lead “-” from the battery terminal first, and then the positive lead “+”. Connection should be done in the reverse order of removal. Do not touch the positive lead to the vehicle body to prevent short-circuiting. The leads should be tightened securely, or spark may occur to cause a fire. Make sure that the duct of battery keeps unblocked, or the battery may be explosive under certain conditions. The battery, in addition, should be equipped with an exhaust pipe, otherwise, overflowing electrolyte (sulfuric acid) may erode the vehicle body, main cable, even causing a fire by short-circuiting.

**⚠CAUTION** The battery contains sulfuric acid (electrolyte). Contacting with skin or eyes may cause severe burns. If such case occurs, flush with water for at least 5 minutes and call a physician immediately. Please protective clothing and a face shield. Keep out of reach of children. Do not use a new battery until taking a 30-minute wait after adding liquid. If the engine fails to be started with the electric starter and the neutral light is dim, use the kick-starter to start the engine. For prolonging the service, please start the engine using the kick-starter when the air temperature is lower. Charge the battery at a rate less than 1A for 10-15 hours if necessary. For further details, refer to Operating Instructions of Battery.

## TROUBLESHOOTING, STORAGE AND OPTIONAL PARTS

### TROUBLESHOOTING

If the engine fails to start, do checks as follows:

- (1) Is there enough fuel in the tank?
- (2) Is fuel reaching the carburetor from the tank cock?
- (3) Disconnect the fuel line from the carburetor, set the tank cock to "O" position, and see if fuel flows out?
- (4) If OK, check the ignition system.

#### **CAUTION**

**Do not allow fuel to flow at will. Fuel should be collected in the retainer. Do not smoke or allow flames or sparks in the area where the engine is subjected to the check.**

- (1) Remove the spark plug from the cylinder head, and connect it with the spark plug cap.
- (2) Fix the spark plug on the vehicle body. Turn the ignition switch on, set the emergency switch to "O" position. Press the start button, and see if there are sparks at the electrode gap of the spark plug. If there are no sparks, see your dealer for help.

#### **CAUTION**

**Do not conduct the said check by fixing the spark near to the cylinder head. Otherwise, gas in the cylinder may ignite by sparks. For safety's sake, it is better to connect the metal portion of spark plug outer housing with bare metal of vehicle body.**

### CLEANING AND STORAGE

#### Cleaning

1. Check if the spark plug and inlets are installed or plugged securely before cleaning the vehicle.
2. Hose the vehicle completely.

3. Dry the motorcycle using a soft cloth or sponge.
4. Lubricate the drive chain immediately after washing and drying to prevent surfaces from getting rusty.
5. Start the engine, and allow it to run for several minutes.

#### CAUTION

**High-pressure water can damage certain parts such as wheel bearings, front fork, brakes, seal of transmission, electric equipment, etc. Prevent the muffler from getting in water, the spark plug from being wetted down when washing the vehicle.**

#### Storage

Take some measures as following when subjecting the vehicle to 60-day or more storage.

1. Empty fuel inside the fuel tank, carburetor and other pipes.
2. Drive off the spark plug, pour a bit of engine oil SAE15W/40-SE into the engine. Turn off the ignition switch and tread the kick-pedal several times to scatter evenly the oil inside the cylinder.
3. Remove the drive chain, clean and oil it.
4. Lubricate all of the controlling cables.
5. Block up the vehicle frame so that both the wheels clear the ground.
6. Seal the muffler outlet with a plastic bag to prevent moisture from entering.
7. Coat all surfaces of bare metal with a thin layer of rust-resisting oil if the motorcycle is stored in moist and salty regions.
8. Dismantle the battery and store in a dry, cool and well-ventilated place. Charge the battery monthly in course of storage.

#### REMOVAL FROM STORAGE

After long-term storing the motorcycle, check, adjust and service it according to require-

ments stated in the manual to make sure the motorcycle functions properly. Try the vehicle at low speed in a safe riding area away from traffic.

#### **FALL-OVERSAFETYDEVICE(Optional)**

As a patent product developed by the Co., the fall-over safety device (i.e. safe belt) is designed to effectively promote the riding security and the working principle is as follows:

If the motorcycle happens to fall over to form an angle included between the body and the ground below  $30^\circ$  while you are driving it which is equipped with the unit, the engine will automatically stop. Because the rear wheel applies a counter-force to the engine, the motive inertia is overcome partially so as to shorten the slipping distance considerably after the vehicle is overturned, thus, reducing the possibility of accidents and protecting personnel and equipment from being injured or damaged. In addition, avoid the fuel leakage catching fire. The motorcycle can be started after it is in a normal condition.

#### **ANTI-THEFTDEVICE(Optional)**

1. Before using the remote-controller, be sure that the vehicle is in neutral and the ignition switch is turned off.
2. Electric starting by the remote-controller only warms up the engine, and the engine will stop automatically in 2.5 minutes.
3. Don't apply both the front and rear brakes after starting the engine by the remote-controller and before turning on the ignition switch. Otherwise, the starting motor will run once more.
4. Don't ride without the key to insure that the function of anti-theft is reliable enough.

#### **NOTE**

The anti-theft device is optional, it will be installed according to your needs.



## SPECIFICATIONS

Vehicle Model	125GY-5	150GY-5	200GY-5
<b>1. DIMENSIONS &amp; PERFORMANCE</b>			
Overall dim. (L × W × H), mm	2100 × 860 × 1220		
Steering bar angle, °	45		
Ground clearance, mm	280		
Turning circle dia., mm	4320		
Wheelbase, mm	1380		
Kerb weight, kg	130		
Max. weight capacity, kg	150		
Top speed, km/h	85	90	100
Economical speed fuel cons., L/100km	< 2.1	< 2.2	< 2.3
Grade ability, °	≥ 23		
Front tyre size/pressure	2.75-21-4PR/200kPa		
Rear tyre size/pressure	4.10-18-4PR/225kPa		
Front shock absorber	Telescopic type hydraulic drive		
Rear shock absorber	Coil spring-dampened		
Front brake type	Disc/drum operated by hand		
Rear brake type	Disc/drum operated by foot		
Fuel tank capacity, L	10.5		
<b>2. ENGINE</b>			
Model	156FMI-2	163FMI	163FMI-2
Type	Single-cylinder, 4-stroke, air-cooled		
Bore × Stroke, mm	56.5 × 49.5	62 × 49.5	63.5 × 62.2
Displacement, ml	124	149.4	196.9
Compression ratio	9.0:1		
Starting mode	Electric/kick-starter		

Ignition system	CDI		
Max. power output, kW/r/min	8.2/9000	10.0/8500	12/8000
Rated power output, kW/r/min	7.0/9000	8.5/8500	10.5/8000
Max. torque, N·m/r/min	8.5/7500	10.0/7500	14.5/6500
Engine oil type	SAE15W/40-SE		
Engine oil capacity, L	1.1		
Lubrication	Press/splash		
Fuel	Unleaded gasoline with RQ-93 or higher		
Clutch type	Wet multi-plate		
Transmission type	5-speed, constant mesh		
Primary reduction ratio (1P)	4.055	4.055	3.333
Gear ratio, 1st (1 <sub>1</sub> )	2.769		
2nd (1 <sub>2</sub> )	1.882		
3rd (1 <sub>3</sub> )	1.400		
4th (1 <sub>4</sub> )	1.130		
5th (1 <sub>5</sub> )	0.960		
Final reduction ratio. (1F)	2.706		
<b>3. ELECTRIC EQUIPMENT</b>			
Battery	12V7Ah		
Spark plug	D7/D8		
Headlight	12V35W/35W		
Winker	12V10W		
Tail/brake light	12V5W/21W		
Horn	12V		
Odometer light	12V2W		
Fuse	15A		