

## INTRODUCTION

Congratulations on your purchase of 80PY off-road motorcycle. By applying the essence of similar product abroad, You can appreciate the high degrees of work-manship and reliability of the brandnew motorcycle. It will provide you with a safe, happy and delightful riding.

Particularly important information is distinguished in this manual by the following notations.

The safety alert symbol means

**ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**

**WARNING:** Failure to follow **WARNING** Instructions could result in severe injury or death to the operator, pedestrians or the person inspecting or repairing the motorcycle.

**CAUTION:** **CAUTION** indicates that special precaution must be taken to avoid damage to the

motorcycle.

**NOTE:** **NOTE** provides key information to make procedures easier or clearer.

**NOTES:** We were always dedicated to seeking product design and quality improvement. This manual will provide you with a basic understanding of the motorcycle. Some data in this manual may become outdated due to improvements made to the motorcycle in the future. If you have any questions regarding this manual or your motorcycle, please consult the dealer or service center.

This manual should be considered as one part of the product and must be provided when the motorcycle is resold.

**WARNING: READ THIS MANUAL CAREFULLY BEFORE STARTING THE ENGINE OF MOTORCYCLE.**

## CONTENTS

SAFETY INFORMATION .....	1	FUEL AND OIL .....	16
IMPORTANT NOTICE .....	3	PRE-OPERATION CHECKS .....	19
DESCRIPTION .....	11	STARTING AND OPERATION .....	20
MOTORCYCLE IDENTIFICATION .....	11	COLD/WARM ENGING STARTING .....	21
CONTROL FUNCTION .....	13	GEAR SHIFT .....	22
“ENGINING STOP” SWITCH .....	13	ENGINE BREAK-IN .....	22
FUEL COCK .....	13	PERIODIC MAINTENANCE AND	
FRONT BRAKE LEVER .....	14	ADJUSTMENT .....	23
REAR BRAKE PEDAL .....	14	MAINTENANCE AND LUBRICATION	
SHIFT PEDAL .....	14	SCHEDULE CHART .....	23
STARTER LEVER .....	14	ADJUSTMENT .....	27
KICK STARTER .....	15	SPARK PLUG .....	27
FUEL TANK CAP .....	15	IGNITION TIMING CHECKING .....	27

AIR FILTER CLEANING .....	28	TIRE CHECK .....	35
THROTTLE CABLE ADJUSTMENT .....	30	FRONT FORK CHECK .....	36
CARBURETOR ADJUSTMENT .....	31	CLEANING AND STORAGE .....	36
FRONT BRAKE ADJUSTMENT .....	32	TIGHTENING TORQUE CHART .....	39
REAR BRAKE ADJUSTMENT .....	33	MAIN TECHNICAL DATA AND	
DRIVE CHAIN TENSION ADJUSTMENT	33	SPECIFICATION .....	40
TIRE PRESSURE CHECK .....	35	ELECTRICAL DIAGRAM .....	43
SPOKES CHECK .....	35	INSTRUCTIONS FOR REASSEMBLY .....	43

## SAFETY INFORMATION

A motorcycle is a kind of fascinating sporting machine. It gives you unsurpassed strength and free feeling. But, there must be some limitations to motorcycle and its rider. This model is designed for off-road use only by young operators under adults' instruction and supervision. It is illegal to ride on any road, street or highway. The off-road motorcycle, when used on public lands, may be illegal. Please check local regulations before riding.

Careful maintenance is very important to

maintain the value and operating functions of the motorcycle. Good performance relies on good conditions, which is true both for the rider and the machine.

Protective clothing serves as the safety belt of the car. Always wear protective clothing, boots, gloves and a helmet. We do not encourage you to take a risk even with protective clothing. A good motorcycle rider should always operate safely. Wish you a plain sailing!

## **WARNING**

**READ THIS MANUAL CAREFULLY FOR INSTRUCTIONS ON HOW TO PROPERLY OPERATE THIS MOTORCYCLE.**

**ADULTS' INSTRUCTION AND SUPERVISION ARE REQUIRED.**

**THIS MODEL IS PROVIDED WITH A POWER REDUCTION DEVICE FOR THE BEGINNER. DO NOT REMOVE THIS ITEM UNTIL THE ADULT SUPERVISOR HAS JUDGED THE RIDER IS PROFICIENT.**

**WEIGHT OF THE RIDER SHOULD NOT EXCEED 40KG(88lb).**

**ALWAYS WEAR A HELMET AND PROTECTIVE CLOTHING WHEN RIDING.**

**ALWAYS PERFORM PRE-OPERATION CHECKS. REFER TO PAGE 13.**

**DO NOT TOUCH ANY MOVING PARTS OF HEATED AREAS.**

**THIS MOTORCYCLE IS DESIGNED TO CARRY THE OPERATOR ONLY, NO PASSENGERS.**

**THIS MOTORCYCLE IS DESIGNED FOR OFFROAD USE ONLY. IT IS NOT SUITABLE FOR ON-ROAD USE.**

## IMRORTANT NOTICE

1. FOR YOUR SATISFACTION, MAY YOU DO THE FOLLOWING WORK.

The dealer should provide you a well-conditioned motorcycle after reassembly and adjustment. Check the motorcycle carefully together with the dealer when you receive the motorcycle.



YOUR FULL SATISFACTION BEGINS  
FROM COMPLETELY WELL-CONDI-  
TIONED PRODUCT.

2. GASOLINE AND FUEL

Turn off the engine when refueling.

Take care not to spill on the engine or exhaust pipe when refueling.

Never refuel while smoking or in the vicinity of an open flame.

3. If you happen to swallow some gasoline or in hale a lot of gasoline vapor, or cause some gasoline to get in your eyes, see your doctor immediately. If any gasoline spills on your skin or clothing, immediately wash it with soap water and

change your clothes.

4. ALWAYS TURN OFF THE ENGINE BEFORE LEAVING THE MOTORCYCLE UNATTENDED. WHEN PARKING, NOTE THE FOLLOWING:

The engine and exhaust pipe may be hot, park the motorcycle in a place where pedestrians or children are not likely to touch it.

Do not park the motorcycle on a slope or soft ground, it may overturn.

5. When transporting the motorcycle by another

vehicle, make sure it is kept upright and the fuel cock is turned to the "OFF" position. If it should lean over, gasoline may leak out of the carburetor or fuel tank.

6. Never start the engine or let it turn in a closed area. The exhaust fumes are poisonous and may cause loss of consciousness and death. Always operate the motorcycle in an area with adequate ventilation.

7. Always wear a helmet, gloves, boots, trousers and jacket when riding.

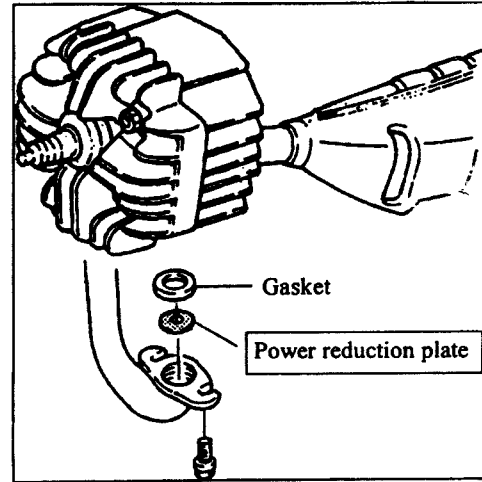
## FOR THE PARENTS

Since this model is intended for beginners, it is equipped with a power reduction plate which limits the output of engine and reduces the operating speed of the motorcycle.

As your child's riding skills improve, you can remove the power reduction plate. The removal of this plate will result in a significant increase in power.

Please use this safety device according to your child's riding skills.

A power reduction plate is fitted in the cylinder exhaust port. Removal of this plate will add output power and increase speed. (see. Fig. 1)



**SAFETY INFORMATION**

1. Don't ride it in the street

2. Don't start the engine inside the building.

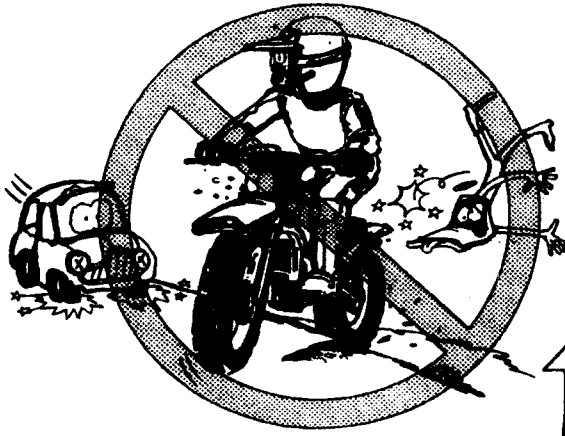


Fig. 2

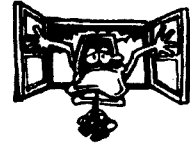
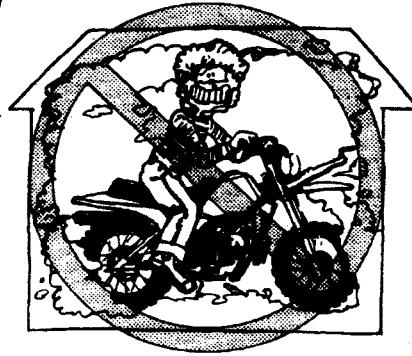


Fig. 3

3. This is one-seater motorcycle. Don't give any person a ride.



Fig. 4

4. Learn how to ride properly. Ask your parents with any question.

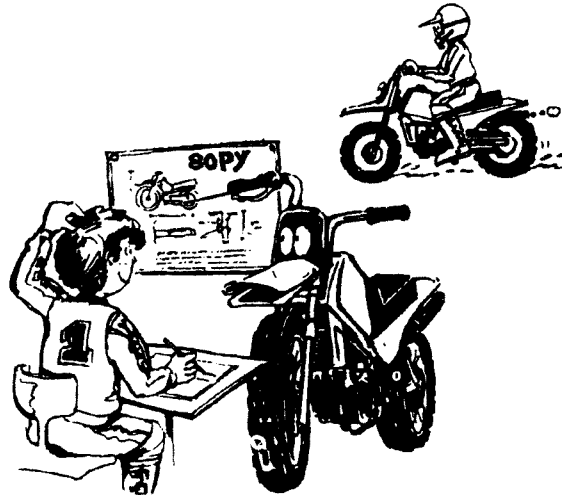


Fig. 5

5. When riding the motorcycle, be sure wear a helmet as illustrated.

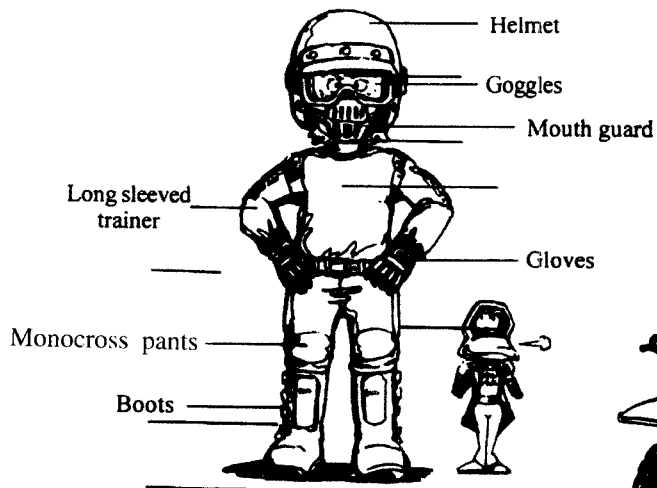


Fig. 6

6. When going for riding, be sure to be with your family. Never go alone.

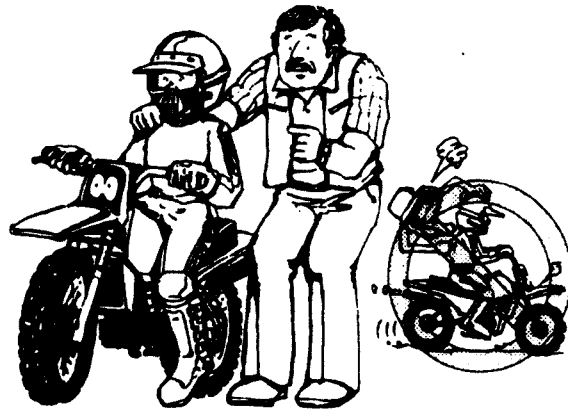


Fig. 7

7. Before riding, ask your parents to check the motorcycle very carefully.



Fig. 8

8. Don't touch the areas shown below, or you'll get burnt in the hand.

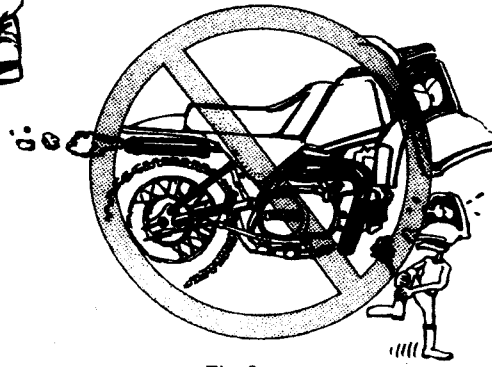


Fig. 9

9. Don't touch rotating or moving parts.

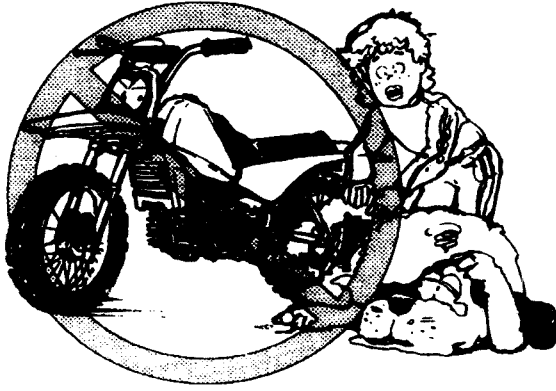


Fig. 10

10. Before starting the engine, be sure to shift the transmission in to neutral.

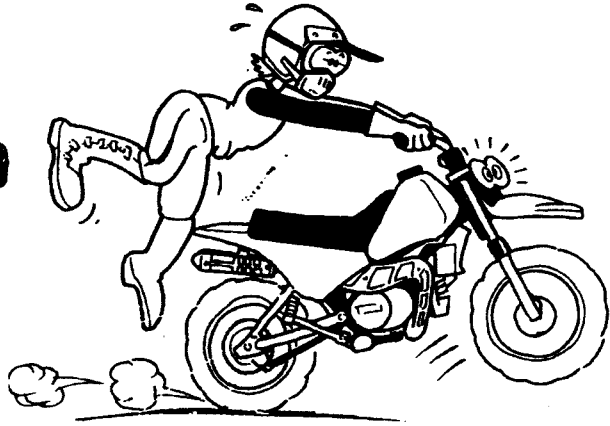


Fig. 11

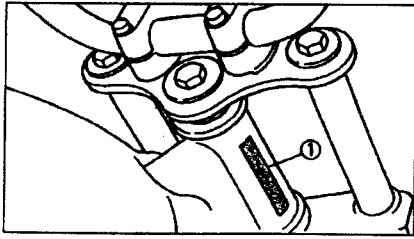


Keep a record of the frame serial number and engine serial number for safety purpose and ordering spare parts from the dealer.

#### FRAME SERIAL NUMBER

The frame serial number is stamped on the right side of steering head pipe.

The identification plate is riveted on the left side of steering head pipe.



① Frame Number

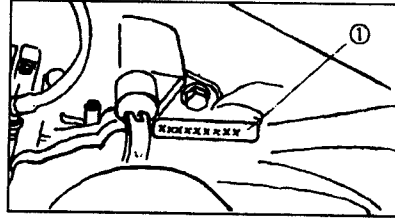
#### NOTE:

The motorcycle identification number is used

to identify your motorcycle and may be used to register your motorcycle with the licensing authority in your state.

#### ENGINE SERIAL NUMBER

The engine serial number is stamped on the top of the left crankcase.



NOTE: Keep a record of the engine serial number for reference when ordering spare parts from the dealer.

## CONTROL FUNCTIONS

### WARNING

Before riding this motorcycle, become thoroughly familiar with all operating controls and their functions. Consult a dealer or other qualified mechanic regarding any control of function you do not thoroughly understand.

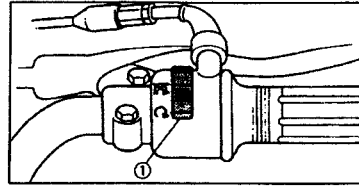
### NOTICE:

This motorcycle is designed strictly for competition use only. It is not equipped with highway approved lighting. Off-road Use on public land may be illegal.

### "ENGINE STOP" SWITCH

Make sure that the engine stop switch is positioned to "⊗" before starting. This switch has been equipped to ensure safety in an emergency such as when the motorcycle is upset or trouble takes place in the throttle system. The engine will

not start or run when the engine stop switch is turned to "⊗".



1.Engine stop switch Fig 15

### FUEL COCK

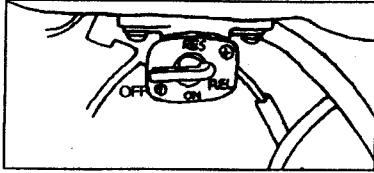
The fuel cock supplies fuel from the tank to carburetor while filtering the fuel.

**OFF:** With the lever in this position, fuel will not flow. Always return the lever to this position when the engine is not running.

**ON:** With the lever in this position, fuel flows to the carburetor. Normal riding is done with the lever in this position.

**RES:** This indicates reserve. If you run out of fuel while riding, turn the lever to this position.

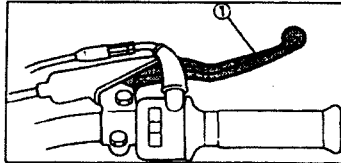
FILL THE TANK AT THE FIRST OPPORTUNITY. BE SURE TO SET THE LEVER TO "ON" AFTER REFUELING.



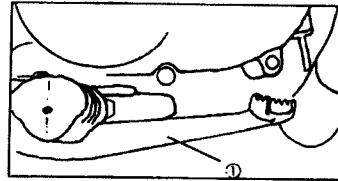
Fuel cock Fig 16

### FRONT BRAKE LEVER

The front brake lever is located on the right handlebar, pull it toward the handlebar tightly to activate the front brake.



Front brake lever Fig 17



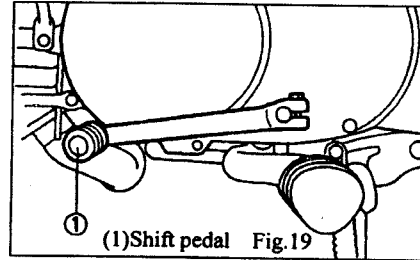
Rear brake pedal Fig 18

### REAR BRAKE PEDAL

The brake pedal is on the lower right side of the motorcycle. Press down the brake pedal to activate the rear brake.

### SHIFT PEDAL

The gear ratios of the constant mesh 3-speed transmission are ideally spaced. The gears can be shifted by using the shift pedal on the left side of engine.

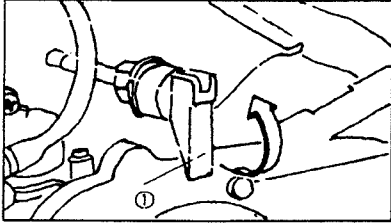


(1)Shift pedal Fig.19

### STARTER LEVER (CHOKE)

When cold, the engine requires a richer air/fuel mixture for starting. A separate starter circuit, which is controlled by the starter lever, supplies this mixture.

Pull the lever out to open the circuit (for starting) and push the lever in to close the circuit.



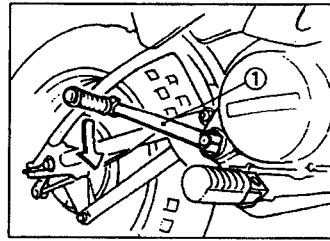
(1) Starter lever Fig.20

### KICK STARTER

Rotate the kick starter 1 away from the engine. Push the starter down lightly with your foot until the gears engage, then kick smoothly and forcefully to start the engine.

#### NOTE:

The engine cannot be started unless the transmission is in neutral.



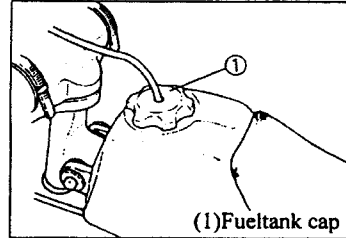
(1) Kick starter Fig. 21

### FUEL TANK CAP

Remove the fuel tank cap by turning counter-clockwise for fueling

#### WARNING

Do not overfill the fuel tank. Avoid spilling fuel on the hot engine.



(1) Fuel tank cap Fig. 22

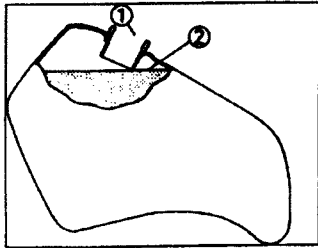
## FUEL AND OIL

### Fuel:

Make sure there is sufficient fuel in the fuel tank.

### Warning

Do not overfill the fuel tank. Avoid spilling fuel on the hot engine. Do not fill the fuel tank above the bottom of the filter tube as shown in the illustration or it may overflow when the fuel heats up later and expands.



(1) filter tube (2) fuel level Fig. 23

### Recommended fuel:

**NON-LEAD FUEL RECOMMENDED**

### Fuel tank capacity:

Total: 4.9L (1.08 imp gal, 1.29 US gal)

Reserve: 1.0L (0.22 imp gal, 0.26 US gal)

### NOTE:

If there is overflow of fuel, wipe it off immediately with dry and clean cloth or it may corrode the paint and plastic parts.

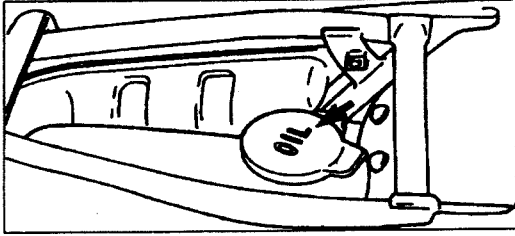
The engine has been designed to use non-lead gasoline No. 70 or higher. If knocking or pinging occurs, use a different brand of gasoline or high quality non-lead gasoline.

Unleaded gasoline will give you longer spark plug life and reduce maintenance cost. If non-lead gasoline is not available, the leaded gasoline can be used for substitution.

### ENGINE OIL (OIL TANK)

Make sure there is sufficient engine oil in the oil tank. If necessary, add oil.

Recommended oil:  
2-stroke engine oil L-ERA or HQB-10  
Oil tank capacity:  
0.95L(0.85 Imp qt, 1.00 US qt)



TRANSMISSION OIL Fig. 24

The only servicing for you to do is to check and fill the transmission lubricating oil. The dip stick is located at the right side above the kick

starter. To check the level, warm the engine up for several minutes, screw the dip stick completely out and then just rest the stick in the hole.

### NOTE:

When checking transmission oil level with the dip stick, let the unscrewed dip stick just in the hole. Also, be sure the motorcycle is positioned straight up.

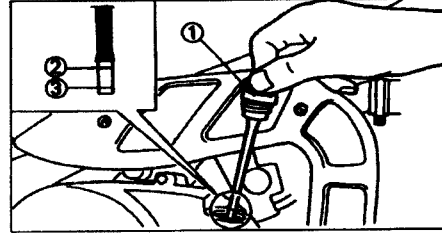


Fig 25

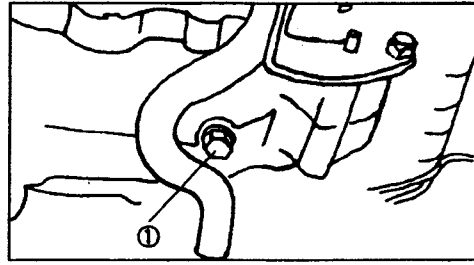
(1)Dip stick (2)Maximum level (3)Mimimun level

Recommended oil:  
HQB-10 or SAE 10w-30  
Oil capacity:  
Total amount: 0.7L  
Periodic oil change:  
0.65L (0.57 Lmp qt, 0.69 US qt)

The dip stick has upper and lower marks, and the oil level should be between the two marks. If the level is below the lower, add oil to raise it to the proper level.

On the bottom of the engine there is a drain plug. Remove it and drain all the transmission oil out. Reinstall the drain plug (make sure it is tight)

Add oil through the dip stick hole.



(1) Drain plug

Fig. 26

**NOTE:**

Do not add any chemical additives. Transmission oil also lubricates the clutch and additives may cause the clutch to slip.

**NOTE:**

Pre-operation checks should be made each time before the motorcycle is used. Such an inspection can be thoroughly accomplished in a very short time, and the added safety it assured is worth more than the time spent.

## PRE-OPERATION CHECKS

Item	Routine	Page
Brake	Check operation and adjust.	13,19
Throttle cable	Check for proper operation and play. Add lubrication oil as required.	13,18
Drive chain	Check for tightness. Adjust and lubricate as required.	19-20
Wheel and tires	Check pressure, runout spoke tightness and weariness of tires.	13,20
Transmission oil	Check oil as required.	12
Spark plug	Check colour and burning condition.	17\
Air filter	Foam type-must be clean and damp with oil.	17-18
Brake pedal	Check for smooth operation and adjust as required.	13
Fittings/fastener	Check all-tighten as necessary.	13

## WARNING

If any item in the PER-OPERATION CHECK is not working properly, have it inspected and repaired before operating.

### BRAKE (FRONT AND REAR)

Check for correct play in the brake lever and pedal and make sure they are working properly. Check the brakes at low speed shortly after starting out. If the brakes do not work properly, make an adjustment.

### WHEEL

Check the wheel runout and damage and tightness of spokes.

### TIRES

Check the tire pressure and check it for weariness.

Front	100kPa (1.0 kg/cm <sup>2</sup> , 15 psi)
Rear	100kPa (1.0kg/cm <sup>2</sup> , 15 psi)

### THROTTLE GRIP

Turn the throttle grip to see if it moves smoothly and operates properly. Make certain the throttle springs are closed when released.

### “ENGINE STOP” SWITCH

Start the engine and make sure the “ENGINE STOP” SWITCH is in correct position.

### FITTINGS/FASTENERS

Always check the tightness of chassis fittings and fasteners before a ride. Use the chart on page 22 to find the correct torque.

## STARTING AND OPERATION

### NOTE:

Prior to operating the motorcycle, perform steps listed in pre-operation check list.

### WARNING

Never start the engine or let it run in a closed area.

The exhaust fumes are poisonous and can cause loss of consciousness and death within a short time.

### COLD/WARM ENGINE STARTING

#### STARTING A COLD ENGINE

1. Turn the fuel cock to "ON"
2. Operate the starter lever (choke) and completely close the throttle grip.

3. Press down the shift pedal to shift the transmission into neutral position.

4. Slide the "ENGINE STOP" switch to "⌋".

5. Kick the kick starter with full strength to start the engine.

6. After the engine starts, warm up for one or two minutes. Make sure the starter lever (choke) is returned, it should not be used, the throttle should be opened slightly.

#### caution:

see brake-in section prior to operating engine for the first time.

#### WARMING UP

To get maximum engine life, always "warm-up" the engine before starting off. Never accelerate with a cold engine. To see whether or

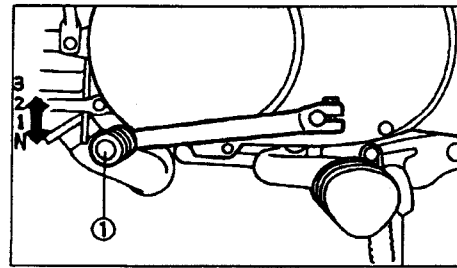
not the engine is warm, see if it responds to throttle normally with the starter lever (choke) turned off.

#### WARNING

Before starting off, be sure to turn up the side stand. Failure to retract the side stand completely can result in a serious accident when you try to turn a corner.

#### GEAR SHIFT

The 3-speed cyclic gear shifting system is used in the motorcycle. The gear is higher, the speed is higher, Push the motorcycle by hand and you feel very less resistance, which tells you that the engine is in neutral position. Move the shift pedal upward and change the gears as illustrated: N (neutral) 1 → 2 → 3. Then press down the shift pedal, the gears will be changed as follow: 3 → 2 → 1 N (neutral).



1. Shift pedal N. Neutral

#### NOTE:

Shut off the throttle completely when performing gear shift, otherwise it will damage the engine.

#### ENGINE BREAK-IN

1. Prior to starting, fill fuel tank and oil tank as required.
2. Allow engine to warm up. Check engine idling speed and operation of operating controls and engine stop switch.
3. Run the engine with lower gears at moder-

ate throttle setting for 3-5minutes. Check spark plug condition.

4.Allow engine to cool.Repeat the above procedure, running for 5 minutes, Shift to higher gears and check full throttle response(in short time).Check spark plug condition.

5.Allow engine to cool.Repeat the above procedure, runnung for 5 minutes. Full throttle and higher gears may be used, but avoid sustained full throttle operation.Check spark plug condition.

6.Allow engine to cool.Remove cylinder head and inspect. Rub off " high" spots on piston with No.600 grit wet sandpaper, clean and carefully reassemble.

7.Check entire unit of loose or misadjusted fitting,contorls and fasteners.

8.Re-start engine and check through entire operating range thoroughly.Stop the engine to check plug condition.Re-start the engine and let it run for 10-15 minutes, then motorycycle is ready to ride.

## PERIODIC MAINTENANCE AND ADJUSTMENT MAINTENANCE AND LUBRICATION SCHEDULE CHART

The maintenance and lubrication schedule chart should be considered strictly as a guide to general maintenance and lubrication intervals. You must take into consideration that weather, terrain, geographical locations and other factors may alter this time schedule.For example, if the motorcycle is contionually operated in an area of high humidity then all parts must be lubricated much more frequeantly than shown on the chart to avoid rust and damage. If you are in doubt as to how closely you can follow the time recommendations, check with the dealer in your area.

### Notes:

1.Drive Chain: In addition to tension and

alignment, chain must be lubricated every 0.5-1 hour. If it is subjected to extremely hard usage and wet weather riding, chain must be checked constantly. See "Lubrication Intervals" for

additional details.

2. Air Filter: Remove and clean filter every 20-40 hours.

### Lubrication intervals

Item	Remarks	Type	Initial(hour)				Thereafter Every (hour)		
			10	20	40	80	40	80	160
Transmission oil change	Warm engine before draining	HQB-10 or SAE 10W30 Type SE motor oil		○	○			○	
Drive chain	Lube/Adjust as required Remove/ Clean/Lube/ADJUST	Any lubricant or chain lube	see notes						
Control cables	All apply thoroughly	Calcium base grease ZG-2 (GB491-65) or WD-40			○	○		○	
Throttle grip and housing	Apply lightly	Calcium base grease ZG-2 (GB491-65) or WD-40				○		○	
Brake pedal shaft	Apply lightly	Calcium base grease ZG-2 (GB491-65) or WD-40			○			○	
Stand shaft pivot	Apply lightly	Calcium base grease ZG-2 (GB491-65) or WD-40			○			○	
Front forks	Drain completely	HQB08D GB 485-82 or SY 1157-77				○		○	
Steering ball race	Inspect thoroughly/Pack Mokerately	Medium-weight wheel bearing grease				○			○
Wheel bearings	Do not over pack yearly	Medium-weight wheel bearing grease				○	○	○	

**Periodic maintenance intervals**

Item	Remarks	Initial(hour)				Thereafter Every (hour)		
		10	20	40	80	40	80	160
Brake system(complete)	Check/Adjust as required-repair as required		○	○		○		
Clutch	Check/Adjust as required		○	○		○		
Spark plug	Inspect/Clean or replace as required	○	○	○		○		
Wheels and tires	Pressure/Runout/Spoke-tension	○	○	○		○		
Fittings and fasteners	Tighten before each trip	○	○	○		○		
Drive chain	Tension/Aignment(No.1)	○	○	○		○		
Air filter	Wet type-Clean/Replace as required(No.2)		○	○		○		
Fuel cock	Clean/Flush tank as required	○		○		○		
Ignition timing	Adjust/clean or replace as required		○	○	○		○	
Autolube pump	Chock/Adjust/Air bleeding	○	○	○		○		
Carburetor adjustment	Check operation/Timings		○	○	○		○	
Carburetor overhaul	Clean/Repair as required/Refit/Adjust							○
Cylinder compression	Preventive maintenance check		○	○	○		○	
Decarbonize engine	Includes exhaust system			○			○	

LUBRICATION

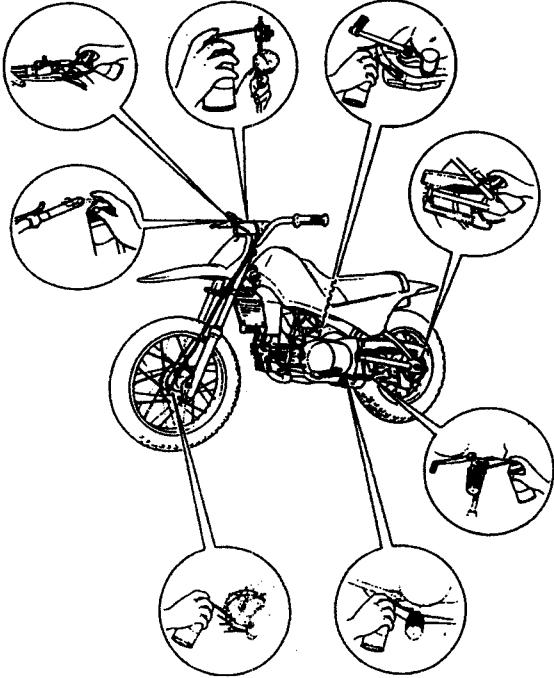


Fig.28

## ADJUSTMENT

### WARNING

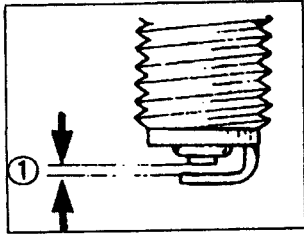
The engine, exhaust pipe and muffler will be very hot after the engine has been run. Be careful not to touch them or to allow any clothing item to contact them.

### SPARK PLUG

Standard spark plug:

T4137J or BP6HS(NGK)

1. measure the electrode gap with wire thickness gauge.



1. Electrode gap

Fig.29

Adjustment can be made by bending the side electrode.

Electrode gap:

0.6-0.7mm(0.024-0.028mm)

When installing the plug, make sure it is clean and use new gasket, Wipe off any grime from the threads and torque the spark plug properly.

Spark plug torque:

25 Nm(2.5m. kg, 18ft. lb)

### IGNITION TIMING CHECKING

Ignition timing is checked with Inductive Timing Light by observing if the stationary punch mark on the stator and the punch mark on the rotor are aligned.

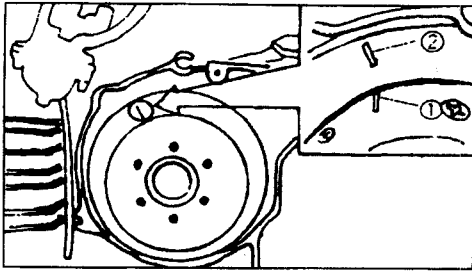


Fig.30

- (1) Punch mark (rotor)
- (2) Stationary punch mark(stator)

2. Using a Inductive Timing Light, check to see if the stationary punch mark and punch mark on the flywheel(rotor) are aligned.

- a. Remove left crankcase.
- b. Connect the timing light to the spark plug lead.
- c. Start the engine and keep it running at the specified speed. Use a tachometer for checking.
- d. Whild running the engine at the specified

speed, check to see that the two punch marks are aligned. If the marks are out of alignment, check to see that the woodruff key is broken or flywheel assembly is out alignment.

Ignition timing:  $22^{\circ} \pm 2^{\circ}$  /5000r/min

#### AIR FILTER CLEANING

The most critical aspect of routine maintenance on a racing motorcycle is proper air filter maintenance. The air filter must be serviced during and after every practice session to ensure maximun engine performance and lift, For convenience, many racers prepare two or three spare air filters ahead of time and simply switch filter between practices. Follow these instructions to service foam air filters correctly.

- 1. Remove the cleaner case cap.

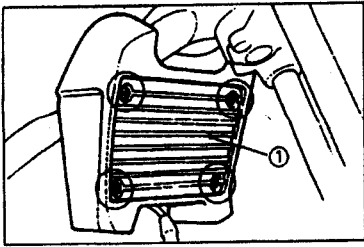


Fig.31

(1) Cleaner case cap

2. Pull out element and guide from cleaner case cap.

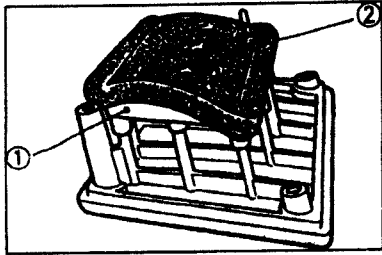


Fig.32

(1) Guide (2) Air filter element

3. Using uncontaminated cleaning solvent, wash the filter element thoroughly. Wash it gently to avoid damage.

4. Squeeze the solvent from the filter element.

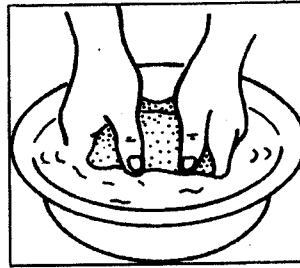


Fig.33

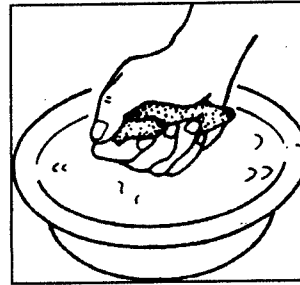


Fig.34

**CAUTION:**

Do not twist or wring the filter element, as it can easily be torn or otherwise damaged.

5. Using liquid detergent and water, again wash the air filter element. Rinse the element with water, squeeze it and allow it to dry completely.

6. Pour a certain amount of high-quality foam-air-filter oil into a plastic bag. Put the filter element in the bag and let it soak thoroughly.

7. Remove the filter element from the plastic bag and squeeze out the excess oil, avoiding twisting or wring the air filter element.

8. Reinstall the filter in the engine and make sure the sealing surface of the filter is seated properly. Complete reassembly of the engine and check all the fittings for tightness.

**THROTTLE CABLE ADJUSTMENT**

**NOTE:**

The idle speed of engine should be adjusted before adjusting the free play of throttle cable.

Check the free play in turning direction of throttle grip. Loosen the lock nut and turn the adjusting screw to obtain a proper play. Tighten the lock nut.

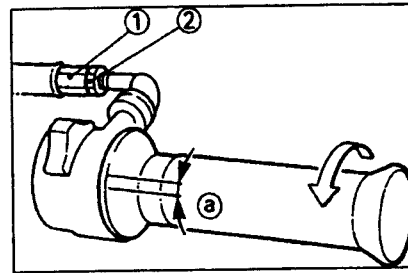


Fig.35

1. Adjusting screw 2. Lock nut 3. Free play

Free play @:  
3-5mm(0.12-0.20in)

## CARBURETOR ADJUSTMENT

Carburetor is the critical part of the engine, and the carburetor adjustment requires professional technique. Most part of the adjustment work should be done by the dealer.

1. Turn the pilot air screw in until lightly seated.

2. Back out 1 and 1/2 turns. Start the engine and warm it up.

Pilot air screw:

1-1/2 turns out

3. Turn the throttle stop screw until idle speed is at desired r/min.

4. Turn the pilot screw in or out until the idle speed is at the highest possible r/min.

5. Turn the throttle stop screw in or out until idle speed is at desired r/min.

Idle speed:

1650 ± 100r/min

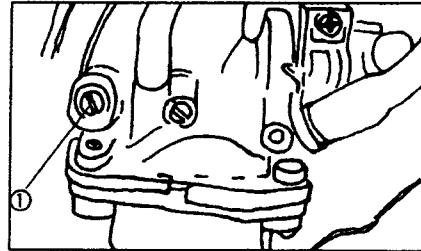
If the engine, when warm, hesitates after adjusting as described, turn the idle air mixture screw in or out in 1/4 turn increments until the problem is eliminated.

### NOTE:

Pilot air and throttle stop screws should be adjusted so that engine response from idle position is rapid and without hesitation.

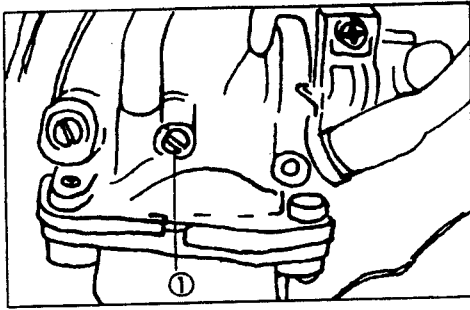
### CAUTION:

The pilot screw has been set properly before delivery of motorcycle from the factory. Do not adjust it by your self. If adjustment is required, please ask the qualified mechanics to do this job or consult the dealer.



1. Pilot air screw

Fig.36



(1)Throttle stop screw Fig.37

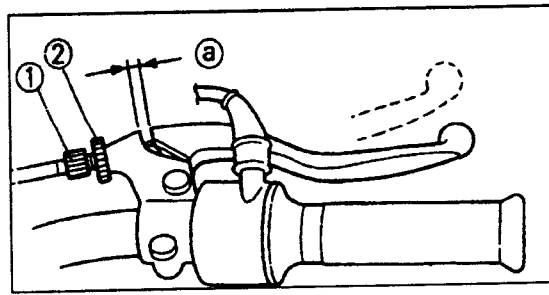
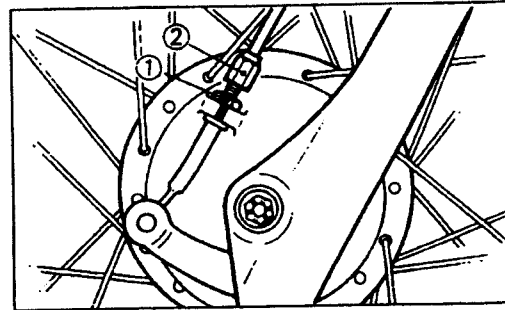


Fig 38  
(1)Adjuster (2)Lock nut @ . Free play

**FRONT BRAKE ADJUSTMENT**

Loosen the lock nut and turn in or out the adjuster until the free play is within the specified range.

Free play @ :  
5-8mm(0.20-0.31 in)



(1)Adjuster (2)Lock nut Fig.39

## REAR BRAKE ADJUSTMENT

Turn the adjuster on the brake rod clockwise to reduce play, or turn the adjuster counter-clockwise to increase play.

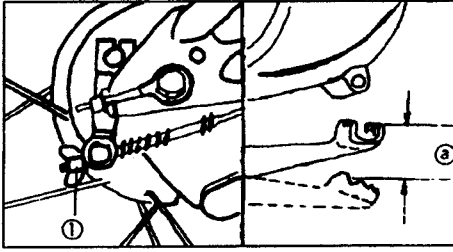


Fig. 40

1. Adjuster @ Free play

## DRIVE CHAIN TENSION ADJUSTMENT

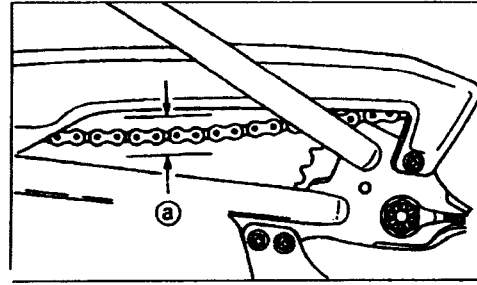
If the chain deflection is not as specified, adjust the chain tension.

Free play @:

20-30mm (0.8-1.2 in)

Drive chain stack @ :

15-20mm(0.6-0.8 in)



@ Drive chain stack

Fig.41

## DRIVE CHAIN SLACK ADJUSTMENT

1. Loosen the rear brake rod adjuster.
2. Remove the cotter pin from the rear wheel axle nut with pliers.
3. Loosen the rear wheel axle nut.
4. Turn the adjusting nut clockwise to tighten the chain, turn the adjusting nut counterclockwise

to loosen the chain.turn the adjusting nut counter-clockwise to loosen the chain.Turn each adjusting nut exactly the same amount to maintain correct axle alignment.

5. After adjustment,be sure to tighten all the adjusted parts and tighten the rear wheel axle nut to a specified torque.

Tightening torque:  
60Nm(6.0m.kg)

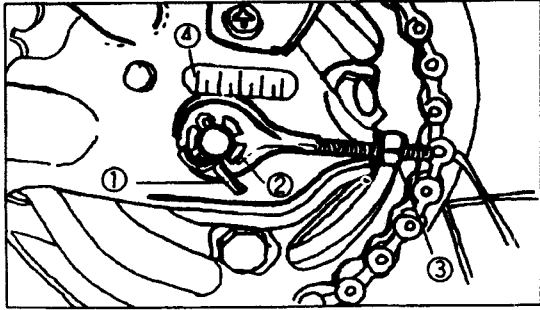


Fig.42

- (1) Cotter pin
- (2) Rear wheel axle nut
- (3) Adjusting nut
- (4) Marks for alignment

6. Insert the cotter pin in the rear wheel axle nut and bend the cotter pin end as shown in the illustration.

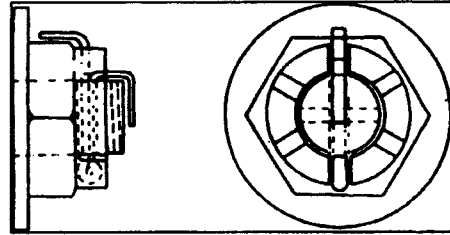


Fig.43

**WARNING**

Always use a new cotter pin on the axle nut.

7. Adjust the free play in brake pedal.

### TIRE PRESSURE CHECK

Improper tire pressure will result in weariness of tire, traction, smooth handling and the life the tires. Always maintain the correct tire pressure.

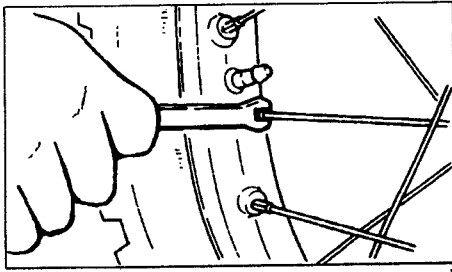


Fig.44

Tire pressure: Front	100kPa(1.0kg/cm <sup>2</sup> )
Rear	100kPa(1.0kg/cm <sup>2</sup> )

### SPOKES CHECK

If the spokes are loose or bent, tighten or replace them.

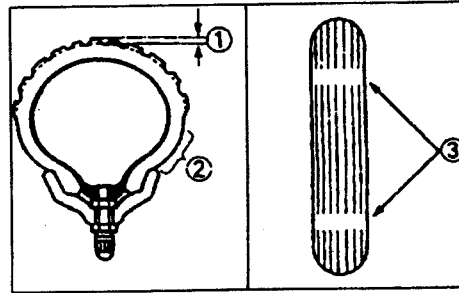
### TIRE CHECK

Always check the tires prior to riding of

motorcycle. If the tire tread is worn to its limit, or these are glass chips or nails in the tire, or cracks are found on the tire, please consult the dealer and replace it.

### WARNING

Excessive worn of tire is extremely dangerous. If a tire shows crosswise lines (wear indication), consult the dealer to replace immediately.



(1) Tire tread depth (2) Side wall (3) Wear indication

Fig.45

## FRONT FORK CHECK

Check the front fork, make sure the motorcycle is placed stably to avoid falling over.

### 1. Visual inspection:

Check the surface of inner for scores, damage or oil leakage.

### 2. Physical inspection:

Move the motorcycle to a plain ground.

a. Hold the steering bar to keep the motorcycle at a vertical position and hold the front brake handlebar to avoid moving forward of the motorcycle during inspection.

b. Press down the front fork and reset it repeatedly.

### NOTE:

If the front fork can not move smoothly or any damage is found, consult the dealer.

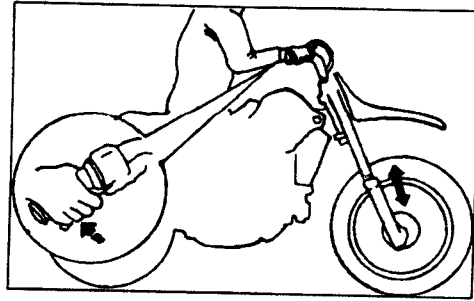


Fig.46

## CLEANING AND STORAGE

### CLEANING

Frequent thorough cleaning of the motorcycle will not only enhance its appearance but will improve general performance and extend the service life of many components.

#### 1. Before cleaning the motorcycle:

a. Block off the end of exhaust pipe to pre-

vent water entry, a plastic bag and strong rubber band may be used.

b. Remove air filter or protect it from water with plastic covering.

c. Make sure that spark plug, fuel tank cap and transmission oil filter cap are properly installed.

2. If engine case is excessively greasy, apply degreaser to chain, sprockets, or wheel axle.

3. Rinse dirt and degrease off with hose, using only enough hose pressure to do the job.

**CATION:**

Excessive hose pressure may cause water seepage and contamination of wheel bearings, front forks, brakes and transmission seals.

4. Once the majority of the dirt has been hosed

off, wash all surfaces with warm water and mild detergent-type soap. An old tooth brush or bottle brush is handy to reach hard-to-get-to places.

5. Rinse the motorcycle immediately with clean water and dry all surfaces with a chamois, clean towel, or soft absorbent cloth.

6. Remove excess moisture from chain and lubricate to prevent rust.

7. Chrome-plated parts such as handlebars, rims, spokes, front fork, etc, may be further cleaned with automotive chrome cleaner.

8. Clean the seat with a vinyl upholstery cleaner to keep the cover pliable and glossy.

9. Automotive-type wax may be applied to all painted and chrome-plated surfaces.

10. After finishing, start the engine and allow to idle for several minutes.

## STORAGE

Long term storage (60 days or more) of the motorcycle will require some preventive procedures to ensure against rust and deterioration. After cleaning the motor thoroughly, prepare for

storage as follows:

1. Drain fuel tank, fuel lines and carburetor float bowl.

2. Remove the empty fuel tank, pour about one table spoon of HQB-10 (SAE 10W30) oil in the tank, shake the tank to coat inner surfaces thoroughly and drain off excess oil. Reinstall the tank.

3. Remove spark plug, pour about one table-spoon of HQB-10 (SAE 10W30) oil in spark plug hole and reinsert spark plug. Kick the engine several times (with ignition switch on "⊗") to coat

cylinder walls with oil.

4. Remove drive chain and clean thoroughly with cleaning liquid and lubricate. Reinstall chain or store in a plastic bag (tie the chain to frame for safe-keeping).

5. Lubricate all the control cables.

6. Block up frame to raise both wheels off ground.

7. Tie a plastic bag over exhaust pipe outlet to prevent moisture from entering.

8. If storing in humid or salty air atmosphere, coat all exposed metal surfaces with a light film of oil. Do not apply oil to rubber parts or seat cover.

### NOTE:

Make any necessary repairs before storing the motorcycle.

## TIGHTENING TORQUE CHART

Tighten all parts and always check them, especially before long distance riding.

### Tightening Torque

Ser. No.	Location	Thread size	Q'ty	Nm	m.kg	ft.lb
1	Front wheel axle	M10 × 1.25	1	35	3.5	25
2	Handle crown-Inner tube	M20 × 1.0	2	40	4.0	29
3	Under bracket-Inner tube	M10 × 1.25	2	33	3.3	24
4	Handle crown-Steering shaft	M10 × 1.25	1	40	4.0	29
5	Handle crown	M10 × 1.25	2	40	4.0	29
6	Handle holder under	M6 × 1.0	4	13	1.3	9.4
7	Steering ring nut	M25 × 1.0	1	10	1.0	7.2
8	Engine mount-Front	M8 × 1.25	1	23	2.3	17
9	Engine mount-Rear	M8 × 1.25	1	26	2.6	19
10	Engine mount-Center	M8 × 1.25	1	23	2.3	17
11	Rear wheel axle	M12 × 1.25	1	60	6.0	43
12	Nipple (spoke)	-	64	6	0.6	4.3
13	Sprocket wheel	M8 × 1.25	4	26	2.6	19
14	Footrest -Frame (R)	M8 × 1.25	1	26	2.6	19
15	Footrest-Frame (L)	M8 × 1.25	1	26	2.6	19
16	Front brake cam lever	M6 × 1.0	1	7	0.7	5.1
17	Rear brake cam lever	M6 × 1.0	1	7	0.7	5.1
18	Rear arm-Frame	M10 × 1.25	1	31	3.1	22
19	Fuel tank-Frame	M6 × 1.0	2	10	1.0	7.2
20	Fuel tank-Fuel cock	M6 × 1.0	2	7	0.7	5.1

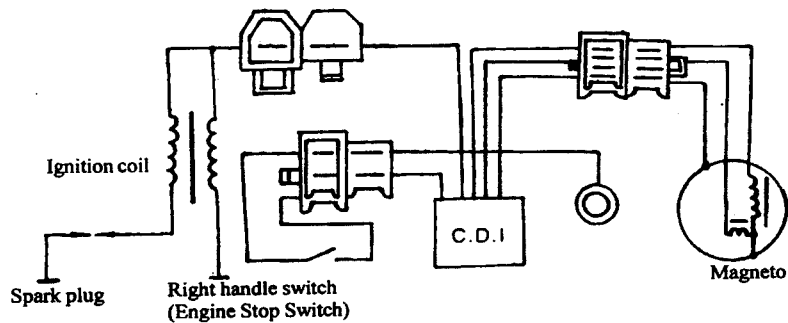
## MAIN TECHNICAL DATA AND SPECIFICATION

Item	Specification
<b>Dimensions:</b> Overall Length Overall width Overall Height Seat Height Wheelbase Mimimum Ground Clearance	1,540mm(60.6in) 640mm(25.2 in) 880mm(34.6in) 630mm(24.8in) 1,055mm(41.5in) 185mm(7.3in)
<b>Basic Weight:</b> With Oil and Full Fuel Tank	61kg
<b>Engine Type</b> Cylinder Arrangement Displacement: Bore × Stroke Compression Ratio Starting System	1E47FM Single cylinder, forward inclined 70cm <sup>3</sup> 47 × 45.6mm (1.850 × 1.795in) 7:1 Kick starter
<b>Lubrication System:</b>	Separate system
<b>Engine Oil:</b> Oil Tank Capacity Oil Grade	0.95L(0.84 Imp qt, 1.00 US qt) L-ERA or HQB 010 2-Stroke engine oil
<b>Transmission Oil:</b> Periodic Oil Change Total Amount Oil Grade	0.65L(0.57 Imp qt, 0.69US qt) 0.70L HQB-10 or SAE 10W30 type SE motor oil
<b>Air Filter:</b>	Wet type element
<b>Fuel:</b> Type Tank Capacity Reserve Amount	UNLEADED FUEL No.70 or higher 4.9L(1.08 Imp gal,1.29 US gal) 1.0L(0.22 Imp gal, 0.26 US gal)
<b>Carburetor:</b> Type	VM 15SC

Item	Specification
Spark plug: Type Gap	BP6HS or T4137J 0.6-0.7mm(0.024-0.028in)
Clutch Type:	Wet, centrifugal automatic
Transmission: Primary Reduction System Primary Reduction Ratio Secondary Reduction System Secondary Redustion Ratio Transmission Type Operation Gear Ratio: 1 st 2 nd 3 rd	Gear 66/21(3.143) chain drive 32/15(2.133) Constant mesh, 3-speed, Cam drum Left foot operation 39/12(3.250) 29/16(1.813) 24/20(1.2)
Chassis: Frame Type Caster Angle Trail	Steel tube backbone 26 62mm(2.44in)
Trail: Type Size(F) Size(R)	With tube 2.50-14-4PR 3.00-12-4PR
Tire Pressure: Front Rear	100kPa(1.0kg/cm <sup>2</sup> ,15 psi) 100kPa(1.0kg/cm <sup>2</sup> ,15 psi)

Item	Specification
<b>Brake:</b> Front Brake Type Operation Rear Brake Type Operation	Drumbrake Right hand operation Drum brake Right foot operation
<b>Suspension:</b> Front Suspension Rear Suspension	Telescopic fork Wwingarm(Monocross suspension)
<b>Shock Absorber:</b> Front Shock Absorber Rear Shock Absorber	Coil spring, Oil damper Gas, Coil spring, Oil damper
<b>Wheel Travel:</b> Front Wheel Travel Rear Wheel Travel	110mm(4.3in) 95mm(3.7in)
<b>Electrical:</b> Ignition System Generator System	C.D.I Flywheel magneto

## ELECTRIC DIAGRAM



### INSTRUCTIONS FOR REASSEMBLY OF 80PY MOTORCYCLE

For the convenience of packing and shipment, the motorcycle is delivered in a disassembled state, i.e. the handle bar, front wheel, front brake, brake shoe cover, front fender, shift pedal, footrest and sidestand are removed from the main frame, The enging mounting bolts and washers and forsion srings are packed in the tool box and front brake,

shift pedal, footrest and sidestand in foam supports. The front wheel, handle bar, brake shoe cover and brake pedal are tied onto the packing case or installed on the main frame, The rest fasteners are placed back to their original locations.

After unpacking, reassemble the motorcycle according to the following procedures.

#### Front Wheel Installation(see Fig.1)

Insert bolt 3 in series through right tube of

front fork 1, brake shoe cover 4, front wheel 5, front brake 6 and left tube of front fork 1 as shown in the illustration. Fix it with nut 7 with a torque of 35N.m. Insert cotter pin 2 and bend the cotter pin legs for security.

**Note:**

Make sure that the boss of left tube of front fork 1 falls into the slot of front brake 6.

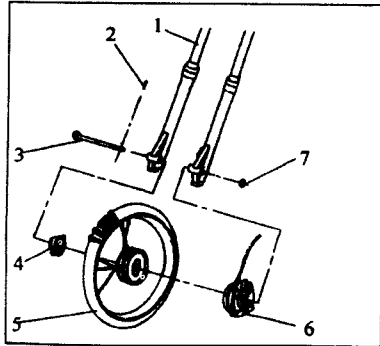


Fig.1

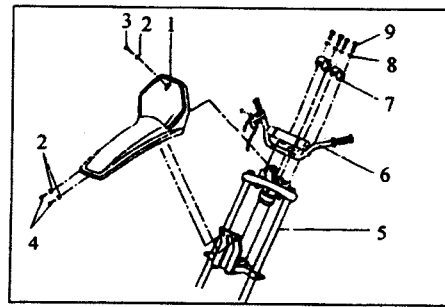


Fig.2

**Front Fender Installation(see Fig.2)**

- (1) Remove screw 3, bolt 4 and washer 2
- (2) Place front fender 1 in front fork 5, fasten it with screw 3, bolt 4 and washer 2, then tighten the fasteners.

**Handle Bar Installation(see Fig.2)**

- (1) Remove upper handle holder 7, washer 8 and bolt 9.
- (2) Place handle bar 6 in the upper handle holder off front fork 5, install upper handle 7, washer 8 and bolt 9. Make sure the handle bar is installed symmetrically. Adjust installation angle of handle bar to ensure easy operation and tighten bolt.

### Shift Pedal Installation(see Fig.3)

Loosen bolt 2 and turn shift pedal 3 to an easyoperating, then place the whole thing onto the gear shifing axle of engine 2 and fasten bolt 2.

Footrest and Sidestant Installation(see Fig.3 and Fig.4)

(1) Remove washer 6 and bolt 7.

(2) Insert bolt 9 in series through washer 8, footrest and sidestand 5, frame 4 and engine 1 as shown in Fig. 3, fasten the nut on footrest and sidestand 5 with a torque of 23-26 N.m. Install footrest and sidestand 5 onto frame 4 with washer 6 and bolt 7 and tighten the bolt.

Brake Pedal Installation (see Fig.4)

(1) Remove washer 3 and circlip 4.

(2) Place torsion spring 1 in the liner tube of brake pedal and install the whole thing on the mounting axle of footrest and sidestand 5. Turn

torsion spring 1 to a prefixed position, put on washer 3 and set circlip 4 in the recess of footrest and sidestand 5.

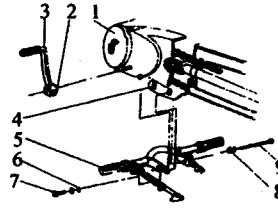


Fig. 3

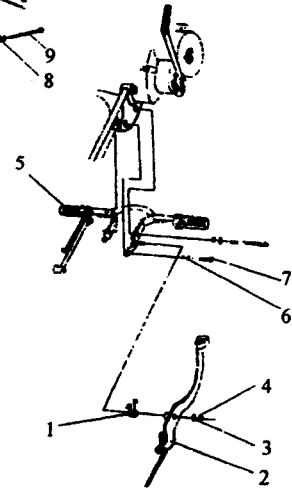


Fig. 4